UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549



FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF

THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022 Commission file number 1-14287

Centrus Energy Corp.

Delaware

(State of incorporation)

52-2107911

(IRS Employer Identification No.)

6901 Rockledge Drive, Suite 800, Bethesda, Maryland 20817 (301) 564-3200

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Class A Common Stock, par value \$0.10 per share	LEU	NYSE American

Securities registered pursuant to Section 12(g) of the Act: None Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes \square No \boxtimes

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗆 No 🗵

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes 🗵 No 🗆

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes 🛛 No 🗆

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer		Smaller reporting company	
Accelerated filer	\boxtimes	Emerging growth company	
Non-accelerated filer			

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes 🗆 No 🗵

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

The aggregate market value of Common Stock held by non-affiliates computed by reference to the price at which the Common Stock was last sold as reported on the New York Stock Exchange as of June 30, 2022, was \$266.6 million. As of February 7, 2023, there were 13,919,646 shares of the registrant's Class A Common Stock, par value \$0.10 per share, and 719,200 shares of the registrant's Class B Common Stock, par value \$0.10 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement for the 2023 annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days after the end of fiscal year 2022 are incorporated by reference into Part III of this Annual Report on Form 10-K.

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Glossary of Certain Terms and Abbreviations

Centrus Energy Corp. and Related Entities	
Board	Centrus Energy Corp.'s Board of Directors
Centrus	Centrus Energy Corp.
Enrichment Board	Separate Board of Directors at Enrichment Corp., a subsidiary of Centrus Energy Corp.
Enrichment Corp.	United States Enrichment Corporation
Oak Ridge	Technology and Manufacturing Center in Oak Ridge, Tennessee
Paducah GDP	Paducah Gaseous Diffusion Plant, an enrichment plant in Paducah, Kentucky formerly operated by Enrichment Corp.
Piketon	Production facility in Piketon, Ohio
Portsmouth GDP	Portsmouth Gaseous Diffusion Plant, an enrichment plant near Portsmouth, Ohio, formerly operated by Enrichment Corp.
USEC-Government	Enrichment Corp. prior to 1993, when it was a wholly-owned government corporation
Other Terms and Abbreviations	
2002 DOE-USEC Agreement	June 17, 2002 agreement between Centrus (then known as USEC Inc.) and the DOE
2014 Plan	The Company's 2014 Equity Incentive Plan
2019 Plan	The Company's 2019 Executive Incentive Plan
8.25% Notes	8.25% Notes, maturing February 2027
Annual Meeting	The Company's annual meeting of shareholders
ARDP	DOE's Advanced Reactor Demonstration Program
ATM	At the Market
Atomic Energy Act	Atomic Energy Act of 1954
Centrifuge IP	Centrifuge Technology Intellectual Property
Class A Common Stock	Class A common stock, \$0.10 par value per share
Class B Common Stock	Class B common stock, \$0.10 par value per share
CNEIC	China Nuclear Energy Industry Corporation
COBC	Centrus' Code of Business Conduct
Code	Internal Revenue Code of 1986
Common Stock	Class A Common Stock and Class B Common Stock
Consent Solicitation	Consent solicitation related to the results of the 2021 tender offer
COVID-19	2019 Novel Coronavirus
D&D	Decontamination & Decommissioning
DOC	U.S Department of Commerce
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
EU	European Union
Exchange Act	Securities Exchange Act of 1934, as amended
Exchange Agreement	Exchange Agreement entered into by the Company and Kulayba LLC, dated February 2, 2021
FAR	U.S Government's Federal Acquisition Regulations
HALEU	High Assay Low-Enriched Uranium
HALEU Demonstration Contract	Three-year, \$115 million cost-share contract with DOE signed in 2019 by Centrus' subsidiary, ACO

HALEU Operation Contract	HALEU production contract with DOE signed in 2022
IEA	International Energy Agency
IT	Information Technology
ITC	U.S. International Trade Commission
LEU	Low-Enriched Uranium; term is also used to refer to the Centrus Energy Corp. business segment which supplies commercial customers with various components of nuclear fuel
MB Group	Mr. Morris Bawabeh, Kulayba LLC and M&D Bawabeh Foundation, Inc.
Natural Uranium	Raw material needed to produce LEU and HALEU
NAV	Net asset value
NOL	Net Operating Loss
NRC	U.S. Nuclear Regulatory Commission
NRV	Net realizable value
NUBIL	Net unrealized built-in loss
Orano	Orano Cycle
Orano Supply Agreement	Long-term supply of SWU contained in LEU, signed by United States Enrichment Corporation with Orano in 2018
Order Book	LEU Segment order book of sales under contract
Power MOU	Memorandum of understanding between the DOE and USEC-Government
Price-Anderson Act	Price-Anderson Nuclear Industries Indemnity Act (Section 170 of the U.S. Atomic Energy Act of 1954, as amended)
ROSATOM	Russian State Atomic Energy Corporation
RSA	1992 Russian Suspension Agreement, as amended
SARs	Stock appreciation rights
SEC	U.S. Securities & Exchange Commission
SWU	Separative work unit
Technical Solutions	The Centrus Energy Corp. business segment which offers technical, manufacturing, engineering, and operations services to public and private sector customers
TENEX	Russian government-owned entity TENEX, Joint-Stock Company
TENEX Supply Contract	Agreement with TENEX through 2028
TRISO	Tri-Structural Isotopic fuel manufacturing process
U.S. GAAP	Generally accepted accounting principles in the United States
U ²³⁵	Uranium-235 isotope
U ²³⁸	Uranium-238 isotope
U_3O_8	Uranium oxide, aka "yellowcake"
UF ₆	Uranium hexafluoride
URENCO	Urenco, Limited, a consortium owned or controlled by the British and Dutch governments and two German utilities
USW	United Steelworkers Local 689-5 union
Voting Agreement Amendment	The Company's amendment to its existing Voting and Nomination Agreement with the MB Group
Voting Rights Agreement	The Company's agreement with the MB Group entered into in December 2022
Warrant	Warrant to purchase common stock of Centrus Energy Corp., held by Kulayba LLC and dated February 2, 2021
New Warrant	Amended Warrant to extend the terms of the Warrant held by Kulayba LLC
WNA	World Nuclear Association

FORWARD-LOOKING STATEMENTS

CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

This Annual Report on Form 10-K of Centrus (the "Company," "we" or "us") contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. In this context, forward-looking statements mean statements related to future events, which may impact our expected future business and financial performance, and often contain words such as "expects", "anticipates", "intends", "plans", "believes", "will", "should", "could", "would" or "may" and other words of similar meaning. These forward-looking statements are based on information available to us as of the date of this Annual Report on Form 10-K and represent management's current views and assumptions with respect to future events and operational, economic and financial performance. Forward-looking statements are not guarantees of future performance, events or results and involve known and unknown risks, uncertainties and other factors, which may be beyond our control.

The factors that could cause actual results to differ materially from the forward-looking statements made by us include those factors discussed herein, including those factors discussed in (a) Part I, Item 1A. *Risk Factors*, (b) Part II, Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*, (c) Part II, Item 8. *Financial Statements and Supplementary Data*: Note 16, *Commitments and Contingencies*, and (d) other factors discussed in the Company's filings with the SEC. Readers are cautioned not to place undue reliance on these forward-looking statements, which apply only as of the date of this Report. The Registrant does not undertake any obligation to publicly release any revision to its forward-looking statements to reflect events or circumstances that may arise after the date of this Annual Report on Form 10-K unless required by law.

For Centrus, particular risks and uncertainties that could cause our actual future results to differ materially from those expressed in our forward-looking statements include but are not limited to the following which are, and will be, exacerbated by the COVID-19 pandemic and subsequent variants, and any worsening of the global business and economic environment as a result:

Risks related to the war in Ukraine factors primarily include:

- risks related to the war in Ukraine and geopolitical conflicts and the imposition of sanctions or other measures by either the U.S. or foreign governments, organizations (including the United Nations, the European Union or other international organizations), entities (including private entities or persons), that could directly or indirectly impact our ability to obtain or sell LEU under our existing supply contract with the Russian government-owned entity TENEX; and
- risks related to the refusal of TENEX to deliver LEU to us if, among other reasons, TENEX is unable to receive payments, or to receive the return of natural uranium, as a
 result of any government, international or corporate actions or other reasons.

Risks related to economic and industry factors primarily include:

- · risks related to whether or when government funding or demand for HALEU for government or commercial uses will materialize;
- · risks and uncertainties regarding funding for continuation and deployment of the American Centrifuge technology;
- risks related to (i) our ability to perform and absorb costs under our agreement with the DOE to deploy and operate a cascade of centrifuges to demonstrate production of HALEU for advanced reactors (the HALEU Operation Contract), (ii) our ability to obtain contracts and funding to be able to continue operations and (iii) our ability to obtain and/or perform under other agreements;
- risks that (i) we may not obtain the full benefit of the HALEU Operation Contract and may not be able or allowed to operate the HALEU enrichment facility to produce HALEU after the completion of the



existing HALEU Operation Contract or (ii) the HALEU enrichment facility may not be available to us as a future source of supply;

- risks related to our dependence on others, such as transporters for deliveries of LEU including deliveries from TENEX, under our commercial supply agreement with TENEX and deliveries under our long-term commercial supply agreement with Orano or other suppliers;
- risks related to natural and other disasters, including the continued impact of the March 2011 earthquake and tsunami in Japan on the nuclear industry and on our business, results of operations and prospects;
- risks related to financial difficulties experienced by customers or suppliers, including possible bankruptcies, insolvencies, or any other inability to pay for our products or services or delays in making timely payment;
- · risks related to pandemics, endemics, and other health crises;
- risks related to the impact and potential extended duration of a supply/demand imbalance in the market for LEU;
- risks related to our ability to sell the LEU we procure pursuant to our purchase obligations under our supply agreements and sanctions or limitations on imports of such LEU, including those imposed under the 1992 Russian Suspension Agreement as amended, international trade legislation and other international trade restrictions;
- risks related to existing or new trade barriers and contract terms that limit our ability to procure LEU for, or deliver LEU to customers;
- · risks related to pricing trends and demand in the uranium and enrichment markets and their impact on our profitability;
- · risks related to the movement and timing of customer orders;
- · risks associated with our reliance on third-party suppliers and service providers to provide essential products and services to us;
- · risks related to the fact that we face significant competition from major producers who may be less cost sensitive or are wholly or partially government owned;
- · risks that our ability to compete in foreign markets may be limited for various reasons;
- · risks related to the fact that our revenue is largely dependent on our largest customers; and
- risks related to our sales order book, including uncertainty concerning customer actions under current contracts and in future contracting due to market conditions and our lack of current production capability.

Risks related to operational factors primarily include:

- · risks related to uncertainty regarding our ability to commercially deploy competitive enrichment technology;
- risks related to the potential for demobilization or termination of our American Centrifuge work;
- · risks that we will not be able to timely complete the work that we are obligated to perform; and
- risks related to our ability to perform fixed-price and cost-share contracts such as the HALEU Operation Contract, including the risk that costs that we must bear could be higher than expected.

Risks related to financial factors primarily include:

- risks related to our significant long-term liabilities, including material unfunded defined benefit pension plan obligations and postretirement health and life benefit obligations;
- risks related to our 8.25% Notes maturing in February 2027;
- · risks of revenue and operating results fluctuating significantly from quarter to quarter, and in some cases, year to year;
- risks related to the impact of financial market conditions on our business, liquidity, prospects, pension assets and insurance facilities;
- risks related to the Company's capital concentration;



- · risks related to the value of our intangible assets related to the sales order book and customer relationships;
- · risks related to the limited trading markets in our securities;
- risks related to decisions made by our Class B stockholders regarding their investment in the Company based upon factors that are unrelated to the Company's performance;
- risks that a small number of holders of our Class A Common Stock (whose interests may not be aligned with other holders of our Class A Common Stock), may exert
 significant influence over the direction of the Company and may be motivated by interests that are not aligned with the Company's other Class A stockholders; and
- risks related to (i) the use of our NOL carryforwards and NUBILs to offset future taxable income and the use of the Rights Agreement (as defined herein) to prevent an
 "ownership change" as defined in Section 382 of the Code and (ii) our ability to generate taxable income to utilize all or a portion of the NOLs prior to the expiration
 thereof and NUBILs; and
- · failures or security breaches of our information technology systems.

Risks related to general factors primarily include:

- risks related to our ability to attract and retain key personnel;
- risks related to actions, including reviews, that may be taken by the U.S. Government, the Russian government, or other governments that could affect our ability to perform under our contractual obligations or the ability of our sources of supply to perform under their contractual obligations to us;
- risks related to our ability to perform and receive timely payment under agreements with the DOE or other government agencies, including risks and uncertainties related to the ongoing funding by the government and potential audits;
- · risks related to changes or termination of agreements with the U.S. Government or other counterparties, or the exercise of contract remedies by such counterparties;
- risks related to the competitive environment for our products and services;
- · risks related to changes in the nuclear energy industry;
- · risks related to the competitive bidding process associated with obtaining contracts, including government contracts;
- risks that we will be unable to obtain new business opportunities or achieve market acceptance of our products and services or that products or services provided by others
 will render our products or services obsolete or noncompetitive; and
- risks related to potential strategic transactions that could be difficult to implement, disrupt our business or change our business profile significantly.

Risks related to legal and compliance factors primarily include:

- risks related to the outcome of legal proceedings and other contingencies (including lawsuits and government investigations or audits);
- risks related to the impact of government regulation and policies, including by the DOE and the U.S. NRC;
- risks of accidents during the transportation, handling, or processing of toxic hazardous or radioactive material that may pose a health risk to humans or animals, cause
 property or environmental damage, or result in precautionary evacuations;
- risks associated with claims and litigation arising from past activities at sites we currently operate or past activities at sites that we no longer operate, including the Paducah, Kentucky, and Portsmouth, Ohio, gaseous diffusion plants; and
- · other risks and uncertainties discussed in this and our other filings with the SEC.

For a more detailed discussion of these risks and uncertainties and others that could cause actual results to differ materially from those contained in our forward-looking statements, please see (a) Part I, Item 1A, *Risk Factors*, (b) Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, (c) Part II, Item 8, *Financial Statements and Supplementary Data:* Note 16, *Commitments and Contingencies*, and (d) other factors discussed in our filings with the SEC. Readers are cautioned not to place undue reliance on these forward-looking statements, which apply only as of the date of this Report. These factors may not constitute all factors that could cause actual results to differ from those discussed in any forward-looking statement. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results. Readers are urged to carefully review and consider the various disclosures made in this report and in our other filings with the SEC that attempt to advise interested parties of the risks and factors that may affect our business. We do not undertake to update our forward-looking statements to reflect events or circumstances that may arise after the date of this Annual Report on Form 10-K, except as required by law.

Item 1. Business

Overview

Centrus Energy Corp., a Delaware corporation, is a trusted supplier of enriched uranium for nuclear fuel and services for the nuclear power industry, which provides a reliable source of carbon-free energy. References to "Centrus", the "Company", "our", or "we" include Centrus Energy Corp. and its wholly-owned subsidiaries as well as the predecessor to Centrus, unless the context otherwise indicates. We were incorporated in 1998 as part of the privatization of the U.S. Government's uranium enrichment enterprise.

Centrus operates two business segments: (a) LEU, which supplies various components of nuclear fuel to commercial customers from our global network of suppliers, and (b) Technical Solutions, which provides advanced engineering, design, and manufacturing services to government and private sector customers and is deploying uranium enrichment and other capabilities necessary for production of advanced nuclear fuel to power existing and next-generation reactors around the world.

Our LEU segment provides most of the Company's revenue and involves the sale of enriched uranium for nuclear fuel to customers which are primarily utilities that operate commercial nuclear power plants. The majority of these sales are for the enrichment component of LEU, which is measured in SWU. Centrus also sells natural uranium (the raw material needed to produce LEU) and occasionally sells LEU with the natural uranium, uranium conversion, and SWU components combined into one sale.

LEU is a critical component in the production of nuclear fuel for reactors that produce electricity. We supply LEU and its components to both domestic and international utilities for use in nuclear reactors worldwide. We provide LEU from multiple sources, including our inventory, medium- and long-term supply contracts, and spot purchases. As a long-term supplier of LEU to our customers, our objective is to provide value through the reliability and diversity of our supply sources.

Our global Order Book includes long-term sales contracts with major utilities through 2029. We have secured cost-competitive supplies of SWU under long-term contracts through the end of this decade to allow us to fill our existing customer orders and make new sales. A market-related price reset provision in our largest supply contract occurred in 2018 and took effect at the beginning of 2019 – when market prices for SWU were near historic lows – which has significantly lowered our cost of sales and contributed to improved margins.

Under a contract with the DOE, our Technical Solutions segment is deploying uranium enrichment and other capabilities necessary for production of advanced nuclear fuel to meet the evolving needs of the global nuclear industry and the U.S. Government. We also are leveraging our unique technical expertise, operational experience, and specialized facilities to expand and diversify our business beyond uranium enrichment, offering new services to existing and new customers in complementary markets.

Our Technical Solutions segment is dedicated to the restoration of America's domestic uranium enrichment capability to play a critical role in meeting U.S. national security and energy security requirements and advancing America's nonproliferation, energy, and climate objectives. Our Technical Solutions segment also is focused on repairing broken and vulnerable supply chains, providing clean energy jobs, and supporting the communities in which we operate. Our goal is to deliver major components of the next-generation nuclear fuels that will power the future of nuclear energy as it provides reliable carbon-free power around the world.

The United States has not had domestic uranium enrichment capability suitable to meet U.S. national security requirements since the Paducah GDP shut down in 2013. Longstanding U.S. policy and binding nonproliferation agreements prohibit the use of foreign-origin enrichment technology for U.S. national security missions. Our AC100M centrifuge currently is the only deployment-ready U.S. uranium enrichment technology that can meet these national security requirements, albeit requiring one minor change in sourcing of materials. An acceptable

source for replacement of this single material has been identified and the replacement material currently is being tested.

Centrus is working to pioneer U.S. production of HALEU, enabling the deployment of a new generation of HALEU-fueled reactors to meet the world's growing need for carbonfree power. HALEU is a high-performance nuclear fuel component which is expected to be required by a number of advanced reactor and fuel designs that are now under development for commercial and government uses. While existing reactors typically operate on LEU with the U²³⁵ isotope concentration below 5%, HALEU is further enriched so that the U²³⁵ concentration is between 5% and 20%. The higher U²³⁵ concentration offers a number of potential advantages, which may include better fuel utilization, improved performance, fewer refueling outages, simpler reactor designs, reduced waste volumes, and greater nonproliferation resistance.

The lack of a domestic HALEU supply is widely viewed as a major obstacle to the successful commercialization of these new reactors. For example, in surveys conducted by the U.S. Nuclear Industry Council in 2020 and 2021, advanced reactor developers indicated that the number one issue that "keeps you up at night" was access to HALEU. As the only company with a license from the NRC to enrich up to 20% U²³⁵ assay HALEU, Centrus is uniquely positioned to fill a critical gap in the supply chain and facilitate the deployment of these promising next-generation reactors.

We believe our investment in HALEU technology will position the Company to meet the needs of government and commercial customers in the future as they deploy advanced reactors and next-generation fuels. At present, there are a number of advanced reactors under development. For example, nine of the ten advanced reactor designs selected by the DOE for its ARDP will require HALEU. In addition, the first non-light water reactor to begin active NRC-license review requires HALEU. The DOD also plans to construct a prototype HALEU-fueled mobile microreactor by 2024 as part of a program called "Project Pele." The U.S. Air Force also announced plans to deploy a microreactor at Eielson Air Force Base in Alaska. While the use of HALEU is not an express requirement of the Air Force program, the vast majority of microreactor designs are expected to need HALEU.

Advanced nuclear reactors promise to provide an important source of reliable carbon-free power. While there is no commercial market for HALEU today, we believe that by investing in HALEU technology now, and as the only U.S.-based company currently pursuing HALEU enrichment capability and possessing an NRC license for such production, the Company could be positioned to capitalize on a potential new market as the demand for HALEU-based fuels increases in the mid- to late-2020s with the development of advanced reactors. However, there are no guarantees about whether or when government or commercial demand for HALEU will materialize, and there are a number of technical, regulatory, and economic hurdles that must be overcome for these fuels and reactors to come to the market. Also, foreign government-owned and operated competitors could seek to enter the market and offer HALEU at more competitive prices. There is one known foreign government-owned entity that currently has the capability to produce HALEU, although this entity is subject to U.S. trade restrictions, however, may enter the market. One such foreign government-owned entity has expressed an interest in and potential capability for HALEU production but has not committed publicly to enter the market to enrich above 10% U²³⁵ enrichment assays. This entity has indicated publicly that it would take six to seven years to be able to produce HALEU.

For further details, refer to Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations - Market Conditions and Outlook. For a discussion of the potential risks and uncertainties facing our business, see Part I, Item 1A, Risk Factors.

Low Enriched Uranium

LEU consists of two components: SWU and natural uranium. Revenue from our LEU segment is derived primarily from:

- sales of the SWU component of LEU,
- · sales of both the SWU and natural uranium components of LEU, and
- sales of natural uranium.

Our LEU segment accounted for approximately 80% of our total revenue for the year ended December 31, 2022. Our customers are primarily domestic and international utilities that operate nuclear power plants. Our agreements with electric utilities are primarily medium- and long-term, fixed-commitment contracts. Under these contracts, customers are obligated to purchase a specified quantity of the SWU component of LEU from us. In our sales agreements for enriched uranium product, we sell both the SWU and uranium component of LEU. These contracts are generally shorter-term and for fixed-commitments.

Uranium and Enrichment

Uranium is a naturally occurring element and is mined from deposits located in Kazakhstan, Canada, Australia, and several other countries, including the United States. According to the WNA, there are adequate measured resources of natural uranium to fuel nuclear power at current usage rates for about 90 years. In its natural state, uranium is principally comprised of two isotopes: U^{235} and U^{238} . The concentration of U^{235} in natural uranium is only 0.711% by weight. Uranium enrichment is the process by which the concentration of U^{235} is increased. Most commercial nuclear power reactors require LEU fuel with a U^{235} concentration greater than natural uranium of up to 5% by weight. Future reactor designs currently under development will likely require higher U^{235} concentration levels of up to 20%.

SWU is a standard unit of measurement that represents the effort required to sort natural uranium between enriched uranium having a higher percentage of U²³⁵ and depleted uranium having a lower percentage of U²³⁵. The SWU contained in LEU is calculated using an industry standard formula based on the physics of enrichment. The amount of enrichment deemed to be contained in LEU under this formula is commonly referred to as its SWU component and the quantity of natural uranium deemed to be contained in LEU under this formula is referred to as its uranium or "feed" component.

While in some cases customers purchase both the SWU and uranium components of LEU from us, utility customers typically provide the natural uranium to us as part of their enrichment contracts and in exchange we deliver LEU to these customers and charge for the SWU component. Title to natural uranium provided by customers generally remains with the customer until Centrus delivers the LEU, at which time title to LEU is transferred to the customer, and Centrus takes title to the natural uranium.

The following outlines the steps for converting natural uranium into LEU fuel, commonly known as the nuclear fuel cycle:

Mining and Milling. Natural, or unenriched, uranium is removed from the earth in the form of ore and then crushed and concentrated.

Conversion. U₃O₈ is combined with fluorine gas to produce UF₆, a solid at room temperature and a gas when heated. UF₆ is shipped to an enrichment plant.

Enrichment. UF₆ is enriched in a process that increases the concentration of the U^{235} isotope in the UF₆ from its natural state of 0.711% up to 5%, or LEU, which is usable as a fuel for current light water commercial nuclear power reactors. Future commercial reactor designs may use uranium enriched up to 20% U^{235} , or HALEU.

Fuel Fabrication. LEU is then converted to uranium oxide and formed into small ceramic pellets by fabricators. The pellets are loaded into metal tubes that form fuel assemblies, which are shipped to nuclear power plants. As the advanced reactor market develops, HALEU may be converted to uranium oxide, metal, chloride or fluoride salts, or other forms and loaded into a variety of fuel assembly types optimized for the specific reactor design.

Nuclear Power Plant. The fuel assemblies are loaded into nuclear reactors to create energy from a controlled chain reaction. Nuclear power plants generate approximately 20% of U.S. electricity and 10% of the world's electricity.

Used Fuel Storage. After the nuclear fuel has been in a reactor for several years its efficiency is reduced and the assembly is removed from the reactor's core. The used fuel is warm and radioactive and is kept in a deep pool of water for several years. Many utilities have elected to then move the used fuel into steel or concrete and steel casks for interim storage.

LEU Segment Order Book

Our Order Book extends to 2029. As of December 31, 2022, and December 31, 2021, our Order Book was approximately \$1.0 billion. The Order Book is the estimated aggregate dollar amount of revenue for future SWU and uranium deliveries, and includes approximately \$319 million of deferred revenue and advances from customers as of December 31, 2022, whereby customers have made advance payments to be applied against future deliveries. No orders in our Order Book are considered at risk related to customer operations.

Most of our customer contracts provide for fixed purchases of SWU during a given year. Our Order Book estimate is based partially on customers' estimates of the timing and size of their fuel requirements and other assumptions that are subject to change. For example, depending on the terms of specific contracts, the customer may be able to increase or decrease the quantity delivered within an agreed range. Our Order Book estimate is also based on our estimates of selling prices, which may be subject to change. For example, depending on the terms of specific contracts, prices may be adjusted based on escalation using a general inflation index, published SWU price indicators prevailing at the time of delivery, and other factors, all of which are variable. We use external composite forecasts of future market prices and inflation rates in our pricing estimates. Refer to Part I, Item 1A, *Risk Factors*, for a discussion of risks related to our Order Book.

Suppliers

We have a diverse base of supply that includes:

- existing inventory of LEU (refer to Note 4, Inventories, in the Consolidated Financial Statements in Part IV of this Annual Report),
- · mid-term and long-term contracts with enrichment producers,
- · purchases and loans from secondary sources, including fabricators and utility operators of nuclear power plants that have excess inventory, and
- spot purchases of SWU, uranium, and LEU.

We aim to continue to further diversify this base of supply and take advantage of opportunities to obtain additional short and long-term supplies of LEU. Currently, our largest suppliers of SWU are TENEX and the French government-owned company, Orano.

Under the TENEX Supply Contract, we purchase SWU contained in LEU, and we deliver natural uranium to TENEX for the LEU's uranium component. The TENEX Supply Contract extends through 2028. We typically pay for the SWU contained in the LEU and supply natural uranium to TENEX for the natural uranium component. SWU pricing is determined by a formula using a combination of market-related price points and other factors. The LEU that we obtain from TENEX under the TENEX Supply Contract currently is subject to quotas and other restrictions under the RSA between the United States and the Russian Federation which governs exports of Russian uranium

products to the United States. Currently, these quotas allow us to supply Russian LEU to our U.S. customers through 2028. The terms of the RSA, as extended, were adopted into law by the U.S. Congress in the Consolidated Appropriations Act, 2021. Refer to Item 1A, *Risk Factors - Operational Risks* for further discussion.

The amount of SWU we must purchase from TENEX under the TENEX Supply Contract exceeds our current Order Book and, therefore, we will need to make new sales to place all the Russian LEU we must order to meet our SWU purchase obligations to TENEX. Although the RSA quotas cover most of the LEU that we must order to fulfill our purchase obligations under the TENEX Supply Contract, we expect that a small portion of the Russian LEU that we order during the term of the TENEX Supply Contract will need to be delivered to customers that will use it in non-U.S. reactors.

At present, the U.S. Government has not imposed any sanctions on the import of LEU from the Russian Federation and, although such sanctions have been proposed in the U.S. Congress, no sanctions have yet been adopted that would impact imports of LEU. Canada has imposed sanctions on transportation of LEU from the Russian Federation by Canadianowned companies, which could interfere with our ability to continue to use the carrier that historically has carried LEU from Russia to the United States. The carrier has a permit to continue shipping LEU through June 2023. Although sanctions do not currently apply, the threat of sanctions remains a significant risk to our ability to import Russian LEU. Refer to Part I, Item 1A, *Risk Factors - Operational Risks and - War in Ukraine Risks*, for further discussion.

We also have an agreement with Orano, the Orano Supply Agreement, for the long-term supply of SWU contained in LEU, commencing in 2023. Under the Orano Supply Agreement, we will purchase SWU contained in LEU received from Orano, and then deliver natural uranium to Orano for the natural uranium feed component of LEU. We recently exercised our option to extend the six-year purchase period for an additional two years, electing to take the additional supply in 2029 and 2030. The Orano Supply Agreement provides flexibility to adjust purchase volumes, subject to annual minimums and maximums, in fixed amounts that vary year by year. The pricing for the purchased SWU is determined by a formula that uses a combination of market-related price points and other factors, and is subject to certain floors and ceilings. Prices are payable in a combination of U.S. dollars and euros.

We procure LEU from other sources under short-term and long-term contracts and have inventories available that diversify our supply portfolio and provide flexibility to help us meet the needs of our customers. We also have agreements to borrow SWU that we can use to optimize our purchases and deliveries over time.

Market prices for SWU fell substantially in the aftermath of the nuclear incident at Fukushima, Japan in 2011, bottoming out in 2018. Since 2018, SWU prices have steadily increased and, following the Russian invasion of Ukraine, have increased to levels consistent with those prior to the 2011 Fukushima incident.

Centrus' purchase prices under the TENEX Supply Contract were adjusted to reflect lower market prices based on a one-time market related price reset. The price reset occurred in 2018, reducing the cost for our purchases from 2019 through 2028. Similarly, Centrus' SWU purchases under our long-term contract with Orano reflect the lower market prices that prevailed in 2018, when Centrus signed the long-term contract with Orano.

Technical Solutions

Our Technical Solutions segment reflects our technical, manufacturing, engineering, and operations services offered to public and private sector customers, including the American Centrifuge engineering, procurement, construction, manufacturing, and operations services being performed under the HALEU Demonstration Contract and the HALEU Operation Contract. With our private sector customers, we seek to leverage our domestic enrichment experience, as well as our engineering know-how and precision manufacturing facility to assist customers with a range of engineering, design and advanced manufacturing projects, including the production of fuel for next-generation nuclear reactors and the development of related facilities. Refer to Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

Government Contracting

On October 31, 2019, we signed the cost-share HALEU Demonstration Contract with the DOE to deploy a cascade of centrifuges to demonstrate production of HALEU for advanced reactors. The three-year program commenced on May 31, 2019, when the Company and the DOE signed an interim HALEU letter agreement that allowed work to begin while the full contract was being finalized. We have significantly invested in advanced technology because of the potential for future growth into new areas of business for the Company, while also preserving our unique workforce at our technology and manufacturing center in Oak Ridge, Tennessee, and our production facility near Piketon, Ohio. The Company entered into this cost-share contract with the DOE as a critical first step on the road back to the commercial production of enriched uranium, which the Company had terminated in 2013 with the closure of the Paducah GDP. Under the HALEU Demonstration Contract, the Company manufactured and assembled 16 centrifuges for eventual site operations and HALEU production. Additionally, the Company designed, procured, and installed most of the necessary support systems. Centrus is currently the only company with an NRC license to enrich uranium up to the 20% concentration that is contained in HALEU.

Under the HALEU Demonstration Contract, the DOE agreed to reimburse the Company for 80% of its costs incurred in performing the contract. The DOE modified the contract several times to increase the total contract funding to \$168.7 million. The HALEU Demonstration Contract's period of performance ended in November 2022. Costs under the HALEU Demonstration Contract include program costs, including direct labor and materials and associated indirect costs that are classified as *Cost of Sales*, and an allocation of corporate costs supporting the program that are classified as *Selling, General and Administrative Expenses*. Services provided under the contract included constructing and assembling centrifuge machines and related infrastructure, and training and qualifying the workforce for operation of the facility. When estimates of total costs for such an integrated, construction-type contract exceed estimates of total revenue to be earned, a provision for the remaining loss on the contract term. The previously accrued loss on the HALEU Demonstration Contract was realized over the contract term.

During the HALEU Demonstration Contract, the DOE experienced a COVID-19 related supply chain delay in obtaining the HALEU storage cylinders. Since it was not possible to begin HALEU production without the storage cylinders, it was not possible to complete the operational portion of the HALEU Demonstration Contract before the expiration date of the contract. As a result, the DOE elected to change the scope of the HALEU Demonstration Contract and move the operational portion of the demonstration to a new, competitively-awarded, contract that provides for operations beyond the term of the HALEU Demonstration Contract.

On November 10, 2022, the DOE notified Centrus that the company had been awarded the competitively-bid HALEU Operation Contract with work beginning November 14, 2022. This is a three-phase contract with Phase 1 being a cost-share contract with Centrus responsible for 50% of costs until an initial, small quantity of HALEU production is demonstrated. Phase 2 of the base contract includes continued operations and maintenance and the production for a full year at an annual production rate of 900 Kg of HALEU UF₆ on a cost-plus-incentive-fee basis. Finally, the HALEU Operation Contract includes options for the government to unilaterally extend performance for up to an additional nine years comprised of three options of three years each, also on a cost-plus-incentive-fee basis. Our lease for the Piketon facility was modified conterminously with the contract to assign responsibility for all D&D to the DOE. At this time, work is progressing on-schedule and on-budget for production of a small quantity of HALEU in 2023. The portion of the Company's anticipated cost share under Phase 1 of the HALEU Operation Contract representing the Company's share of projected program costs was recognized in *Cost of Sales* as an accrued loss in the fourth quarter ended December 31, 2022, and will be adjusted over the remaining contract term based on actual results and remaining program cost projections.

On February 9, 2023, the Company announced that construction and initial testing of the cascade and most of the support systems was complete. Before operations can begin, the Company needs to finish construction for the remaining support systems, including a fissile materials storage area, to allow HALEU produced for the DOE to be stored onsite, and complete final operational readiness reviews with the NRC to obtain approval for production to

begin. The operational readiness reviews are required under the Company's NRC license, which was successfully amended in 2021 to allow for HALEU production and made the Piketon site the only NRC-licensed HALEU production facility.

Centrus believes it is well positioned to compete for any follow-on contract(s) to expand HALEU production capability at the Piketon site. The DOE is contemplating additional contracts to ensure availability of HALEU for the ARDP and for the advanced reactor market, in general. Centrus responded to a DOE Sources Sought during late October 2022. The DOE plans to use this Sources Sought to guide development of a HALEU Availability Program which may be offered to the industry on a competitive basis during 2023. *Commercial Contracting*

Since 2018, Centrus has provided design, technical, and resource support for X-energy related to its TRISO fuel manufacturing process. Currently, work is being performed under a services agreement with X-energy signed in August 2021 to provide services for detailed design of the TRISO fuel fabrication facility and various support services for establishing their TRISO Research and Development Center. X-energy is funded under the current DOE cooperative agreement titled ARDP. At our discretion, the task orders under the new agreement may include in-kind contributions that we are not currently providing, but may provide in the future. The existing contractual scope of work expires on March 31, 2023, and may or may not be extended at the discretion of X-energy.

Prior Site Services Work

We formerly performed site services work under contracts with the DOE and its contractors at the former Portsmouth GDP. In September 2021, the Company and the DOE fully settled the Company's claims for reimbursement of certain pension and postretirement benefit costs incurred in connection with a past cost-reimbursable contract for work performed at the Portsmouth GDP. Under the terms of the settlement agreement, the DOE paid the Company \$43.5 million in September 2021, of which \$33.8 million was contributed in September 2021 to the pension plan for its subsidiary Enrichment Corp. and \$9.7 million was deposited in October 2021 in a trust for payment of postretirement health benefits payable by Enrichment Corp. The payment of \$43.5 million is included in revenue of the Technical Solutions segment for the year ended December 31, 2021.

Competition and Foreign Trade

It is estimated that the enrichment industry market for commercial nuclear reactors powered by LEU is currently about 50 million SWU per year. Our global market share of enrichment for the LEU market is less than 5%. Global LEU suppliers in our highly competitive industry compete on the basis of price and reliability of supply. The four largest LEU suppliers comprise over 95% of market share combined:

- · ROSATOM, a Russian government entity, which sells LEU through its wholly-owned subsidiary TENEX;
- · Urenco, a consortium of companies owned or controlled by the British and Dutch governments and two German utilities;
- · Orano, a company largely owned by the French government, and formerly part of the French government; and
- · CNEIC, a company owned by the Chinese government.

As of 2020, the production capacity for ROSATOM/TENEX was estimated by the WNA to be approximately 28 million SWU per year. Imports of LEU and other uranium products produced in the Russian Federation are subject to restrictions as described below under — Russian Suspension Agreement.

Urenco reported installed capacity at its European and U.S. enrichment facilities of 19 million SWU per year at the end of 2020.

Orano's gas centrifuge enrichment plant in France began commercial operations in 2011 and the plant's nominal capacity of 8 million SWU was reportedly in service at the end of 2016.

CNEIC has emerged as a significant producer primarily focused on supplying domestic requirements in China. CNEIC's commercial SWU production capacity was estimated to be approximately 6 million SWU per year in 2020.

All of our current competitors are owned or controlled, in whole or in part, by foreign governments, and operate enrichment technologies developed with the financial support of foreign governments. These competitors may make business decisions in both domestic and international markets that are influenced by political or economic policy considerations rather than exclusively by commercial considerations.

LEU also may be produced by down-blending government stockpiles of highly-enriched uranium. Governments control the timing and availability of highly-enriched uranium released for this purpose, and the release of this material to the market could impact market conditions. Given the current oversupplied nuclear fuel market, any additional LEU from down-blended highly-enriched uranium released into the market could exert downward pressure on prices for LEU.

Our LEU supply to foreign customers is exported under the terms of international agreements governing nuclear cooperation between the United States and the government of the country of destination or other entities, such as the EU or the IAEA. The LEU supplied to us is subject to the terms of cooperation agreements between the country in which the material is produced and the country of destination or other entities.

Russian Suspension Agreement

Imports into the United States of LEU and other uranium products produced in the Russian Federation, including LEU imported by Centrus under the TENEX Supply Contract, are subject, through December 31, 2040, to quotas imposed under U.S. legislation enacted into law in September 2008 and December 2020, and under the RSA, as amended in 2008 and 2020. These quotas limit the amount of Russian LEU that can be imported into the United States for U.S. consumption¹.

The RSA is a trade agreement between the DOC and ROSATOM originally signed in 1992 that suspended an anti-dumping duty investigation of Russian uranium and imposed quantitative limits on exports of Russian uranium products, including LEU, to the United States. Under an amendment signed on October 5, 2020, the RSA's limits on shipments of Russian uranium product to the United States were extended through at least 2040. Additionally, under legislation passed by the U.S. Congress shortly after the amendment was signed, the material terms of the extended RSA were enacted into law.

Under this law and the RSA, imports of Russian uranium products will peak in 2023 at 24% of the forecasted U.S. demand for enrichment and then begin to decline, reaching 15% by 2028. Despite the fact that overall limits will ramp down, the RSA, as amended in 2020, explicitly sets aside sufficient quota in 2021 through 2028 for Centrus. The RSA and the legislation provide for a revision of the quotas in 2023, 2029, and 2035 to take account of SWU demand forecasts that will be published by the WNA in the future. Any quota adjustment or other change to the RSA could affect our ability to implement the TENEX Supply Contract through sales to customers who take delivery in the United States, which is our most significant market.

The actual size of the annual quotas allocated to Centrus for the TENEX Supply Contract are confidential, but a public version of the quotas shows that they represent a significant portion of the total quotas provided under the RSA in 2021 through 2028. The quotas provided for the TENEX Supply Contract are expected to be adequate to

¹ The term "quota" is used herein for simplicity. The amounts of Russian uranium products that can be shipped to the United States are referred to as export limits in the RSA and import limits in the legislation, but from a practical perspective the terms have identical effect.



support the Company's long-term strategic goals and to permit enriched uranium procured from TENEX during the remaining term of the TENEX Supply Contract to be imported to supply U.S. utilities, thereby securing a key part of the Company's supply base for the benefit of its customers and providing the revenues needed by the Company to support its work on HALEU and other advanced technology projects in the United States.

Beginning in September 2022, the DOC and the ITC, respectively, initiated two "sunset" reviews that will determine if the RSA should be maintained. These "sunset" reviews are required to be conducted every five years. This is the fifth round of "sunset reviews" of the RSA. The last round of reviews in 2016-17 concluded that termination of the RSA would lead to the continuation or recurrence of dumping of French LEU (a determination made by the DOC), and to the continuation or recurrence of material injury to the U.S. uranium industry (a determination made by the ITC), which resulted in the RSA being maintained. Even if the RSA were terminated as a result of the "sunset" reviews, the quotas under the 2020 legislation would remain in place.

For further details, refer to Part I, Item 1A, Risk Factors - Restrictions on imports or sales of SWU or uranium that we buy from our Russian supplier and our other sources of supply could adversely affect profitability and the viability of our business.

Ukraine War

The current war in Ukraine has led the United States, Russia, and other countries to impose sanctions and other measures that restrict international trade. At present, sanctions have not prevented the Company or TENEX from performing under the TENEX Supply Contract, but the situation is continuously changing, and it is not possible to reliably predict future actions that could be taken or the impact they may have on the Company or the market.

Sanctions that could be imposed by the United States and foreign governments on goods, services, entities, and instrumentalities needed for performance of the TENEX Supply Contract could have adverse effects on the TENEX Supply Contract, even if such sanctions are not directed at imports of Russian LEU or other trade in nuclear material with Russia. For further details, refer to Part I, Item 1A, *Risk Factors The current war in Ukraine and related international sanctions and restrictions on trade could have a material adverse impact on our business, results of operations, and financial condition.*

Other Actions Adversely Affecting International Trade

In 2018, in connection with the withdrawal by the United States from a 2015 multilateral agreement known as the Joint Comprehensive Plan of Action, the U.S. Government reimposed sanctions on the AEOI and a number of its subsidiaries. Waivers were granted to allow non-Iranian entities to continue to work on certain programs that, among other things, allowed affiliates of ROSATOM to continue work on nuclear projects in Iran. These waivers have expired or been terminated and, as a result, the U.S. Government could decide to impose sanctions on Russian entities that may be involved in nuclear work in Iran, including ROSATOM or its subsidiaries. These sanctions could affect companies owned by ROSATOM, including TENEX, even if they are not doing work in Iran. To date, no sanctions have been imposed or announced on TENEX or any other ROSATOM subsidiary involved in the TENEX Supply Contract, in respect to the work of ROSATOM or its subsidiaries in Iran.

DOE Facilities

We produced LEU through 2001 at the former Portsmouth GDP in Piketon and through 2013 at the former Paducah GDP in Paducah, both of which facilities we had leased from the DOE. The Portsmouth GDP and Paducah GDP were operated by agencies of the U.S. Government for more than 40 years prior to the creation of the Company through privatization of the Government enterprise in 1998. As a result of such operation, there are contamination and other potential environmental liabilities associated with the U.S. Government's prior operation of the plants. The USEC Privatization Act and the terms of our lease of the plants provide that DOE remains responsible for the D&D of the gaseous diffusion plants. Further, the DOE continued operations as well as cleanup activities, both during and subsequent, to our operations at the facilities.

We lease facilities and related personal property near Piketon from the DOE. In connection with a letter agreement that preceded the HALEU Demonstration Contract, the DOE and Centrus amended the lease agreement, which was scheduled to expire by its terms on June 30, 2019. The lease was extended until May 31, 2022. In September 2021, the Company and the DOE renewed and extended the lease until December 31, 2025. On November 30, 2022 the lease was further amended to ensure all D&D liabilities created under the new HALEU Operation Contract reside with the DOE. As was the case with the HALEU Demonstration Contract, any facilities or equipment constructed or installed will be owned by the DOE and may be returned to the DOE in an "as is" condition at the end of the lease term. The DOE will be responsible for the D&D of any returned facilities or equipment. If we determine the equipment and facilities may benefit Centrus after completion of the HALEU program, we can extend the facility lease and ownership of the equipment will be transferred to us, subject to mutual agreement regarding D&D and other issues.

Human Capital Management

Our employees in Maryland, Ohio, and Tennessee are dedicated to our corporate philosophy based in honesty, trust, and with the highest levels of integrity, safety and security. Every day these values drive how we operate our business; govern how we interact with each other and our customers, partners, and suppliers; guide the way that we treat our workforce; and determine how we connect with our communities. Our commitment to ethical business practices is outlined in our COBC. Each employee is required to acknowledge receipt, understanding of, and compliance with our standards.

Due to the highly specialized nature of our business we need to hire and train skilled and qualified personnel to design, build, and operate our state-of-the-art equipment, and to perform a broad range of services to support our country and our customers. Our work requires that we attract people who are dedicated to consistently performing quality work and, for many of our positions, are able to obtain a security clearance. We recognize that our success as a company depends on our ability to attract, develop, and retain such a workforce. We are dedicated to promoting the health, welfare, and safety of our employees. Part of our responsibility includes treating all employees with dignity and respect and providing them with fair, market-based, competitive, and equitable compensation. We recognize and reward the performance of our employees in line with our pay-for-performance philosophy and provide a comprehensive suite of benefit options that enables our employees and their dependents to live healthy and productive lives.

Safety in our workplaces is paramount. We take measures to prevent workplace hazards, encourage safe behaviors, and enforce a culture of continuous improvement to ensure our processes help eliminate incidents and injuries and comply with governing health and safety laws.

We are committed to promoting diversity of thought, experience, perspectives, backgrounds, and capabilities to drive innovation and to strengthen the solutions we deliver to our customers because we believe this diversity leads to better outcomes. We proudly support a culture of inclusion and encourage a work environment that respects diverse opinions, values individual skills, and celebrates the unique experiences our employees possess. To ensure a diverse group of candidates is considered for each opening we enlist the services of a Human Resource Consulting firm that provides services and products related to AAPs and equal employment opportunity as required by the OFCCP.

Our values motivate us to promote strong workplace practices with opportunities for development and training. Our training and development efforts focus on ensuring that the workforce is appropriately trained on critical job skills as well as leadership attributes that are consistent with our philosophy. During the height of the COVID-19 pandemic, the Company implemented measures to protect its workforce and to maintain critical operations.

We continue to follow Center for Disease Control and Prevention guidance and monitor any new development relating to COVID-19 transmission rates to ensure we take appropriate actions to maintain the health and safety of our employees and our operations.

A summary of our employees by location is as follows:

	No. of Employees at December 31,	
Location	2022	2021
Piketon, OH	122	115
Oak Ridge, TN	104	101
Bethesda, MD	49	50
Total Employees	275	266

On October 1, 2022, the collective bargaining agreement for the employees represented by the United Steelworkers Local 689-5 union expired. There has been no interruption of work as Centrus and the United Steelworkers Local 689-5 union continue to meet to reach accord on a new collective bargaining agreement for the represented employees at the advanced technology facility near Piketon.

Information about our Executive Officers

Executive officers are elected by and serve at the discretion of the Board of Directors. The Executive officers as of December 31, 2022, are as follows:

Name	Age	Position
Daniel B. Poneman	66	President and Chief Executive Officer
Larry B. Cutlip	63	Senior Vice President, Field Operations
Kevin J. Harrill	46	Controller and Chief Accounting Officer
Dennis J. Scott	63	Senior Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary
Philip O. Strawbridge	68	Senior Vice President, Chief Financial Officer, Chief Administrative Officer and Treasurer
John M.A. Donelson	58	Senior Vice President and Chief Marketing Officer

Daniel B. Poneman has been President and Chief Executive Officer since April 2015 and was Chief Strategic Officer in March 2015. Prior to joining the Company, Mr. Poneman was Deputy Secretary of Energy from May 2009 to October 2014, in which capacity he also served as Chief Operating Officer of the DOE.

Larry B. Cutlip has been Senior Vice President, Field Operations since January 2018, was Vice President, Field Operations from May 2016 through December 2017, was Deputy Director of the American Centrifuge Project from January 2015 to May 2016, was Director, Centrifuge Manufacturing from April 2008 to December 2014, was Director, Program Management and Strategic Planning from December 2005 to April 2008, was Manager, Engineering from May 1999 to December 2005, and held positions in operations management and engineering at the Company and its predecessors since 1981.

Kevin J. Harrill has been Corporate Controller and Chief Accounting Officer since November 2021. Mr. Harrill has extensive experience in finance and accounting leadership roles in multi-national companies, including Fortune 500 and private equity-backed corporations. Prior to joining the Company, Mr. Harrill held positions of increasing responsibility at Blackboard, Inc., from 2015 to 2021, including Vice President, Chief Accounting Officer and Corporate Controller.

Dennis J. Scott has been Senior Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary since January 2018 and was Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary from May 2016 through December 2017. Mr. Scott was Deputy General Counsel and Director, Corporate Compliance from April 2011 to May 2016, Acting Deputy General Counsel from August 2010 to April 2011, Assistant General Counsel and Director, Corporate Compliance from April 2005 to August 2010 and Assistant General Counsel from January 1994 to April 2005.

Philip O. Strawbridge has been Senior Vice President, Chief Financial Officer, Chief Administrative Officer and Treasurer since September 2019. Prior to joining the Company, Mr. Strawbridge served as an executive adviser at Court Square Capital from 2010 to 2013. Mr. Strawbridge served in various executive positions including Chief Financial Officer at EnergySolutions, a nuclear services and technology company, from 2006 to 2010. He was Chief Executive Officer and Chief Operating Officer of BNG America, which provided nuclear waste management services and technology to U.S. Government and commercial clients, from 1999 until BNG America was acquired by EnergySolutions in early 2006.

John M.A. Donelson has been Senior Vice President and Chief Marketing Officer since October 2019 and was Vice President, Sales and Chief Marketing Officer from January 2018 through October 2019. Mr. Donelson was Vice President, Marketing, Sales and Power from April 2011 through December 2017, Vice President, Marketing and Sales from December 2005 to April 2011, Director, North American and European Sales from June 2004 to December 2005, Director, North American Sales from August 2000 to June 2004 and Senior Sales Executive from July 1999 to August 2000.

Available Information

Our website is www.centrusenergy.com. We make available on our website, or upon request, without charge, access to our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed with, or furnished to, the SEC, pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. The SEC also maintains a website at www.sec.gov that contains reports, proxy statements and other information about SEC registrants, including Centrus.

Our COBC provides a brief summary of the standards of conduct that are at the foundation of our business operations. The COBC states that we conduct our business in strict compliance with all applicable laws. Each employee must read the COBC and sign a form stating that he or she has read, understands and agrees to comply with the COBC. A copy of the COBC is available on our website or upon request without charge. We will disclose on the website any amendments to, or waivers from, the COBC that are required to be publicly disclosed.

We also make available on our website or upon request, free of charge, our COBC, Board of Directors Governance Guidelines, and our Board committee charters.

Item 1A. Risk Factors

The following discussion sets forth the material risk factors that could affect our financial condition and operations. Such risks, which could negatively affect our Consolidated Financial Statements, fall primarily under the categories listed below. Readers should not consider any descriptions to be a complete set of all potential risks that could affect us.

Risks related to the war in Ukraine factors primarily include:

· the current war in Ukraine and related international sanctions and restrictions.

Risks related to economic and industry factors primarily include:

- · the financial difficulties experienced by, and operating conditions of, our customers and suppliers;
- · epidemics and other health related issues, including, but not limited to the COVID-19 pandemic;
- · the continued excess supply of LEU in the market; and
- · price volatility associated with the procurement of SWU and uranium.

Risks related to operational factors primarily include:

- · restrictions on imports or sales of SWU or uranium that we buy from our Russian supplier and our other sources of supply; and
- · the inability to sell all of the LEU we are required to purchase under supply agreements for prices that cover our costs.

Risks related to financial factors primarily include:

- · significant long-term liabilities;
- · material unfunded defined benefit pension plans obligations and postretirement health and life benefit obligations;
- · our revenues and operating results may fluctuate significantly from quarter to quarter and year to year;
- · possible impairment loss related to our intangible assets;
- · Centrus is dependent on intercompany support from Enrichment Corp.;
- · limited trading volume for our securities and the market price of our securities is subject to volatility;
- · a small number of holders of our Class A Common Stock may exert significant influence over the direction of the Company;
- a small number of Class A stockholders, who also have significant holdings of the Company's 8.25% Notes, may be motivated by interests that are not aligned with the Company's other Class A stockholders; and
- · limited ability to utilize our NOL carryforwards to offset future taxable income.



Risks related to general factors primarily include:

- failures to protect classified or other sensitive information, or security breaches of IT systems could result in significant liability;
- the inability to attract and retain key personnel;
- the potential for the DOE to seek to terminate or exercise its remedies under the 2002 DOE-USEC Agreement and our other agreements with the DOE, or to require
 modifications to such agreements;
- government reviews or audits can lead to withholding or delay of payments to us, non-receipt of award fees, legal actions, fines, penalties and liabilities, and other remedies
 against us;
- our U.S. Government contracts and subcontracts are dependent on continued U.S. Government funding and government appropriations, which may not be made on a timely basis or at all;
- · changes to, or termination of, any agreements with the U.S. Government, or deterioration in our relationship with the U.S. Government; and
- · the ability to adapt to a rapidly changing competitive environment in the nuclear industry.

Risks related to legal and compliance factors primarily include:

- · our operations are regulated by the U.S. Government, including the NRC and the DOE as well as the States of Ohio and Tennessee;
- our operations involve the use, transportation and disposal of toxic, hazardous and/or radioactive materials and could result in liability without regard to fault or negligence; and
- our certificate of incorporation gives us certain rights with respect to equity securities held (beneficially or of record) by foreign persons. If levels of foreign ownership set
 forth in our certificate of incorporation are exceeded, we have the right, among other things, to redeem or exchange common stock held by foreign persons, and in certain
 cases, the applicable redemption price or exchange value may be equal to the lower of fair market value or a foreign person's purchase price.

War in Ukraine Risks

The current war in Ukraine and related international sanctions and restrictions on trade could have a material adverse impact on our business, results of operations, and financial condition.

The current war in Ukraine has led the United States, Russia, and other countries to impose sanctions and other measures that restrict international trade. At present, sanctions have not prevented the Company or TENEX from performing under the TENEX Supply Contract, but the situation is continuously changing, and it is not possible to predict future actions that could be taken or the impact they may have on the Company or the market.

The expanding sanctions imposed by the United States and foreign governments on goods, services, entities, and instrumentalities that could be needed for performance of the TENEX Supply Contract could have adverse effects on the TENEX Supply Contract, even if such sanctions are not directed at imports of Russian LEU or other trade in nuclear material with Russia. For example, a sanction on a Russian bank might prevent funds from being transferred to TENEX's account from the U.S. bank to which we make payments. We do not know what actions TENEX might take if it could not receive payments in Russia, but if it refused to make future deliveries, such action could affect our ability to meet our delivery obligations to our customers.

Further, sanctions by the United States, Russia, or other countries may directly or indirectly impact performance of the TENEX Supply Contract and our ability to transport, import, take delivery or make payments related to the LEU we purchase. For example, in June 2022, Canada prohibited Canadian entities from providing transportation services to Russians or persons in Russia in various industries, including enrichment of uranium. A company that provides transportation services to the Company under the TENEX Supply Contract interpreted the sanction as applying to transportation of Russian LEU for the Company, and the Canadian company informed the Company that it could not load Russian LEU until it received a permit from the Canadian government. Although the permit was issued, it is only valid until June 2023, meaning that, absent a renewal of the permit, the Company will need to find an alternative transportation company, which may be difficult and costly because of the limited number of qualified service providers. Further, adverse consequences for future deliveries of Russian LEU could result if companies who are closely involved in the U.S. nuclear fuel cycle (including, for example, the supply of the natural uranium used to return the uranium component of Russian LEU to TENEX), are prevented from performing and making such natural uranium available to TENEX for return to Russia, as required by the terms of the RSA. In addition, companies that provide us with services essential to implementation of the TENEX Supply Contract, including but not limited to companies affected by sanctions from countries such as Canada, could conclude that for reasons of risk, cost, or other factors, they no longer can or will provide those services to us. Furthermore, because sanctions also limit the types of non-nuclear cargo that this transportation company can ship to and from Russia, the scope of its business in Russia has been curtailed and the number of ships it has dedicated to transportation to and from Russia has been r

Additional sanctions or other measures by the U.S. or foreign governments (including the Russian government) could be imposed in the future. There have been proposals in U.S. Congress and elsewhere to ban imports of uranium which could affect our ability to import LEU in one or more years under the TENEX Supply Contract but none of these have been adopted as of the date of this filing. Any sanctions or measures directed at trade in LEU from Russia or the parties involved in such trade or otherwise could interfere with, or prevent, performance under the TENEX Supply Contract. Accordingly, the situation at this time is unpredictable and therefore there is no assurance that future developments would not have a material adverse effect on the Company's procurement, payment, delivery, or sale of LEU by the Company.

If measures were taken to limit the import of Russian LEU or to prohibit or limit dealings with Russian entities, including, but not limited to, TENEX or the ROSATOM, the Company could seek a license, waiver, or other approval from the government imposing such measures to ensure that the Company could continue to fulfill its purchase and sales obligations using LEU delivered under the TENEX Supply Contract. There is no assurance that such a license, waiver, or approval, if sought, would be granted. If a license, waiver, or approval were not granted, the Company would need to look to alternative sources of LEU to replace the LEU that it could not procure from TENEX. The Company has contracts for alternative sources that could be used to mitigate a portion of the near-term impacts. However, to the extent these sources were insufficient or more expensive or additional supply cannot be obtained, it could have a material adverse impact on our business, results of operations, and competitive position.

As a result of the current uncertainty regarding trade with Russia, as well as the actions of Russia in the war against Ukraine, customers may seek to renegotiate existing contracts, refuse to take deliveries of Russian LEU, or take other actions that could have a material adverse impact on our business, results of operations, and competitive position. Further, our ability to enter into new contracts to sell the material we are committed to purchase may be impacted. Finally, since the majority of our supply contracts include a market-based pricing component, the rapidly rising market prices due to the war in Ukraine and the associated sanctions could materially increase our cost of sales under our existing supply contracts, including but not limited to, the TENEX Supply Contract.

Economic and Industry Risks

Our future prospects are tied directly to the nuclear energy industry worldwide. The financial difficulties experienced by, and operating conditions of, our customers and suppliers could adversely affect our results of operations and financial condition.

Potential events that could affect either our customers or suppliers under current or future contracts with us or the nuclear industry as a whole, include:

- pandemics, armed conflicts (including the war in Ukraine), government actions and other events that disrupt supply chains, production, transportation, payments and
 importation of nuclear materials or other critical supplies or services;
- natural or other disasters (such as the 2011 Fukushima disaster) impacting nuclear facilities or involving shipments of nuclear materials;
- changes in U.S. or foreign government policies and priorities;
- regulatory actions or changes in regulations by nuclear regulatory bodies applicable to us, our suppliers or our customers;
- decisions by agencies, courts or other bodies under trade and other laws applicable to us, our suppliers, or our customers;
- · disruptions in other areas of the nuclear fuel cycle, such as uranium supplies or conversion;
- civic opposition to, or changes in government policies regarding, nuclear operations;
- · business decisions concerning reactors or reactor operations;
- · the financial condition of reactor owners and operations;
- the need for generating capacity; or
- · consolidation within the electric power industry.

These events could adversely affect us to the extent they result in a reduction or elimination of customers' contractual requirements to purchase from us; the suspension or reduction of nuclear reactor operations; the reduction or blocking of supplies of raw materials, natural or enriched uranium or SWU; lower demand; burdensome regulation, disruptions of shipments, production importation or payment (including the blocking or restriction of transportation services or hardware); increased competition from third parties; increased costs or difficulties; or increased liability for actual or threatened property damage or personal injury. Additionally, customers may face financial difficulties, including from factors unrelated to the nuclear industry, that could affect their willingness or ability to make purchases. We cannot provide any assurance that events will not preclude us from making deliveries to our customers or increase our costs or that our customers, suppliers, or contractors will not default on their obligations to us or file for bankruptcy protection. If a customer files for bankruptcy protection, for example, we likely would be unable to collect all, or even a significant portion, of amounts that are owed to us. A default and bankruptcy filing by one or more customers or suppliers, or events, such as those listed above which prevent or limit our ability to obtain or sell material or services, could have a material adverse effect on our business, financial position, results of operations, or cash flows.

Our business, financial and operating performance could be adversely affected by epidemics and other health related issues, including but not limited to the COVID-19 pandemic.

The global outbreak of COVID-19 was declared a pandemic by the World Health Organization and a national emergency by the U.S. Government and has negatively affected the U.S. and global economies, disrupted supply chains, and has resulted in significant travel, transport, and other restrictions. The COVID-19 outbreak disrupted the supply chains and day-to-day operations of the Company, our suppliers, our contractors, and our customers, which could materially adversely affect our operations. In this regard, global supply chains and the timely availability of products or product components sourced domestically or imported from other nations, including SWU contained in

LEU we purchase, could be materially disrupted by quarantines, slowdowns or shutdowns, border closings, and travel restrictions resulting from the global COVID-19 pandemic or other global pandemic or health crises. Further, impacts of COVID-19 infections and other COVID-19 pandemic related impacts on our management and workforce, or our suppliers, contractors, or customers, could adversely impact our business. While we have taken steps to protect our workforce and carry on operations, we may not be able to mitigate all of the potential impacts. We anticipate increased costs related to, or resulting from, the COVID-19 pandemic, due to, among other things, delays in supplier deliveries, impacts of travel restrictions, site access and quarantine requirements, and the impacts of remote work and adjusted work schedules.

In the event that the COVID-19 pandemic prevents our employees or our contractors from working in-person at our site or, our suppliers are unable to provide goods and services on the schedule we anticipated, the impacts on our schedule and costs could be material. Again, while we have worked to mitigate the impact, we may experience increased costs as the result of the impact of the pandemic on their operations.

The long-term impacts of the COVID-19 pandemic on us or on government budgets, our customers, contractors and suppliers that could impact our business are also difficult to predict but could adversely affect our business, results of operations, and prospects.

The continued excess supply of LEU in the market could adversely affect market prices and our business results.

Events related to the March 2011 earthquake and tsunami that caused irreparable damage to four reactors in Fukushima, Japan, created an over-supply of nuclear fuel that continues to heavily influence market prices. In addition, reactor operators facing aggressive price competition from natural gas and subsidized renewable generation like wind and solar, have closed or are planning to close reactors, further reducing demand for our product and services. Despite the decrease in demand, some of our competitors supported by foreign governments continued to expand their capacity. Market uncertainty, and reduced demand, coupled with excess capacity and supply could adversely affect our ability to sell LEU and SWU and thus could adversely affect our business, results of operations, and prospects.

Our business is exposed to price volatility associated the procurement of SWU and uranium.

The Company is exposed to commodity price risk for purchases of SWU and uranium. Our earnings and cash flows are therefore exposed to variability of spot and forward market prices in the markets in which it operates. The supply markets for LEU, SWU and other uranium are subject to price fluctuations and availability restrictions.

Operational Risks

Restrictions on imports or sales of SWU or uranium that we buy from our Russian supplier and our other sources of supply could adversely affect profitability and the viability of our business.

The majority of the SWU and LEU that we use to fill existing contracts with customers is sourced from outside the United States, including from Russia under the TENEX Supply Agreement, and we expect these arrangements to continue into the future. Our ability to place this SWU and LEU into existing and future contracts with customers is subject to trade restrictions, sanctions, and other limitations imposed by the United States, other governments, and our customers. For example, our imports from Russia are subject to U.S. quotas. Given the quotas, restrictions, and customer limitations that limit our ability to sell SWU and LEU purchased under the TENEX Supply Agreement both in the United States and globally, there is no guarantee that we can make sufficient sales to meet our minimum purchase obligation under the TENEX Supply Agreement. (For further information refer to Part I, Item 1, *Competition and Foreign Trade*).

Further, currently evolving international events, including the war in Ukraine, could result in new or additional sanctions or other U.S. or foreign government actions that could directly or indirectly limit or prevent our purchase, import, delivery and/or sale of material under our TENEX Supply Agreement. Even absent such restrictions, some of our U.S. and foreign customers are unable or unwilling to accept Russian SWU and uranium.

Geopolitical events, including domestic or international reactions or responses to such events, as well as concerns about national security or other issues, also could lead to U.S. or foreign government or international actions that could disrupt our ability to purchase, import, sell, or make deliveries of LEU, SWU, or other uranium products, or even to continue to do business with one or more of our suppliers or their affiliates. Our inability to meet our purchase or sales obligations, or to earn revenues from U.S. and international sales, would adversely affect our financial condition, results of operations, cash flows, and the viability of our business. All of these outcomes, individually and collectively, could cause us to incur significant financial losses, in addition to impeding or preventing us from fulfilling our existing contracts, or winning new contracts, and could adversely affect our profitability and the viability of our business.

We may be unable to sell all of the LEU we are required to purchase under supply agreements for prices that cover our costs, which could adversely affect profitability and the viability of our business.

We may not achieve the anticipated benefits from supply agreements we enter into. The prices we are charged under some supply agreements are determined by formulas that may not be aligned with the prevailing market prices at the time we enter into contracts with customers. As a result, the sales prices in our contracts may not cover our purchase costs, or those purchase costs may limit our ability to secure profitable sales.

We are dependent on purchases from our suppliers and other sources to meet our obligations to customers and rely on third parties to provide essential services.

We are currently dependent on purchases from suppliers to meet our obligations to customers, including purchases from the Russian government entity, TENEX. A significant delay in, or stoppage or termination of, deliveries of material to us under our supply agreements, could adversely affect our ability to make deliveries to customers.

We also rely on third parties to provide essential services to the Company, such as the storage and management of inventory, transportation, and radiation protection. Those service providers may not perform on time, with the desired quality, or at all, for a variety of reasons, many of which are outside our control. An interruption of deliveries from our suppliers or the provision of essential services by third parties, could adversely impact our business, results of operations, and prospects.

We face significant competition from major producers who may be less cost sensitive or may be favored due to support from foreign governments.

We compete with major producers of LEU, all of which are wholly or substantially owned by governments: Orano (France), Rosatom/TENEX (Russia), Urenco (the Netherlands, the United Kingdom and two German utilities), and CNEIC (China). Our competitors have greater financial resources than we do. Foreign competitors enjoy financial and other support from their government owners, which may enable them to be less cost or profit-sensitive than we are. In addition, decisions by foreign competitors may be influenced by political and economic policy considerations rather than commercial considerations. For example, foreign competitors may elect to increase their production or exports of LEU, SWU, or other uranium products, including HALEU, even when not justified by market conditions, thereby depressing prices and reducing demand for our LEU, SWU, and other uranium products. This could adversely affect our business, results of operations, and prospects. Moreover, our competitors may be better positioned to take advantage of improved market conditions and increase capacity to meet any future market expansion.

The ability to compete in certain foreign markets may be limited for legal, political, economic, or other reasons.

Doing business in foreign markets poses additional risks and challenges. For example, agreements for cooperation between the U.S. Government and various foreign governments or governmental agencies control the export of nuclear materials from the United States. We are unable to supply fuel for foreign reactors unless there is an agreement for cooperation in force. If an agreement with a country in which one or more of our customers is located were to lapse, terminate, or be amended, our sales or deliveries could be curtailed or terminated, adversely affecting our business, results of operations, and prospects. Moreover, the lack of such agreements for cooperation between the U.S. Government and those governments or agencies in emerging markets may restrict our ability to sell into such markets. Additionally, countries may impose other restrictions on the import or export of material or services related to our business.

Purchases of LEU and SWU by customers in the EU are subject to a policy of the Euratom Supply Agency that seeks to limit foreign enriched uranium to no more than 20% of EU consumption per year. Similarly, China has a policy of using Chinese sources of LEU and SWU. Such policies limit our ability to sell in those countries.

Certain foreign markets lack a comprehensive nuclear liability law that protects suppliers by channeling liability for injury and property damage suffered by third persons from nuclear incidents at a nuclear facility to the facility's operator. The lack of legal protection for suppliers could adversely affect our ability to compete for sales to meet the growing demand for LEU or SWU in these markets and our prospects for future revenue from such sales.

Dependence on our largest customers could adversely affect us.

In 2022, our ten largest nuclear fuel customers represented approximately 75% of total revenue and our two largest customers represented approximately 28% of total revenue. A reduction in purchases from our customers, whether due to their decision not to purchase optional quantities or for other reasons, including a disruption or change in their operations or financial condition that reduces purchases of LEU, SWU, or other uranium products from us, could adversely affect our business, results of operations, and prospects. Once lost, customers may be difficult to regain because they typically purchase under long-term contracts. Consequently, we may face reduced revenues and difficulty in selling the material we are obligated to buy, which could adversely affect our business, results of operations, and prospects.

The dollar amount of the Order Book, as stated at any given time, is not necessarily indicative of future sales revenues and is subject to uncertainty.

Our Order Book is the estimated aggregate dollar amount of SWU and uranium sales that we expect to recognize as revenue in future periods under existing contracts with customers. It includes deferred revenue for sales in which we have been paid but still have a delivery obligation, which means we will not receive cash in the future from those deliveries. There is no assurance that the revenues projected will be realized, or, if realized, will result in profits. Our estimate of the Order Book is based on a number of factors including customers' estimates of the timing and size of their fuel requirements and estimates of future selling prices. For example, depending on the terms of specific contracts, prices may be adjusted based on escalation using a general inflation index, published SWU or uranium market price indicators prevailing at the time of delivery, and other factors, all of which are unpredictable. Any inaccuracy in estimates of future prices would add to the imprecision of the Order Book estimate. From time to time, we have worked with customers to modify contracts that have delivery, scheduling, origin or other terms that may require modifications to address our anticipated supply sources. If we were to initiate such discussions in the future, we have no assurance that our customers would agree to revise existing contracts or would not require concessions, which could adversely affect the value of our Order Book and our business, results of operations and prospects.

Our ability to operate the HALEU enrichment facility we are deploying under the HALEU Operation Contract after the completion of the contract is dependent on our ability to secure additional contracts and funding from the U.S. Government or other sources.

In 2019, Centrus began work on a three-year, cost-shared contract with the DOE to deploy a cascade of 16 of our AC100M centrifuges to demonstrate production of HALEU with domestic technology. On November 30, 2022, after a competitive selection award, we signed a contract with the DOE to complete and operate the enrichment plant we commenced building in 2019. The HALEU Operation Contract has a base contract value of approximately \$150 million in two phases through 2024. Phase 1 includes an approximately \$30 million cost share contribution from Centrus matched by approximately \$30 million from the DOE to finish construction, bring the cascade online, and demonstrate production of 20 kilograms of 19.75% enriched HALEU by December 31, 2023. In Phase 2, we will continue production for a full year at an expected annual production rate of 900 kilograms of HALEU. The DOE will own the HALEU produced from the demonstration cascade and Centrus will be compensated on a cost-plus-incentive-fee basis, with an expected Phase 2 contract value of approximately \$90 million, subject to appropriations. The HALEU Operation Contract also gives the DOE options to obtain up to nine additional years of production from the cascade beyond the base contract on a cost-plus-incentive-fee basis; those options are at the DOE's sole discretion and subject to the availability of Congressional appropriations.

Our goal is to be in a position to begin production and scale up the facility in modular fashion as demand for HALEU grows in the commercial and/or government sectors. However, our right to continue to operate the facility we are building after completion of Phase 2 of the HALEU Operation Contract depends on the award of one or more follow-on contracts by the U.S. Government, as well as continued funding for operation from the U.S. Government or other sources. There is no assurance that we will be awarded such contracts or that such funding will be available. Further, it is uncertain whether or when demand to support the scale up of the facility will materialize. If we do not secure the necessary contracts and funding and if sufficient demand does not emerge, we may not be able to continue or expand operations at that facility and may not be able to support providing HALEU fuel for the advanced reactors under development.

If we are required to delease the facility where we are deploying the HALEU cascade under the HALEU Operation Contract and return it, along with the centrifuges and supporting equipment, to the DOE at the expirations of our contract, this would likely result in the termination of our NRC operating license and us laying off our Piketon workforce. However, if we are able to continue operating the facility, we would incur additional costs and liabilities associated with the facility.

If the Company's operation of the Piketon facility were terminated, there can be no assurance that we could regain use of the Piketon facility or obtain a new NRC license in the future at the Piketon site or an alternative site, in which event we would be unable to begin commercial production of HALEU. We may also incur additional costs related to reducing our workforce or closing the Piketon facility. Failure to secure U.S. Government or other funding to support the continued operation of the Piketon facility, and retain our NRC license, could have a material adverse effect on our business and financial condition along with our plans for future growth.



Our Technical Solutions segment conducts business under various types of contracts, including fixed-price and cost-share contracts, which subjects us to risks associated with cost overruns.

The Technical Solutions segment conducts business under various types of contracts, including fixed-price contracts and cost-share contracts, where costs must be estimated in advance of our performance. These types of contracts are priced, in part, on cost and scheduling estimates that are based on assumptions including prices and availability of experienced labor, equipment and materials, and estimates of the amount of other contract work we expect to perform. In the event we have cost overruns, we may not be able to obtain compensation for additional work performed or expenses incurred. Our failure to accurately estimate the resources and time required for fixed-price or cost-share contracts or our failure to complete our contractual obligations within the time frame and costs committed could result in reduced profits, greater costs, or a loss for that contract. If the cost overrun on a contract is significant, or we encounter issues that affect multiple contracts, the cost overrun could have a material adverse effect on our business, financial condition, and results of operations.

Financial Risks

We have significant long-term liabilities.

We continue to have significant long-term liabilities, including the indebtedness under our 8.25% Notes, which mature in February 2027. We also still have substantial pension and postretirement health and life benefit obligations and other long-term liabilities.

Our significant long-term liabilities (and other third-party financial obligations) could have important consequences, including:

- making it more difficult for us to satisfy our obligations to lenders and other creditors, resulting in possible defaults on, and acceleration of, such indebtedness or breaches of such other commitments;
- placing us at a competitive disadvantage by making us more vulnerable to react to adverse economic conditions or changes in the nuclear industry;
- hindering our ability to obtain additional financing for future working capital and other general corporate requirements;
- reducing our cash resources for payments on our 8.25% Notes thereby limiting our ability to fund our operations, capital expenditures, and future business opportunities;
- placing certain restrictions on the ability of our subsidiary, Enrichment Corp., to transfer cash and other assets to us, which could constrain our ability to pay dividends on our Common Stock or to fund our commitments or the commitments of our other subsidiaries, pursuant to the indenture governing our 8.25% Notes, subject to certain exceptions; and
- restricting our ability to engage in certain mergers or acquisitions pursuant to the indenture governing our 8.25% Notes which also require us to offer to repurchase all such outstanding notes at 101% of their outstanding principal amount in the event of certain change of control events.

The terms of the indenture governing our 8.25% Notes do not restrict Centrus or any of its subsidiaries from incurring substantial additional indebtedness in the future. If we incur substantial additional indebtedness, however, the foregoing risks would intensify. Additional information concerning the 8.25% Notes including the terms and conditions of the 8.25% Notes are described in Note 8, *Debt* of the Consolidated Financial Statements.

The Company has material unfunded defined benefit pension plans obligations and postretirement health and life benefit obligations. Levels of returns on pension and postretirement benefit plan assets, changes in interest rates and other factors affecting the amounts to be contributed to fund future pension and postretirement benefit liabilities could adversely affect earnings and cash flows in future periods.

Centrus and its subsidiary, Enrichment Corp., maintain qualified defined benefit pension plans that are guaranteed by the Pension Benefit Guaranty Corporation, a wholly-owned U.S. Government corporation that was created by Employee Retirement Income Security Act of 1974. Centrus also maintains non-qualified defined benefit pension plans for certain executive officers. These plans are anticipated to require material cash contributions in the future, which may divert funds from other uses and could adversely impact our liquidity depending on the timing of any required contributions or payments in relation to our sources of cash and other payment obligations.

Further, earnings may be positively or negatively impacted by the amount of expense we record for employee benefit plans. U.S. GAAP requires a company to calculate expenses for these plans using actuarial valuations. The IRS and the Pension Protection Act of 2006 regulate the minimum amount we contribute to our pension plans. The amount we are required to contribute to pension plans could have an adverse effect on our cash flows.

Our revenues and operating results may fluctuate significantly from quarter to quarter and year to year, which could have an adverse effect on our cash flows.

Revenue is recognized when or as we transfer control of the promised LEU or uranium to the customer. Customer demand is affected by, among other things, electricity markets, reactor operations, maintenance, and the timing of refueling outages. As a result, a relatively small change in the timing, amount, or other terms of customer orders for LEU due to a change in a customer's refueling schedule or other reasons may cause operating results to be substantially above or below expectations, which could have an adverse effect on our cash flows.

Results of operations could be negatively impacted if adverse conditions or changes in circumstances indicate a possible impairment loss related to our intangible assets.

Intangible assets originated from our reorganization and application of fresh start accounting as of September 30, 2014. The intangible assets represented the fair value adjustment to the assets and liabilities for our LEU segment. The intangible assets remaining on our balance sheet relate to our sales Order Book and customer relationships. The Order Book intangible asset is amortized to expense as the Order Book valued at emergence is reduced, principally as a result of deliveries to customers. The customer relationships intangible asset is amortized to expense using the straight-line method over the estimated average useful life of 15 years with 6 ³/₄ years of scheduled amortization remaining.

The carrying values of the intangible assets are subject to impairment tests whenever adverse conditions or changes in circumstances indicate a possible impairment loss. If impairment is indicated, the asset carrying value will be reduced to its fair value. Inherent in our fair value determinations are certain judgments and estimates, including projections of future cash flows, the discount rate reflecting the risk inherent in future cash flows, the interpretation of current economic indicators and market valuations, and strategic plans with regard to operations. A change in these underlying assumptions could cause the fair value of the intangible asset to be less than its respective carrying amount.

Centrus is dependent on intercompany support from Enrichment Corp.

Substantially all of our revenue-generating operations are conducted at our subsidiary, Enrichment Corp. The financing obtained from Enrichment Corp. funds our general corporate expenses, including interest payments on the 8.25% Notes, which are guaranteed on a limited and subordinated basis by Enrichment Corp. Enrichment Corp. also has pledged its assets as security for the 8.25% Notes. As a wholly-owned subsidiary of Centrus, Enrichment Corp. has its own set of creditors and a separate board of directors, the Enrichment Board, who are elected by Centrus. Current and future funding and support are conditional and dependent on Enrichment Corp.'s own financial condition and a determination by the Enrichment Board that such funding is in the interest of Enrichment Corp.

There is limited trading volume for our securities and the market price of our securities is subject to volatility.

The price of our Class A Common Stock remains subject to volatility. The market price and level of trading of our Class A Common Stock could be subject to wide fluctuations in response to numerous factors, many of which are beyond our control. These factors include, among other things, our limited trading history, our limited trading volume, the concentration of holdings of our Class A Common Stock, actual or anticipated variations in our operating results and cash flow, the nature and content of our earnings releases, announcements or events that impact our products, customers, competitors or markets, business conditions in our markets and the general state of the securities markets and the market for energy-related stocks, as well as general economic and market conditions and other factors that may affect our future results. Additionally, future sales of our common stock or instruments convertible into our common stock, in public or private offerings may depress our stock price.

Holders of our Class B Common Stock may make decisions regarding their investment in the Company based upon factors that are unrelated to the Company's performance. Any sales of shares by holders of our Class B Common Stock would result in automatic conversion (with limited exceptions) of Class B Common Stock into Class A Common Stock, which in turn could adversely impact the trading price of the Class A Common Stock.

Our 8.25% Notes are not listed on any securities exchange. No assurance can be given as to the liquidity of the trading market for the 8.25% Notes. The 8.25% Notes may only be traded infrequently in transactions arranged through brokers or otherwise, and reliable market quotations for the 8.25% Notes may not be available. In addition, the trading prices of the 8.25% Notes will depend on many factors, including prevailing interest rates, the trading volumes, and the other factors discussed above with respect to the Class A Common Stock.

A small number of holders of our Class A Common Stock may exert significant influence over the direction of the Company.

As of December 31, 2022, based solely on amounts reported in Schedule 13D and 13G filings with the SEC, two stockholders with the largest holdings of our Class A Common Stock collectively own approximately 21% of our Class A Common Stock. As a result, these stockholders may be able to exert significant influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, such as a merger of the Company, or sale of substantially all of the Company's assets. These stockholders may have interests that differ from, and may vote in a way adverse to, other holders of Class A Common Stock, or adverse to the recommendations of the Company's management. This concentration of ownership may make it more difficult for other stockholders to effect substantial changes in the Company, may limit the ability of the Company to pass certain initiatives or other items that require stockholder approval, and may also have the effect of delaying, preventing, or expediting, as the case may be, a change in control of the Company.

A small number of Class A stockholders, who also have significant holdings of the Company's 8.25% Notes, may be motivated by interests that are not aligned with the Company's other Class A stockholders.

Currently, a small number of persons who also are Class A stockholders collectively own approximately 33% of our 8.25% Notes. As a result, these stockholders may have interests that differ from the remainder of the holders of our Class A Common Stock, and, as a result, may vote or take other actions in a way adverse to other holders of Class A Common Stock.

Our ability to utilize our NOL carryforwards to offset future taxable income may be limited.

Our ability to fully utilize our existing NOLs or NUBILs could be limited or eliminated in the event (i) we undergo an "ownership change" as described under Section 382 of the Code, (ii) we do not reach profitability or are only marginally profitable, or (iii) there are changes in U.S. Government laws and regulations. An "ownership change" is generally defined as a greater than 50% change in equity ownership by value over a rolling three-year period. Past or future ownership changes, some of which may be beyond our control, as well as differences and fluctuations in the value of our equity securities may adversely affect our ability to utilize our NOLs and could reduce our flexibility to raise capital in future equity financings or other transactions, or we may decide to pursue transactions even if they would result in an ownership change and impair our ability to use our NOLs. In addition, the "Section 382 Rights Agreement" we have adopted with respect to our Common Stock contains limitations on transferability intended to prevent the possibility of experiencing an "ownership change," but we cannot be certain that these measures will be effective. We also may decide to pursue transactions even if they would result in an ownership change in an ownership change and impair our ability to use our NOLs. In addition, any changes to tax rules and regulations or the interpretation of tax rules and regulations could negatively impact our ability to recognize any potential benefits from our NOLs or NUBLs.

Legal and Compliance Risks

Our operations are highly regulated by the U.S. Government, including the NRC and the DOE as well as the States of Ohio and Tennessee and could be significantly impacted by changes in government policies and priorities.

Our operations, including the facilities we lease near Piketon, Ohio, are subject to regulation by the NRC. The NRC has granted us two licenses for the Piketon facility: a license for a Lead Cascade test facility that was granted in February 2004, and a separate license to construct and operate a commercial plant that was granted in April 2007. Our license to construct and operate a commercial plant will expire on April 13, 2037. In June 2021, the NRC approved an amendment to permit HALEU production as a subset of the larger commercial plant license. We are currently performing work under a contract with the DOE for the construction and operation of a cascade to produce HALEU. This contract is currently set to expire at the completion of Phase 2 which is no later than December 31, 2024. We filed a new license amendment with the NRC to increase our material possession limit to accommodate anticipated output under the HALEU Operation Contract and extend our production authorization period under our license.

The NRC could refuse to grant our license amendment to construct and operate a commercial plant if it determines that: (1) we are foreign owned, controlled, or dominated; (2) the issuance of the amendment would be inimical to the maintenance of a reliable and economic domestic source of enrichment; (3) the issuance of the amendment would be adverse to U.S. defense or security objectives; or (4) the issuance of the amendment is otherwise not consistent with applicable laws or regulations then in effect.

The NRC has the authority to issue notices of violation for violations of the Atomic Energy Act, the NRC regulations and conditions of licenses, certificates of compliance, or orders. The NRC has the authority to impose civil penalties or additional requirements and to order cessation of operations for violations of its regulations. Penalties under the NRC regulations could include substantial fines, imposition of additional requirements, or withdrawal or suspension of licenses or certificates. Any penalties imposed on us could adversely affect our results

of operations and liquidity. The NRC also has the authority to issue new regulatory requirements or to change existing requirements. Changes to the regulatory requirements also could adversely affect our results of operations and financial condition.

In addition, certain of our operations are subject to DOE regulation or contractual requirements. Our technology and manufacturing facility in Oak Ridge is also regulated by the State of Tennessee under the NRC's Agreement State Program as well as applicable state laws. Our operations at the facility near Piketon also are subject to regulation by various agencies of the Ohio state government. These state and federal agencies may have the authority to impose civil penalties and additional requirements, which could adversely affect our results of operations. Further, changes in federal, state or local government policies and priorities can impact our operations and the nuclear industry. This includes changes in interpretations of regulatory requirements, increased inspection or enforcement activities, changes in budgetary priorities, changes in tax laws and regulations and other actions or inactions governments can take.

Our operations involve the use, transportation and disposal of toxic, hazardous and/or radioactive materials and could result in liability without regard to fault or negligence.

Our operations involve the use, transportation, and disposal of toxic, hazardous and/or radioactive materials. A release of these materials could pose a health risk to humans or animals. If an accident were to occur, its severity would depend on the volume of the release and the speed of corrective action taken by emergency response personnel, as well as other factors beyond our control, such as weather and wind conditions. Actions taken in response to an actual or suspected release of these materials, including a precautionary evacuation, could result in significant costs for which we could be legally responsible. In addition to health risks, a release of these materials may cause damage to, or the loss of, property and may adversely affect property values. Additionally, we may be responsible for D&D of facilities where we conduct, or previously conducted, operations. Activities of our contractors, suppliers or other counterparties similarly may involve toxic, hazardous, and radioactive materials and we may be liable contractually, or under applicable law, to contribute to remedy damages or other costs arising from such activities, including the D&D of third-party facilities.

We lease facilities from the DOE near Piketon. Pursuant to the Price-Anderson Act, as well as the HALEU Operation Contract, the DOE has agreed to indemnify the Company's subsidiaries who are party to those agreements, and other Company entities who fall under the definition of a person indemnified under the Atomic Energy Act, against claims for public liability (as defined in the Atomic Energy Act) arising out of or in connection with activities under those leases and the HALEU Operation Contract, as applicable, resulting from a nuclear incident or precautionary evacuation including transportation. If an incident or evacuation is not covered under DOE indemnification, we could be financially liable for damages arising from such incident or evacuation, which could have an adverse effect on our results of operations and financial condition.

While the DOE has provided indemnification pursuant to the Price-Anderson Act, there could be delays in obtaining reimbursement for costs from the DOE and the DOE may also determine that some or all costs are not reimbursable under the indemnification. In addition, the Price-Anderson Act indemnification does not cover loss or damage due to a nuclear incident to property located on the leased facilities.

Centrus and Enrichment Corp. have been named as defendants in lawsuits alleging damages resulting from releases at the facilities we leased in the past at the Portsmouth GDP, and the centrifuge facilities we still lease near Piketon. These claims include allegations of damages that the plaintiffs assert are not covered by the Price-Anderson Act, which claims we and the other defendants have challenged. If the DOE were to determine that the Price-Anderson Act did not apply, we would have to pay all or part of any damages awarded as a result of such claims, the cost to us, including legal fees, could adversely affect our results of operations and financial condition. Refer to Note 16, *Commitments and Contingencies* — *Legal Matters*, of our Consolidated Financial Statements in Part IV of this Annual Report for further details.

In our contracts, we seek to protect ourselves from liability, including at locations where the Price-Anderson Act indemnification does not apply, such as at the locations where we receive or hold enriched and natural uranium, or deliver such material to customers, during transportation between such locations, or the facilities where such material is processed or used, but there is no assurance that such contractual limitations on liability will be effective in all cases. The costs of defending against a claim arising out of a nuclear incident or precautionary evacuation, and any damages awarded as a result of such a claim, could adversely affect our results of operations and financial condition.

Our certificate of incorporation gives us certain rights with respect to equity securities held (beneficially or of record) by foreign persons. If levels of foreign ownership set forth in our certificate of incorporation are exceeded, we have the right, among other things, to redeem or exchange common stock held by foreign persons, and in certain cases, the applicable redemption price or exchange value may be equal to the lower of fair market value or a foreign person's purchase price.

Our certificate of incorporation gives us certain rights with respect to shares of our Common Stock held (beneficially or of record) by foreign persons. Foreign persons are defined in our certificate of incorporation to include, among others, an individual who is not a U.S. citizen, an entity that is organized under the laws of a non-U.S. jurisdiction and an entity that is controlled by individuals who are not U.S. citizens, or by entities that are organized under the laws of non-U.S. jurisdictions.

The occurrence of any one or more of the following events is a "foreign ownership review event" and triggers the board of directors' right to take various actions under our certificate of incorporation: (1) the beneficial ownership by a foreign person of (a) 5% or more of the issued and outstanding shares of any class of our equity securities, (b) 5% or more in voting power of the issued and outstanding shares of all classes of our equity securities, or (c) less than 5% of the issued and outstanding shares of any class of our equity securities or less than 5% of the voting power of the issued and outstanding shares of all classes of our equity securities, if such foreign person is entitled to control the appointment and tenure of any of our management positions or any director; (2) the beneficial ownership of any shares of any class of our equity securities by or for the account of a foreign uranium enrichment provider or a foreign competitor (defined in our certificate of incorporation as a "Contravening Person"); or (3) any ownership of, any regulatory restrictions, or that could jeopardize the continued operations of our facilities (defined in our certificate of incorporation as a "Adverse Regulatory Occurrence"). These rights include requesting information from holders (or proposed holders) of our securities, refusing to permit the transfer of securities by such holders, suspending or limiting voting rights of such holders, redeeming or exchanging shares of our stock owned by such holders on terms set forth in our certificate of incorporation, and taking other actions that we deem necessary or appropriate to ensure compliance with the foreign ownership restrictions.

The terms and conditions of our rights with respect to our redemption or exchange right in respect of shares held by foreign persons or Contravening Persons are as follows:

- Redemption price or exchange value: Generally, the redemption price or exchange value for any shares of our Common Stock redeemed or exchanged would be their fair
 market value. However, if we redeem or exchange shares held by foreign persons or Contravening Persons and our Board in good faith determines that such person knew or
 should have known that its ownership would constitute a foreign ownership review event (other than shares for which our Board determined at the time of the person's
 purchase that the ownership of, or exercise of rights with respect to, such shares did not at such time constitute an Adverse Regulatory Occurrence), the redemption price or
 exchange value is required to be the lesser of fair market value and the person's purchase price for the shares redeemed or exchanged.
- Form of payment: Cash, securities or a combination, valued by our Board in good faith.

Notice: At least 30 days written notice of redemption is required; however, if we have deposited the cash or securities for the redemption or exchange in trust for the benefit
of the relevant holders, we may redeem shares held by such holders on the same day that we provide notice.

Accordingly, there are situations in which a foreign stockholder or Contravening Person could lose the right to vote its shares or in which we may redeem or exchange shares held by a foreign person or Contravening Person and in which such redemption or exchange could be at the lesser of fair market value and the person's purchase price for the shares redeemed or exchanged, which could result in a significant loss for that person.

General Risk Factors

Failures to protect classified or other sensitive information, or security breaches of IT systems could result in significant liability or otherwise have an adverse effect on our business.

Our business requires us to use and protect classified, sensitive, and other protected information as well as business proprietary information and intellectual property (collectively, "sensitive information"). Our computer networks and other IT systems are designed to protect this information through the use of classified networks and other procedures. We routinely experience various cybersecurity threats, threats to our information technology infrastructure, unauthorized attempts to gain access to the Company's sensitive information, and denial-of-service attacks, as do our customers, suppliers, subcontractors, and other business partners. The threats we face vary from attacks common to most industries to attacks by more advanced and persistent, highly organized adversaries, including nation states, which target us and other government contractors because we possess sensitive information. If we are unable to protect sensitive information, our customers or government data, the Company's data, customers' data, our intellectual property, and other sensitive information could be compromised. As a consequence of the persistence, sophistication, and volume of these attacks, we may not be successful in defending against all such attacks. Due to the evolving nature of these security threats and the national security aspects of much of the sensitive information we possess, the impact of any future incident cannot be predicted.

We have a number of suppliers and indirect suppliers with a wide variety of systems and cybersecurity capabilities and we may not be successful in preventing adversaries from exploiting possible weak links in our supply chain. We also must rely on this supply chain for detecting and reporting cyber incidents, which could affect our ability to report or respond to cybersecurity incidents in a timely manner. The costs related to cyber or other security threats or disruptions may not be fully insured or indemnified by other means.

A material network breach in the security of the IT systems of the Company or third parties for any reason, including, but not limited to, human error, could include the theft of sensitive information, including, without limitation, our and our customers' business proprietary and intellectual property. To the extent any security breach or human error results in a loss or damage to sensitive information, or an inappropriate or unauthorized disclosure of sensitive information, the breach could cause grave damage to the country's national security and to our business. Threats, via insider threat or third parties, to our IT systems, are constantly evolving and there is no assurance that our efforts to maintain and improve our IT systems will be sufficient to meet current or future threats. Any event leading to a security breach or loss of, or damage to, sensitive information, whether by our employees or third parties, could result in negative publicity, significant remediation costs, legal liability, and damage to our reputation and could have a material adverse effect on our business, financial condition, results of operations, and cash flows. In an extreme case, the DOE could terminate our permit to access classified information resulting in the elimination of our ability to continue American Centrifuge work or performance of DOE contracts, including the HALEU Operation Contract.

The inability to attract and retain key personnel could have an adverse impact on our business.

The Company's LEU and Technical Services segments require people with unique skills and experience in the uranium enrichment industry. It also requires people with U.S. security clearances. To train employees and obtain the required U.S. Security clearances for them can take considerable time and expense. The success of our business depends on key executives, managers, scientists, engineers and other skilled personnel. The ability to attract and retain these key personnel may be difficult in light of the uncertainties currently facing the business and changes we may make to the organizational structure to adjust to changing circumstances.

Changes in senior management could create uncertainty among our employees, customers, suppliers, and other third parties with which we do business. The inability to retain appropriately qualified and experienced senior executives could negatively affect our operations, strategic planning, and performance.

The potential for the DOE to seek to terminate or exercise its remedies under the 2002 DOE-USEC Agreement and our other agreements with DOE, or to require modifications to such agreements that are adverse to our interests, may have adverse consequences on the Company.

The Company and the DOE signed the "2002 DOE-USEC Agreement", which requires the Company to develop, demonstrate, and deploy advanced enrichment technology in accordance with milestones and provides for remedies in the event of a failure to meet a milestone under certain circumstances. The DOE has specific remedies under the 2002 DOE-USEC Agreement if we fail to meet a milestone or if we abandon or constructively abandon the commercial deployment of an advanced enrichment technology. These remedies include terminating the 2002 DOE-USEC Agreement, revoking our access to the DOE's centrifuge technology that is required for the success of the American Centrifuge project, the HALEU Operation Contract or other projects, requiring us to transfer certain rights in the American Centrifuge technology and facilities to the DOE, and to reimburse the DOE for certain costs associated with the American Centrifuge project.

We have granted to the DOE an irrevocable, non-exclusive right to use or permit third parties on behalf of the DOE to use all Centrifuge IP royalty free for U.S. Government purposes (which includes national defense purposes, including providing nuclear material to operate commercial nuclear power reactors for tritium production). We also granted an irrevocable, non-exclusive license to the DOE to use such Centrifuge IP developed at our expense for commercial purposes (including a right to sublicense), which may be exercised only if we miss any of the milestones under the 2002 DOE-USEC Agreement or if we (or our affiliate or entity acting through us) are no longer willing or able to proceed with, or have determined to abandon, or have constructively abandoned, the commercial deployment of the centrifuge technology. Such a commercial purposes license is subject to payment of an agreed upon royalty to us, which will not exceed \$665 million in the aggregate. While our long-term objective is to commercial deployment, or have actually, or constructively, abandoned commercial deployment, and could invoke its rights under the license described above. Any of these actions could adversely impact our business and prospects.

The DOE may seek to exercise remedies under these agreements and there is no assurance that the parties will be able to reach agreement on appropriate modifications to the agreements in the future. Moreover, even if the parties reach agreement on modifications to such agreements, there is no assurance that such modifications will not impose material additional requirements, provide the DOE with material additional rights or remedies, or otherwise affect the overall economics of the American Centrifuge technology and our ability to finance and successfully deploy the technology. Any of these actions could adversely impact our business and prospects.

Our U.S. Government contract work is regularly reviewed and audited by the U.S. Government and these reviews can lead to withholding or delay of payments to us, non-receipt of award fees, legal actions, fines, penalties and liabilities, and other remedies against us.

Our U.S. Government contracts and subcontracts are subject to specific regulations such as the Federal Acquisition Regulation, among others, and also subject to audits, cost reviews, and investigations by the U.S. Government contracting oversight agencies. Should a contracting agency determine that we have not complied with the terms of our contracts and subcontracts and applicable statutes and regulations, payments to us may be disallowed, which could result in adjustments to previously reported revenues and refunding of previously collected cash proceeds. Additionally, we may be subject to litigation brought by private individuals on behalf of the U.S. Government under the Federal False Claims Act, which could include claims for treble damages. If we experience performance issues under any of our U.S. Government contracts, the U.S. Government retains the right to pursue remedies, which could include termination under any affected contract. Termination of a contract or subcontract could adversely affect our ability to secure future contracts, and could adversely affect our business, financial condition, results of operations, and cash flows.

Our U.S. Government contracts and subcontracts are dependent on continued U.S. Government funding and government appropriations, which may not be made on a timely basis or at all, and could have an adverse effect on our business.

Current and future U.S. Government contracts and subcontracts, including our HALEU Operation Contract, are dependent on government funding, which are generally subject to Congressional appropriations. Our ability to perform under these federal contracts and subcontracts is dependent upon sufficient funding for, and timely payment by, the entities with which we have contracted. If the contracting governmental agency, or the prime contractor, does not receive sufficient appropriations, it may terminate our contract or subcontract (in whole or in part) or reduce the scope of our contract or subcontract, or delay or reduce payment to us. Any inability to award us a contract or subcontract, any delay in payment, or the termination of a contract or subcontract, in whole or in part, due to a lapse in funding or otherwise, could adversely affect our business, financial condition or results of operations, or cash flows.

Changes to, or termination of, any agreements with the U.S. Government, or deterioration in our relationship with the U.S. Government, could adversely affect results of operations.

We are a party to a number of agreements and arrangements with the U.S. Government that are important to our business including our HALEU Operation Contract, the lease for the centrifuge facility near Piketon, and the 2002 DOE-USEC Agreement. Termination, expiration, or modification of one or more of these or other agreements could adversely affect our business and prospects. In addition, deterioration in our relationship with the U.S. agencies that are parties to these agreements could impair or impede our ability to successfully implement these agreements, which could adversely affect our business, financial condition or results of operations, or cash flows.



Our success depends on our ability to adapt to a rapidly changing competitive environment in the nuclear industry.

Changes in the competitive landscape may adversely affect pricing trends, change customer spending patterns, or create uncertainty. To address these changes, we may seek to adjust our cost structure and operations, and evaluate opportunities to grow our business organically or through acquisitions and other strategic transactions. We are actively considering, and expect to consider from time to time in the future, potential strategic transactions, which could involve, without limitation, changes in our capital structure, acquisitions and/or dispositions of businesses or assets, joint ventures or investments in businesses, products, or technologies. In connection with any such transaction, we may seek additional debt or equity financing, contribute or dispose of assets, assume additional indebtedness, or partner with other parties to consulting costs incurred in connection with debt or equity financing transactions in development are deferred and subject to immediate expensing if such a transaction becomes less likely to occur. If the actions we take in response to industry changes are not successful, our business, results of operations and financial condition may be adversely affected.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located at 6901 Rockledge Drive, Suite 800, Bethesda, Maryland 20817, where we lease 24,000 square feet of office space through October 2027. Our Bethesda, Maryland location is also utilized by our LEU and Technical Solutions segments. We own a 440,000 square foot manufacturing facility, including supporting office space, on 72 acres at 400 Centrifuge Way, Oak Ridge, Tennessee 37830. We also lease industrial buildings and 110,000 square feet of supporting office space from DOE at 3930 U.S. Route 23, Piketon, Ohio 45661. The industrial buildings encompass more than 14 acres under roof and were built to contain uranium enrichment operations using centrifuge technology. Our Oak Ridge, Tennessee and Piketon, Ohio facilities support our Technical Solutions segment. We also have a short-term lease for a small area of office space in Washington, D.C which is used by our corporate function. We maintain our facilities in good operating condition and believe they are adequate for our present needs and the foreseeable future.

Item 3. Legal Proceedings

Refer to Note 16, Commitments and Contingencies - Legal Matters, of our Consolidated Financial Statements in Part IV of this Annual Report.

Item 4. Mine Safety Disclosures

Not applicable.



PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The Company's certificate of incorporation authorizes 100,000,000 shares of common stock, consisting of 70,000,000 shares of Class A Common Stock and 30,000,000 shares of Class B Common Stock, As of February 7, 2023, the Company has issued 14,638,846 shares of Common Stock, consisting of 13,919,646 shares of Class A Common Stock and 719,200 shares of Class B Common Stock. The Class B Common Stock was issued to Toshiba America Nuclear Energy Corporation and Babcock & Wilcox Investment Company and has the same rights, powers, preferences and restrictions and ranks equally in all matters with the Class A Common Stock, except voting. Holders of Class B Common Stock are currently entitled to elect, in the aggregate, one member of the Board of Directors of the Company, subject to certain holding requirements. Additionally, the Company has reserved 1,900,000 shares of Class A Common Stock under its management incentive plan, of which 522,608 shares were available for future awards as of December 31, 2022, including 120,000 shares associated with awards which terminated or were cancelled without being exercised.

The Class A Common Stock trades on the NYSE American LLC under the symbol "LEU".

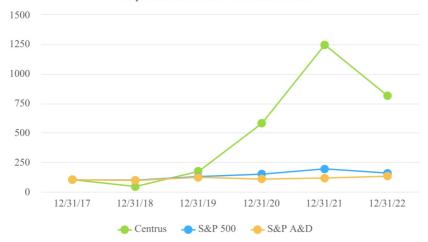
As of February 7, 2023, there were approximately 833 holders of record and approximately 19,547 beneficial owners of the Company's Class A Common Stock. As of February 7, 2023, there were two holders of record of the Company's Class B Common Stock.

No cash dividends were paid in 2022 or 2021, and we have no intention to pay cash dividends in the foreseeable future. The indenture governing our 8.25% Notes, subject to certain exceptions, places certain restrictions on the ability of Enrichment Corp. to transfer cash and other assets to us. This could act as a constraint on our ability to pay dividends on our Class A Common Stock.

There were no unregistered sales of equity securities by the Company during the years ended December 31, 2022.

Stock Performance Graph

The following graph shows a comparison of cumulative total returns for an investment in the Class A Common Stock of Centrus, the S&P 500 Index, and the S&P Aerospace and Defense (A&D) Index. The graph reflects the investment of \$100 on December 31, 2017 in Class A Common Stock, the S&P 500 Index and the S&P A&D Index, and reflects the reinvestment of dividends. The stock price performance included in the graph below is not indicative of future stock performance. Notwithstanding anything set forth in any of our previous filings under the Securities and Exchange Act, which might be incorporated into future filings in whole or part, including this Form 10-K, the following performance graph shall not be deemed incorporated by reference into any such filings.



Comparison of Five-Year Cumulative Return

Matters Affecting our Foreign Stockholders

In order to aid in our compliance with our NRC license, our certificate of incorporation gives us certain rights with respect to shares of our Common Stock held (beneficially or of record) by foreign persons. Foreign persons are defined in our certificate of incorporation to include, among others, an individual who is not a U.S. citizen, an entity that is organized under the laws of a non-U.S. jurisdiction, and an entity that is controlled by individuals who are not U.S. citizens or by entities that are organized under the laws of non-U.S. jurisdictions.

The occurrence of any one or more of the following events is a "foreign ownership review event" and triggers the board of directors' right to take various actions under our certificate of incorporation: (1) the beneficial ownership by a foreign person of (a) 5% or more of the issued and outstanding shares of any class of our equity securities, (b) 5% or more in voting power of the issued and outstanding shares of all classes of our equity securities, or (c) less than 5% of the issued and outstanding shares of any class of our equity securities or less than 5% of the voting power of the issued and outstanding shares of all classes of our equity securities, if such foreign person is entitled to control the appointment and tenure of any of our management positions or any director; (2) the beneficial ownership of any shares of any class of our equity securities by or for the account of a foreign uranium enrichment provider or a foreign competitor (referred to as "contravening persons"); or (3) any ownership of, or exercise of rights with respect to, shares of any class of our equity securities or other exercise or attempt to exercise control of us that is inconsistent with, or in violation of, any regulatory restrictions, or that could jeopardize the continued operations of our facilities (an "adverse regulatory occurrence"). These rights include requesting



information from holders (or proposed holders) of our securities, refusing to permit the transfer of securities by such holders, suspending or limiting voting rights of such holders, redeeming or exchanging shares of our stock owned by such holders on terms set forth in our certificate of incorporation, and taking other actions that we deem necessary or appropriate to ensure compliance with the foreign ownership restrictions.

For information regarding the foreign ownership restrictions set forth in our certificate of incorporation, please refer to — Part I, Item 1A, *Risk Factors Our certificate of incorporation gives us certain rights with respect to equity securities held (beneficially or of record) by foreign persons. If levels of foreign ownership set forth in our certificate of incorporation are exceeded, we have the right, among other things, to redeem or exchange common stock held by foreign persons, and in certain cases, the applicable redemption price or exchange value may be equal to the lower of fair market value or a foreign person's purchase price.*

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with, and is qualified in its entirety by reference to, the Consolidated Financial Statements and related notes appearing elsewhere in this report.

This discussion contains forward-looking statements that involve risks and uncertainties. Actual results could differ significantly from the results discussed in the forward-looking statements particularly in light of the economic, social and market uncertainty created by, among other things, the COVID-19 pandemic, including emerging variants, and the war in Ukraine. See "Forward-Looking Statements" at the beginning of this Annual Report on Form 10-K.

Overview

Centrus, a Delaware corporation (the "Company," "we" or "us"), is a trusted supplier of nuclear fuel and services for the nuclear power industry, which provides a reliable source of carbon-free energy. References to "Centrus", the "Company", "our", or "we" include Centrus Energy Corp. and its wholly-owned subsidiaries as well as the predecessor to Centrus, unless the context indicates otherwise.

Published spot price indicators for SWU reached historic highs in April 2009 at \$163 per SWU. In the years following the 2011 Fukushima accident in Japan, spot prices declined more than 75%, bottoming out in August 2018 at \$34 per SWU. This was followed by a slow and steady rise, reaching \$56 per SWU by December 31, 2021. In 2022, spot prices continued to increase substantially, reaching \$110 per SWU by December 31, 2022. This represents an increase of 96% since the beginning of the year and 224% over the 2018 historic low. This sudden surge in the SWU spot price has been driven by uncertainty created as a result of Russia's invasion of Ukraine, coupled with growing interest in nuclear power as a source of secure and carbon-free energy.

When Russian supply is included, the uranium enrichment segment of the global nuclear fuel market is oversupplied, but without Russian supply, the global market would be undersupplied for uranium enrichment. Changes in the supply-demand balance and in the competitive landscape arising from the war in Ukraine may affect pricing trends, change customer spending patterns, and create uncertainty in the uranium market. To address these changes, we will continue to evaluate opportunities to grow our business organically or through acquisitions and other strategic transactions.

Under the HALEU Demonstration Contract, Centrus was engaged by the DOE to construct a cascade of sixteen AC100M centrifuges in Piketon to demonstrate HALEU production. The Company's goal under the HALEU Demonstration Contract was to complete the demonstration and scale up production of HALEU and LEU, to meet the needs of new and existing reactors as well as national security and other U.S. Government requirements for enriched uranium.

The HALEU Demonstration Contract was originally set to expire on June 1, 2022; however, it was extended through November 30, 2022. The DOE elected to change the scope of the HALEU Demonstration Contract and moved the operational portion of the demonstration to a new, competitively-awarded contract that would provide for operations beyond the term of the existing HALEU Demonstration Contract. The DOE has incrementally increased funds on the HALEU Demonstration Contract with total funding to date of \$168.7 million.

On November 10, 2022, the DOE notified Centrus that the Company had won the HALEU Operation Contract with work beginning November 14, 2022. The HALEU Operation Contract provides for a 50/50 cost share contract for Phase 1 of the base contract to complete the cascade, begin operations and produce 20 Kg of HALEU UF₆ by no later than December 31, 2023. Phase 2 includes continued operations and maintenance on a cost-plus-incentive-fee basis and the production for a full year at an annual production rate of 900 Kg of HALEU UF₆, but by no later than December 31, 2024. Finally, under the HALEU Operation Contract, the DOE has three 3-year options to extend the term of the contract on a cost-plus-incentive-fee basis. There is no guarantee that the DOE will exercise any of those options or authorize the Company to continue production. Concurrently, pursuant to an amendment to our lease for



the Piketon facility, the DOE assumed all D&D liabilities arising out of the HALEU Operation Contract. At this time, work is progressing on-schedule and on-budget for production of a small quantity of HALEU in the quarter ended December 31, 2023.

On February 9, 2023, the Company announced that construction and initial testing of the cascade and most of the support systems was complete. Before operations can begin, the Company needs to finish construction for the remaining support systems, including a fissile materials storage area, to allow HALEU produced for the DOE to be stored onsite, and complete final operational readiness reviews with the NRC to obtain approval for production to begin. The operational readiness reviews are required under the Company's NRC license, which was successfully amended in 2021 to allow for HALEU production and made the Piketon site the only NRC-licensed HALEU production facility.

Centrus believes it is well positioned to compete for any follow-on contract(s) to expand HALEU production capability at the Piketon site. The DOE is contemplating additional contracts to ensure availability of HALEU for the ARDP and for the advanced reactor market, in general. Centrus responded to a DOE Sources Sought during late October 2022. The DOE plans to use this Sources Sought to guide development of a HALEU Availability Program which may be offered to industry on a competitive basis during 2023.

The Inflation Reduction Act signed into law on August 16, 2022, includes a \$700 million appropriation for the DOE HALEU Availability Program, with the goal of making HALEU commercially available by 2026, of which \$500 million will be available to support new production and \$200 million will be available to resolve related supply chain challenges such as HALEU transportation. On October 6, 2022, the DOE issued a "Sources Sought" notice outlining a potential 10-year program to support the construction and operation of HALEU enrichment in the United States via government purchases of up to 25 metric tons of HALEU per year. The Sources Sought notice is a preliminary step, not a formal request for proposals, and the DOE would require additional annual appropriations beyond what is contained in the Inflation Reduction Act to fully implement that program. On October 14, 2022, the Company attended an Industry Day, where the DOE provided additional information on the potential procurement activity. The Company is evaluating its next steps associated with participating in a potential future request for proposal.

The war in Ukraine has contributed to a significant increase in market prices for enrichment and prompted calls for public and private investment in new, domestic uranium enrichment capacity not only for HALEU production but also for LEU production to support the existing fleet of reactors. As a result, Centrus is exploring the opportunity to deploy LEU enrichment alongside HALEU enrichment to meet a range of commercial and U.S. Government requirements, which would bring cost synergies while increasing revenue opportunities. Our ability to deploy LEU and/or HALEU enrichment, and the timing, sequencing, and scale of those capabilities, is subject to the availability of funding and/or offtake commitments.

We believe our investments in our enrichment technology and the HALEU demonstration will position the Company to meet the needs of government and commercial customers in the future as they deploy advanced reactors and next generation fuels, and also offer potential cost synergies for a return to LEU production. At present, a number of advanced reactors under development would use HALEU fuel. For example, of the ten advanced reactor designs selected by the DOE for its ARDP, nine will require HALEU. In addition, the first non-light water reactor to have begun active NRC-license review requires HALEU. The DOD recently awarded a contract to construct a prototype HALEU-fueled mobile microreactor by 2024 as part of a program called "Project Pele." The U.S. Air Force also announced plans to deploy a microreactor at Eielson Air Force Base in Alaska. While the use of HALEU is not an express requirement of the Air Force program, the vast majority of microreactor designs are expected to need HALEU. In addition, the Defense Advanced Research Projects Agency is funding an effort called Demonstration Rocket for Agile Cislunar Operations, which aims to demonstrate a HALEU-fueled nuclear thermal propulsion system that could eventually support missions to the moon and Mars.

While the monthly price indicators have increased for several years, the uranium enrichment segment of the nuclear fuel market remains oversupplied and faces uncertainty about future demand for nuclear power generation. Changes in the competitive landscape affect pricing trends, change customer spending patterns, and create uncertainty. To address these changes, we have taken steps to adjust our cost structure; we may seek further adjustments to our cost structure and operations and evaluate opportunities to grow our business organically or through acquisitions and other strategic transactions.

We are also actively considering, and expect to consider from time to time in the future, potential strategic transactions, which could involve, without limitation, acquisitions and/or dispositions of businesses or assets, joint ventures or investments in businesses, products or technologies, or changes to our capital structure. In connection with any such transaction, we may seek additional debt or equity financing, contribute or dispose of assets, assume additional indebtedness, or partner with other parties to consummate a transaction.

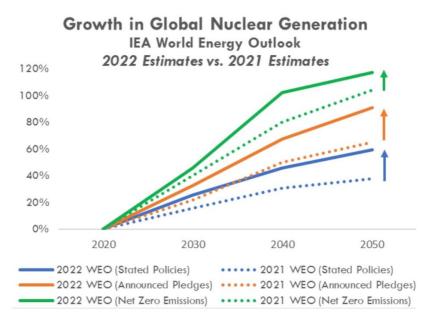
Refer to Part I, Item 1, Business, for additional information.

Market Conditions and Outlook

The global nuclear industry outlook has begun to improve after many years of decline and stagnation. The development of advanced small and large-scale reactors, innovative advanced fuel types, and the commitment of nations to begin deploying or to increase the share of nuclear power in their nations has created optimism in the market. Part of the momentum has resulted from efforts to lower greenhouse gas emissions to combat climate change and improve health and safety.

According to the WNA, as of January 2023, there were 58 reactors under construction worldwide, about a third of which are in China. The United States, with 92 operating reactors, remains the world's largest market for nuclear fuel. The nuclear industry in the United States, Japan, and Europe faces headwinds as well as opportunities. In the United States, the industry has been under pressure from lower cost natural gas resources, until recently as gas prices have been rising, and the expansion of subsidized renewable energy. Twelve U.S. reactors have prematurely shut down in the past ten years and others could shut down in the next few years. At the same time, two large reactors are under construction, and there are active efforts to develop, demonstrate, and deploy next generation reactors in the United States, many of which are expected to require HALEU.

The IEA projects that global nuclear energy generation will grow substantially in the next three decades. In the IEA's 2022 *World Energy Outlook*, nuclear generation is forecasted to grow by 25 percent by 2030 and 46 percent by 2040 under the "Stated Policies" scenario. In the "Net Zero Emissions by 2050" scenario, nuclear generation would grow by 46 percent by 2030 and more than double by 2040. Notably, these estimates of the global growth of nuclear represent a significant increase from the IEA's 2021 *World Energy Outlook*, reflecting improving expectations for the future prospects of nuclear energy.



As a consequence of the March 2011 earthquake and tsunami in Japan, over 60 reactors in Japan and Germany were taken offline, and other countries curtailed or slowed their construction of new reactors or accelerated the retirement of existing plants. Ten reactors in Japan have restarted and an additional seven are expected to restart in 2023; more of Japan's reactors are expected to restart in subsequent years. Due to the war in Ukraine, the EU is encouraging its member countries to reconsider the planned early retirement of existing plants in order to reduce reliance on Russian gas imports.

In October 2020, the DOC reached an agreement with the Russian Federation on an extension of the RSA, a trade agreement which allows for Russian-origin nuclear fuel to be exported to the United States in limited quantities. The two parties agreed to extend the agreement through 2040 and to set aside a significant portion of the annual quota for Centrus' shipments to the United States through 2028 to execute our long-term TENEX Supply Contract with TENEX. This outcome allows for sufficient quota for Centrus to continue serving its utility customers.

The war in Ukraine has escalated tensions between Russia and the international community. As a result, the United States and other countries have imposed, and may continue imposing, additional sanctions and export controls against certain Russian products, services, organizations and/or individuals. While sanctions imposed to date do not preclude the import of Russian uranium products into the United States, it is possible that additional restrictions could be added in the future that would affect our ability to purchase and resell Russian uranium

enrichment, which could have a negative material impact on our business. Further, sanctions by the United States, Russia or other countries may impact our ability and cost to transport, export, import, take delivery, or make payments related to the LEU we purchase, or make timely deliveries to our customers, and may require us to increase purchases from non-Russian sources to the extent available.

In response to the war in Ukraine, there have been proposals in U.S. Congress and elsewhere to ban imports of uranium products that could affect our ability to import LEU in one or more years under the TENEX Supply Contract but none of these have been adopted as of the date of this filing.

The expanding sanctions imposed by the United States and foreign governments on the mechanisms used to make payments to Russia and to obtain services including transportation and other services have increased the risk that implementation of the TENEX Supply Contract may be disrupted in the future. Accordingly, we continue to monitor the situation closely and assess the potential impact of any new sanctions and how the impact on the Company might be mitigated.

For further discussion of these risks and uncertainties, refer to Part I, Item 1A, Risk Factors - The current war in Ukraine and related international sanctions and restrictions on trade could have a material adverse impact on our business, results of operations, and financial condition.

Operating Results

Our revenues, operating results, and cash flows can fluctuate significantly from quarter to quarter and year to year. Our Order Book in the LEU segment consists primarily of long-term, fixed commitment contracts, and we have visibility on a significant portion of our revenue for 2023-2026.

Given the current uncertainty and disruption in the market, due to among other things, the war in Ukraine, we are no longer providing guidance on our results of operations for 2023. Please see *Forward Looking Statements* at the beginning of this Annual Report on Form 10-K.

Our Order Book in the LEU segment extends to 2029. As of December 31, 2022 and December 31, 2021, our Order Book was approximately \$1.0 billion. The Order Book is the estimated aggregate dollar amount of revenue for future SWU and uranium deliveries, and includes approximately \$319 million of deferred revenue and advances from customers as of December 31, 2022, whereby customers have made advance payments to be applied against future deliveries. No orders in our Order Book are considered at risk related to customer operations. These medium and long-term contracts are subject to significant risks and uncertainties, including existing import laws and restrictions, such as the RSA, which limits imports of Russian uranium products into the United States and applies to our sales using material procured under the TENEX Supply Contract as well as the potential for additional sanctions and other restrictions in response to the evolving situation regarding the war in Ukraine.

Our future operating results are subject to uncertainties that could affect results either positively or negatively. Among the factors that could affect our results are the following:

- Armed conflicts, including the war in Ukraine, government actions and other events or third-party actions that disrupt supply chains, production, transportation, payments, and importation of nuclear materials or other critical supplies or services;
- The potential for sanctions and other measures affecting purchases of LEU, SWU or uranium, or goods or services required for the purchase or delivery of such LEU, SWU or uranium;
- · The availability and terms of additional purchases or sales of LEU, SWU and uranium;
- Conditions in the LEU and energy markets, including pricing, demand, operations, government restrictions on imports, exports or investments, and regulations of our business and activities and those of our customers, suppliers, contractors, and subcontractors;

- · Timing of customer orders, related deliveries, and purchases of LEU or its components;
- · Costs, future funding, and demand for HALEU;
- · Financial market conditions and other factors that may affect pension and benefit liabilities and the value of related assets;
- The outcome of legal proceedings and other contingencies;
- · Potential use of cash for strategic or financial initiatives;
- · Actions taken by customers and suppliers, including actions that might affect existing contracts;
- · Market, international trade, and other conditions impacting Centrus' customers and the industry; and
- The length and severity of the COVID-19 pandemic and its impact on our operations.

For further discussion of these risks and uncertainties, refer to Part I, Item 1A, Risk Factors - (1) Restrictions on imports or sales of SWU or uranium that we buy from our Russian supplier and our other sources of supply could adversely affect profitability and the viability of our business, and - (2) The dollar amount of the Order Book, as stated at any given time, is not necessarily indicative of future sales revenues and is subject to uncertainty.

Revenue

We have two reportable segments: the LEU segment and the Technical Solutions segment.

Revenue from our LEU segment is derived primarily from:

- sales of the SWU component of LEU;
- · sales of natural uranium; and
- sales of enriched uranium product that include both the natural uranium and SWU components of LEU.

Our Technical Solutions segment reflects our technical, manufacturing, engineering, and operations services offered to public and private sector customers, including engineering and testing activities as well as technical and resource support currently being performed by the Company. This includes the HALEU Demonstration Contract, the HALEU Operation Contract, and a variety of other contracts with public and private sector customers.

SWU and Uranium Sales

Revenue from our LEU segment accounted for approximately 80% of our total revenue for the year ended December 31, 2022. The majority of our customers are domestic and international utilities that operate nuclear power plants, with international sales constituting approximately 50% of revenue from our LEU segment since 2020. Our agreements with electric utilities are primarily medium and long-term fixed-commitment contracts under which our customers are obligated to purchase a specified quantity of the SWU component of LEU from us. Contracts where we sell both the SWU and natural uranium component of LEU to utilities or where we sell natural uranium to utilities and other nuclear fuel related companies are generally shorter-term, fixed-commitment contracts. Individual customer orders for the SWU component of LEU fulfilled in 2022 averaged approximately \$10 million per order. As a result, a relatively small shift in the timing of customer orders for LEU may cause significant variability in our operating results year over year.

Utility customers, in general, have the option to make payment but defer receipt of SWU and uranium products purchased from Centrus beyond the contractual sale period, resulting in the deferral of costs and revenue recognition. Refer to Note 2, *Revenue and Contracts with Customers*, in the Consolidated Financial Statements in Part IV of this Annual Report for further details.

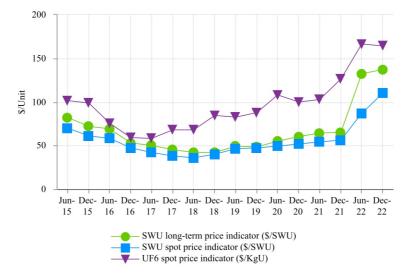


Our financial performance over time can be affected significantly by changes in prices for SWU and natural uranium. Market prices for SWU and uranium significantly declined from 2011 until mid-2018, when they began to trend upward. More recently, market uncertainty in the wake of the Russian invasion of Ukraine has driven SWU and uranium prices sharply higher. Since our Order Book includes contracts awarded to us in previous years, the average SWU price billed to customers typically lags published price indicators by several years. While some newer sales reflect the low prices prevalent in recent years, certain older contracts included in our Order Book have sales prices that are significantly above current market prices.

Recent proposals to severely limit or cut off supply of LEU from Russia have drawn attention to the potential for significant tightening of supplies in the market. Russian enrichment plants represent 46% of the world's capacity, and Russian capacity significantly exceeds its domestic needs. According to data from the WNA, the annual enrichment requirements of reactors worldwide outside of Russia vastly exceeds the available supply of non-Russian enrichment, which potentially threatens the viability of some reactors, including those in the United States. While inventories and increased production at non-Russian plants may mitigate the shortfall, these options would not fully replace Russian supply. Deployment of new capacity ultimately could replace Russian enrichment but this capacity will take a number of years and significant funding from private or government sources to come on line.

The following chart summarizes long-term and spot SWU price indicators, and a spot price indicator for UF₆, as published by TradeTech, LLC in *Nuclear Market Review*:

SWU and Uranium Market Price Indicators*



* Source: Nuclear Market Review, a TradeTech publication, www.uranium.info

Our contracts with customers are denominated primarily in U.S. dollars, and, although revenue has not been materially affected by changes in the foreign exchange rate of the U.S. dollar, we may have a competitive price advantage or disadvantage obtaining new contracts in a competitive bidding process depending upon the weakness or strength of the U.S. dollar. On occasion, we will accept payment in euros for spot sales that may be subject to

short-term exchange rate risk. Costs of our primary competitors are denominated in other currencies. Our contracts with suppliers are primarily denominated in U.S. dollars. We have a SWU supply agreement, nominally commencing in 2023, with prices payable in a combination of U.S. dollars and euros, but with a contract-defined exchange rate.

On occasion, we will accept payment for SWU in the form of natural uranium. Revenue from the sale of SWU under such contracts is recognized at the time LEU is delivered and is based on the fair value of the natural uranium at contract inception, or as the quantity of natural uranium is finalized, if variable.

Cost of sales for SWU and natural uranium is based on the amount of SWU and natural uranium sold and delivered during the period and unit inventory costs. Unit inventory costs are determined using the average cost method. Changes in purchase costs have an effect on inventory costs and cost of sales. Cost of sales includes costs for inventory management at off-site licensed locations. Cost of sales also includes certain legacy costs related to former employees of the Portsmouth GDP and Paducah GDP.

Critical Accounting Policies and Estimates

Our significant accounting policies are summarized in Note 1, *Summary of Significant Accounting Policies*, of our Consolidated Financial Statements in Part IV of this Annual Report, which were prepared in accordance with U.S. GAAP. U.S. GAAP and related accounting pronouncements, implementation guidelines and interpretations with regard to a wide range of matters that are relevant to our business are complex and involve many subjective assumptions, estimates and judgments that are, by their nature, subject to substantial risks and uncertainties. Critical accounting estimates are those that require management to make assumptions about matters that are uncertain at the time the estimate is made and for which different estimates, often based on complex judgments, probabilities and assumptions that we believe to be reasonable, but are inherently uncertain and unpredictable, could have a material impact on our operating results and financial condition. It is also possible that other professionals, applying their own judgment to the same facts and circumstances, could develop and support a range of alternative estimated amounts. We are also subject to risks and uncertainties that may cause actual results to differ from estimated amounts, such as the healthcare environment, legislation and regulation. Additionally, changes in accounting rules or their interpretation could significantly affect our results of operations and financial condition.

The sensitivity analyses used below are not intended to provide a reader with our predictions of the variability of the estimates used. Rather, the sensitivities used are included to allow the reader to understand a general cause and effect of changes in estimates.

We have identified the following to be our critical accounting estimates:

Revenue Recognition - Technical Solutions

Revenue for the Technical Solutions segment is recognized over the contractual period as services are rendered. The Company recognizes revenue over time as it performs on these contracts because of the continuous transfer of control to the customer.

The Company determines the transaction price for each contract based on the consideration it expects to receive for the products or services being provided under the contract. If transaction prices are not stated in the contract for each performance obligation, contractual prices are allocated to performance obligations based on estimated relative standalone selling prices of the promised services. For contracts with multiple performance obligations, the Company allocates the transaction price to each performance obligation based on the estimated standalone selling price of the product or service underlying each performance obligation. The standalone selling price represents the amount the Company would sell the product or service to a customer on a standalone basis (i.e., not bundled with any other products or services). The Company's contracts with the U.S. Government are subject to the FAR and the price is typically based on estimated or actual costs plus a reasonable profit margin. As a result of these regulations, the standalone selling price of products or services in the Company's contracts with the U.S. Government are

typically equal to the selling price stated in the contract. The Company does not contemplate future modifications, including unexercised options until they become legally enforceable. Contracts may be subsequently modified to include changes in specifications, requirements or price, which may create new or change existing enforceable rights and obligations. Depending on the nature of the modification, the Company considers whether to account for the modification as an adjustment to the existing contract or as a separate contract.

In cases where the Company uses the cost-to-cost input method of progress for performance obligations, the extent of progress towards completion is measured based on the proportion of direct costs incurred to date to the total estimated direct costs at completion of the performance obligation. Revenues are recorded proportionally as costs are incurred. For performance obligations to provide services to the customer, revenue is recognized over time based on direct costs incurred or the right to invoice method (in situations where the value transferred matches the Company's billing rights) as the customer receives and consumes the benefits.

Significant estimates and assumptions are made in estimating revenue under the cost-to-cost method and total estimated costs, including the estimated contract profit/loss. At the outset of a long-term contract, the Company identifies and monitors risks to the achievement of the technical, schedule and cost aspects of the contract, and assesses the effects of those risks on its estimates of revenue and total costs to complete the contract. The estimates consider the technical requirements, schedule and costs. The initial estimated total costs for each contract considers risks surrounding the ability to achieve the technical requirements, schedule and costs in the initial estimated total costs to complete the contract. Total estimated costs may decrease during the performance of the contract if the Company successfully retires risks surrounding the technical, schedule and cost aspects of the contract. Conversely, total estimated costs may decrease if the estimated total costs to complete the contract increase. As a significant change in one or more estimates could affect the profitability of the Company's contracts, the Company reviews and updates its contract-related estimates regularly. When estimates of total costs at completion for an integrated, construction type contract exceed total estimates of revenue to be earned on a performance obligation related to complex equipment or related services, a provision for the remaining loss on the performance period of the contract and may affect the estimated contract loss.

Asset Valuations

The accounting for SWU and uranium inventories includes estimates and judgments. SWU and uranium inventory costs are determined using the average cost method. Inventories of SWU and uranium are valued at the lower of cost or NRV. NRV is the estimated selling price in the ordinary course of business less reasonably predictable costs of completion, disposal, and transportation. The estimated selling price for SWU and uranium under contract is based on the pricing terms of contracts in our Order Book. For uranium not under contract, the estimated selling price is based primarily on published price indicators at the balance sheet date.

Intangible assets originated from our reorganization and application of fresh start accounting as of September 30, 2014. The intangible assets represented the fair value adjustment to the assets and liabilities for our LEU segment. The identifiable intangible assets relate to our Order Book and customer relationships. The Order Book intangible asset is amortized as the Order Book valued at emergence is reduced, principally as a result of deliveries to customers. The customer relationships intangible asset is amortized using the straight-line method over the estimated average useful life of 15 years, with 6 ³/₄ years of scheduled amortization remaining. The aggregate net balance of identifiable intangible assets was \$45.7 million as of December 31, 2022.

The carrying values of the intangible assets are subject to impairment tests whenever events or changes in business circumstances indicate that the carrying amount of the intangible assets may not be fully recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. An impairment loss is measured as the amount by which the carrying amount of a long-lived asset, or asset group exceeds its fair value.

Inherent in our fair value determinations are certain judgments and estimates, including projections of future cash flows, the discount rate reflecting the risk inherent in future cash flows, the interpretation of current economic indicators and market valuations, and strategic plans with regard to operations. A change in these underlying assumptions would cause a change in the results of the tests, which could cause the fair value of the intangible asset to be less than its respective carrying amount.

Pension and Postretirement Health and Life Benefit Costs and Obligations

We provide retirement benefits to certain employees and retirees under defined benefit pension plans and postretirement health and life benefit plans. The valuation of benefit obligations and costs is based on provisions of the plans and actuarial assumptions that involve judgments and estimates.

Assets and obligations related to our retiree benefit plans are remeasured each year as of the balance sheet date resulting in differences between actual and projected results for the year. The Company has elected the accounting option to recognize these actuarial gains and losses in the statement of operations in the fourth quarter. The alternative would be to amortize gains and losses into operating results over time. The Company's treatment of recognizing actuarial gains and losses immediately is intended to increase transparency into how movements in plan assets and benefit obligations impact financial results. Immediate recognition of such gains and losses in the statement of operations may cause significant fluctuations in our results of operations. In addition, an interim remeasurement and recognition of gains or losses may be required for a plan during the year if lump sum payments exceed certain levels.

Components of retirement benefit expense/income other than service cost are presented in our consolidated statement of operations as *Nonoperating Components of Net Periodic Benefit Income*. These components consist primarily of the return on plan assets, offset by interest cost as the discounted present value of benefit obligations nears payment. Results also reflect claims experience, changes in mortality and healthcare claim assumptions and changes in market interest rates. Service cost is recognized in *Cost of Sales* (for the LEU segment) and *Selling, General and Administrative* expense.

Nonoperating components of net periodic benefit income netted to income of \$6.6 million, \$67.6 million, and \$1.6 million for the year ended December 31, 2022, 2021, and 2020, including a net actuarial loss of \$7.8 million for the year ended December 31, 2022, net actuarial gain of \$50.5 million for the year ended December 31, 2021, and net actuarial loss of \$7.2 million for the year ended December 31, 2022, the net actuarial loss reflected unfavorable investment returns relative to the expected return assumption, partially offset by an increase in interest rates from approximately 2.8% to 5.5%. For the year ended December 31, 2021, the net actuarial gain reflected an increase in interest rates from approximately 2.5% to 2.8%, favorable investment returns relative to the expected return assumption, and healthcare claims assumption, partially offset by changes in mortality, healthcare costs trend assumptions, and claims experience. For the year ended December 31, 2020, the net actuarial loss reflected a decline in market interest rates from approximately 3.3% to 2.5%, partially offset by favorable investment returns relative to the expected return assumption and changes in mortality and healthcare claim assumptions.

Changes in actuarial assumptions could impact the measurement of benefit obligations and benefit costs, as follows:

• The expected return on benefit plan assets is approximately 6.8% for 2023. The expected return is based on historical returns and expectations of future returns for the composition of the plans' equity and debt securities. A one-half percentage point decrease in the expected return on plan assets would increase annual pension costs by \$2.3 million in 2023. However, the net impact of any changes in the expected return on benefit plan assets on the final benefit cost recognized for fiscal year 2023 would be \$0 since the actual return on assets would effectively be reflected at December 31, 2023, under our mark-to-market accounting methodology.

- The present value of pension obligations is calculated by discounting long-term obligations using a market interest rate. This discount rate is the estimated rate at which the benefit obligations could be effectively settled on the measurement date and is based on yields of high quality fixed income investments whose cash flows match the timing and amount of expected benefit payments of the plan. Discount rates of approximately 5.5% were used as of December 31, 2022. A one-half percentage point reduction in the discount rate would increase the valuation of pension benefit obligations by \$21.7 million and postretirement health and life benefit obligations by \$3.7 million, and the resulting changes in the valuations would decrease the aggregate service cost and interest cost components of annual pension costs and postretirement health and life benefit costs by \$1.4 million and \$0.3 million, respectively.
- The healthcare costs trend rates are 7% projected in 2023 reducing to a final trend rate of 5% by 2031. The healthcare costs trend rate represents our estimate of the annual
 rate of increase in the gross cost of providing benefits. The trend rate is a reflection of health care inflation assumptions, changes in healthcare utilization and delivery
 patterns, technological advances, and changes in the health status of our plan participants.

Income Taxes

During the ordinary course of business, there are transactions and calculations for which the ultimate tax determination is uncertain. As a result, we recognize tax liabilities based on estimates of whether additional taxes and interest will be due. To the extent that the final tax outcome of these matters is different than the amounts that were initially recorded, such differences will impact the income tax provision in the period in which such determination is made.

Accounting standards prescribe a minimum recognition threshold that a tax position is required to meet before the related tax benefit may be recognized in the financial statements. As of December 31, 2022, the liability for unrecognized tax benefits, included in Other Long-Term Liabilities on the Consolidated Balance Sheet in Part IV of this Annual Report, was \$1.9 million and accrued interest and penalties totaled \$0.1 million.

Accounting for income taxes involves estimates and judgments relating to the tax bases of assets and liabilities and the future recoverability of deferred tax assets. In assessing the realization of deferred tax assets, we determine whether it is more likely than not that the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon generating sufficient taxable income in future years when deferred tax assets are recoverable or are expected to reverse. Factors that may affect estimates of future taxable income include, but are not limited to, competition, changes in revenue, costs or profit margins, market share, and developments related to the American Centrifuge technology. In practice, positive and negative evidence is reviewed with objective evidence receiving greater weight. If, based on the weight of available evidence, it is more likely than not that all, or some portion, of the deferred tax assets will not be realized, we record a valuation allowance. The more negative evidence that exists, the more positive evidence is necessary and the more difficult it is to support a conclusion that a valuation allowance is not needed for all, or some portion, of the deferred tax assets.

All available positive and negative evidence is analyzed quarterly to determine the amount of the valuation allowance. A full valuation allowance against the federal and state net deferred assets was first recorded in the fourth quarter of 2011 because of significant losses and other negative evidence.

In the second quarter of 2020, the valuation allowance on the state net deferred tax assets for the LEU segment was released due to a return to profitability that led to cumulative income for state income tax purposes. A full valuation allowance against the federal and state net deferred tax assets for the rest of the business remained throughout 2020 because negative evidence, including cumulative losses, outweighed positive evidence.

In 2021, Centrus evaluated both positive and negative evidence that was objectively verifiable to determine the amount of the federal valuation allowance that was required on Centrus' federal deferred tax assets. As discussed in Operating Results, Centrus has visibility on a significant portion of revenue in the LEU segment through 2026,

primarily from its long-term sales contracts. Centrus considered both its achievement of sustained profitability and cumulative income in 2021, as well as the forecasted income to be significant forms of positive evidence. Negative evidence included uncertainty in and the lack of objectively verifiable evidence for profitability in later years when Centrus' existing Order Book and supply contracts reach expiration in its LEU segment. In Centrus' Technical Solutions segment, negative evidence included uncertainty in the future funding of the HALEU enrichment facility and thus, no assumptions for the future funding of the HALEU enrichment facility were included in the forecast model because it was not objectively verifiable. Centrus determined that the positive evidence outweighed the negative evidence and supported a release of the federal valuation allowance. However, due to lack of objectively verifiable information in later years, it was determined that forecasted future income was not sufficient to realize all the deferred tax assets. Therefore, Centrus recorded a \$40.7 million partial release of its federal valuation allowance in the fourth quarter of 2021. In 2022, an analysis of the federal valuation allowance was necessary. As of December 31, 2022, the valuation allowance against the remaining federal and state net deferred tax assets was \$414.1 million.

Going forward, Centrus will continue to evaluate both positive and negative evidence that would require changes to the remaining federal and state valuation allowances. Such evidence in our Technical Solutions segment may include events that could have a significant impact on pre-tax income, such as signing new contracts with significantly higher or lower margins than currently forecasted, follow-on work related to the HALEU program, or abandonment of the commercial deployment of the centrifuge technology. Refer to Part I, Item 1A, *Risk Factors* for more information. Such evidence in our LEU segment may include renewing SWU sales contracts with significantly higher or lower margins than currently forecasted. Additional evidence in the LEU segment may include potential deferrals in the timing of deliveries requested by its customers, which could impact revenue recognition timing. The impact of these and other potential positive and negative events will be weighed and evaluated to determine if the valuation allowances should be increased or decreased in the future.

Results of Operations

Set forth below are our results of operations for the year ended December 31, 2022 compared with the year ended December 31, 2021. We have omitted discussion of 2020 results where it would be redundant to the discussion previously included in Item 7 of our 2021 Annual Report on Form 10-K, filed with the SEC on March 11, 2022.

Segment Information

The following tables present elements of the accompanying Consolidated Statements of Operations that are categorized by segment (dollar amounts in millions):

Year Ended December 31, 2022 Compared with Year Ended December 31, 2021

	Year Ended						
	 2022	2021		\$ Change		% Change	
LEU segment				-			
Revenue:							
SWU revenue	\$ 196.2	\$	163.3	\$	32.9	20 %	
Uranium revenue	39.4		22.8		16.6	73 %	
Total	235.6		186.1		49.5	27 %	
Cost of sales	105.0		113.1		(8.1)	(7)%	
Gross profit	\$ 130.6	\$	73.0	\$	57.6	79 %	
Technical Solutions segment							
Revenue	\$ 58.2	\$	112.2	\$	(54.0)	(48)%	
Cost of sales	70.9		70.7		0.2	%	
Gross profit (loss)	\$ (12.7)	\$	41.5	\$	(54.2)	(131)%	
Total							
Revenue	\$ 293.8	\$	298.3	\$	(4.5)	(2)%	
Cost of sales	175.9		183.8		(7.9)	(4)%	
Gross profit	\$ 117.9	\$	114.5	\$	3.4	3 %	

Revenue

Revenue from the LEU segment was \$235.6 million and \$186.1 million for the year ended December 31, 2022 and 2021, respectively, an increase of \$49.5 million (or 27%). SWU revenue increased \$32.9 million (or 20%) due to an 11% increase in the average SWU price of SWU sold combined with a 9% increase in the volume of SWU sold.

Revenue from sales of uranium was \$39.4 million and \$22.8 million for the year ended December 31, 2022 and 2021, respectively, an increase of \$16.6 million (or 73%). The average price of uranium (UF₆ and U₃O₈) increased 83%, which was partially offset by a decrease in sales volume of 6%.

Revenue from the Technical Solutions segment was \$58.2 million and \$112.2 million for the year ended December 31, 2022 and 2021, respectively, a decrease of \$54.0 million (or 48%). Revenue in 2021 included \$43.5 million related to the settlement of the Company's claims for reimbursements for certain pension and postretirement benefits costs incurred in connection with a past cost-reimbursable contract performed at the Portsmouth GDP. Excluding this payment, revenue from the Technical Solutions segment decreased \$10.5 million (or 15%) in 2022,

driven by decreased work performed under the HALEU Demonstration Contract and X-energy contract of \$11.3 million and \$3.3 million, respectively, partially offset by increased work under the HALEU Operation Contract of \$1.8 million and under other contracts of \$2.3 million.

Cost of Sales

Cost of sales for the LEU segment was \$105.0 million and \$113.1 million for the year ended December 31, 2022 and 2021, respectively, a decrease of \$8.1 million (or 7%). The volume of SWU and uranium (UF_6) sold increased by 9% and 27%, respectively and the average SWU and uranium (UF_6) unit cost decreased by 26% and increased by 30%, respectively.

Cost of sales for the Technical Solutions segment was \$70.9 million and \$70.7 million for the year ended December 31, 2022 and 2021, respectively, an increase of \$0.2 million (or 0%), largely reflecting the increase in contract work performed. The increase consists of the \$21.3 million accrued loss for Phase 1 of the HALEU Operation Contract plus \$1.8 million of other costs relating to this contract. This was offset by decreased costs related to the HALEU Demonstration Contract and X-energy contract of \$21.4 million and \$3.5 million, respectively. For details on HALEU Operation and Demonstration Contract accounting, refer to *Technical Solutions - Government Contracting* above.

Gross Profit

The Company recognized a gross profit of \$117.9 million and in \$114.5 million for the year ended December 31, 2022 and 2021, respectively, an improvement of \$3.4 million (or 3%).

Gross profit for the LEU segment was \$130.6 million and \$73.0 million for the year ended December 31, 2022 and 2021, respectively, an increase of \$57.6 million (or 79%). The increase was primarily due to an increase in the average SWU and uranium sales price, an increase in SWU sales volume, and a reduction in the average unit cost of SWU.

Gross profit for the Technical Solutions segment netted to a loss of \$12.7 million and profit of \$41.5 million for the year ended December 31, 2022 and 2021, respectively, a decrease of \$54.2 million (or 131%). Excluding the settlement with DOE, gross profit from the Technical Solutions segment decreased by \$10.7 million (or 535%), mainly due to a \$21.3 million decrease in gross profit generated for the accrued loss related to Phase 1 of the HALEU Operation Contract, partially offset by a \$10.1 million increase in gross profit generated from the HALEU Demonstration Contract.



Non-Segment Information

The following tables present elements of the accompanying consolidated statements of operations that are not categorized by segment (dollar amounts in millions):

Year Ended December 31, 2022 Compared with Year Ended December 31, 2021

	Year Ended December 31,					
	 2022	2021		\$ Change		% Change
Gross profit	\$ 117.9	\$ 11	4.5	\$	3.4	3 %
Advanced technology costs	14.8		2.1		12.7	605 %
Selling, general and administrative	33.9	3	6.0		(2.1)	(6)%
Amortization of intangible assets	9.0		8.1		0.9	11 %
Special charges for workforce reductions	0.5		_		0.5	n/a
Operating income	 59.7	6	8.3		(8.6)	(13)%
Nonoperating components of net periodic benefit income	(6.6)	(6	7.6)		61.0	90 %
Interest expense	0.5		0.1		0.4	400 %
Investment income	(2.0)	().1)		(1.9)	(1,900)%
Income before income taxes	 67.8	13	5.9		(68.1)	(50)%
Income tax expense (benefit)	15.6	(3) .1)		54.7	140 %
Net income	\$ 52.2	\$ 17	5.0	\$	(122.8)	(70)%

Advanced Technology Costs

Advanced technology costs were \$14.8 million and \$2.1 million for the year ended December 31, 2022 and 2021, respectively, an increase of \$12.7 million (or 605%). Advanced technology costs consist of American Centrifuge work and related expenses that are outside of our customer contracts in the Technical Solutions segment, including bid and proposal activities and work to improve our centrifuge technology.

Amortization of Intangible Assets

Amortization of intangible assets was \$9.0 million and \$8.1 million for the year ended December 31, 2022 and 2021, respectively, an increase of \$0.9 million (or 11%). Amortization expense for the intangible asset related to the September 2014 sales Order Book is a function of SWU sales volume under that Order Book, and amortization expense for the intangible asset related to customer relationships is amortized on a straight-line basis.

Nonoperating Components of Net Periodic Benefit Income

Nonoperating components of net periodic benefit income was (\$6.6) million and (\$67.6) million for the year ended December 31, 2022 and 2021, respectively, a decrease of \$61.0 million (or 90%). For the year ended December 31, 2022, nonoperating components of net periodic benefit income consists primarily of (\$164.1) million related to the increase in discount rates, offset by a loss of \$137.0 million on plan assets and \$20.5 million of additional costs which include interest costs amortized during the year. For the year ended December 31, 2021, nonoperating components of net periodic benefit income consists primarily of a return on plan assets of (\$58.2) million and (\$31.0) million related to an increase in discount rates, offset by \$21.5 million of additional costs which include interest costs amortized during the year.

Income Tax Expense (Benefit)

Income tax expense (benefit) was \$15.6 million and (\$39.1) million for the year ended December 31, 2022 and 2021, respectively, an increase of \$54.7 million (or 140%). For the year ended December 31, 2022, income tax expense consists of federal tax of \$14.9 million, permanent differences of \$3.5 million, and state income tax expense of \$0.7 million. For the year ended December 31, 2021, the income tax benefit primarily related to the release of the federal valuation allowance of \$40.7 million offset by the effect of state rate changes of \$1.2 million and state income tax expense of \$0.4 million. The state income tax expense for the year ended December 31, 2022 and 2021, primarily relates to an accrual for a current unrecognized tax benefit offset by the reversal of a previously accrued unrecognized tax benefit.

Net Income

Net income was \$52.2 million and \$175.0 million for the year ended December 31, 2022 and 2021, respectively, a decrease of \$122.8 million (or 70%). The decrease was primarily driven by a decrease in nonoperating components of net periodic benefit income of \$61.0 million and an increase of income tax expense of \$54.7 million, partially offset by an increase in gross profit of \$3.4 million.

Net Income per Share

Refer to Note 14, Net Income per Common Share, of the Consolidated Financial Statements in Part IV of this Annual Report.

The Company measures Net Income and Net Income per Share both on a GAAP basis and on an adjusted basis to exclude deemed dividends allocable to retired preferred stock shares and the warrant modification ("Adjusted Net Income" and "Adjusted Net Income per Share"). We believe Adjusted Net Income and Adjusted Net Income per Share, which are non-GAAP financial measures, provide investors with additional understanding of the Company's financial performance as well as its strategic financial planning analysis and period-to-period comparability. These metrics are useful to investors because they reflect how management evaluates the Company's ongoing operating performance from period-to-period after removing certain transactions and activities that affect comparability of the metrics and are not reflective of the Company's core operations.

	Three Months Ended December 31,			Year Ended December 31,							
		2022		2021	2020		2022		2021		2020
Numerator (in millions):											
Net income	\$	21.3	\$	116.2	\$ 16.4	\$	52.2	\$	175.0	\$	54.4
Less: Distributed earnings allocable to warrant modification		1.5		—	—		1.5		—		-
Less: Preferred stock dividends - undeclared and cumulative		-		_	0.8		-		2.1		6.'
Less: Distributed earnings allocable to retired preferred shares				31.0	 41.9				37.6		41.
Net income (loss) allocable to common stockholders	\$	19.8	\$	85.2	\$ (26.3)	\$	50.7	\$	135.3	\$	5.
Plus: Distributed earnings allocable to warrant modification	\$	1.5	\$	—	\$ —	\$	1.5	\$	_	\$	-
Plus: Distributed earnings allocable to retired preferred shares		—		31.0	41.9		—		37.6		41.9
Adjusted net income, including distributed earnings allocable to retired preferred shares (Non-GAAP)	\$	21.3	\$	116.2	\$ 15.6	\$	52.2	\$	172.9	\$	47.
Denominator (in thousands) (a):											
Average common shares outstanding - basic		14,648		13,873	10,322		14,601		13,493		9,82:
Average common shares outstanding - diluted (b)		15,029		14,278	10,322		14,988		13,879		10,12.
Net Income (Loss) per Share (in dollars):											
Basic	\$	1.35	\$	6.14	\$ (2.55)	\$	3.47	\$	10.03	\$	0.5
Diluted	\$	1.32	\$	5.97	\$ (2.55)	\$	3.38	\$	9.75	\$	0.5
Plus: Effect of distributed earnings allocable to retired preferred shares and warrant modification, per common share (in dollars):											
Basic	\$	0.10	\$	2.24	\$ 4.06	\$	0.11	\$	2.78	\$	4.2
Diluted	\$	0.10	\$	2.17	\$ 4.01	\$	0.10	\$	2.71	\$	4.14
Adjusted Net Income per Share (Non-GAAP) (in dollars):											
Basic	\$	1.45	\$	8.38	\$ 1.51	\$	3.58	\$	12.81	\$	4.8:
Diluted	\$	1.42	\$	8.14	\$ 1.46	\$	3.48	\$	12.46	\$	4.7
Basic	•	1.45	\$	8.38	\$ 1.51	\$	3.58	\$	12.81	\$	

(a) For details related to average shares outstanding, refer to Note 14, Net Income Per Common Share, of the Consolidated Financial Statements.

(b) For purposes of Adjusted Net Income per Share for the three months ended December 31, 2020, average common shares outstanding - diluted is 10,659,000 shares. No dilutive effect is recognized in a period in which a net loss has occurred.

Liquidity and Capital Resources

As of December 31, 2022, the Company had a consolidated cash balance of \$179.9 million. In addition, there is \$29.8 million of restricted cash related to three inventory loans, which required a cash deposit into an escrow fund. See Note 3, *Cash, Cash Equivalents, Restricted Cash* of the Consolidated Financial Statements in Part IV of this Annual Report. The Company anticipates having adequate liquidity to support our business operations for at least the next 12 months from the date of this report. Our view of liquidity is dependent on, among other things, conditions affecting our operations, including market, international trade restrictions, COVID-19 and other conditions, the level of expenditures and government funding for our services contracts, and the timing of customer payments. Liquidity requirements for our existing operations are affected primarily by the timing and amount of customer sales and our inventory purchases.

The Company believes our Order Book in our LEU segment is a source of stability for our liquidity position. Subject to market conditions, we see the potential for growing uncommitted demand for LEU during the next few years with accelerated open demand in 2025 and beyond.

Cash resources and net sales proceeds from our LEU segment fund technology costs that are outside of our customer contracts in the Technical Solutions segment and general corporate expenses, including cash interest payments on our debt. We believe our investment in advanced U.S. uranium enrichment technology will position the Company to meet the needs of our customers as they deploy advanced reactors and next generation fuels. We signed the three-year HALEU Demonstration Contract with DOE in October 2019. Under the HALEU Demonstration Contract, the Company contributed its required contribution through November 30, 2021. The program has been under way since May 31, 2019, when Centrus and the DOE signed a preliminary letter agreement that allowed work to begin while the full contract was being finalized.

The Company entered into this cost-share contract with the DOE as a critical first step on the road back to the commercial production of enriched uranium, which the Company had terminated in 2013 with the closure of the Paducah GDP. HALEU is expected to be required by many of the advanced reactor designs now under development, including nine out of the ten reactor designs that were selected in 2020 for the ARDP. Our HALEU Demonstration Contract period of performance ended in November 2022.

On November 10, 2022, the Company was awarded the HALEU Operation Contract. The HALEU Operation Contract provides for a 50/50 cost share contract for Phase 1 of the base contract to complete the cascade, begin operations and complete the initial, small quantity demonstration HALEU. Phase 2 includes continued operations and maintenance on a cost-plus-incentive-fee basis. Finally, the HALEU Operation Contract includes options for the government to unilaterally extend performance for up to an additional nine years comprised of three options of three years each, also on a cost-plus-incentive-fee basis. The Company's goal is to modularly scale up the facility as demand for HALEU grows in the commercial and government sectors, subject to the availability of funding and/or contracts to purchase the output of the plant.

Although the Company believes demand for HALEU will emerge over the next several years, there are no guarantees about whether or when government or commercial demand for HALEU will materialize, and there are a number of technical, regulatory and economic hurdles that must be overcome for these fuels and reactors to come to the market. For further discussion, refer to Part I, Item 1A, *Risk Factors*.

If funding by the U.S. Government for research, development and demonstration of gas centrifuge technology is reduced or discontinued, or we are not awarded a future DOE contract to continue to operate the cascade, such actions may have a material adverse impact on our ability to deploy the American Centrifuge technology and on our liquidity.

Capital expenditures of approximately \$1.0 million are anticipated over the next 12 months.

We are actively considering, and expect to consider from time to time in the future, potential strategic transactions, which at any given time may be in various stages of discussions, diligence, or negotiation. If we pursue opportunities that require capital, we believe we would seek to satisfy these needs through a combination of working capital, cash generated from operations or additional debt or equity financing.

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The change in cash, cash equivalents and restricted cash from our Consolidated Statements of Cash Flows are as follows on a summarized basis (in millions):

	Year Ended December 51,				
	 2022		2021		
Cash provided by operating activities	\$ 20.6	\$	50.0		
Cash used in investing activities	(0.7)		(1.2)		
Cash used in financing activities	(4.3)		(9.9)		
Increase in cash, cash equivalents and restricted cash	\$ 15.6	\$	38.9		

Operating Activities

During 2022, net cash provided by operating activities was \$20.6 million. The net decrease was primarily due to \$252.0 million in cash collected from customers, offset by \$159.1 million of payments for LEU inventory deliveries and cash outflows for the Technical Solutions segment. This remaining difference was primarily related to payments for benefit claims, corporate administration, and advance technology costs.

During 2021, net cash provided by operating activities was \$50.0 million. Net income of \$175.0 million for the year ended December 31, 2021, net of non-cash expenses, was a significant source of cash. Net income included the \$43.5 million recovery of claims for reimbursement for costs related to past contract services performed. The net increase is also the result of a \$16.6 million increase in accounts payable and other liabilities and a \$13.2 million increase in deferred revenue and advances from customers. These increases were partially offset by a \$57.0 million reduction in pension and postretirement benefit liabilities and a \$10.7 million increase in inventories. *Investing Activities*

For the year ended December 31, 2022 and 2021, investing activities consisted of capital expenditures of \$0.7 million and \$1.2 million, respectively.

Financing Activities

For the year ended December 31, 2022 and 2021, annual payments of \$6.1 million of interest classified as debt are classified as a financing activity. Refer to Note 8, *Debt*, of the Consolidated Financial Statements in Part IV of this Annual Report regarding the accounting for the 8.25% Notes.

For the year ended December 31, 2021, net cash used in financing activities included the redemption of preferred stock for \$44.4 million, net of direct costs, pursuant to a tender offer and net proceeds received of \$42.1 million from the issuance of common stock pursuant to a Registration Statement on Form S-3.

Working Capital

The following table summarizes the Company's working capital (in millions):

	December 31,				
		2022	2021		
Cash and cash equivalents	\$	179.9	\$	193.8	
Accounts receivable		38.1		29.1	
Inventories, net		148.4		82.7	
Current debt		(6.1)		(6.1)	
Deferred revenue and advances from customers, net of deferred costs		(137.5)		(159.8)	
Other current assets and liabilities, net		(84.9)		(67.1)	
Working capital	\$	137.9	\$	72.6	

We are managing our working capital to seek to improve the long-term value of our LEU and Technical Solutions businesses and are planning to continue funding the Company's qualified pension plans in the ordinary course because we believe that is in the best interest of all stakeholders. We expect that any other uses of working capital will be undertaken in light of these strategic priorities and will be based on the Company's determination as to the relative strength of its operating performance and prospects, financial position, and expected liquidity requirements. In addition, we expect that any such other uses of working capital will be subject to compliance with contractual restrictions to which the Company and its subsidiaries are subject, including the terms and conditions of our 8.25% Notes. We continually evaluate alternatives to manage our capital structure, and may opportunistically repurchase, exchange, or redeem Company securities from time to time.

Common Stock Issuance

The Company sold at the market price an aggregate of 99,090 shares and 1,516,467 shares of its Class A Common Stock for a total of \$3.8 million and \$44.2 million in 2022 and 2021, respectively. After expenses and commissions paid to the agents in 2022 and 2021, the Company's proceeds total \$3.6 million and \$42.4 million, respectively. Additionally, in 2021, the Company recorded direct costs of \$0.3 million related to the issuance. The shares of Class A Common Stock were issued pursuant to the Company's shelf registration statement on Form S-3 (File No. 333-239242), which became effective on August 5, 2020, and a prospectus supplement dated December 31, 2020, to the prospectus. At present, the Company has \$2.0 million remaining available for sale under the prospectus supplement dated December 31, 2020, and may from time to time sell additional shares through the sales agreement. The Company used the net proceeds from this offering for general working capital purposes, to invest in technology development, repay outstanding debt and retire shares of its Series B Senior Preferred Stock.

On February 2, 2021, the Company entered into the Voting Agreement Amendment to its existing Voting and Nomination Agreement with the MB Group and an Exchange Agreement, whereby the MB Group agreed to support management's recommendation on certain matters at the Company's 2021 Annual Meeting and Kulayba LLC agreed to exchange shares of Preferred Stock for shares of Class A Common Stock and a warrant to acquire additional shares of Class A Common Stock. Pursuant to the First Amendment to the Voting and Nomination Agreement, the MB Group agreed to cause all shares of Class A Common Stock owned of record or beneficially owned by the MB Group at the Annual Meeting to be voted in favor of (i) an amendment to extend the length of the term of the Company's Section 382 Rights Agreement dated as of April 6, 2016, as amended to date, for two years from June 30, 2021, to June 30, 2023, and (ii) an increase of shares of Class A Common Stock reserved for delivery under the Company's 2014 Equity Incentive Plan, as amended to date, of an additional 700,000 shares of Class A Common Stock.

In connection with the entry into the Voting Agreement Amendment, the Company and Kulayba LLC also entered into the Exchange Agreement, pursuant to which Kulayba LLC agreed to the Exchange, representing a \$5,000,198 liquidation preference (including accrued and unpaid dividends), for (i) 231,276 shares of Class A Common Stock priced at the closing market price of \$21.62 on the date the Exchange Agreement was signed and (ii) the Warrant, exercisable for 250,000 shares of Class A Common Stock at an exercise price of \$21.62 per share, which was the closing market price on the date the Exchange Agreement was signed, subject to certain customary adjustments pursuant to the terms of the Warrant. The Warrant was exercisable by Kulayba LLC for a period commencing on the closing date of the Exchange and ending, unless sooner terminated as provided in the Warrant, on the first to occur of: (a) the second anniversary of the closing date of the Exchange or (b) the last business day immediately prior to the consummation of a Fundamental Transaction (as defined in the Warrant), which results in the shareholders of the Company immediately prior to such Fundamental Transaction owning less than 50% of the voting equity of the surviving entity immediately after the consummation of the Fundamental Transaction. The Company retired the 3,873 shares of Preferred Stock received by the Company under the Exchange Agreement.

On December 29, 2022, the Company amended and restated the Warrant, and entered into a Voting Rights Agreement with the MB Group. Pursuant to the terms of the Voting Rights Agreement, each member of the MB Group and each Permitted Transferee (as defined in the Voting Rights Agreement) agreed, at the Company's 2023 and 2024 Annual Meetings and at any other vote by the holders of the Company's Common Stock, to (i) cause, in the case of all Common Stock owned of record, and (ii) instruct and cause the record owner, in the case of all shares of Common Stock of which MB Group is a Beneficial Owner (as defined in the Voting Rights Agreement), but not owned of record, directly or indirectly, by it, or by any MB Affiliate (as defined in the Voting Rights Agreement), as of the applicable record date, in each case entitled to (i) be present for quorum purposes, and (ii) vote, as follows: (a) for all directors nominated by the Board for election, (b) for all other proposals, in accordance with the recommendation of the Board, and (c) for any Company proposed adjournments thereof. In addition, each member of the MB Group agreed to not directly or indirectly gift, sell, dispose or otherwise transfer any shares of Common Stock on a national securities exchange or any sale or disposition of Common Stock underlying the New Warrant to any person that is not affiliated, associated or otherwise related to any member of the MB Group. In exchange, the Company agreed to amend and restate that Warrant, to extend the term of the Warrant to February 5, 2024, subject to the other terms of the WB Group. In exchange on any agreed to amend and restated, the New Warrant). Immaterial amendments were made on October 17, 2022.

On December 6, 2022, the Company filed a second prospectus supplement to the prospectus dated August 5, 2020, with the SEC. Under this prospectus supplement, the Company may offer and sell shares of its Class A Common Stock, having an aggregate offering price of up to \$24.0 million, in accordance with the terms of the ATM sales agreement with its agents, as amended on December 5, 2022, or to the agents, acting as sales agent or principal. The Company intends to use the net proceeds from the sale of its common stock offered under this prospectus supplement for working capital and general corporate purposes including, but not limited to, capital expenditures, working capital, repayment of indebtedness, potential acquisitions and other business opportunities. Pending any specific application, the Company may initially invest funds in short-term marketable securities or apply them to the reduction of indebtedness. The Company has not sold any shares under this ATM offering.

Capital Structure and Financial Resources

Interest on the 8.25% Notes is payable semi-annually in arrears as of February 28 and August 31 based on a 360-day year consisting of twelve 30-day months. The 8.25% Notes are guaranteed on a subordinated and limited basis by, and secured by substantially all assets of, Enrichment Corp. The 8.25% Notes mature on February 28, 2027. Additional terms and conditions of the 8.25% Notes are described in Note 8, *Debt*, of the Consolidated Financial Statements in Part IV of this Annual Report.

2021 Tender Offer

On October 20, 2021, the Company announced the commencement of a tender offer to purchase all of its outstanding Series B Senior Preferred Stock, par value \$1.00 per share (the "Series B Senior Preferred Stock"), at a price of \$1,145.20 per Series B Senior Preferred Stock (inclusive of any rights to accrued but unpaid dividends), to the sellers in cash, less any applicable withholding taxes (the "Offer"). The Offer was made pursuant to the Tender Offer Statement on Schedule TO filed by the Company on October 20, 2021, with the SEC. The aggregate liquidation preference per Series B Senior Preferred Stock (including accrued but unpaid dividends) was \$1,347.29 as of September 30, 2021.

On November 23, 2021, the Company announced the results of the tender offer and the related Consent Solicitation to amend the certificate of designation of the Series B Senior Preferred Stock (the "Series B Preferred Amendment"). 36,867 shares of the Series B Senior Preferred Stock were properly tendered and not properly withdrawn in the Offer, and corresponding consents have been delivered in the Consent Solicitation. Pursuant to the terms of the Offer and Consent Solicitation, the Company has accepted for purchase all of the Series B Senior Preferred Stock tendered in the Offer, for an aggregate purchase price of \$42.2 million. The accepted shares represent 97.4% of the Company's outstanding Series B Senior Preferred Stock as of September 30, 2021. Based on the final results, the requisite consent of at least 90% of the outstanding Series B Senior Preferred Stock required to approve the Series B Preferred Amendment was obtained. On November 23, 2021, the Company issued a Notice of Full Redemption providing for the redemption of any and all shares Series B Senior Preferred Stock outstanding after consummation of the Company's tender offer to purchase all of its issued and outstanding Series B Senior Preferred Stock. On December 15, 2021, the Company completed the redemption of all 980 outstanding Series B Senior Preferred Stock for aggregate cash consideration of \$1.1 million. The aggregate purchase price of \$43.3 million was offset by direct costs totaling \$0.9 million.

The effect of the Series B Preferred Amendment was to: (i) cease any obligation to pay dividends on Series B Senior Preferred Stock (other than the payment of accrued dividends in connection with a redemption or distribution of assets upon liquidation, dissolution or winding up), (ii) permit the Company to redeem Series B Senior Preferred Stock during the 90 days following the date of effectiveness of the Series B Preferred Amendment at a redemption price per share equal to \$1,145.20 (plus any additional accrued dividends for the period from and including the date of effectiveness of the Series B Preferred Amendment to the date of redemption), (iii) remove the prohibition on the declaration and payment of dividends on junior stock of the Company, which includes all shares of the Company's capital stock defined as "Common Stock" in the Company's Amended and Restated Certificate of Incorporation, or the redemption, purchase or acquisition of such junior stock, and (iv) remove the restriction on redemption, purchase or acquisition of capital stock of the Company ranking on parity with the Series B Senior Preferred Stock.

On December 16, 2021, the Company filed a Certificate of Elimination of the Series B Senior Preferred Stock of Centrus Energy Corp. with the Secretary of State of Delaware to eliminate the designation of the Series B Senior Preferred Stock and to return all shares of preferred stock of the Company previously designated as Series B Senior Preferred Stock to authorized but unissued and undesignated shares of preferred stock of the Company.

2020 Tender Offer

On November 17, 2020, pursuant to a tender offer announced on October 19, 2020, the Company completed the purchase of 62,854 shares of its outstanding Series B Senior Preferred Stock at a price per share of \$954.59, less any applicable withholding taxes, for an aggregate purchase price of approximately \$60 million. The purchase price per share represented a 25% discount from the aggregate liquidation preference, including accrued but unpaid dividends, of \$1,272.78 per share as of September 30, 2020. These shares represented approximately 60% of the Company's outstanding Series B Senior Preferred Stock as of September 30, 2020. The remaining Series B Senior Preferred Stock outstanding after the transaction was 41,720 shares.

Contractual Commitments

As of December 31, 2022, Centrus had contractual commitments to repay debt, make payments under operating leases, settle obligations related to agreements to purchase goods and services and settle tax and other liabilities.

Centrus has obligations related to our 8.25% Notes that mature in February 2027, as discussed above. We are also obligated to make payments under operating leases that expire at various dates through 2027. Refer to Note 9, *Leases*, of the Consolidated Financial Statements in Part IV of this Annual Report for further information.

In our Technical Solutions segment, the majority of our contractual commitments were entered into as a result of contracts we have with our U.S. Government customers. The U.S. Government generally would be required to pay us for any costs we incur relative to these commitments if they were to terminate the related contracts "for convenience" under the FAR, subject to available funding. This also would be true in cases where we perform subcontract work for a prime contractor under a U.S. Government contract. The termination for convenience language also may be included in contracts with foreign, state and local governments. We also have contracts with customers that do not include termination for convenience provisions, including contracts with commercial customers.

In our LEU segment, we have long-term inventory purchase agreements with TENEX and Orano that extend to 2028 and 2030, respectively. Refer to Note 16, *Commitments and Contingencies*, of the Consolidated Financial Statements in Part IV of this Annual Report for additional information. In addition, Centrus has entered into multiple inventory loans that we expect to repay from 2023 through 2025. Refer to Note 4, *Inventories*, of the Consolidated Financial Statements in Part IV of this Annual Report for additional information.

DOE Technology License

We have a non-exclusive license in DOE inventions that pertains to enriching uranium using gas centrifuge technology. The license agreement with the DOE provides for annual royalty payments based on a varying percentage (1% up to 2%) of our annual revenues from sales of the SWU component of LEU produced by the Company using DOE centrifuge technology. There is a minimum annual royalty payment of \$100,000 and the maximum cumulative royalty over the life of the license is \$100 million. There is currently no commercial enrichment facility producing LEU using DOE centrifuge technology. We are continuing to advance our U.S. centrifuge technology that has evolved from DOE inventions at specialized technology and manufacturing facilities in Oak Ridge with a view to deploying a commercial enrichment facility over the long term once market conditions recover.

Off-Balance Sheet Arrangements

Other than our SWU purchase commitments and the license agreement with the DOE relating to the American Centrifuge technology, there were no material off-balance sheet arrangements at December 31, 2022.

New Accounting Standards

Reference is made to New Accounting Standards in Note 1, Summary of Significant Accounting Policies, of the Consolidated Financial Statements in Part IV of this Annual Report for information on new accounting standards.



Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We do not use derivative financial instruments for speculative trading purposes, nor do we currently hedge our exposure to any market risk.

Interest Rate Risk

We have financial instruments that are subject to interest rate risk, primarily our 8.25% Notes. As of December 31, 2022, we have \$101.8 million of debt related to our 8.25% Notes, with a fair value of approximately \$68.8 million. The terms of our 8.25% Notes do not generally allow investors to demand we pay off these obligations prior to maturity. Therefore, we do not have significant exposure to interest rate risk on our 8.25% Notes. However, we do have exposure to fair value risk if we repurchase or exchange the 8.25% Notes prior to maturity.

Inflation Risk

The global macroeconomic environment has experienced, and continues to experience, extraordinary challenges, including the highest rates of inflation in recent years. These macroeconomic factors have contributed, and we expect will continue to contribute, to increased costs, among other concerns. We cannot predict how long these inflationary pressures will continue, or how they may change over time, but we expect to see continued impacts on the global economy, our customers, our industry and our company.

We have generally been able to anticipate increases in costs when pricing our contracts. In our Technical Solutions segment, contracts typically include assumptions for labor, material, and overhead cost escalations and are typically executed on a cost-plus basis. In our LEU segment, bids for longer-term contracts typically include assumptions for shipping and handling cost escalations in amounts that historically have been sufficient to cover cost increases over the delivery periods.

Foreign Currency Exchange Rate Risk

Our contracts with customers and suppliers are denominated primarily in U.S dollars. On occasion, we will accept payments in euros for spot sales that may be subject to shortterm exchange risk. Half of our Orano Supply Agreement is denominated in euros, exchanged at a fixed rate. If the euro strengthens against the dollar by approximately 20% and nears its highest value over the past 10 years, it will have a negative cash flow impact on the contract of less than 10%. Since the substantial majority of our business is conducted in U.S. dollars, a 20% change in the euro would not have a material impact to our financial condition or results of operations.

Commodity Price Risk

Commodity price risk is associated with price movements resulting from changes in supply and demand, fuel costs, market liquidity, weather conditions, governmental regulatory and environmental policies, and other factors. Centrus procures SWU and uranium through long-term and short-term contracts as well as spot market purchases. Similarly, Centrus sells SWU and uranium through long-term and short-term contracts as well as spot sales. The Company's purchase agreements are subject to fluctuations in market prices. Prices for the Company's purchase agreements are generally determined by formulas using a combination of fixed and market-related pricing with more favorable pricing on the fixed price component as well as a pricing ceiling for the market-related component on its Orano Supply Agreement. Furthermore, the Company also has a substantial portion of its purchase order book committed under fixed price sales agreements with more recent arrangements reflecting higher market pricing based upon improved market conditions. As such, the Company believes any changes in the prices of SWU and uranium do not create material market risk as the Company has a natural hedge in its purchase arrangements.

Item 8. Financial Statements and Supplementary Data

Our Consolidated Financial Statements, together with related notes and the report of PricewaterhouseCoopers LLP, our independent registered public accounting firm, are set forth in Part IV, Item 15 of this Annual Report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Centrus maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by Centrus in reports it files or submits under the Exchange Act is recorded, processed, summarized and reported in the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to management, including the Chief Executive Officer and the Chief Financial Officer, as appropriate to allow for timely decisions regarding required disclosures.

As of December 31, 2022, the end of the period covered by this report, our management performed an evaluation, under the supervision and with the participation of the Chief Executive Officer and the Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is a process designed by, and under the supervision of the Chief Executive Officer and the Chief Financial Officer and effected by the Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022. This evaluation was based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013)*. Based on this assessment, our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report herein.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2022, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.



Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information regarding executive officers is included in Part I of this Annual Report. Additional information concerning directors, executive officers and corporate governance appearing under the captions *Proposal 1. Election of Directors, Governance Information* and *Board and Committee Membership* in the Company's definitive Proxy Statement for the 2023 Annual Meeting of stockholders, which will be filed no later than 120 days after December 31, 2022 (the "2023 Proxy Statement"), is incorporated herein by reference.

We have adopted a COBC that applies to our employees, including our principal executive officer, principal financial officer and principal accounting officer, as well as to members of our board of directors. Our COBC provides a brief summary of the standards of conduct that are at the foundation of our business operations. The COBC states that we conduct our business in strict compliance with all applicable laws. Each employee must read the COBC and sign a form stating that he or she has read, understands and agrees to comply with the COBC. A copy of the COBC is available in the Corporate Governance section of our website at www.centrusenergy.com or upon request without charge. We will disclose on the website any amendments to, or waivers from, the COBC that are required to be publicly disclosed.

Item 11. Executive Compensation

Information concerning executive and director compensation appearing under the captions Compensation Discussion and Analysis and Compensation of Directors, respectively, in the 2023 Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information concerning security ownership of certain beneficial owners and management appearing under the caption Security Ownership of Certain Beneficial Owners and Management in the 2023 Proxy Statement is incorporated herein by reference.

Information concerning the common stock that may be issued under the 2014 Equity Incentive Plan (as amended and restated in May 2017) appearing under the caption *Equity Compensation Plan Information* in the 2023 Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information concerning certain relationships and related transactions and director independence appearing under the captions *Transactions with Related Persons*, and *Director Independence* in the 2023 Proxy Statement is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

Information concerning principal accounting fees and services appearing under the caption Audit and Non-Audit Fees in the 2023 Proxy Statement is incorporated herein by reference.

Item 15. Exhibits and Financial Statement Schedules

(a) (1) Consolidated Financial Statements

Reference is made to the Consolidated Financial Statements appearing elsewhere in this Annual Report.

(2) Financial Statement Schedules

No financial statement schedules are required to be filed as part of this Annual Report.

(3) Exhibits

The exhibits listed on the accompanying Exhibit Index are filed or incorporated by reference as part of this report and such Exhibit Index is incorporated herein by reference. The accompanying Exhibit Index identifies each management contract or compensatory plan or arrangement required to be filed as an exhibit to this report.

Item 16. Form 10-K Summary

None

<u>Exhibit No.</u>	EXHIBIT INDEX Description
1.1	<u>Certrus Energy Corp. Common Stock (par value \$0.10 per share) At Market Issuance Sales Agreement dated</u> <u>December 31, 2020, by and among the Company, B. Riley Securities, Inc. and Lake Street Capital Markets,</u> <u>LLC (incorporated by reference to Exhibit 1.1 of the Company's Current Report on Form 8-K, filed with the</u> <u>SEC on December 31, 2020).</u>
1.2	Amended No. 1 to At Market Issuance Sales Agreement dated December 5, 2022, by and among the Company, B. Riley Securities, Inc. and Lake Street Capital Markets, LLC. (a)
3.1	Amended and Restated Certificate of Incorporation of Centrus Energy Corp. (incorporated by reference to Exhibit 3.1 of the Company's Registration Statement on Form 8-A, filed with the SEC on September 30, 2014).
3.2	Third Amended and Restated Bylaws of Centrus Energy Corp_(incorporated by reference to Exhibit 3.2 of the Company's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 31, 2017)
3.3	Certificate of the Voting Powers, Designations, Preferences and Relative Participating, Optional and Other Special Rights and Qualifications, Limitations or Restrictions of Series A Participating Cumulative Preferred Stock of Centrus Energy Corp. (filed as Exhibit 3.1 to the Company's Registration Statement on Form 8-A filed with the Securities and Exchange Commission on April 7, 2016).
4.1	Indenture by and among Centrus Energy Corp., as Issuer, United States Enrichment Corporation, as Note Guarantor and Delaware Trust Company, as Trustee and Collateral Agent, dated as of September 30, 2014 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the SEC on September 30, 2014).
4.2	Supplemental Indenture by and among Centrus Energy Corp., as Issuer, United States Enrichment Corporation, as Note Guarantor and Delaware Trust Company, as Trustee and Collateral Agent (filed as Exhibit 4.5 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 15, 2017).
4.3	<u>Pledge and Security Agreement by and among Delaware Trust Company, as Collateral Agent, and United States</u> Enrichment Corporation, dated as of September 30, 2014 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K, filed with the SEC on September 30, 2014).
4.4	Note Subordination Agreement by and among United States Enrichment Corporation and Delaware Trust Company, as Trustee, dated as of September 30, 2014 (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K, filed with the SEC on September 30, 2014).
4.5	Outstanding Notes Note Subordination Agreement by and among United States Enrichment Corporation and Delaware Trust Company, as Trustee, dated as of February 14, 2017 (incorporated by reference to Exhibit 4.6 of the Company's Current Report on Form 8-K, filed with the SEC on February 15, 2017).
4.6	Rights Agreement dated as of April 6, 2016, among Centrus Energy Corp., Computershare Inc. ("Computershare") and Computershare Trust Company, N.A., together with Computershare, as Rights Agent (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form 8-A filed with the Securities and Exchange Commission on April 7, 2016).
4.7	Form of Rights Certificate (incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form 8-A filed with the Securities and Exchange Commission on April 7, 2016).
4.8	Form of First Amendment to Section 382 Rights Agreement by and between Centrus Energy Corp., Computershare Trust Company, N.A. and Computershare Inc., to be dated on or about February 7, 2017 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on January 5, 2017).
4.9	Indenture by and among Centrus Energy Corp., as Issuer, United States Enrichment Corporation, as Note Guarantor and Delaware Trust Company, as Trustee and Collateral Agent, dated as of February 14, 2017 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the SEC on February 15, 2017).

- 4.10 <u>Pledge and Security Agreement, dated as of February 14, 2017 by and among Delaware Trust Company, as Collateral Agent, and United States Enrichment Corporation dated as of February 14, 2017 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K, filed with the SEC on February 15, 2017).</u>
- 4.11 New Notes Note Subordination Agreement by and among United States Enrichment Corporation and Delaware Trust Company, as Trustee, dated as of February 14, 2017 (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K, filed with the SEC on February 15, 2017).
- 4.12 Pari Passu Intercreditor Agreement by and among United States Enrichment Corporation and Delaware Trust Company, as Trustee, dated as of February 14, 2017 (incorporated by reference to Exhibit 4.4 of the Company's Current Report on Form 8-K, filed with the SEC on February 15, 2017).
- 4.13 Second Amendment to Section 382 Rights Agreement by and between Centrus Energy Corp., Computershare Trust Company, N.A. and Computershare Inc., dated April 3, 2019 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on April 4, 2019).
- 4.14 Third Amendment to the Section 382 Rights Agreement, dated as of April 13, 2020, by and among the Company, Computershare Trust Company N.A. and Computershare Inc. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on April 14, 2020).
- 4.15 Fourth Amendment to the Section 382 Rights Agreement, dated as of June 16, 2021, by and among the Company, Computershare Trust Company N.A. and Computershare Inc. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on June 16, 2021).
- 4.16 Description of the Securities of the Company. (a)
- 4.17 Form of Amended and Restated Warrant to Purchase Common Stock by and between the Company and Kulayba LLC (incorporated by reference to Exhibit 4.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed with the SEC on November 9, 2022.
- 4.18 Form of Second Amended and Restated Warrant to Purchase Common Stock, dated as of December 29, 2022, by and between Centrus Energy Corp. and Mr. Morris Bawabeh, Kulayba LLC and M&D Bawabeh Foundation, Inc. (a)
- 10.1 Lease Agreement between the United States Department of Energy ("DOE") and United States Enrichment Corporation, dated as of July 1, 1993, including notice of exercise of option to renew (incorporated by reference to Exhibit 10.1 of the Company's Registration Statement on Form S-1, filed with the SEC on June 29, 1998).
- 10.2 Amendment to Appendix 1 Lease Agreement between the U.S. Department of Energy and United States Enrichment Corporation for the Gas Centrifuge Enrichment Plant, dated as of May 31, 2019 (certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2) (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, filed with the SEC on August 12, 2019).
- 10.3 Amendment 2 to Appendix 1 Lease Agreement between the U.S. Department of Energy and United States Enrichment Corporation for the Gas Centrifuge Enrichment Plant, dated as of September 9, 2021, (incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 12, 2021).
- 10.4 Supplemental Agreement No. 1 to the Lease Agreement between DOE and United States Enrichment Corporation, dated as of December 7, 2006 (incorporated by reference to Exhibit 10.2 of the Company's Annual Report on Form 10-K for the year ended December 31, 2006, filed with the SEC on February 27, 2007). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.5 Work Authorization dated September 27, 2018 under the Supply of Service Agreement Between United States Department of Energy and Centrus Energy Corp., Exhibit J to the Centrifuge Deployment Project Lease Agreement between the Department of Energy and USEC Inc. (incorporated by reference to Exhibit 10.49 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, filed with the SEC on November 8, 2018).

- 10.6 <u>Memorandum of Agreement, dated April 6, 1998, between the Office of Management and Budget and United States Enrichment Corporation relating to post-privatization liabilities (incorporated by reference to Exhibit 10.18 of the Company's Registration Statement on Form S-1, filed with the SEC on June 29, 1998).</u>
- 10.7 <u>Agreement, dated June 17, 2002, between DOE and USEC Inc. ("2002 DOE-USEC Agreement") (incorporated by reference to Exhibit 99.3 of the Company's Current Report on Form 8-K, filed with the SEC on June 21, 2002).</u>
- 10.8 Modification 1 to 2002 DOE-USEC Agreement, dated August 20, 2002 (incorporated by reference to Exhibit 10.15 of the Company's Annual Report on Form 10-K for the year ended December 31, 2005, filed with the SEC on February 24, 2006).
- 10.9 Modification No. 2 dated January 12, 2009, to 2002 DOE-USEC Agreement (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on January 13, 2009).
- 10.10 <u>Modification No. 3 dated January 28, 2010, to 2002 DOE-USEC Agreement (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on February 2, 2010).</u>
- 10.11 Modification No. 4 dated February 11, 2011, to 2002 DOE-USEC Agreement (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on February 16, 2011).
- 10.12 Modification No. 5 dated June 12, 2012, to the Agreement dated June 17, 2002, between DOE and USEC Inc. (incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012, filed with the SEC on August 1, 2012).
- 10.13 License dated December 7, 2006 between the United States of America, as represented by DOE, as licensor, and USEC Inc., as licensee (incorporated by reference to Exhibit 10.34 of the Company's Annual Report on Form 10-K for the year ended December 31, 2006, filed with the SEC on February 27, 2007).
- Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and Joint Stock Company "Techsnabexport" ("TENEX") (incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2011, filed with the SEC on May 4, 2011). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.15 Amendment No. 001 dated April 22, 2013 to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2013, filed with the SEC on August 6, 2013). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.16 Amendment No. 002 dated July 29, 2013 to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013, filed with the SEC on November 5, 2013). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.17 Amendment No. 003 dated July 23, 2014 to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, filed with the SEC on November 14, 2014). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.18 Amendment No. 004 dated September 10, 2014 to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.6 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, filed with the SEC on November 14, 2014). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.19 Letter Agreement, dated June 22, 2015, supplementing the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX. (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).

- 10.20 Amendment No. 005 dated July 7, 2015, to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed with the SEC on November 12, 2015), (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.21 Amendment No. 006 dated September 4, 2015, to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended September 30, 2015, filed with the SEC on November 12, 2015). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.22 Amendment No. 007 dated October 19, 2015, to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10,19 of the Company's Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 23, 2016). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.23 Amendment No. 008 dated December 22, 2015, to the Enriched Product Transitional Supply Contract dated March 23, 2011 between United States Enrichment Corporation and TENEX (incorporated by reference to Exhibit 10.20 of the Company's Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 23, 2016). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.24 Letter Agreement, dated August 1, 2016, by and between Joint Stock Company "TENEX" and United States Enrichment Corporation (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed with the SEC on November 10, 2016). (Certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2).
- 10.25 Letter Agreement, dated September 23, 2019, by and between Joint Stock Company "TENEX" and United States Enrichment Corporation (certain information has been omitted because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed) (incorporated by reference to Exhibit 10.1 to the Company's Ouarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed with the SEC on November 8, 2019).
- 10.26 Amendment No. 009, dated September 23, 2019, to the Enriched Product Transitional Supply Contract dated March 23, 2011, between United States Enrichment Corporation and TENEX (certain information has been omitted because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed) (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed with the SEC on November 8, 2019).
- 10.27 Letter Agreement, dated June 12, 2018, by and between Joint Stock Company "TENEX" and United States Enrichment Corporation (certain information has been omitted because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed) (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed with the SEC on November 8, 2019).
- 10.28 Letter Agreement, dated September 28, 2019, by and between Joint Stock Company "TENEX" and United States Enrichment Corporation (certain information has been omitted because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed) (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 filed with the SEC on November 8, 2019).
- 10.29 Letter Agreement, dated June 9, 2020, to the Enriched Product Transitional Supply Contract, dated March 23, 2011, between TENEX, Joint-Stock Company and United States Enrichment Corporation (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2020 filed with the SEC on August 6, 2020).
- 10.30 Amendment No. 010, dated February 11, 2022, to the Enriched Product Transitional Supply Contract dated March 23, 2011, between United States Enrichment Corporation and TENEX (certain information has been omitted because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed).
- 10.31 Director and Officer Indemnification Agreement (incorporated by reference to Exhibit 10.77 of the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 16, 2015).

- 10.32 Form of Change in Control Agreement with executive officers (incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K, filed with the SEC on January 16, 2013). (b)
- 10.33 Employment Agreement, dated March 6, 2015, by and between Centrus Energy Corp. and Daniel B. Poneman (incorporated by reference to Exhibit 10.7 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 7, 2015). (b)
- 10.34 <u>Amended Employment Agreement, dated November 28, 2018, by and between Centrus Energy Corp. and</u> <u>Daniel B. Poneman (incorporated by reference to Exhibit 10.29 of the Company's Annual Report on Form 10-K</u> for the year ended December 31, 2019, filed with the SEC on March 27, 2020). (b)
- 10.35 Form of Employee Nonqualified Stock Option Award Agreement under the Centrus Energy Corp. 2014 Equity. Incentive Plan (incorporated by reference to Exhibit 10.80 of the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 16, 2015). (b)
- 10.36 Form of Non-Employee Director Restricted Stock Unit Award Agreement (Annual Retainers and Meeting Fees) under the Centrus Energy Corp. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.81 of the Company's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 16, 2015). (b)
- 10.37 <u>Amended and Restated Centrus Energy Corp. Executive Severance Plan (incorporated by reference to Exhibit</u> 10.3 of the Company's Current Report on Form 8-K, filed with the SEC on September 30, 2014). (b)
- 10.38 2019 Executive Incentive Plan (incorporated by reference to Exhibit 10.60 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 27, 2020), (b)
- 10.39 USEC Inc. Pension Restoration Plan, as amended and restated, dated November 1, 2007 (incorporated by reference to Exhibit 10.55 of the Company's Annual Report on Form 10-K/A for the year ended December 31, 2007, filed with the SEC on February 29, 2008). (b)
- 10.40 First Amendment, dated August 1, 2008, to USEC Inc. Pension Restoration Plan, as amended and restated, dated November 1, 2007 (incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, filed with the SEC on November 5, 2008). (b)
- 10.41 Second Amendment dated July 25, 2013 to the USEC Inc. Pension Restoration Plan, as amended and restated effective January 1, 2008 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on July 26, 2013). (b)
- 10.42 USEC Inc. 1999 Supplemental Executive Retirement Plan, as amended and restated, dated November 1, 2010 (incorporated by reference to Exhibit 10.65 of the Company's Annual Report on Form 10-K for the year ended December 31, 2010, filed with the SEC on February 24, 2011). (b)
- 10.43 Centrus Energy Corp. Executive Deferred Compensation Plan, as amended and restated (incorporated by reference to Exhibit 10.5 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015). (b)
- 10.44 Centrus Energy Corp. 2014 Equity Incentive Plan (as Amended and Restated June 16, 2021) (incorporated by reference to Appendix C of the Company's Definitive Proxy Statement on Schedule 14A filed with the SEC on April 28, 2021. (b)
- 10.45 <u>Centrus Energy Corp. Employee Notional Stock Unit Award Agreement and Centrus Energy Corp. Employee</u> <u>Stock Appreciation Right Award Agreement (incorporated by reference to Exhibit 10.1 of the Company's</u> <u>Quarterly Report on Form 10-Q, filed with the SEC on November 12, 2021)</u>
- 10.46 Purchase and Sale Agreement dated April 27, 2018 between Orano Cycle and United States Enrichment Corporation (incorporated by reference to Exhibit 10.47 of the Company's Ouarterly Report on Form 10-Q for the quarter ended June 30, 2018, filed with the SEC on August 9, 2018). (Certain information has been omitted and filed separately, pursuant to confidential treatment under Rule 24.b2)
- 10.47 First Amendment, dated June 5, 2020, to the Purchase and Sale Agreement, dated April 27, 2018, between Orano Cycle and United States Enrichment Corporation (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 filed with the SEC on August 6, 2020).

- 10.48 Letter Agreement, dated May 31, 2019 between Centrus Energy Corp. and the U.S. Department of Energy (certain information has been omitted and filed separately pursuant to confidential treatment under Rule 24b-2) (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2019, filed with the SEC on August 12, 2019)
- 10.49 Agreement, dated October 31, 2019, by and between American Centrifuge Operating, LLC and the United States Department of Energy (incorporated by reference to Exhibit 10.59 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 27, 2020).
- 10.50 Modification 14 to Agreement, dated as of December 7, 2021, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.50 of the Company's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 11, 2021.
- 10.51 Voting and Nomination Agreement, dated April 13, 2020, by and between the Company and the MB Group (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on April 14, 2020).
- 10.52 First Amendment to the Voting and Nomination Agreement dated February 2, 2021, by and among the Company, Morris Bawabeh, Kulayba LLC, and M&D Bawabeh Foundation, Inc. (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on February 5, 2021).
- 10.53 Exchange Agreement dated February 2, 2021, by and between the Company and Kulayba LLC (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed with the SEC on February 5, 2021).
- 10.54 Agreement, dated as of September 7, 2021 by and between United States Enrichment Corporation and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 12, 2021).
- 10.55 Executive Incentive Plan dated April 8, 2022 (incorporated by reference to Exhibit 99.1 of the Company's Current Report on Form 8-K, filed with the SEC on April 12, 2022). (b)
- 10.56 Form of Employee Restricted Stock Award Notice under the Executive Incentive Plan dated April 8, 2022 (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2022, filed with the SEC on May 6, 2022). (b)
- 10.57 Modification 1 to Agreement, dated as of September 25, 2019, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
- 10.58 <u>Modification 3 to Agreement, dated as of March 18, 2020, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).</u>
- 10.59 <u>Modification 4 to Agreement, dated as of June 5, 2020, by and between American Centrifuge Operating, LLC</u> and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly <u>Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).</u>
- 10.60 <u>Modification 5 to Agreement, dated as of June 17, 2020, by and between American Centrifuge Operating, LLC</u> and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
- 10.61 <u>Modification 6 to Agreement, dated as of September 1, 2020, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).</u>
- 10.62 <u>Modification 7 to Agreement, dated as of February 19, 2021, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).</u>
- 10.63 <u>Modification 8 to Agreement, dated as of April 7, 2021, by and between American Centrifuge Operating, LLC</u> and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly <u>Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022)</u>.

10.64	Modification 9 to Agreement, dated as of May 10, 2021, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.65	Modification 10 to Agreement, dated as of August 6, 2021, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.66	Modification 12 to Agreement, dated as of October 19, 2021, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.67	Modification 13 to Agreement, dated as of October 28, 2021, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.68	Modification 15 to Agreement, dated as of January 26, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.69	Modification 16 to Agreement, dated as of March 11, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.70	Modification 17 to Agreement, dated as of March 16, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.71	Modification 18 to Agreement, dated as April 7, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.72	Modification 19 to Agreement, dated as of April 25, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 6, 2022).
10.73	Modification 20 to Agreement, dated May 18, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2022, filed with the SEC on August 5, 2022).
10.74	Modification 21 to Agreement, dated July 7, 2022, by and between American Centrifuge Operating, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2022, filed with the SEC on August 5, 2022).
10.75	Modification 22 to Agreement, dated July 27, 2022, by and between American Centrifuge, LLC and the U.S Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, filed with the SEC on August 5, 2022).
10.76	Modification 23 to Agreement, dated July 29, 2022, by and between American Centrifuge, LLC and the U.S Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2022, filed with the SEC on August 5, 2022).
10.77	Modification 24 to Agreement, dated August 1, 2022, by and between American Centrifuge, LLC and the U.S Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the guarter ended June 30, 2022, filed with the SEC on August 5, 2022).
10.78	Modification 25 to Agreement, dated September 7, 2022, by and between American Centrifuge, LLC and the U.S Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed with the SEC on November 9, 2022).
10.79	Modification 26 to Agreement, dated October 19, 2022, by and between American Centrifuge, LLC and the U.S. Department of Energy (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed with the SEC on November 9, 2022).
10.80	Modification 27 to Agreement, dated November 28, 2022, by and between American Centrifuge, LLC and the U.S Department of Energy. (a)

Department of Energy (a) 10.85 Modification 1 to Agreement, dated January 19, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy (a) 10.86 Modification 29 to Agreement, dated February 14, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy (a) 21 Subsidiaries of Centrus Energy Corp. (a) 23.1 Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a) 31.1 Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)	10.81	Agreement, dated November 30, 2022, by and between American Centrifuge, LLC and the U.S. Department of Energy (a)
Morris Bawabeh, Kulayba LLC and M&D Bawabeh Foundation, Inc. (a) 10.84 Modification 28 to Agreement, dated January 25, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 10.85 Modification 1 to Agreement, dated January 19, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 10.86 Modification 29 to Agreement, dated February 14, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 10.86 Modification 29 to Agreement, dated February 14, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 21 Subsidiaries of Centrus Energy Corp. (a) 23.1 Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a) 31.1 Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)	10.82	
 10.85 Modification 1 to Agreement, dated January 19, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 10.86 Modification 29 to Agreement, dated February 14, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 10.86 Modification 29 to Agreement, dated February 14, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a) 21 Subsidiaries of Centrus Energy Corp. (a) 23.1 Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a) 31.1 Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a). (a) 	10.83	
Department of Energy_(a) 10.86 Modification 29 to Agreement, dated February 14, 2023, by and between American Centrifuge, LLC and the U.S Department of Energy_(a) 21 Subsidiaries of Centrus Energy Corp_(a) 23.1 Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a) 31.1 Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a)_(a)	10.84	Modification 28 to Agreement, dated January 25, 2023, by and between American Centrifuge, LLC and the U.S Department of Energy (a)
21 Subsidiaries of Centrus Energy Corp. (a) 23.1 Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a) 31.1 Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)	10.85	Modification 1 to Agreement, dated January 19, 2023, by and between American Centrifuge, LLC and the U.S. Department of Energy. (a)
 23.1 <u>Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a)</u> 31.1 <u>Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)</u> 	10.86	
31.1 <u>Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) (a)</u>	21	Subsidiaries of Centrus Energy Corp. (a)
-	23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm. (a)
	31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)
31.2 <u>Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)</u>	31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a). (a)

- 32.1 Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350. (a)
- 101 <u>Consolidated financial statements from the Annual Report on Form 10-K for the fiscal year ended</u> December 31, 2022, filed in interactive data file (XBRL) format. (a)

(a) Filed herewith.

(b) Management contracts and compensatory plans and arrangements required to be filed as exhibits pursuant to Item 15(b) of this report.

SIGNATURES Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

	Centrus Energy Corp.
February 22, 2023	/s/ Daniel B. Poneman
	Daniel B. Poneman
	President and Chief Executive Officer
Pursuant to the requirements of the Securities Exchange Act indicated on February 22, 2023:	of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities
Signature	Title
/s/ Daniel B. Poneman	President and Chief Executive Officer

Daniel B. Poneman	(Principal Executive Officer) and Director
/s/ Philip O. Strawbridge Philip O. Strawbridge	Senior Vice President, Chief Financial Officer, Chief Administrative Officer and Treasurer (Principal Financial Officer)
/s/ Kevin J. Harrill Kevin J. Harrill	Controller and Chief Accounting Officer (Principal Accounting Officer)
/s/ Mikel H. Williams Mikel H. Williams	Chairman of the Board and Director
/s/ Kirkland H. Donald Kirkland H. Donald	Director
/s/ Tetsuo Iguchi Tetsuo Iguchi	Director
/s/ W. Thomas Jagodinski W. Thomas Jagodinski	Director
/s/ Tina W. Jonas Tina W. Jonas	Director
/s/ William J. Madia William J. Madia	Director
/s/ Bradley K. Sawatzke Bradley K. Sawatzke	Director
/s/ Neil S. Subin Neil S. Subin	Director

CENTRUS ENERGY CORP.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Centrus Energy Corp.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Centrus Energy Corp. and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive income, of stockholders' deficit and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audits of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation Allowance related to Federal Deferred Tax Assets

As described in Notes 1 and 13 to the consolidated financial statements, as of December 31, 2022, the Company's deferred tax assets were \$452.1 million, net of a valuation allowance of \$414.1 million, both of which a significant portion relates to federal deferred tax assets. The ultimate realization of deferred tax assets is dependent upon generating sufficient income in future years when deferred tax assets are recoverable or are expected to reverse. A valuation allowance is provided if it is more likely than not that the deferred tax assets may not be realized. Management evaluates both positive and negative evidence that is objectively verifiable to determine the amount of the valuation allowance. Sustained profitability and cumulative income, as well as, forecasted income, are considered to be significant forms of positive evidence. Negative evidence includes uncertainty in and the lack of objectively verifiable evidence for profitability in later years when the Company's existing order book and supply contracts reach expiration.

The principal considerations for our determination that performing procedures relating to the valuation allowance related to federal deferred tax assets is a critical audit matter are (i) the significant judgment by management when assessing the ability to realize the federal deferred tax assets and whether a valuation allowance is necessary, particularly as it relates to forecasted income and (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating audit evidence related to management's significant assumptions related to forecasted income.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the ability to realize federal deferred tax assets and whether a valuation allowance is necessary, including controls over forecasted income. These procedures also included, among others (i) testing management's process for assessing the ability to realize federal deferred tax assets and whether a valuation allowance is necessary; (ii) testing the completeness and accuracy of underlying data used in management's process for assessing the ability to realize federal deferred tax assets and whether a valuation allowance is necessary; and (iii) evaluating the reasonableness of the significant assumptions used by management related to forecasted income. Evaluating management's assumptions related to the forecasted income involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the Company; (ii) the terms of the Company's existing contractual agreements with its customers and suppliers; (iii) the source and reliability of market related inputs; and (iv) whether the assumptions were consistent with evidence obtained in other areas of the audit.

/s/ PricewaterhouseCoopers LLP Baltimore, Maryland February 22, 2023

We have served as the Company's auditor since 2002.

CENTRUS ENERGY CORP. CONSOLIDATED BALANCE SHEETS (in millions, except share and per share data)

	December 31,			
		2022		2021
ASSETS				
Current assets:				
Cash and cash equivalents	\$	179.9	\$	193.8
Accounts receivable		38.1		29.1
Inventories		209.2		91.1
Deferred costs associated with deferred revenue		135.7		143.3
Other current assets		24.2		8.6
Total current assets		587.1		465.9
Property, plant and equipment, net		5.5		5.3
Deposits for financial assurance		32.3		2.8
Intangible assets, net		45.7		54.7
Deferred tax assets, net		26.8		41.4
Other long-term assets		8.1		2.3
Total assets	\$	705.5	\$	572.4
LIABILITIES AND STOCKHOLDERS' DEFICIT				
Current liabilities:				
Accounts payable and accrued liabilities	\$	65.5	\$	37.8
Payables under inventory purchase agreements		43.6		37.9
Inventories owed to customers and suppliers		60.8		8.4
Deferred revenue and advances from customers		273.2		303.1
Current debt		6.1		6.1
Total current liabilities		449.2		393.3
Long-term debt		95.7		101.8
Postretirement health and life benefit obligations		84.5		114.9
Pension benefit liabilities		43.6		23.1
Advances from customers		46.2		45.1
Long-term inventory loans		48.7		22.4
Other long-term liabilities		11.7		13.7
Total liabilities		779.6		714.3
Commitments and contingencies (Note 16)			-	
Stockholders' deficit:				
Class A Common Stock, par value \$0.10 per share, 70,000,000 shares authorized, 13,919,646 and 13,649,933 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively		1.4		1.4
Class B Common Stock, par value \$0.10 per share, 30,000,000 shares authorized, 719,200 shares issued and outstanding as of December 31, 2022 and December 31, 2021		0.1		0.1
Excess of capital over par value		158.1		140.7
Accumulated deficit		(233.9)		(284.6)
Accumulated other comprehensive income		0.2		0.5
Total stockholders' deficit		(74.1)		(141.9)
Total liabilities and stockholders' deficit	\$	705.5	\$	572.4

The accompanying notes are an integral part of these Consolidated Financial Statements.

CENTRUS ENERGY CORP. CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (in millions, except share and per share data)

	Year Ended December 31,				
	 2022	2021		2020	
Revenue:	 				
Separative work units	\$ 196.2	5 163.3	\$	151.5	
Uranium	39.4	22.8		39.0	
Technical solutions	58.2	112.2		56.7	
Total revenue	 293.8	298.3		247.2	
Cost of Sales:	 				
Separative work units and uranium	105.0	113.1		92.7	
Technical solutions	70.9	70.7		56.9	
Total cost of sales	 175.9	183.8		149.6	
Gross profit	 117.9	114.5	-	97.6	
Advanced technology costs	14.8	2.1		2.8	
Selling, general and administrative	33.9	36.0		36.0	
Amortization of intangible assets	9.0	8.1		6.8	
Special charges for workforce reductions	0.5	_		0.6	
Other expense, net	_	_		0.4	
Operating income	 59.7	68.3		51.0	
Nonoperating components of net periodic benefit income	(6.6)	(67.6)		(1.6)	
Interest expense	0.5	0.1		0.1	
Investment income	(2.0)	(0.1)		(0.5)	
Income before income taxes	67.8	135.9		53.0	
Income tax expense (benefit)	15.6	(39.1)		(1.4)	
Net income and comprehensive income	52.2	175.0		54.4	
Distributed earnings allocable to warrant modification	1.5	_		_	
Preferred stock dividends - undeclared and cumulative	—	2.1		6.7	
Distributed earnings allocable to retired preferred shares	_	37.6		41.9	
Net income allocable to common stockholders	\$ 50.7	\$ 135.3	\$	5.8	
Net income per share:					
Basic	\$ 3.47 \$	5 10.03	\$	0.59	
Diluted	\$ 3.38 \$	9.75	\$	0.57	
Average number of common shares outstanding (in thousands):					
Basic	14,601	13,493		9,825	
Diluted	14,988	13,879		10,123	

The accompanying notes are an integral part of these Consolidated Financial Statements.

CENTRUS ENERGY CORP. CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)

OPERATING Net income Adjustments to reconcile net income to cash provided by operating activities: Depreciation and amortization Accrued loss on long-term contract Deferred tax assets Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements Deferred revenue and advances from customers, net of deferred costs	2022 \$ 52.2 9.6 19.5 14.7 7.8 8.0 1.9 (9.0) (88.5) 52.4	2021 \$ 175.0 8.6 (7.2) (39.5) (50.5) 4.8 12.1 0.5 (112)	2020 \$ 54.4 7.3 (10.6) (1.9) 7.2 - 7.1 (9.6)
Net income Adjustments to reconcile net income to cash provided by operating activities: Depreciation and amortization Accrued loss on long-term contract Deferred tax assets Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	9.6 19.5 14.7 7.8 8.0 1.9 (9.0) (88.5)	8.6 (7.2) (39.5) (50.5) 4.8 12.1 0.5	7.3 (10.6) (1.9) 7.2 — 7.1
Adjustments to reconcile net income to cash provided by operating activities: Depreciation and amortization Accrued loss on long-term contract Deferred tax assets Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories wed to customers and suppliers Other current assets Payables under inventory purchase agreements	9.6 19.5 14.7 7.8 8.0 1.9 (9.0) (88.5)	8.6 (7.2) (39.5) (50.5) 4.8 12.1 0.5	7.3 (10.6) (1.9) 7.2 — 7.1
Depreciation and amortization Accrued loss on long-term contract Deferred tax assets Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	19.5 14.7 7.8 8.0 1.9 (9.0) (88.5)	(7.2) (39.5) (50.5) 4.8 12.1	(10.6) (1.9) 7.2 — 7.1
Accrued loss on long-term contract Deferred tax assets Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	19.5 14.7 7.8 8.0 1.9 (9.0) (88.5)	(7.2) (39.5) (50.5) 4.8 12.1	(10.6) (1.9) 7.2 — 7.1
Deferred tax assets Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	14.7 7.8 8.0 1.9 (9.0) (88.5)	(39.5) (50.5) 4.8 12.1 0.5	(1.9) 7.2 — 7.1
Retirement benefit plans (gains) losses, net Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories wed to customers and suppliers Other current assets Payables under inventory purchase agreements	7.8 8.0 1.9 (9.0) (88.5)	(50.5) 4.8 12.1 0.5	7.2
Revaluation of inventory borrowing Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	8.0 1.9 (9.0) (88.5)	4.8 12.1 0.5	 7.1
Equity-related compensation Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	1.9 (9.0) (88.5)	12.1 0.5	
Changes in operating assets and liabilities: Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	(9.0) (88.5)	0.5	
Accounts receivable Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	(88.5)		(9.6)
Inventories Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements	(88.5)		(9.6)
Inventories owed to customers and suppliers Other current assets Payables under inventory purchase agreements		((8.6)
Other current assets Payables under inventory purchase agreements	52.4	(14.2)	26.6
Payables under inventory purchase agreements		3.5	(0.8)
	(15.6)	(1.0)	(0.4)
Deferred revenue and advances from customers, net of deferred costs	5.7	16.6	13.2
	(22.5)	13.2	9.7
Accounts payable and other liabilities	2.6	(4.6)	(5.2)
Pension and postretirement liabilities	(18.1)	(67.0)	(32.7)
Other, net	(0.1)	(0.3)	1.8
Cash provided by operating activities	20.6	50.0	67.1
INVESTING			
Capital expenditures	(0.7)	(1.2)	(1.4)
Cash used in investing activities			
Cash used in investing activities	(0.7)	(1.2)	(1.4)
FINANCING			
Proceeds from the issuance of common stock, net	3.6	42.1	23.1
Redemption of preferred stock, net	_	(44.4)	(61.6)
Payment of interest classified as debt	(6.1)	(6.1)	(6.1)
Exercise of stock options	0.4	0.9	0.3
Withholding of shares to fund grantee tax obligations under stock-based compensation plan	(1.9)	(2.4)	_
Other	(0.3)	_	(0.1)
Cash used in financing activities	(4.3)	(9.9)	(44.4)
Increase in cash, cash equivalents and restricted cash	15.6	38.9	21.3
Cash, cash equivalents and restricted cash, beginning of period (Note 3)	196.8	157.9	136.6
Cash, cash equivalents and restricted cash, end of period (Note 3)	\$ 212.4	\$ 196.8	\$ 157.9

Supplemental cash flow information:

Non-cash activities:			
Property, plant and equipment included in accounts payable and accrued liabilities	0.2	_	0.3
Equity transaction costs included in accounts payable and accrued liabilities	0.2	0.4	0.2
Adjustment to right to use lease assets from lease modification	6.6	-	_
Disposal of right to use lease assets from lease modification	—	1.0	0.2
Reclassification of equity compensation liability to equity	10.6	7.5	_
Common stock and warrant issued in exchange for preferred stock	—	7.5	_
Distributed earnings allocable to warrant modification	1.5	_	

The accompanying notes are an integral part of these Consolidated Financial Statements.

CENTRUS ENERGY CORP. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT (in millions, except per share data)

	Preferred Stock, Series B	Common Stock, Class A, Par Value \$0.10 per Share	Common Stock, Class B, Par Value \$0.10 per Share	Excess of Capital Over Par Value	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
Balance at December 31, 2019	\$ 4.6	\$ 0.8	\$ 0.1	\$ 61.5	\$ (405.0)	\$ 1.1	\$ (336.9)
Net income	—	—	—	—	54.4	—	54.4
Issuance of common stock	—	0.3	_	22.8	_	—	23.1
Purchase under tender offer	(4.5)	—	—	—	(57.1)	—	(61.6)
Other comprehensive loss	—	—	—	—	—	(0.3)	(0.3)
Stock-based compensation				0.7			0.7
Balance at December 31, 2020	\$ 0.1	\$ 1.1	\$ 0.1	\$ 85.0	\$ (407.7)	\$ 0.8	\$ (320.6)
Net income	_			_	175.0	_	175.0
Issuance of common stock	_	0.2	_	41.9		_	42.1
Exchange of preferred stock for common stock and common stock warrant	_	0.1	_	7.5	(7.6)	_	_
Purchase under tender offer	(0.1)	_	_	_	(44.3)	_	(44.4)
Reclassification of stock-based compensation liability to equity		_	_	7.5	_	_	7.5
Stock-based compensation shares withheld for employee taxes	_	_	_	(2.4)	_	_	(2.4)
Other comprehensive loss	—	—	—	—	—	(0.3)	(0.3)
Stock-based compensation				1.2			1.2
Balance at December 31, 2021	<u> </u>	\$ 1.4	\$ 0.1	\$ 140.7	\$ (284.6)	\$ 0.5	\$ (141.9)
Net income	—	—	—	—	52.2	—	52.2
Issuance of common stock	—	—	—	4.0	—	—	4.0
Reclassification of stock-based compensation liability to equity		—	—	10.6	—	—	10.6
Stock-based compensation shares withheld for employee taxes	—	—	—	(1.9)		—	(1.9)
Warrant modification	_	_	_	1.5	(1.5)	_	_
Other comprehensive loss (net of tax)	—	—	—	—	—	(0.3)	(0.3)
Stock-based compensation				3.2			3.2
Balance at December 31, 2022	<u>s </u>	<u>\$ 1.4</u>	\$ 0.1	\$ 158.1	<u>\$ (233.9)</u>	<u>\$ 0.2</u>	\$ (74.1)

The accompanying notes are an integral part of these Consolidated Financial Statements.

CENTRUS ENERGY CORP. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation

The Consolidated Financial Statements of Centrus Energy Corp. ("Centrus" or the "Company"), which include the accounts of the Company, its principal subsidiary Enrichment Corp., and its other subsidiaries, were prepared in conformity with U.S. GAAP. Certain prior year amounts have been reclassified for consistency with the current year presentation. All material intercompany transactions have been eliminated.

Use of Estimates

The preparation of Consolidated Financial Statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect reported amounts presented and disclosed in the Consolidated Financial Statements. Significant estimates and judgments include, but are not limited to, revenue and related costs, asset valuations, pension and postretirement health and life benefit costs and obligations, the tax bases of assets and liabilities, the future recoverability of deferred tax assets, and determination of the valuation allowance for deferred tax assets. Actual results may differ from such estimates, and estimates may change if the underlying conditions or assumptions change.

Cash and Cash Equivalents

Cash and cash equivalents include short-term or highly liquid assets with original maturities of three months or less.

Inventories and Inventories Owed to Customers and Suppliers

LEU consists of two components: SWU and uranium. SWU is a standard unit of measurement that represents the effort required to transform a given amount of natural uranium into two components: enriched uranium having a higher percentage of U^{235} and depleted uranium having a lower percentage of U^{235} . The SWU contained in LEU is calculated using an industry standard formula based on the physics of enrichment. The amount of enrichment deemed to be contained in LEU under this formula is commonly referred to as its SWU component and the quantity of natural uranium deemed to be used in the production of LEU under this formula is referred to as its uranium or "feed" component.

SWU and uranium inventory costs are determined using the average cost method. SWU and uranium purchase costs include shipping costs when applicable. Inventories of SWU and uranium are valued at the lower of cost or NRV. NRV is the estimated selling price in the ordinary course of business less reasonably predictable costs of completion, disposal, and transportation. The estimated selling price for SWU and uranium is based on the pricing terms of contracts in the Company's Order Book, and, for uranium not under contract, the estimated selling price is based primarily on published price indicators at the balance sheet date.

Inventories owed to customers and suppliers, included in current liabilities, consist primarily of SWU and uranium inventories owed to fabricators. Fabricators process LEU into fuel for use in nuclear reactors. Under inventory optimization arrangements between Centrus and domestic fabricators, fabricators order quantities of LEU from Centrus based on scheduled or anticipated orders from utility customers, for deliveries in future periods. As delivery obligations under actual customer orders arise, Centrus typically satisfies these obligations by arranging for the transfer to the customer of title to the specified quantity of LEU at the fabricator. Centrus' balances of SWU and uranium vary over time based on the timing and size of the fabricator's LEU orders from Centrus and the fabricator's needs for working stock of LEU. Balances can be positive or negative at the discretion of the fabricator. Fabricators have other inventory supplies and, where a fabricator has elected to order less material from Centrus



than Centrus is required to deliver to its customers at the fabricator, the fabricator will use these other inventories to satisfy Centrus' customer order obligations on Centrus' behalf. In such cases, the transfer of title of LEU from Centrus to the customer results in quantities of SWU and uranium being owed by Centrus to the fabricator. The amounts of SWU and uranium owed to fabricators are satisfied as future deliveries of LEU to fabricators are made. **Deferred Taxes**

Centrus follows the asset and liability approach to account for deferred taxes. Deferred tax assets and liabilities are recognized for the anticipated future tax consequences of temporary differences between the balance sheet carrying amounts of assets and liabilities and their respective tax bases. Deferred taxes are based on income tax rates in effect for the years in which temporary differences are expected to reverse. The effect on deferred taxes of a change in income tax rates is recognized in income when the change in rates is enacted in the law. A valuation allowance is provided if it is more likely than not that all, or some portion, of the deferred tax assets may not be realized.

Property, Plant and Equipment

Property, plant and equipment are recorded at acquisition cost. Leasehold improvements and machinery and equipment are depreciated on a straight-line basis over the shorter of the useful life of the assets or the lease term, if applicable. Refer also to Carrying Value of Long-Lived Assets below.

Intangible Assets

Centrus has intangible assets resulting from fresh start accounting as a result of emergence from Chapter 11 bankruptcy on September 30, 2014. The identifiable intangible assets relate to the sales Order Book and customer relationships. The Order Book intangible asset is amortized as the Order Book valued at emergence is reduced, principally as a result of deliveries to customers. The customer relationships intangible asset is amortized using the straight-line method over the estimated average useful life of 15 years, with 6 ³/₄ years of scheduled amortization remaining. Refer also to *Carrying Value of Long-Lived Assets* below.

Carrying Value of Long-Lived Assets

The Company evaluates the carrying values of property, plant and equipment and identifiable intangible assets when events or changes in business circumstances indicate that the carrying amount of asset, or asset group, may not be fully recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. An impairment loss is measured as the amount by which the carrying amount of a long-lived asset, or asset group, exceeds its fair value.

Financial Instruments and Fair Value Measurement

Accounting standards define fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, consideration is given to the principal or most advantageous market and assumptions that market participants would use when pricing the asset or liability.

Pursuant to accounting standards, Centrus' 8.25% Notes due February 2027 are recorded at face value and the fair value is disclosed. The estimated fair value of the 8.25% Notes is based on bid/ask quotes as of or near the balance sheet date. Debt issuance costs are deferred and amortized over the life of the instrument.

The balance sheet carrying amounts for accounts receivable, accounts payable and accrued liabilities, and payables under inventory purchase agreements approximate fair value because of the short-term nature of the instruments.



Concentrations of Credit Risk

Credit risk could result from the possibility of a customer failing to perform or pay according to the terms of a contract. Extension of credit is based on an evaluation of each customer's financial condition. Centrus regularly monitors credit risk exposure and takes steps intended to mitigate the likelihood of such exposure resulting in a loss.

Concentrations of Supply Risk and Other Considerations with the War in Ukraine

The current war in Ukraine has led to the U.S., Russia and other countries imposing sanctions and other measures that restrict international trade. The situation is rapidly changing, and it is not possible to predict future actions that could be taken. The Company has multiple sources of supply; however, the supply contract with TENEX remains our largest source. At present, sanctions have not impacted the ability of the Company or TENEX to perform under the TENEX supply contract. Recently, sanctions have been imposed by the U.S. on exports of fossil fuels. Russia has imposed sanctions on the export of commodities but does not include the export of LEU. Additional sanctions or other measures by the U.S. or foreign governments (including the Russian government) could be imposed. Any sanctions or measures directed at trade in LEU from Russia or the parties involved in such trade or otherwise could interfere with, or prevent, implementation of the TENEX Supply Contract. While the initial sanctions announced do not affect the ability of the Company or TENEX to implement the TENEX Supply Contract, the situation at this time is unpredictable and therefore there is no assurance that future developments would not have a material adverse effect on the Company's procurement, payment, delivery or sale of LEU under the TENEX Supply Contract.

If measures were taken to limit the supply of Russian LEU or to prohibit or limit dealings with Russian entities, including, but not limited to, TENEX or ROSATOM, the Company would seek a license, waiver or other approval from the government imposing such measures to ensure that the Company could continue to fulfill its purchase and sales obligations. There is no assurance that such a license, waiver, or approval would be granted. If a license, waiver or approval were not granted, the Company would need to look to alternative sources of LEU to replace the LEU that it could not procure from TENEX. The Company has contracts for alternative sources that could be used to mitigate a portion of the near term impacts. However, to the extent these sources were insufficient or more expensive or additional supply cannot be obtained, it could have a material adverse impact on our business, results of operations, and competitive position.

Segments

Centrus operates two business segments: LEU, which supplies various components of nuclear fuel to utilities, and Technical Solutions, which provides advanced engineering, design, and manufacturing services to government and private sector customers.

Related Party

As previously disclosed in our Current Report on Form 8-K filed on December 31, 2020, on that same date the Company entered into an At Market Sales Agreement (the "Sales Agreement") with B. Riley Securities, Inc. and

Lake Street Capital Markets, LLC (the "Agents"), relating to the at the market offering (the "ATM Offering") of

shares of the Company's Class A Common Stock, \$0.10 par value per share. Mr. Williams, Chairman of the Centrus Board of Directors, also served on the board of B. Riley Financial, Inc. Mr. Williams recused himself and took no part in the selection of B. Riley or the negotiation of the terms of the Sales Agreement. Please refer to Note 15, Stockholders' Equity for a description of the ATM Offering in 2021.

Revenue

The Company accounts for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. Revenue for product and service sales is recognized when or as the Company transfers control of the promised products or services to the customer. Revenue is measured at the transaction price, which is based on the amount of consideration that the Company expects to receive in exchange for transferring the promised goods or services to the customer. The transaction price will include estimates of variable consideration until it is probable that a significant reversal of revenue recognized will not occur.

SWU and Uranium Revenue

Revenue for the Company's LEU segment is derived from sales of the SWU component of LEU, from sales of both the SWU and uranium components of LEU, and from sales of uranium. Contracts with customers are primarily medium and long-term, fixed-commitment, contracts under which its customers are obligated to purchase a specified quantity of the SWU component of LEU or the SWU and uranium components of LEU. The Company's contracts for natural uranium are generally shorter-term, fixed-commitment contracts.

Revenue is recognized at the time the customer obtains control of the LEU or uranium. Customers generally obtain control of LEU at nuclear fuel fabricators. Centrus ships LEU to nuclear fuel fabricators for scheduled or anticipated orders from utility customers. Based on customer orders, Centrus arranges for the transfer of title of LEU from Centrus to the customer for the specified quantity of LEU at the fuel fabricator. Each such delivery to a customer is accounted for as a distinct performance obligation under a contract, and a contract may call for multiple deliveries over a number of periods. The contract's transaction price is allocated to each performance obligation based on the observable standalone selling price of each distinct delivery of SWU or uranium. For certain contracts the customers may elect not to take control of the LEU or uranium and Centrus may have the right to enforce payment under the terms of the contractual agreement. The revenue recognition for these contracts is assessed when it occurs.

Utility customers in general have the option to defer receipt of uranium products purchased from the Company beyond the contractual sale period. In such cases, title to SWU and/or uranium components are transferred to the customer and a performance obligation for Centrus is created and a receivable is recorded. Cash is collected for the receivable under normal credit terms. The performance obligation is represented as deferred revenue in *Deferred Revenue and Advances from Customers* on the Consolidated Balance Sheet and the customer-titled product is classified as *Deferred Costs Associated with Deferred Revenue* on the Consolidated Balance Sheet. Risk of loss remains with Centrus until the customer obtains control of the uranium product. The recognition of revenue and related cost of sales occurs at the point in time at which the customer obtains control of SWU or uranium and risk of loss of the product transfers to the customer, which may occur beyond one year. The timing of the transfer of control, subject to notice period requirements, is at the option of the customer. As such, deferred costs and deferred revenue are classified within current assets and current liabilities, respectively.

On occasion, the Company will accept payment in the form of uranium. Revenue from the sale of SWU under such contracts is recognized at the time transfer of control of LEU occurs and is based on the fair value of the uranium at contract inception or as the quantity of uranium is finalized, if variable.

Amounts billed to customers for handling costs are included in sales. Handling costs are accounted for as a fulfillment cost and are included in cost of sales. The Company does not have shipping costs associated with outbound freight after control over a product has transferred to a customer. The Company's contracts with customers do not provide for significant payment terms or financing components.

Technical Solutions Revenue

Revenue for the Technical Solutions segment, principally representing technical, manufacturing, engineering, procurement, construction and operations services offered to public and private sector customers, is recognized over the contractual period as services are rendered. The Company recognizes revenue over time as it performs on these contracts because of the continuous transfer of control to the customer. For public sector contracts, this continuous transfer of control to the customer is supported by clauses in the contract that allow the customer to unilaterally terminate the contract for convenience, pay the Company for costs incurred plus a reasonable profit and assume control of any work in progress. The Company's government and private sector contracts generally contain contractual termination clauses or entitle the Company to payments for work performed to date for goods and services that do not have an alternative use. With control transferring over time, revenue is recognized based on the extent of progress towards completion of the performance obligation. A contract may contain one or more performance obligations. Two or more promises to transfer goods or services to a customer may be considered a single performance obligation if the goods or services are highly interdependent or highly interrelated such that utility of the promised goods or services to the customer includes integration services provided by the Company.

The Company determines the transaction price for each contract based on the consideration it expects to receive for the products or services being provided under the contract. If transaction prices are not stated in the contract for each performance obligation, contractual prices are allocated to performance obligations based on estimated relative standalone selling prices of the promised services. For contracts with multiple performance obligations, the Company allocates the transaction price to each performance obligation based on the estimated standalone selling price of the product or service underlying each performance obligation. The standalone selling price represents the amount the Company would sell the product or service to a customer on a standalone basis (i.e., not bundled with any other products or services). The Company's contracts with the U.S. Government are subject to the FAR and the price is typically based on estimated or actual costs plus a reasonable profit margin. As a result of these regulations, the standalone selling price of products or services in the Company's contracts with the U.S. Government are typically equal to the selling price stated in the contract. The Company does not contemplate future modifications, including unexercised options until they become legally enforceable. Contracts may be subsequently modified to include changes in specifications, requirements or price, which may create new or change existing enforceable rights and obligations. Depending on the nature of the modification, the Company considers whether to account for the modification as an adjustment to the existing contract or as a separate contract.

The Company generally uses the cost-to-cost input method of progress for performance obligations to deliver products with continual transfer of control to the customer because it best depicts the transfer of control to the customer that occurs as the Company incurs costs. Under the cost-to-cost method, the extent of progress towards completion is measured based on the proportion of direct costs incurred to date to the total estimated direct costs at completion of the performance obligation. Revenues are recorded proportionally as costs are incurred. For performance obligations to provide services to the customer, revenue is recognized over time based on direct costs incurred or the right to invoice method (in situations where the value transferred matches the Company's billing rights) as the customer receives and consumes the benefits.

Use of the cost-to-cost method requires the Company to make reasonably dependable estimates of costs at completion associated with the design, manufacture and delivery of products and services in order to calculate revenue. Significant judgment is used to estimate total revenue and costs at completion, particularly in the assumptions related to internal labor hours and third-party services for which a vendor invoice or quote is not yet available. As a significant change in one or more estimates could affect the profitability of the Company's contracts, the Company reviews and updates its contract-related estimates regularly. Adjustments in estimated profits/losses are recognized under the cumulative catch-up method. Under this method, the impact of the adjustments is recognized in the period the adjustment is recognized. When estimates of total costs at completion for such an integrated, construction type contract exceed total estimates of revenue to be earned on a performance obligation related to complex equipment or related services, a provision for the remaining loss on the performance obligation is recognized in the period the loss is determined.

The Company applied the practical expedient in paragraph ASC 606-10-50-14 and does not disclose the value of remaining performance obligations under service contracts having original expected terms of one year or less.

The timing of revenue recognition may differ from the timing of invoicing to customers. Progress on satisfying performance obligations under contracts with customers and the related billings and cash collections are recorded on the Consolidated Balance Sheet as contract assets or contract liabilities. Contract balances are classified as assets or liabilities on a contract-by-contract basis at the end of each reporting period.

Unbilled receivables are included in *Accounts Receivable* on the Consolidated Balance Sheet and arise when the timing of cash collected from customers differs from the timing of revenue recognizion. Those assets are recognized when the revenue associated with the contract is recognized prior to billing and derecognized when billed in accordance with the terms of the contract. To the extent billings to the customer precede the recognizion of Technical Solutions revenue, the Company recognizes a liability included in *Deferred Revenue and Advances from Customers* on the Consolidated Balance Sheet.

Advanced Technology Costs

American Centrifuge and related expenses that are outside of our customer contracts are included in Advanced Technology Costs.

Pension and Postretirement Health and Life Benefit Plans

The Company provides retirement benefits to certain employees and retirees under defined benefit pension plans and postretirement health and life benefit plans. The valuation of benefit obligations and costs is based on provisions of the plans and actuarial assumptions that involve judgments and estimates. Plan assets and benefit obligations are remeasured each year as of the balance sheet date, or when lump sum payments exceed certain levels, resulting in differences between actual and projected results. The Company has elected to recognize these actuarial gains and losses immediately in the statement of operations to provide transparency regarding the impacts of changes in plan assets and benefit obligations.

Stock-Based Compensation

Centrus has a stock-based compensation plan which authorizes the issuance of common stock to the Company's employees, officers, directors, and other individuals providing services to the Company or its affiliates pursuant to options, notional stock units, stock appreciation rights, restricted stock units, restricted stock, performance awards, dividend equivalent rights, and other stock-based awards.

Stock-based compensation cost for options and stock-settled awards are measured at the grant date based on the fair value of the award. The cost is recognized over the requisite service period on a straight-line basis over the vesting period.

Stock-based compensation cost for awards likely to be settled with cash payments are recognized over the requisite service period and accrued as a liability and re-measured each reporting period based on the trading price of the Company's common stock.

The Company recognizes forfeitures as they occur.

2. REVENUE AND CONTRACTS WITH CUSTOMERS

Disaggregation of Revenue

The following table presents revenue from SWU and uranium sales disaggregated by geographical region, including foreign countries representing 10% or more of revenue, based on the billing addresses of customers (in millions):

	Year Ended December 31,					
		2022		2021		2020
United States	\$	96.1	\$	108.3	\$	115.0
Foreign:						
Belgium		38.3		36.6		35.8
Japan		61.6		34.6		23.4
Other		39.6		6.6		16.3
Total foreign		139.5		77.8		75.5
Revenue - SWU and uranium	\$	235.6	\$	186.1	\$	190.5

Refer to Note 18, *Revenue by Geographic Area, Major Customers and Segment Information* for disaggregation of revenue by segment and end-market. SWU sales are made primarily to electric utility customers and uranium sales are made primarily to other nuclear fuel-related companies. Technical Solutions revenue resulted primarily from services provided to the government and its contractors. SWU and uranium revenue is recognized at point of sale and Technical Solutions revenue is generally recognized over time.

SWU revenue in 2020 includes \$32.6 million collected from a customer in settlement of a supply contract that was subject to the customer's bankruptcy proceeding.

Accounts Receivable

	December 31,				
	 2022	2021			
	 (\$ millions)				
Accounts receivable:					
Billed	\$ 29.0	\$	23.1		
Unbilled *	9.1		6.0		
Accounts receivable	\$ 38.1	\$	29.1		

* Billings under certain contracts in the Technical Solutions segment are invoiced based on approved provisional billing rates. Unbilled revenue represents the difference between actual costs incurred and invoiced amounts. The Company expects to invoice and collect the unbilled amounts after actual rates are submitted to the customer and approved. Unbilled revenue also includes unconditional rights to payment that are not yet billable under applicable contracts pending the compilation of supporting documentation.

Contract Liabilities

The following table presents changes in contract liability balances (in millions):

		Decem	oer 31,		
	-	2022		2021	Change
Accrued losses on HALEU Demonstration and HALEU Operation Contract:					
Current - Accounts payable and accrued liabilities	\$	20.0	\$	0.5	\$ 19.5
Deferred revenue - current	\$	258.4	\$	288.1	\$ (29.7)
Advances from customers - current	\$	14.8	\$	15.0	\$ (0.2)
Advances from customers - noncurrent	\$	46.2	\$	45.1	\$ 1.1

Deferred sales totaled \$33.7 million and \$47.2 million in the year ended December 31, 2022, and 2021, respectively. Previously deferred sales recognized in revenue totaled \$62.4 million and \$42.6 million in the year ended December 31, 2022, and 2021, respectively.

LEU Segment

The SWU component of LEU typically is bought and sold under contracts with deliveries over several years. The Company's agreements for natural uranium sales generally are shorter-term, fixed-commitment contracts. The Company's Order Book extends to 2029. As of December 31, 2022 and December 31, 2021, our Order Book was approximately \$1.0 billion. The Order Book represents the estimated aggregate dollar amount of revenue for future SWU and uranium deliveries under contract and includes approximately \$319 million of *Deferred Revenue and Advances from Customers* at December 31, 2022.

Most of the Company's customer contracts provide for fixed purchases of SWU during a given year. The Company's Order Book is partially based on customers' estimates of the timing and size of their fuel requirements and other assumptions that are subject to change. For example, depending on the terms of specific contracts, the customer may be able to increase or decrease the quantity delivered within an agreed range. The Company's Order Book estimate also is based on the Company's estimates of selling prices, which may be subject to change. For example, depending on the terms of specific contracts, prices may be adjusted based on escalation using a general inflation index, published SWU price indicators prevailing at the time of delivery, and other factors, all of which are variable. The Company uses external composite forecasts of future market prices and inflation rates in its pricing estimates.

Under the terms of certain contracts with customers in the LEU segment, the Company will accept payment for SWU in the form of uranium. Revenue from the sale of SWU under such contracts is recognized at the time LEU is delivered and is based on the fair value of the uranium at contract inception, or as the quantity of uranium is finalized, if variable. For the year ended December 31, 2022, 2021, and 2020, respectively, SWU revenue of \$14.5 million, \$0, and \$23.4 million was recognized under such contracts based on the fair market value of uranium acquired in exchange for SWU delivered. Uranium received from customers as advance payments for the future sales of SWU totaled \$61.0 million and \$59.6 million as of December 31, 2022, and 2021, respectively. The advance payments are included in either *Advances from Customers, Current* or *Advances from Customers, Noncurrent*, based on the anticipated SWU sales period.

Technical Solutions Segment

Revenue for the Technical Solutions segment, representing the Company's technical, manufacturing, engineering, procurement, construction, and operations services offered to public and private sector customers, is recognized over the contractual period as services are rendered. For details, refer to Note 1, *Summary of Significant Accounting Policies* — *Revenue* — *Technical Solutions Revenue*.

On October 31, 2019, the Company signed a cost-share contract with the DOE, the HALEU Demonstration Contract, to deploy a cascade of centrifuges to demonstrate production of HALEU for advanced reactors. HALEU is a component of an advanced nuclear reactor fuel that is not commercially available today and may be required for a number of advanced reactor and fuel designs currently under development in both the commercial and government sectors. The program has been under way since May 31, 2019, when the Company and the DOE signed a preliminary letter agreement that allowed work to begin while the full contract was being finalized.

In 2019, under the HALEU Demonstration Contract, the DOE agreed to reimburse the Company for 80% of its costs incurred in performing the contract. The DOE modified the contract several times to increase the total contract funding to \$168.7 million and to extend the period of performance to November 30, 2022. Costs under the HALEU Demonstration Contract include program costs, including direct labor and materials and associated indirect costs that are classified as *Cost of Sales*, and an allocation of corporate costs supporting the program that are classified as *Selling, General and Administrative Expenses*. The impact to *Cost of Sales* for the year ended December 31, 2022, 2021, and 2020 is \$0.5 million, \$7.2 million, and \$10.6 million, respectively, for previously accrued contract losses attributable to work performed in the periods. As of December 31, 2022, a total of \$19.6 million of previously accrued contract losses have been realized and the accrued contract loss balance included in *Accounts Payable and Accrued Liabilities* is \$0. The Company has received cash payments of \$164.3 million through December 31, 2022.

As previously reported, the DOE experienced a COVID-19 related supply chain delay in obtaining the HALEU storage cylinders. As a result, the DOE elected to change the scope of the existing contract and move the operational portion of the demonstration to a new, competitively-awarded contract.

On November 10, 2022, the DOE awarded the HALEU Operation Contract to the Company with work beginning November 14, 2022. The HALEU Operation Contract provides for a 50/50 cost share contract for Phase 1 of the base contract to complete the cascade, begin operations and complete the initial 20 Kg of HALEU UF₆. Phase 2 of the base contract includes continued operations and maintenance and the production for a full year at an annual production rate of 900 Kg of HALEU UF₆ on a cost-plus-incentive-fee basis. Finally, the HALEU Operation Contract includes options for the government to unilaterally extend performance for up to an additional nine years comprised of three options of three years each, also on a cost-plus-incentive-fee basis. Costs under the HALEU Operation Contract include program costs, including direct labor and materials and associated indirect costs that are classified as *Cost of Sales*, and an allocation of corporate costs supporting the program that are classified as *Selling, General and Administrative Expenses*. When estimates of program costs to be incurred for an integrated, construction-type contract exceed estimates of total revenue to be earned, a provision for the remaining loss on the contract is recorded to Cost of Sales in the period the loss is determined. The Company's corporate costs supporting the program are recognized as expense as incurred over the duration of the company's anticipated cost share under the HALEU Operation Contract representing the Company's share of projected program costs was recognized in *Cost of Sales* as an accrued loss of \$21.3 million. At December 31, 2022, \$20.0 million of the \$12.0.1 million estimated transaction price for Phases 1 and 2. The Company has not received any cash payments from the HALEU Operation Contract through December 31, 2022.

The Company does not currently have a contractual obligation to perform work in excess of the funding provided by the DOE. If the DOE does not commit to additional costs above the existing funding, the Company may incur material additional costs or losses in future periods that could have an adverse impact on its financial condition and liquidity.

Revenue for the Technical Solutions segment in the year ended December 31, 2021, also includes \$43.5 million related to the settlement of the Company's claims for reimbursements for certain pension and postretirement benefits costs incurred in connection with a past cost-reimbursable contract with the DOE unrelated to the HALEU Demonstration Contract. Under the terms of the settlement agreement, the DOE paid the Company \$43.5 million, of which \$33.8 million was contributed to the pension plan in September 2021 for its subsidiary Enrichment Corp. and \$9.7 million was deposited in October 2021 in a trust for payment of postretirement health benefits payable by Enrichment Corp. After receiving payment, at the Company's request, the case was dismissed. Refer to Note 16, *Commitments and Contingencies - Legal Matters*.

3. CASH, CASH EQUIVALENTS AND RESTRICTED CASH

The following table summarizes the Company's cash, cash equivalents and restricted cash as presented on the Consolidated Balance Sheets to amounts on the Consolidated Statement of Cash Flows (in millions):

	 Decem	ıber 31,	
	 2022		2021
Cash and cash equivalents	\$ 179.9	\$	193.8
Deposits for financial assurance - current (a)	0.2		0.2
Deposits for financial assurance - non current	32.3		2.8
Total cash, cash equivalents and restricted cash	\$ 212.4	\$	196.8

(a) Deposits for financial assurance - current is included within Other Current Assets in the Consolidated Balance Sheets.

The following table provides additional detail regarding the Company's deposits for financial assurance (in millions):

		Decembe	r 31, 2	2022	December	r 31, 2021			
	Current S – 0.2			Long-Term	Current		Long-Term		
Collateral for Inventory Loans	\$	_	\$	29.8	\$ _	\$	_		
Workers Compensation		—		2.4	—		2.6		
Other		0.2		0.1	0.2		0.2		
Total deposits for financial assurance	\$	0.2	\$	32.3	\$ 0.2	\$	2.8		

The Company has provided financial assurance to states in which it was previously self-insured for workers' compensation in accordance with each state's requirements in the form of a surety bond or deposit that is fully cash collateralized by Centrus. Each surety bond or deposit is subject to reduction and/or cancellation, as each state determines that the likelihood of further workers' compensation obligations related to the period of self-insurance. In March, May, and October 2022, the Company entered into three inventory loans which required a cash deposit into an escrow fund. See Note 4, *Inventories*.

4. INVENTORIES

Centrus holds uranium at licensed locations (e.g., fabricators) or in transit in the form of natural uranium and as the uranium component of LEU. Centrus also holds SWU as the SWU component of LEU at licensed locations or in transit to meet book transfer requests by customers and suppliers. Fabricators process LEU into fuel for use in nuclear reactors. Components of inventories are as follows (in millions):

			December 31, 2022				D	ecember 31, 2021		
	Current Assets		Current Liabilities (a)	1	Inventories, Net	Current Assets		Current Liabilities (a)	Ir	ıventories, Net
Separative work units	\$	24.1	\$	\$	24.1	\$ 8.8	\$		\$	8.8
Uranium	1	85.1	60.8		124.3	82.3		8.4		73.9
Total	\$ 2	209.2	\$ 60.8	\$	148.4	\$ 91.1	\$	8.4	\$	82.7

(a) This includes inventories owed to suppliers for advances of uranium.

Inventories are valued at the lower of cost or NRV.

The Company may also borrow SWU or uranium from customers or suppliers, in which case the Company will record the SWU and/or uranium and the related liability for the borrowing using a projected and forecasted purchase price over the borrowing period. In March and May 2022, the Company borrowed SWU which was recorded to inventory at a value of \$9.4 million and \$8.5 million, respectively. The inventory value was calculated based on the anticipated sourcing of inventory for repayment at the date of acquisition. In June 2022, the Company performed a revaluation of the *Long-Term Inventory Loans* reflecting an updated projection of the timing and sources of inventory to be used for repayment. This revaluation was recorded to *Cost of Sales* and resulted in an increase of \$5.5 million to the related liability. In October 2022, the Company borrowed additional SWU which was which was recorded to inventory at a value of \$10.4 million. In the fourth quarter of 2022, the Company performed a revaluation of the *Long-Term Inventory Loans* reflecting an updated projection of the timing and sources of inventory *Loans* reflecting an updated projection of the timing and sources of sources of sources of inventory to be used for repayment. This revaluation was recorded to *Cost of Sales* and resulted in an increase of \$2.4 million to the related liability.

In 2018 through 2020 the Company borrowed SWU inventory valued at \$20.7 million. The cumulative liability was revalued to \$25.5 million in the third quarter of 2021 to reflect an updated projection of the timing and sources of inventory to be used for repayment. *Cost of Sales* for the twelve months ended December 31, 2021, includes the related expense of \$4.8 million. In the fourth quarter of 2021, the Company repaid borrowed SWU inventory valued at \$3.1 million to a customer and reduced the SWU and the related liability using an average purchase price over the borrowing period.

5. PROPERTY, PLANT AND EQUIPMENT

A summary of changes in property, plant and equipment follows (in millions):

	ember 31, 2021	Additions	(Depreciation)	ember 31, 2022
Land	\$ 1.2	\$	_	\$ 1.2
Buildings and leasehold improvements	4.6		0.2	4.8
Machinery and equipment	1.4		0.6	2.0
Other	 1.1			1.1
Property, plant and equipment, gross	 8.3		0.8	9.1
Accumulated depreciation	(3.0)		(0.6)	(3.6)
Property, plant and equipment, net	\$ 5.3	\$	0.2	\$ 5.5

Depreciation expense was \$0.6 million in 2022, \$0.6 million in 2021 and \$0.5 million in 2020.

6. INTANGIBLE ASSETS

Intangible assets originated from the Company's reorganization and application of fresh start accounting as of the date the Company emerged from bankruptcy, September 30, 2014, and reflect the conditions at that time. The intangible asset related to the Company's Order Book is amortized as the Order Book, existing at emergence, is reduced, principally as a result of deliveries to customers. The intangible asset related to customer relationships is amortized using the straight-line method over the estimated average useful life of 15 years. Amortization expense is presented below gross profit on the Consolidated Statements of Operations. Intangible asset balances are as follows (in millions):

		December 31, 2022							December 31, 2021							
	Gr	oss Carrying Amount	Accumulated Amortization Net Amount		Gross Carrying Amount		Accumulated Amortization			Net Amount						
Sales order book	\$	54.6	\$	39.9	\$	14.7	\$	54.6	\$	35.5	\$	19.1				
Customer relationships		68.9		37.9		31.0		68.9		33.3		35.6				
Total	\$	123.5	\$	77.8	\$	45.7	\$	123.5	\$	68.8	\$	54.7				

The amount of amortization expense for intangible assets in each of the succeeding years is estimated to be as follows (in millions):

2023	\$ 6.3
2024	9.4
2025	8.9
2026	7.3
2027	5.9
Thereafter	7.9
Total	\$ 45.7

7. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Components of accounts payable and accrued liabilities follow (in millions):

	I	ecembei	r 31,
	2022		2021
Trade payables	\$	5.9 \$	4.9
Compensation and employee benefits		5.7	23.1
Postretirement health and life benefit obligations - current		7.3	7.0
Accrued HALEU Demonstration and Operation Contract losses		0.0	0.5
Short-term inventory loan		9.9	_
Operating lease liability		3.3	0.9
Other accrued liabilities		3.4	1.4
Total accounts payable and accrued liabilities	\$	5.5 \$	37.8

8. DEBT

A summary of debt follows (in millions):

			Decembe	r 31, 2022	1		Decembe	r 31, 20	21
	Maturity	Current		Lo	ong-Term	(Current]	Long-Term
8.25% Notes:	Feb. 2027								
Principal		\$	—	\$	74.3	\$		\$	74.3
Interest			6.1		21.4		6.1		27.5
Total		\$	6.1	\$	95.7	\$	6.1	\$	101.8

Interest on the 8.25% Notes maturing in February 2027 is payable semi-annually in arrears as of February 28 and August 31 based on a 360-day year consisting of twelve 30-day months. The 8.25% Notes mature on February 28, 2027. The 8.25% Notes were issued in connection with a troubled debt restructuring, therefore, all future interest payment obligations on the 8.25% Notes are included in the carrying value of the 8.25% Notes. As a result, interest payments are reported as a reduction in the carrying value of the 8.25% Notes and not as interest expense. As of December 31, 2022, and December 31, 2021, \$6.1 million of interest is recorded as current and classified as *Current Debt* in the Consolidated Balance Sheet.

The 8.25% Notes rank equally in right of payment with all of the Company's existing and future unsubordinated indebtedness other than its Issuer Senior Debt and our Limited Secured Acquisition Debt (each as defined below). The 8.25% Notes rank senior in right of payment to all of the Company's existing and future subordinated indebtedness and to certain limited secured acquisition indebtedness of the Company (the "Limited Secured Acquisition Debt"). The Limited Secured Acquisition Debt includes (i) any indebtedness, the proceeds of which are used to finance all or a portion of an acquisition or similar transaction if any lender's lien is solely limited to the assets acquired in such a transaction and (ii) any indebtedness, the proceeds of which are used to finance all or a portion of the American Centrifuge project or another next generation enrichment technology if any lender's lien is solely limited to such assets, provided that a lien securing the 8.25% Notes that is junior with respect to the lien securing such indebtedness will be limited to the assets acquired with such Limited Secured Acquisition Debt.

The 8.25% Notes are subordinated in right of payment to certain indebtedness and obligations of the Company, as described in the indenture governing the 8.25% Notes (the "Issuer Senior Debt"), including (i) any indebtedness of the Company (inclusive of any indebtedness of Enrichment Corp.) under a future credit facility up to \$50 million with a maximum net borrowing of \$40 million after taking into account any minimum cash balance (unless a higher amount is approved with the consent of the holders of a majority of the aggregate principal amount of the 8.25%

Notes then outstanding), (ii) any revolving credit facility to finance inventory purchases and related working capital needs, and (iii) any indebtedness of the Company to Enrichment Corp. under the secured intercompany notes.

The 8.25% Notes are guaranteed on a subordinated and limited basis by, and secured by substantially all of the assets of, Enrichment Corp. The Enrichment Corp. guarantee is a secured obligation and ranks equally in right of payment with all existing and future unsubordinated indebtedness of Enrichment Corp. (other than Designated Senior Claims (as defined below) and Limited Secured Acquisition Debt) and senior in right of payment to all existing and future subordinated indebtedness of Enrichment Corp. and Limited Secured Acquisition Debt. The Enrichment Corp. guarantee is subordinated in right of payment to certain obligations of, and claims against, Enrichment Corp. described in the indenture governing the 8.25% Notes (collectively, the "Designated Senior Claims"), including obligations and claims:

- under a future credit facility up to \$50 million with a maximum net borrowing of \$40 million after taking into account any minimum cash balance;
- · under any revolving credit facility to finance inventory purchases and related working capital needs;
- held by or for the benefit of the Pension Benefit Guaranty Corporation pursuant to any settlement (including any required funding of pension plans); and
- under surety bonds or similar obligations held by or on behalf of the U.S. Government pursuant to regulatory requirements.

The lien securing the Enrichment Corp. guarantee of the 8.25% Notes is junior in priority with respect to the lien securing Limited Secured Acquisition Debt, which is limited to the assets acquired with such Limited Secured Acquisition Debt.

9. LEASES

Centrus leases facilities and equipment under operating leases. Lease expense for operating leases is recognized on a straight-line basis over the lease term. The Company has facility leases with terms greater than 12 months, and the Company records the related asset and obligation at the present value of lease payments over the term. Leases with an initial term of 12 months or less are not recorded on the balance sheet.

Lease assets represent the right to use an underlying asset for the lease term, and lease liabilities represent the obligation to make lease payments arising from the lease. Lease assets exclude lease incentives. Lease terms reflect options to extend or terminate the lease when it is reasonably certain that those options will be exercised. The depreciable life of lease assets and leasehold improvements is limited by the expected lease term. The weighted-average remaining lease term was 3.6 years and 5.3 years at December 31, 2022 and 2021, respectively, with maturity dates ranging from December 2025 to September 2027 at both December 31, 2022 and December 31, 2021. The weighted-average discount rate was 10.1% and 12.5% at December 31, 2022 and 2021, respectively. Lease expense primarily related to operating leases and totaled \$0.7 million, a credit of \$0.5 million, and \$2.6 million for the years ended December 31, 2022, 2021, and 2020, respectively. Lease expense for the year ended December 31, 2022, and 2020, was net of DOE credits in the amount of \$1.6 million, \$2.0 million, and \$0.3 million, respectively, for the true-up of prior years' lease expenses. Other amounts related to short-term lease expense were insignificant. Operating leases included in *Cost of Sales, Selling, General and Administrative Expenses*, and *Advance Technology Costs* on the Statement of Operations. Cash paid for operating leases included in operating cash flows was \$1.6 million, and \$3.2 million for the year ended December 31, 2022, 2021, and 2020, respectively.

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The Company leases facilities and related personal property near Piketon, Ohio from the DOE under an agreement which is classified as an operating lease. The lease was amended on May 6, 2021, to decrease the monthly lease payment beginning with the June 2021 payment. The Company accounted for the amendment as a modification and remeasured the remaining future lease payments through May 31, 2022, and recorded a \$1.0 million reduction in the related lease asset and liability. In September 2021, the lease was further amended to extend the term through December 31, 2025. The Company did not remeasure the lease asset and liability, as the terms of the lease amendment allowed for early termination upon completion of the work under the HALEU Demonstration Contract, which was expected to occur by November 30, 2022. In November 2022, in connection with the award of the HALEU Operation Contract, the Company remeasured the lease asset and liability through the lease expiration date of December 31, 2025, and recorded an additional \$6.6 million in lease assets and liabilities. In November 2022, the lease was further amended to provide that any facilities, centrifuges or other equipment constructed or installed under contract with the DOE will be owned by the DOE and may be returned to the DOE in an "as is" condition at the end of the lease term, and the DOE would be responsible for its D&D.

Operating Lease Assets and Liabilities

The table below presents the lease-related assets and liabilities recorded on the Consolidated Balance Sheet (in millions).

		Decem	ber 31,		
	2022		2021		Classification on the Balance Sheet
Lease assets	\$	7.9	\$ 2	2.1	Other long-term assets
Lease liabilities:					
Current	\$	3.3	\$ 0).9	Accounts payable and accrued liabilities
Noncurrent		6.1	3	3.0	Other long-term liabilities
Total lease liabilities	\$	9.4	\$ 3	3.9	

Maturity of Operating Lease Liabilities

The table below reconciles undiscounted payments for operating leases with terms greater than 12 months to the operating lease liabilities recorded on the balance sheet (in millions).

2023	\$ 3.9
2024	3.1
2025	3.1
2026	1.0
2027	0.8
Thereafter	—
Total lease payments	 11.9
Less imputed interest	2.5
Present value of lease payments	\$ 9.4

10. FAIR VALUE

Fair value is the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value of assets and liabilities, the following hierarchy is used in selecting inputs, with the highest priority given to Level 1, as these are the most transparent or reliable:

- · Level 1 assets include investments with quoted prices in active markets that the Company has the ability to liquidate as of the reporting date.
- Level 2 assets include investments in U.S. Government agency securities, corporate and municipal debt whose estimates are valued based on observable inputs, other than quoted prices.
- · Level 3 assets include investments with unobservable inputs, such as third-party valuations, due to little or no market activity.

Financial Instruments Recorded at Fair Value (in millions):

		December 31, 2021													
	 Level 1	Level 1 Level 2		Lev	Level 3 T		Total		Level 1	Level 2		Level 3			Total
Assets:															
Cash and cash equivalents	\$ 179.9	\$		\$		\$	179.9	\$	193.8	\$		\$	_	\$	193.8
Deferred compensation asset (a)	2.4		—		—		2.4		3.2		—		—		3.2
Liabilities:															
Deferred compensation obligation (a)	\$ 2.4	\$		\$	_	\$	2.4	\$	3.2	\$		\$	_	\$	3.2

(a) The deferred compensation obligation represents the balance of deferred compensation plus net investment earnings. The deferred compensation plan is funded through a rabbi trust. Trust funds are invested in mutual funds for which unit prices are quoted in active markets and are classified within Level 1 of the valuation hierarchy.

There were no transfers between Level 1, 2 or 3 during the periods presented.

Other Financial Instruments

As of December 31, 2022, and 2021, the Consolidated Balance Sheets carrying amounts for Accounts Receivable, Accounts Payable and Accrued Liabilities (excluding the deferred compensation obligation described above), and Payables under Inventory Purchase Agreements approximate fair value because of their short-term nature.

The carrying value and estimated fair value of long-term debt are as follows (in millions):

		December	31, 2022			December	31, 2021	
	Carry	ing Value	Estimate	d Fair Value ^(a)	Carr	Carrying Value		d Fair Value ^(a)
8.25% Notes	\$	101.8 (b)	\$	68.8	\$	107.9 (b)	\$	74.3

(a) Based on bid/ask quotes as of or near the balance sheet date, which are considered Level 2 inputs based on the frequency of trading.

(b) The carrying value of the 8.25% Notes consists of the principal balance of \$74.3 million and the sum of current and noncurrent interest payment obligations until maturity. Refer to Note 8, Debt.



11. PENSION AND POSTRETIREMENT HEALTH AND LIFE BENEFITS

There are approximately 3,500 employees and retirees covered by qualified defined benefit pension plans providing retirement benefits based on compensation and years of service, and approximately 2,900 employees and retirees covered by postretirement health and life benefit plans. The DOE retained the obligation for postretirement health and life benefits for workers who retired prior to July 28, 1998. Pursuant to non-qualified supplemental pension plans, Centrus provides certain executive officers additional retirement benefits in excess of qualified plan limits imposed by tax law based on a targeted benefit objective. Employees hired on or after September 1, 2008, who are not covered by a collective bargaining agreement that provides for participation do not participate in a qualified defined benefit pension plan or postretirement health and life benefit plans.

Changes in the projected benefit obligations and plan assets and the funded status of the plans follow:

	 Defined Benefi	it Pension	Postretirement Health and Life Benefit Plans					
(\$ millions)	Year Ended	Year Ended December 31,						
	2022		2021		2022		2021	
Changes in Benefit Obligations:								
Obligations at beginning of period	\$ 696.2	\$	757.9	\$	131.1	\$	142.4	
Actuarial (gains) losses, net	(138.0)		(28.7)		(27.0)		(2.3)	
Service costs	2.7		2.7		—		—	
Interest costs	19.1		18.1		3.5		3.4	
Benefits paid from Plan assets	(50.0)		(51.3)		(12.3)		(12.4)	
Benefits paid from Company assets	(0.4)		(0.4)				—	
Administrative expenses paid	 (2.3)		(2.1)		—			
Obligations at end of period	 527.3		696.2		95.3		131.1	
Changes in Plan Assets:	 							
Fair value of plan assets at beginning of period	672.7		633.1		9.2		—	
Actual return on plan assets	(137.1)		57.8		(0.1)		—	
Company contributions	0.4		35.7		6.7		21.5	
Benefits paid	(50.4)		(51.7)		(12.3)		(12.3)	
Administrative expenses paid	 (2.3)		(2.2)				—	
Fair value of plan assets at end of period	483.3		672.7		3.5		9.2	
Unfunded status at end of period	\$ (44.0)	\$	(23.5)	\$	(91.8)	\$	(121.9)	
Amounts recognized in assets and liabilities:								
Current liabilities	\$ (0.4)	\$	(0.4)	\$	(7.3)	\$	(7.0)	
Non-current liabilities	(43.6)		(23.1)		(84.5)		(114.9)	
	\$ (44.0)	\$	(23.5)	\$	(91.8)	\$	(121.9)	
Amounts in accumulated other comprehensive income (loss), pre-tax:	 							
Prior service credit	\$ (0.7)	\$	(0.9)	\$	(1.9)	\$	(2.0)	

The current liabilities reflect expected contributions for benefit payments for the non-qualified plans and the postretirement health and life benefit plans in the following year.

The discount rates below, rounded to the nearest 0.1%, are the estimated rates at which the benefit obligations could be effectively settled on the measurement date and are based on yields of high quality fixed income investments whose cash flows match the timing and amount of expected benefit payments of the plans.

Plan assets and benefit obligations are remeasured each year as of the balance sheet date resulting in differences between actual and projected results for the year. These actuarial gains and losses are recognized in the Consolidated Statement of Operations in the fourth quarter. In addition, an interim remeasurement and recognition of gains or losses may be required for a plan during the year when lump sum payments exceed, or are expected to exceed, the sum of the service cost and interest cost components of the annual net periodic benefit cost for that plan for the current year. There were no interim remeasurements in 2022 and 2021.

The defined benefit pension plans currently allow for a lump sum payment option to (a) active employees who are terminated as a result of Company reductions in force and (b) terminated vested participants who have not yet begun receiving their benefits and have been terminated as a result of a reduction in force by the Company, or due to voluntary termination or involuntary termination, other than involuntary termination as a termination for cause.

As part of the Company's continued effort to reduce the size and volatility of its pension obligations and administrative costs, the Company transferred approximately \$30.4 million of pension plan assets and approximately \$30.4 million of related benefit obligations to an insurance company through the purchase of a group annuity contract in the fourth quarter of 2020.

Projected benefit obligations are based on actuarial assumptions including possible future increases in compensation. *Accumulated benefit obligations* are based on actuarial assumptions but do not include possible future increases in compensation. Effective August 2013, accrued benefits under the defined benefit pension plans are fixed and no longer increase to reflect changes in compensation or company service. Therefore, the accumulated benefit obligation equaled the projected benefit obligation of \$527.3 million and \$696.2 million as of December 31, 2022 and 2021, respectively. As of December 31, 2022 and 2021, none of Centrus' plans had fair value of plan assets in excess of accumulated benefit obligations.

Components of Net Periodic Benefit Costs and Other Amounts Recognized in Other Comprehensive Income

The Company reports service costs for its defined benefit pension plans and its postretirement health and life benefit plans in *Cost of Sales* and *Selling, General and Administrative Expenses*. The remaining components of net periodic benefit (credits) costs are reported as *Nonoperating Components of Net Periodic Benefit Income*.

	Def	ined B	Benefit Pension P	Plans		Postretirement Health and Life Benefit Plans									
(in millions)	 Y	ear Er	ded December 3	31,		Year Ended December 31,									
	 2022		2021		2020		2022		2021		2020				
Net Periodic Benefit (Credits) Costs															
Service costs	\$ 2.7	\$	2.7	\$	3.5	\$	_	\$	_	\$	_				
Interest costs	19.1		18.1		24.3		3.5		3.4		4.8				
Expected return on plan assets	(35.6)		(38.3)		(37.5)		(0.1)		_		_				
Amortization of prior service credits, net	(0.2)		(0.2)		(0.2)		(0.1)		(0.1)		(0.1)				
Actuarial (gains) losses, net	34.7		(48.2)		8.9		(26.9)		(2.3)		(1.7)				
Net periodic benefit (credits) costs	\$ 20.7	\$	(65.9)	\$	(1.0)	\$	(23.6)	\$	1.0	\$	3.0				
Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income (Loss)															
Amortization of prior service costs, net	\$ _	\$		\$	_	\$	(1.9)	\$	(2.0)	\$	(2.1)				
Prior service credit	(0.7)		(0.9)		(1.1)		_		_		_				
Total recognized in other comprehensive loss, pre-tax	\$ (0.7)	\$	(0.9)	\$	(1.1)	\$	(1.9)	\$	(2.0)	\$	(2.1)				
Total recognized in net periodic benefit costs (income) and other comprehensive income (loss), pre-tax	\$ 20.0	\$	(66.8)	\$	(2.1)	\$	(25.5)	\$	(1.0)	\$	0.9				

Net periodic benefit costs include service and interest costs of providing pension benefits that are accrued over the years employees render service. Prior service costs or credits are amortized over the employees' average remaining years of service from age 40 until the date of full benefit eligibility or the average expected future lifetime of all plan participants, as applicable. Participants in the postretirement health and life benefit plans are generally eligible for benefits at retirement after age 50 with 10 years of continuous credited service at the time of retirement.

On September 7, 2021, the Company collected \$43.5 million from the DOE, of which \$33.8 million was contributed to the pension plan in September 2021 for its subsidiary Enrichment Corp. and \$9.7 million was deposited in October 2021 in a trust for payment of postretirement health benefits payable by Enrichment Corp. Refer to Note 16, *Commitments and Contingencies* and Note 2, *Revenue And Contracts with Customers*.

Effective January 1, 2014, or for certain plan participants formerly represented by a collective bargaining unit, January 1, 2015, plan participants age 65 or older ("post-65") have access to a range of medical plan choices with varying costs and benefits through a Medicare Exchange implemented by the Company. The Company provides an annual stipend for each of the post-65 retirees and post-65 spouses who enroll in the coverage through the exchange. Depending on the level of benefits elected by the participant, the participant may be required to make contributions in excess of the stipend amount.

The transition to the post-65 Medicare Exchange was reflected as a plan amendment that reduced plan obligations by \$6.8 million as of December 31, 2014. This reduction in obligation was recognized in other comprehensive income in 2014 as a prior service credit. The prior service credit is being amortized into net periodic benefit cost as a credit over time. The post-65 Medicare Exchange stipend amount was increased for 2017. This increase in obligation of \$3.6 million as of December 31, 2016, was recognized in other comprehensive income in



2016 as a prior service cost and is being amortized into net periodic benefit cost over time. The post-65 Medicare Exchange stipend amount was increased in 2018, as specified in a settlement agreement with the former collective bargaining unit. The settlement agreement also specifies the addition of catastrophic drug coverage effective January 1, 2019. The benefit enhancement for 2019 has been applied to all post-65 participants regardless of past representation by the collective bargaining agreement. The increase in obligation of \$10.0 million as a result of the settlement agreement was recognized in net periodic benefit costs in 2017 as a plan change resulting from a legal settlement and is reported in *Nonoperating Components of Net Periodic Benefit Income*.

The defined benefits pension plans were amended in March 2019 making permanent the option for pension-eligible employees to receive a lump sum payment upon termination, regardless of benefit size, which decreased plan obligations by \$1.3 million. The effect of these plan changes has been added to *Accumulated Other Comprehensive Income (Loss)* as an unrecognized prior service cost to be amortized over the average future service of active employees starting in 2020.

Assumptions Used to Determine Net Periodic Benefit Costs

	Defi	ned Benefit Pension	Plans		Postretirement Health and Life Benefit Plans					
	Ye	ar Ended December	31,	Ye	31,					
	2022	2021	2020	2022	2021	2020				
Discount rate	5.5%	2.8%	2.5%	5.5%	2.8%	2.5%				
Expected return on plan assets	5.5%	6.3%	6.4%	0.8%	_	_				

The expected return on plan assets is based on the weighted average of long-term return expectations for the composition of the plans' equity and debt securities. Expected returns on equity securities are based on historical long-term returns of equity markets. Expected returns on debt securities are based on the current interest rate environment.

Healthcare cost trend rates used to measure postretirement health benefit obligations follow:

	Dece	mber 31,
	2022	2021
Healthcare cost trend rate for the following year	7.0%	6.0%
Long-term rate that the healthcare cost trend rate gradually declines to	5%	5%
Year that the healthcare cost trend rate is expected to reach the long-term rate	2031	2026

Benefit Plan Assets

Independent advisors manage investment assets of Centrus' defined benefit pension plans and postretirement health and life benefit plans. Centrus has the fiduciary responsibility for reviewing performance of the various investment advisors. The goal of the investment policy of the plans is to maximize portfolio returns within reasonable and prudent levels of risk in order to meet projected liabilities and maintain sufficient cash to make timely payments of all participant benefits. Risk is reduced by diversifying plan assets and following a strategic asset allocation approach. Additionally, as the plans are frozen and funding status has improved, the Company has shifted the investment allocations to lower risk investments in order to minimize market exposure and will continue to do so based upon approved funding milestones. Asset classes and target weights are adjusted periodically to optimize the long-term portfolio risk/return trade off, to provide liquidity for benefit payments, and to align portfolio risk with the underlying obligations. The investment policy of the plans prohibits the use of leverage, direct investments in tangible assets, or any investment prohibited by applicable laws or regulations.

The allocation of plan assets between equity and debt securities and the target allocation range by asset category for the defined benefit pension plans follows:

	Decembe	er 31,	
	2022	2021	2023 Target
Equity securities	36 %	45 %	35 - 50%
Debt securities	62 %	51 %	50 - 65%
Cash	2 %	4 %	0 - 5%
	100 %	100 %	

Plan assets are measured at fair value. Following are the plan investments as of December 31, 2022 and 2021, categorized by the fair value hierarchy levels described in Note 10, *Fair Value*:

	Defined Benefit Pension and Postretirement Health and Life Benefit Plans																
(in millions)		Level 1				Lev	evel 2			Level 3				Total			
		2022		2021		2022		2021		2022		2021		2022		2021	
U.S. government securities	\$	_	\$	_	\$	_	\$	13.0	\$	_	\$	_	\$	_	\$	13.0	
Corporate debt		_		_		60.3		56.4		_		_		60.3		56.4	
Municipal bonds and non-U.S. government securities				—		—		1.7		—		_		_		1.7	
Mutual funds (b)		320.4		582.9		_		_		_		_		320.4		582.9	
Mortgage and asset backed securities		_		_		_		7.9		_		_		_		7.9	
Fair value of investments by hierarchy level	\$	320.4	\$	582.9	\$	60.3	\$	79.0	\$	_	\$	—	_	380.7		661.9	
Investments measured at NAV (a)														105.8		20.1	
Accrued interest receivable														0.6		1.2	
Unsettled transactions														(0.3)		(1.4)	
Plan assets													\$	486.8	\$	681.8	

(a) Equity, bond and money market investments held in collective trusts are valued based on the NAV provided by the administrator of the funds. The NAV for each fund is based on the underlying assets owned by the fund, less any expenses accrued against the fund, divided by the number of fund shares outstanding. While the underlying investments are traded on an exchange, the funds are not. Fair values for the collective trust investments are measured using the NAVs as a practical expedient and are not categorized in the fair value hierarchy.
 (b) Postretirement Health and Life Benefit Plan assets of \$3.5 million are all contained within Level 1 mutual funds.

Benefit Plan Cash Flows

The Company expects to contribute \$0 to the qualified defined benefit pension plans, \$0.4 million to the non-qualified defined benefit pension plans, and \$7.3 million to the postretirement health and life benefit plans in 2023. There is no required contribution for the postretirement health and life benefit plans under Employee Retirement Income Security Act of 1974.

Estimated future benefit plan payments follow (in millions):

	Defined Be	nefit Pension Plans	Postretiremen Life Bene	
2023	\$	50.5	\$	10.9
2024		48.8		10.2
2025		47.3		9.6
2026		47.1		9.1
2027		44.8		8.5
2028 to 2032		206.2		34.1

Other Plans

The Company sponsors a 401(k) defined contribution plan for employees. Employee contributions are matched at established rates. Amounts contributed are invested in a range of investment options available to participants and the funds are administered by an independent trustee. Matching cash contributions by the Company amounted to \$2.1 million in 2022 and \$2.0 million in 2021.

Under the Executive Deferred Compensation Plan, qualified employees may defer compensation on a tax-deferred basis subject to plan limitations. Any matching contributions under the Company's 401(k) plan that are foregone due to annual compensation limitations of the Code are eligible to be received from the Company under the Executive Deferred Compensation Plan, provided that the employee deferred the maximum allowable pre-tax contribution in the 401(k) plan. The Company matching contributions amounted to less than 0.1 million in 2022 and 2021.

12. STOCK-BASED COMPENSATION

The Company's 2014 Plan authorizes the issuance of stock options, SARs, restricted stock units, restricted stock, notional stock units, performance awards, dividend equivalent rights, and other stock-based awards, as well as cash-based awards, to employees, officers, directors, and other individuals providing services to the Company or its affiliates. As disclosed in Note 15, *Stockholder's Equity*, in February 2021, the Company increased the available shares of Class A Common Stock under the Company's 2014 Plan by an additional 700,000 shares. The 2014 Plan currently authorizes the issuance of up to 1,900,000 shares. As of December 31, 2022, there were 522,608 shares available for future awards.

In January 2019, the Company adopted the 2019 Equity Incentive Plan, which is subject to the terms of the 2014 Plan, under which participating employees are eligible to receive grants of equity awards such as notional stock units and SARs. Under this plan, the Company has granted awards that are subject to either cliff-based or performance-based vesting. The cliff-based awards vest after three years of service. The performance-based awards vest if the Company reaches or exceeds a pre-defined net income target for the three-year award term. Equity awards may be payable in common stock, cash, or a combination of both, at the discretion of the Board of Directors. Compensation costs for awards that are likely to be settled with cash payments are remeasured each reporting period based on the closing price of the Company's Class A Common Stock. These cumulative vested costs are accrued in *Accounts Payable* and *Accrued Liabilities* or *Other Long-Term Liabilities*. Equity awards that are payable in stock are accounted for as equity and compensation costs are amortized on a straight-line basis over the vesting period.

In 2019, under the 2014 Plan, the Company awarded notional stock units to participating executives for the three-year period ending December 31, 2021. As the original award, at grant date, was expected to be settled in cash, the Company had recorded cumulative compensation costs in *Other Long-Term Liabilities* at December 31, 2020. There were 206,183 notional stock units (two-thirds of these awards) paid in shares in April 2021, with the remainder anticipated to be paid in April 2022. As of March 31, 2021, the Company reclassified these shares to equity as the Board of Directors approved settlement in shares. The related obligation of \$7.5 million was reclassified from *Accounts Payable and Accrued Liabilities* to *Excess of Capital over Par Value* in the first quarter



of 2021 based on the market share price at the time of the Board of Directors' decision. In the second quarter of 2021, the Company withheld \$2.4 million of shares to fund the grantees' tax withholding obligations relating to the April 2021 interim payment.

In 2020, the Company awarded participating executives notional stock units and stock appreciation rights for the three-year period ending April 26, 2023. These equity awards may be payable in common stock, cash, or a combination of both at the discretion of the Board of Directors. The cumulative vested costs were accrued in *Other Long-Term Liabilities* as they were likely to be settled in cash.

In September 2021, the Company awarded participating executives notional stock units and SARs. The awards granted will be paid in shares on or before May 1, 2024, provided that a defined performance condition is achieved. In order to receive the award, the total cumulative net income as reported on the Company's Form 10-Ks for the years ending December 31, 2021, 2022, and 2023 must be equal to or greater than \$160 million. The grant date fair value of notional stock units is determined based on the closing price of Class A Common Stock on the grant date. The grant date fair value of the SARs were determined based on the Black-Scholes option-pricing model. The Company has concluded that it is probable that the performance condition will be achieved and therefore has recorded compensation cost. Compensation costs for these notional stock units and SARs are amortized to expense on a straight-line basis over the vesting period.

In February 2022, the Compensation, Nominating and Governance Committee of the Board of Directors determined that remaining notional stock units granted in 2019 and 2020 would be paid in shares of the Company's Class A Common Stock. The related obligation of \$10.6 million was reclassified from *Accounts Payable and Accrued Liabilities* to *Excess of Capital over Par Value* in the first quarter of 2022 based on the market share price at the time of the Board's decision. In the first quarter of 2022, the Company withheld \$1.9 million of shares that vested during the period for the purpose of funding the grantees' tax withholding obligations under the terms of the stock-based compensation plan.

In March 2022, restricted stock was granted to participating executives with a vesting period ending in March 2025. The March 2022 awards are payable in shares of the Company's Class A Common Stock and the grant-date value is included in *Excess of Capital Over Par Value* as the value is amortized over the vesting period.

Compensation cost for restricted stock units and stock options is measured at the grant date, based on the fair value of the award, and is recognized on a straight-line basis over the requisite service period. As of December 31, 2022, there was \$0.6 million of unrecognized compensation cost, adjusted for actual forfeitures, related to non-vested stock-based payments granted, all of which relates to restricted stock units. That cost is expected to be recognized over a weighted-average period of 7 months.

A summary of stock-based compensation costs is as follows (in millions):

	Year Ended December 31,					
		2022		2021		2020
Notional stock units and stock appreciation rights	¢	0.9	¢	11.6	¢	6.6
Restricted stock	\$	0.9	\$	11.0	Э	0.0
BOD and employee restricted stock units		0.2		0.5		0.4
Stock options		0.1		0.1		0.1
Total stock-based compensation costs	\$	1.9	\$	12.2	\$	7.1
Total recognized tax benefit	\$	(0.2)	\$	(1.5)	\$	

The total recognized tax benefit is reported at the federal statutory rate net of the tax valuation allowance.

Board Restricted Stock Units

Non-employee, independent directors are granted restricted stock units as part of their compensation for serving on the Board of Directors. Settlement of these restricted stock units is made in shares of Class A Common Stock only upon the director's retirement or other end of service. The restricted stock units generally vest over one year; however, vesting is accelerated upon (1) the director attaining eligibility for retirement, (2) termination of the director's service by reason of death or disability, or (3) a change in control. As of December 31, 2022, approximately 220,000 shares of restricted stock units could potentially be converted to Class A Common Stock once vested and settled.

The following table summarizes Centrus' board restricted stock units activity:

		Weighted Average Grant Date Fair Value (per
	Shares (in thousands)	share)
Nonvested at December 31, 2019	74	\$3.09
Granted	47	\$10.38
Vested	(74)	\$3.09
Forfeited		—
Nonvested at December 31, 2020	47	\$10.38
Granted	20	\$25.13
Vested	(47)	\$10.38
Forfeited		—
Nonvested at December 31, 2021	20	\$25.13
Granted	28	\$38.80
Vested	(20)	\$25.13
Forfeited		_
Nonvested at December 31, 2022	28	\$38.80

Employee Restricted Stock Units

In 2021, certain employees were granted restricted stock units as part of their compensation. Settlement of these restricted stock units is made in shares of Class A Common Stock upon vesting. The restricted stock units generally vest after three years. As of December 31, 2022, approximately 3,000 shares of restricted stock units could potentially be converted to Class A Common Stock once vested and settled.

The following table summarizes Centrus' employee restricted stock units activity:

	Shares (in thousands)	Weighted Average Grant Date Fair Value (per share)
Nonvested at December 31, 2020	_	_
Granted	4	\$24.01
Vested		_
Forfeited		_
Nonvested at December 31, 2021	4	\$24.01
Granted	—	_
Vested	(1)	\$24.01
Forfeited		—
Nonvested at December 31, 2022	3	\$24.01

Stock Options

The intrinsic value of an option, if any, represents the excess of the fair value of the common stock over the exercise price. The fair value of stock option awards is estimated using the Black-Scholes option pricing model, which includes a number of assumptions including Centrus' estimates of stock price volatility, employee stock option exercise behaviors, future dividend payments, and risk-free interest rates.

The expected term of options granted is the estimated period of time from the beginning of the vesting period to the date of expected exercise or other settlement, based on historical exercises and post-vesting terminations. Centrus has estimated the expected term using the simplified method described in SEC Staff Accounting Bulletin Topic 14, *Share-Based Payment*, due to the lack of historical exercise and post-vesting termination information available for the Company since its reorganization. Future stock price volatility is estimated based on the Company's historical volatility. The risk-free interest rate for the expected option term is based on the U.S. Treasury yield curve in effect at the time of grant. No cash dividends are expected in the foreseeable future, and therefore, an expected dividend yield of zero is used in the option valuation model.

There were no option grants in the year ended December 31, 2022, and 2021.

Stock options vest and become exercisable in equal annual installments over a three or four year period and expire ten years from the date of grant. A summary of stock option activity follows:

	Stock Options (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value (in millions)
Outstanding at December 31, 2019	518	\$4.02	6.2	\$1.5
Granted	_	_	_	_
Exercised	(107)	\$3.43	_	_
Forfeited/Cancelled	—	_	_	—
Outstanding at December 31, 2020	411	\$4.18	5.3	\$7.8
Granted	—	—	_	_
Exercised	(217)	\$4.17	_	—
Forfeited/Cancelled		—	—	—
Outstanding at December 31, 2021	194	\$4.18	4.4	\$8.9
Granted	—	—	_	_
Exercised	(98)	\$4.00	—	—
Forfeited/Cancelled	—	—		—
Outstanding at December 31, 2022	96	\$4.37	2.2	\$2.7
Exercisable at December 31, 2022	96	\$4.37	2.2	\$2.7

Stock options outstanding and options exercisable at December 31, 2022, are as follows:

Stock Exercise Price	Options Outstanding (thousands)	Remaining Contractual Life in Years	Options Exercisable (thousands)
\$4.37	96	2.2	96

Stock Appreciation Rights - 2020 Award

The intrinsic value of a SAR, if any, represents the excess of the fair value of the common stock over the exercise price. The fair value of SAR awards is estimated using the Black-Scholes option pricing model, which includes a number of assumptions including Centrus' estimates of stock price volatility, expected term, future dividend payments, and risk-free interest rates.

These SARs generally have a defined term of three years from award and are automatically exercised at the end of its term. Future stock price volatility is estimated based on the Company's historical volatility. The risk-free interest rate for the expected term is based on the U.S. Treasury yield curve in effect at the time of grant. No cash dividends are expected in the foreseeable future and, therefore, an expected dividend yield of zero is used in the valuation model.

A summary of SARs with time-based vesting granted under the 2014 Plan for the year ended December 31, 2022, are as follows:

	Stock Appreciation Rights (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value (in millions)
Outstanding at December 31, 2019		—	_	_
Granted	84	\$5.53	—	_
Exercised		—	—	—
Forfeited/Cancelled		—		
Outstanding at December 31, 2020	84	\$5.53	2.3	\$1.5
Granted		—		_
Exercised		—	—	—
Forfeited/Cancelled		—	—	—
Outstanding at December 31, 2021	84	\$5.53	1.3	\$3.7
Granted		—	—	—
Exercised		—	—	—
Forfeited/Cancelled	(14)	\$5.53		
Outstanding at December 31, 2022	70	\$5.53	0.3	\$2.7
Exercisable at December 31, 2022	70	\$5.53	0.3	\$2.7

The weighted-average assumptions used in the valuation models to determine the fair value of SARs granted to employees under the 2014 Plan are as follows:

Year Ended December 31,		
2022	2021	2020
n/a	n/a	83.5
n/a	n/a	0.14%
n/a	n/a	94%
n/a	n/a	2.3
n/a	n/a	_
	n/a n/a n/a n/a	2022 2021 n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a

Stock Appreciation Rights (Performance Condition) - 2021 Award

The intrinsic value of a SAR, if any, represents the excess of the fair value of the common stock over the exercise price. The fair value of SAR awards is estimated using the Black-Scholes option pricing model, which includes a number of assumptions including Centrus' estimates of stock price volatility, expected term, future dividend payments, and risk-free interest rates.

These SARs generally have a defined term of three years from award and are automatically exercised at the end of its term if the performance condition has been met. Future stock price volatility is estimated based on the Company's historical volatility. The risk-free interest rate for the expected term is based on the U.S. Treasury yield curve in effect at the time of grant. No cash dividends are expected in the foreseeable future and, therefore, an expected dividend yield of zero is used in the valuation model.

A summary of SARs with performance-based vesting granted under the 2014 Plan in the year ended December 31, 2022, are as follows:

	Stock Appreciation Rights (Performance Condition) (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value (in millions)
Outstanding at December 31, 2020	_	—	_	_
Granted	21	\$19.44	—	—
Exercised	_	—	_	
Forfeited/Cancelled	_	—	—	—
Outstanding at December 31, 2021	21	\$19.44	2.3	\$0.6
Granted	_	—	_	_
Exercised	_	—	_	_
Forfeited/Cancelled	(3)	\$19.44	_	_
Outstanding at December 31, 2022	18	\$19.44	1.3	_
Exercisable at December 31, 2022	18	\$19.44	1.3	—

The weighted-average assumptions used in the valuation models to determine the fair value of SARs granted to employees under the 2014 Plan are as follows:

	Year Ended December 31,		
	2022	2022 2021	
Stock Appreciation Rights Granted (in thousands)	n/a	21.0	n/a
Average Risk-Free Rate	n/a	0.3%	n/a
Expected Volatility	n/a	82.8%	n/a
Expected Term (Years)	n/a	2.5	n/a
Dividend Yield	n/a	_	n/a

Notional Stock Units - 2019 and 2020 Awards

A summary of notional stock units with time-based vesting granted under the 2014 Plan for the year ended December 31, 2022, are as follows:

	Shares (thousands)	Weighted Average Grant Date Fair Value (per share)
Outstanding at December 31, 2019	468	\$3.16
5	125	\$5.53
Granted	125	\$3.33
Exercised	—	—
Forfeited/Cancelled	(22)	\$3.16
Nonvested at December 31, 2020	571	\$3.68
Granted	—	—
Vested	(319)	—
Forfeited	—	—
Nonvested at December 31, 2021	252	\$4.33
Granted	—	—
Vested	(128)	\$3.16
Forfeited	(2)	\$5.53
Nonvested at December 31, 2022	122	\$5.53

Notional Stock Units (Performance Condition) - 2021 Award

A summary of notional stock units with performance-based vesting granted under the 2014 Plan for the year ended December 31, 2022, are as follows:

(in thousands)	Fair Value (per share)
—	
10	\$39.55
—	—
—	
10	\$39.55
—	—
—	—
(2)	\$39.55
8	\$39.55
	(in thousands)

Restricted Stock (Performance Condition) - 2022 Award

A summary of restricted stock with performance-based vesting granted under the 2014 Plan for the year ended December 31, 2022, are as follows: Shares Weighted Average Grant Date Fair

	Shares (in thousands)	Weighted Average Grant Date Fair Value (per share)
Nonvested at December 31, 2021	—	—
Granted	24	\$33.70
Vested		—
Forfeited	(2)	\$33.70
Nonvested at December 31, 2022	22	\$33.70

13. INCOME TAXES

Income Tax Expense (Benefit)

The income tax expense (benefit) is as follows (in millions):

	Year Ended December 31,							
	2	2022				2020		
Current:								
Federal	\$	_	\$	—	\$	_		
State and local		1.0		0.4		0.5		
Foreign		_		—		—		
		1.0		0.4		0.5		
Deferred:								
Federal (a)		14.9		(40.7)		_		
State and local		(0.3)		1.2		(1.9)		
Foreign		_		_		_		
		14.6		(39.5)		(1.9)		
Income tax expense (benefit)	\$	15.6	\$	(39.1)	\$	(1.4)		

(a) The income tax benefit for 2021 includes the reversal of a portion of the federal valuation allowance on net deferred tax assets. See further discussion below.

Deferred Taxes

Future tax consequences of temporary differences between the carrying amounts for financial reporting purposes and the Company's estimate of the tax bases of its assets and liabilities result in deferred tax assets and liabilities, as follows (in millions):

	December 31,				
	2022		2021		
Deferred tax assets:					
Employee benefits costs	\$ 33.5	\$	36.2		
Inventory	21.3		18.6		
Property, plant and equipment	190.2		191.5		
Research and experimental expenditures	3.5				
Net operating loss and credit carryforwards	188.6		206.2		
Accrued expenses	4.9		0.4		
Long-term debt and financing costs	7.6		10.8		
Lease liability	2.1		0.9		
Other	0.4		0.2		
Deferred tax assets	452.1		464.8		
Valuation allowance	(414.1)		(414.7)		
Deferred tax assets, net of valuation allowance	\$ 38.0	\$	50.1		
Deferred tax liabilities:					
Intangible assets	\$ 9.0	\$	7.9		
Lease asset	1.8		0.4		
Prepaid expenses	0.4		0.4		
Deferred tax liabilities	\$ 11.2	\$	8.7		
Deferred tax assets, net	\$ 26.8	\$	41.4		

The valuation allowance reduces the net deferred tax assets to their net realizable value. The ultimate realization of the net deferred tax assets is dependent upon generating sufficient taxable income in future years when deferred tax assets are recoverable or are expected to reverse.

In 2022, there was a \$0.6 million decrease to the valuation allowance that resulted from the change in state deferred tax assets.

In the fourth quarter of 2021, the Company released \$40.7 million of the valuation allowance against federal net deferred taxes that are more likely than not to be realized. In 2021, Centrus evaluated both positive and negative evidence that was objectively verifiable to determine the amount of the federal valuation allowance that was required on Centrus' federal deferred tax assets. Centrus has visibility on a significant portion of revenue in the LEU segment for 2023 through 2026, primarily from its long-term sales contracts. Centrus considered both its achievement of sustained profitability and cumulative income in 2021, as well as the forecasted income to be significant forms of positive evidence. Negative evidence included uncertainty in and the lack of objectively verifiable evidence for profitability in later years when the Company's existing Order Book and supply contracts reach expiration in its LEU segment. In the Company's Technical Solutions segment, negative evidence included uncertainty in the future funding of the HALEU enrichment facility were included in the forecast model because it was not objectively verifiable. Centrus determined that the positive evidence outweighed the negative evidence and supported a release of the federal valuation allowance. However, due to lack of objectively verifiable information in later years, it was determined that forecasted future income was not sufficient to realize all the deferred tax assets, and a partial release of the federal valuation allowance was recorded. In addition to the partial release of the valuation allowance against

federal net deferred taxes, the valuation allowance decreased in 2021 by \$30.6 million due to changes in deferred tax assets since the beginning of the year.

In 2022, an analysis of the positive and negative evidence was performed to determine if a change to the federal valuation allowance was required. Centrus evaluated both positive and negative evidence that was objectively verifiable to determine the amount of the valuation allowance that was required on Centrus' deferred tax assets. Centrus has visibility on a significant portion of revenue in the LEU segment for the next few years, primarily from its long-term sales contracts. Centrus considered both its achievement of sustained profitability and cumulative income in 2022, as well as the forecasted income to be significant forms of positive evidence. Negative evidence included uncertainty in and the lack of objectively verifiable evidence for profitability in later years in Centrus' LEU segment when existing Order Book and supply contracts expire and in Centrus' Technical Solutions segment related to future funding of the HALEU enrichment facility. Based on the analysis, positive evidence continued to outweigh negative evidence as was the case in the 2021 analysis. However, it was determined that no further change to the federal valuation allowance was necessary in 2022. The Company continues to maintain a partial valuation allowance against its remaining federal and state net deferred tax assets due to significant federal and state net operating losses and insufficient future taxable income. As of December 31, 2022, the valuation allowance against the remaining federal and state net deferred tax assets was \$414.1 million.

Going forward, Centrus will continue to evaluate both positive and negative evidence that would support any further changes to the remaining federal and state valuation allowances. Such evidence in our Technical Solutions segment may include events that could have a significant impact on pre-tax income, such as signing new contracts with significantly higher or lower margins than currently forecasted, follow-on work related to the HALEU program, or abandonment of the commercial deployment of the centrifuge technology. Such evidence in our LEU segment may include renewing SWU sales contracts with existing customers and/or signing new SWU sales or purchase contracts with significantly higher or lower margins than currently forecasted. Additional evidence in the LEU segment may include potential deferrals in the timing of deliveries requested by its customers, which could impact revenue recognition timing. The impact of these and other potential positive and negative events will be weighed and evaluated to determine if the valuation allowances should be increased or decreased in the future.

The Company has federal NOLs of \$649.1 million generated through December 31, 2017, that currently expire through 2037. In addition, the Company has federal NOL carryforwards of \$131.4 million generated after December 31, 2017, that do not expire. Centrus also has state NOL carryforwards of \$479.2 million, with a full valuation allowance, that currently expire through 2037.

Effective Tax Rate

A reconciliation of income taxes calculated based on the federal statutory income tax rate and the effective tax rate follows:

		Year Ended December 31,					
	2022	2021	2020				
Federal statutory tax rate	21 %	21 %	21 %				
Valuation allowance against net deferred tax assets	(1)	(53)	(26)				
State rate changes	2	1	(1)				
Executive compensation	1	1	2				
State income tax expense, net of federal benefit	(1)	1	_				
Uncertain tax positions	1	—	1				
Effective tax rate	23 %	(29)%	(3)%				

The effective tax rate for the year ended December 31, 2022, includes a decrease to the valuation allowance against state net deferred tax assets of \$0.6 million, or a change to the effective tax rate of (1%).

The effective tax rate for the year ended December 31, 2021, includes a decrease to the valuation allowance against net deferred tax assets of \$71.3 million, or a change to the effective tax rate of (53%). Included in the valuation allowance decrease is the release of the valuation allowance against federal net deferred taxes of \$40.7 million, or a change to the effective tax rate of (30%).

The effective tax rate for the year ended December 31, 2020, includes a decrease to the valuation allowance against net deferred tax assets of \$13.9 million, or a change to the effective tax rate of (26%). Included in the valuation allowance decrease is the release of the valuation allowance against state net deferred taxes of \$2.0 million, or a change to the effective tax rate of (4%).

Uncertain Tax Positions

Accounting standards require that a tax position meet a minimum recognition threshold in order for the related tax benefit to be recognized in the financial statements. The liability for unrecognized tax benefits, included in *Other Long-Term Liabilities*, was \$1.9 million as of December 31, 2022, and \$1.0 million as of December 31, 2021. If recognized, these tax benefits would impact the effective tax rate. As a result of changes to unrecognized tax benefits, the income tax provision (state tax, net of federal benefit) increased \$0.9 million and \$0.2 million during the year ended December 31, 2022 and 2021, respectively. The liability for unrecognized tax benefits in the table below relates to unrecognized state income tax benefits. Centrus believes that the liability for unrecognized tax benefits will not change significantly in the next 12 months.

A reconciliation of the beginning and ending amount of unrecognized tax benefits follows (in millions):

		Year Ended December 31,					
	202	2		2021			
Balance at beginning of the period	\$	1.0	\$	0.8			
Additions to tax positions of current period		0.9		0.4			
Reductions to tax positions of prior years		_		(0.2)			
Balance at end of the period	\$	1.9	\$	1.0			

Centrus and its subsidiaries file income tax returns with the U.S. Government and various states and foreign jurisdictions. As of December 31, 2022, the federal, Maryland and Tennessee statutes of limitation are closed with respect to all tax years through 2018.

Centrus recognizes accrued interest related to uncertain tax positions as a component of *Interest Expense*. Reversals of previously accrued interest for income taxes is typically offset against interest expense, but if the amount is significant, it is reclassified to interest income in the Consolidated Statement of Operations. Centrus recognizes the increase or decrease of accrued penalties for income taxes as a component of *Selling, General and Administrative* in the Consolidated Statement of Operations.

The impact of accrued interest and penalties for income taxes in the consolidated statement of operations was an increase to expenses of \$0.1 million for the year ended December 31, 2022, and less than \$0.1 million for the year ended December 31, 2021. Accrued interest and penalties for income taxes, included as a component of *Other Long-Term Liabilities*, totaled \$0.1 million as of December 31, 2022, and less than \$0.1 million as of December 31, 2021.

14. NET INCOME PER COMMON SHARE

Basic net income per share is calculated by dividing income allocable to common stockholders by the weighted average number of shares of common stock outstanding during the period. In calculating diluted net income per share, the number of shares is increased by the weighted average number of potential shares related to stock compensation awards. No dilutive effect is recognized in a period in which a net loss has occurred.

On November 17, 2020, the Company completed the purchase of 62,854 shares of its outstanding Series B Senior Preferred Stock at a price per share of \$954.59, less any applicable withholding taxes. (Refer to Note 15, *Stockholders' Equity*). The purchase price per share represented a 25% discount from the aggregate liquidation preference, including accrued but unpaid dividends, of \$1,272.78 per share as of September 30, 2020. Since origination, the carrying value on the Consolidated Balance Sheet was \$43.80 per share based on values assigned in the originating securities exchange. The liquidation amount at origination was \$1,000.00 per share.

The aggregate purchase price of approximately \$60 million, less accrued but unpaid dividends attributable to the purchased and retired Series B Senior Preferred Stock, is considered for purposes of *Net Income per Share* to be a deemed dividend to the extent it exceeds the carrying value on the Consolidated Balance Sheet, or \$41.9 million.

On February 2, 2021, the Company completed the exchange of 3,873 shares of its outstanding Series B Senior Preferred Stock, par value \$1.00 per share ("Preferred Stock") for (i) 231,276 shares of Class A Common Stock and (ii) a warrant to purchase 250,000 shares of Class A Common Stock at an exercise price of \$21.62 per share, for an aggregate valuation of approximately \$7.5 million. The carrying value of the Series B Senior Preferred Stock on the Balance Sheet was \$1.00 per share par value. The aggregate liquidation preference of the Series B Senior Preferred Stock, including accrued but unpaid dividends, was \$1,291.04 per share as of December 31, 2020.

On November 23, 2021, the Company completed the purchase of 36,867 shares of its outstanding Series B Senior Preferred Stock at a price per share of \$1,145.20, less any applicable withholding taxes. The Company also completed the purchase of the remaining 980 shares of its outstanding Series B Senior Preferred Stock at a price per share of \$1,149.99, less any applicable withholding taxes, on December 15, 2021 (Refer to Note 15, *Stockholders' Equity*). The aggregate purchase price of both transactions was \$43.3 million. The carrying value of the Series B Senior Preferred Stock on the Consolidated Balance Sheet was \$1.00 per share par value.

The aggregate valuation of all 2021 preferred stock transactions of approximately \$50.8 million, less accrued but unpaid dividends attributable to the acquired and retired shares of Series B Senior Preferred Stock, is considered for purposes of *Net Income per Share* to be a deemed dividend in the aggregate amount equal to the amount by which it exceeds the carrying value of the Preferred Stock on the Consolidated Balance Sheet, or \$37.6 million.

On December 29, 2022, the Company amended and restated the warrant issued on February 2, 2021, to extend the term to February 5, 2024. The change in the fair value of the warrant is considered as a reduction to net income available to common stockholders for purposes of *Net Income per Share*. For further details, refer to Note 15, *Stockholders' Equity*.

The weighted average number of common and common equivalent shares and the calculation of basic and diluted income per common share are as follows:

	Year Ended December 31,				
	 2022		2021		2020
Numerator (in millions):					
Net income	\$ 52.2	\$	175.0	\$	54.4
Warrant modification	1.5				_
Preferred stock dividends - undeclared and cumulative	—		2.1		6.7
Distributed earnings allocable to retired preferred shares	_		37.6		41.9
Net income allocable to common stockholders	\$ 50.7	\$	135.3	\$	5.8
Denominator (in thousands):					
Average common shares outstanding - basic	14,601		13,493		9,825
Potentially dilutive shares related to stock options and restricted stock units (a)	387		386		298
Average common shares outstanding - diluted	 14,988		13,879		10,123
Net income per common share (in dollars):					
Basic	\$ 3.47	\$	10.03	\$	0.59
Diluted	\$ 3.38	\$	9.75	\$	0.57

There are no common stock equivalents excluded from the diluted calculation as a result of a net loss in the period or options outstanding and considered anti-dilutive as their exercise price exceeded the average share market price.

15. STOCKHOLDERS' EQUITY

Shares Outstanding

Changes in the number of shares outstanding are as follows:

	Preferred Stock, Series B	Common Stock, Class A	Common Stock, Class B
Balance at December 31, 2019	104,574	8,347,427	1,117,462
Issuance under public offering	—	2,537,500	_
Common stock issued for options exercised	—	107,000	_
Conversion of common stock from Class B to Class A	_	398,262	(398,262)
Purchase under tender offer	(62,854)		—
Balance at December 31, 2020	41,720	11,390,189	719,200
Issuance under public offering	—	1,516,467	—
Common stock issued for options exercised	—	216,500	—
Issuance of previously vested restricted stock units	—	89,318	—
Notional stock units paid in shares	_	206,183	—
Common stock and warrant issued in exchange for preferred stock	(3,873)	231,276	—
Purchase under tender offer	(37,847)	—	_
Balance at December 31, 2021		13,649,933	719,200
Issuance under public offering	_	99,090	
Common stock issued for options exercised	_	98,000	
Issuance of previously vested restricted stock units	_	1,172	
Notional stock units paid in shares	—	71,451	—
Balance at December 31, 2022		13,919,646	719,200

Common Stock

The Company's certificate of incorporation authorizes 20,000,000 shares of preferred stock, par value \$1.00 per share, 70,000,000 shares of Class A common stock and 30,000,000 shares of Class B common stock. As of December 31, 2022, the Company has issued 14,638,846 shares of Common Stock, consisting of 13,919,646 shares of Class A Common Stock and 719,200 shares of Class B Common Stock.

Pursuant to a sales agreement with its agents, the Company sold through an at the market offering an aggregate of 99,090 shares and 1,516,467 shares of its Class A Common Stock for a total of \$3.8 million and \$44.2 million in 2022 and 2021, respectively. After expenses and commissions paid to the agents the Company's 2022 and 2021, proceeds totaled \$3.6 million and \$42.4 million, respectively. Additionally, the Company recorded direct costs of \$0.3 million related to the issuance in 2021. The shares of Class A Common Stock were issued pursuant to the Company's shelf registration statement on Form S-3 (File No. 333-239242), which became effective on August 5, 2020, and a prospectus supplement dated December 31, 2020, to the prospectus. The Company currently intends to use the net proceeds from this offering for general working capital purposes, to invest in technology development and deployment, and to repay outstanding debt.

On December 6, 2022, the Company filed a second prospectus supplement to the prospectus dated August 5, 2020, with the SEC. Under this prospectus supplement, the Company may offer and sell shares of its Class A Common Stock, having an aggregate offering price of up to \$24.0 million, in accordance with the terms of the ATM sales agreement with its agents, as amended on December 5, 2022, or to the agents, acting as sales agent or principal. The Company intends to use the net proceeds from the sale of its common stock offered under this prospectus supplement for working capital and general corporate purposes including, but not limited to, capital



expenditures, working capital, repayment of indebtedness, potential acquisitions and other business opportunities. Pending any specific application, the Company may initially invest funds in short-term marketable securities or apply them to the reduction of indebtedness. The Company has not sold any shares under this ATM offering.

As previously disclosed on Form 8-K filed February 5, 2021, on February 2, 2021, the Company entered into an amendment to its existing Voting and Nomination Agreement with the MB Group and an Exchange Agreement (as described below) whereby the MB Group agreed to support management's recommendation on certain matters at the Company's 2021 Annual Meeting and Kulayba LLC agreed to exchange shares of the Company's Preferred Stock for shares of the Company's Class A Common Stock and a warrant to acquire additional shares of Class A Common Stock. Pursuant to the First Amendment to the Voting and Nomination Agreement, the MB Group agreed to cause all shares of Class A Common Stock owned of record or beneficially owned by the MB Group at the Annual Meeting to be voted in favor of (i) an amendment to extend the length of the term of the Company's Section 382 Rights Agreement dated as of April 6, 2016, as amended to date, for two years from June 30, 2021, to June 30, 2023, and (ii) an increase of shares of Class A Common Stock. At the Annual Meeting both of the above referenced proposals were approved by the Company's stockholders.

In connection with this entry into the amendment, the Company and Kulayba LLC also entered into the Exchange Agreement, pursuant to which Kulayba LLC agreed to exchange 3,873 shares of Preferred Stock, representing a \$5,000,198 liquidation preference (including accrued and unpaid dividends), for (i) 231,276 shares of Class A Common Stock priced at the closing market price of \$21.62 on the date the Exchange Agreement was signed and (ii) the Warrant, exercisable for 250,000 shares of Class A Common Stock at an exercise price of \$21.62 per share, which was the closing market price on the date the Exchange Agreement was signed, subject to certain customary adjustments pursuant to the terms of the Warrant. The Warrant was exercisable by Kulayba LLC for a period commencing on the closing date of the Exchange and ending, unless sooner terminated as provided in the Warrant, on the first to occur of: (a) the second anniversary of the closing date of the Exchange or (b) the last business day immediately prior to the communation of a Fundamental Transaction (as defined in the Warrant) which results in the shareholders of the Company immediately prior to such Fundamental Transaction owning less than 50% of the voting equity of the surviving entity immediately after the consummation of the Fundamental Transaction. The Company retired the 3,873 shares of Preferred Stock received by the Company under the Exchange Agreement.

On December 29, 2022, Centrus amended and restated the Warrant and entered into a Voting Rights Agreement with the MB Group. Pursuant to the terms of the Voting Rights Agreement, each member of the MB Group and each Permitted Transferee (as defined in the Voting Rights Agreement) agreed, at the Company's 2023 and 2024 Annual Meetings and at any other vote by the holders of the Company's Common Stock, to (i) cause, in the case of all Common Stock owned of record, and (ii) instruct and cause the record owner, in the case of all shares of Common Stock of which MB Group is a Beneficial Owner (as defined in the Voting Rights Agreement), but not owned of record, directly or indirectly, by it, or by any MB Affiliate (as defined in the Voting Rights Agreement), as of the applicable record date, in each case entitled to (i) be present for quorum purposes, and (ii) vote, as follows: (a) for all directors nominated by the Board for election, (b) for all other proposals, in accordance with the recommendation of the Board, and (c) for any Company proposed adjournments thereof. In addition, each member of the MB Group agreed to not directly or indirectly gift, sell, dispose or otherwise transfer any shares of Common Stock unless the transferee agreed to be bound to the same voting conditions at the 2023 and 2024 Annual Meetings and other meetings, except with respect to any sale or disposition of Common Stock underlying the New Warrant to any person that is not affiliated, associated or otherwise related to any member of the MB Group. In exchange, the Company agreed to amend and restate that Warrant, to extend the term of the Warrant to February 5, 2024, subject to the other terms of the New Warrant. Immaterial amendments were made on October 17, 2022. Under U.S. GAAP, the New Warrant was accounted for as an exchange of the original instrument. As such, the Company recorded the difference in the fair value of the New Warrant, immediately before and after the exchange, in the *Consolidated Statements of Operations and Compreh*

On September 1, 2020, the Company completed the sale of 2,537,500 shares of the Company's Class A Common Stock pursuant to the Registration Statement on Form S-3 that became effective on August 5, 2020, as supplemented by the prospectus supplement filed with the SEC on August 21, 2020. The price to the public in this offering was \$10.00 per share of Class A Common Stock. The aggregate gross proceeds from the offering were approximately \$25.4 million, before deducting underwriting discounts and commissions and other estimated offering expenses payable by the Company of \$2.3 million.

Shares of Class B Common Stock that are sold in the market are automatically converted to shares of Class A Common Stock. Shares of Class B Common Stock that were sold in the market and converted to shares of Class A Common Stock totaled 0 in 2022 and 2021 and 398,262 in 2020.

The Company has reserved 1,900,000 shares of Class A Common Stock under its management incentive plan, of which 522,608 shares are available for future awards as of December 31, 2022. Refer to Note 12, *Stock-Based Compensation*, for additional information.

The Class A Common Stock trades under the symbol "LEU" on the NYSE American LLC trading platform.

The Class B Common Stock was issued to Toshiba American Nuclear Energy Corporation and Babcock & Wilcox Investment Company and has the same rights, powers, preferences and restrictions and ranks equally in all matters with the Class A Common Stock, except voting. Holders of Class B Common Stock are entitled to elect, in the aggregate, two members of the Board of Directors of the Company, subject to certain holding requirements.

Series B Senior Preferred Stock

In 2017, Centrus issued 104,574 shares of Series B Senior Preferred Stock as part of a securities exchange. The issuance of the Series B Senior Preferred Stock was a non-cash financing transaction. As detailed below, the Series B Senior Preferred Stock was purchased by the Company in 2020 and 2021 and the designation of the Series B Senior Preferred Stock was eliminated and all shares of preferred stock of the Company previously designated as Series B Senior Preferred Stock were returned to authorized but unissued and undesignated shares of preferred stock of the Company.

The Series B Senior Preferred Stock had a par value of \$1.00 per share and a liquidation preference of \$1,000 per share (the "Liquidation Preference"). Holders of the Series B Senior Preferred Stock were entitled to cumulative dividends of 7.5% per annum of the Liquidation Preference. Centrus had not met the criteria for payment of dividends for the periods from issuance through final redemption of the Series B Senior Preferred Stock in 2021.

2020 Tender Offer

On November 17, 2020, pursuant to a tender offer announced on October 19, 2020, the Company completed the purchase of 62,854 shares of its outstanding Series B Senior Preferred Stock at a price per share of \$954.59, less any applicable withholding taxes, for an aggregate purchase price of approximately \$60 million. The purchase price per share represented a 25% discount from the aggregate liquidation preference, including accrued but unpaid dividends, of \$1,272.78 per share as of September 30, 2020. These shares represented approximately 60% of the Company's outstanding Series B Senior Preferred Stock as of September 30, 2020. The remaining Series B Senior Preferred Stock outstanding after the transaction was 41,720 shares.

On December 22, 2020, the Company filed with the Delaware Secretary of State a Certificate of Retirement of 62,854 Series B Senior Preferred Stock, par value \$1.00 per share, to effect the retirement of the Company's Series B Senior Preferred Stock repurchased upon the completion of its previously announced tender offer to purchase Series B Senior Preferred Stock. Effective upon filing, the Certificate of Retirement amended the Amended and Restated Certificate of Incorporation of the Company to reduce the total number of authorized Series B Senior Preferred Stock by 62,854 shares such that the total number of authorized Series B Senior Preferred Stock of the Company was 41,720 shares.

2021 Tender Offer

On October 20, 2021, the Company announced the commencement of a tender offer to purchase all of its outstanding Series B Senior Preferred Stock, par value \$1.00 per share, at a price of \$1,145.20 per Series B Senior Preferred Stock (inclusive of any rights to accrued but unpaid dividends), to the sellers in cash, less any applicable withholding taxes (the "Offer"). The Offer was made pursuant to the Tender Offer Statement on Schedule TO filed by the Company on October 20, 2021 with the SEC. The aggregate liquidation preference per Series B Senior Preferred Stock (including accrued but unpaid dividends) was \$1,347.29 as of September 30, 2021.

On November 23, 2021, the Company announced the results of the tender offer and the related consent solicitation to amend the certificate of designation of the Series B Senior Preferred Stock (the "Series B Preferred Amendment"). 36,867 Series B Senior Preferred Stock were properly tendered and not properly withdrawn in the Offer, and corresponding consents have been delivered in the consent solicitation. Pursuant to the terms of the Offer and Consent Solicitation, the Company has accepted for purchase all of the Series B Senior Preferred Stock tendered in the Offer, for an aggregate purchase price of \$42.2 million. The accepted shares represent 97.4% of the Company's outstanding Series B Senior Preferred Stock as of September 30, 2021. Based on the final results, the requisite consent of at least 90% of the outstanding Series B Senior Preferred Stock required to approve the Series B Preferred Amendment was obtained. On November 23, 2021, the Company issued a Notice of Full Redemption providing for the redemption of any and all shares of the Company's series B Senior Preferred Stock outstanding Series B Senior Preferred Stock. On December 15, 2021, the Company completed the redemption of all 980 outstanding Series B Senior Preferred Stock for an aggregate purchase price of \$1.1 million. The aggregate purchase price of \$43.3 million was offset by direct costs totaling \$0.9 million.

The effect of the Series B Preferred Amendment was to: (i) cease any obligation to pay dividends on Series B Senior Preferred Stock (other than the payment of accrued dividends in connection with a redemption or distribution of assets upon liquidation, dissolution or winding up), (ii) permit the Company to redeem Series B Senior Preferred Stock during the 90 days following the date of effectiveness of the Series B Preferred Amendment at a redemption price per share equal to \$1,145.20 (plus any additional accrued dividends for the period from and including the date of effectiveness of the Series B Preferred Amendment to the date of redemption), (iii) remove the prohibition on the declaration and payment of dividends on junior stock of the Company, which includes all shares of the Company's capital stock defined as "Common Stock" in the Company's Amended and Restated Certificate of Incorporation, or the redemption, purchase or acquisition of such junior stock, and (iv) remove the restriction on redemption, purchase or acquisition of capital stock of the Company ranking on parity with the Series B Senior Preferred Stock.

On December 16, 2021, the Company filed a Certificate of Elimination of the Series B Senior Preferred Stock of Centrus Energy Corp. with the Secretary of State of Delaware to eliminate the designation of the Series B Senior Preferred Stock and to return all shares of preferred stock of the Company previously designated as Series B Senior Preferred Stock to authorized but unissued and undesignated shares of preferred stock of the Company.

Rights Agreement

On April 6, 2016 (the "Effective Date"), the Company's Board of Directors (the "Board") adopted a Section 382 Rights Agreement, which was (a) amended on February 14, 2017 to, among other things, exclude acquisitions of the Series B Senior Preferred Stock issued as part of the exchange offer and consent solicitation from the definition of "Common Shares" in connection with the settlement and completion of the exchange offer and consent solicitation, and (b) further amended on April 3, 2019 to, among other things, (i) decreased the purchase price for each one one-thousandth (1/1000th) of a share of the Company's Series A Participating Cumulative Preferred Stock, par value \$1.00 per share, from \$26.00 to \$18.00 and (ii) extended the Final Expiration Date (as defined in the Rights Agreement) from April 5, 2019 to April 5, 2022 (as amended, the "Rights Agreement"). The Board adopted the Rights Agreement in an effort to protect shareholder value by, among other things, attempting to protect against a possible limitation on the Company's ability to use its net operating loss carryforwards and other tax benefits, which may be used to reduce potential future income tax obligations.

In connection with the adoption of the Rights Agreement, the Board declared a dividend of one preferred-share-purchase-right for each share of the Company's Class A Common Stock and Class B Common Stock outstanding as of the Effective Date. The rights initially trade together with the common stock and are not exercisable. In the absence of further action by the Board, the rights would generally become exercisable and allow a holder to acquire shares of a new series of the Company's preferred stock if any person or group acquires 4.99% or more of the outstanding shares of the Company's common stock, or if a person or group that already owns 4.99% or more of the Company's Class A Common Stock acquires additional shares representing 0.5% or more of the outstanding shares of the Company's Class A Common Stock. The rights beneficially owned by the acquirer would become null and void, resulting in significant dilution in the ownership interest of such acquirer.

The Board may exempt any acquisition of the Company's common stock from the provisions of the Rights Agreement if it determines that doing so would not jeopardize or endanger the Company's use of its tax assets or is otherwise in the best interests of the Company. The Board also has the ability to amend or terminate the Rights Agreement prior to a triggering event.

On June 16, 2021, the Company entered into, a Fourth Amendment to the Rights Agreement (the "Fourth Amendment"). The Fourth Amendment modified the Final Expiration Date (as defined in the Rights Agreement) to be June 30, 2023.

16. COMMITMENTS AND CONTINGENCIES

Commitments under SWU Purchase Agreements

TENEX

The Russian government-owned entity TENEX, is a major supplier of SWU to the Company. Under the 2011 TENEX Supply Contract, the Company purchases SWU contained in LEU received from TENEX, and the Company delivers natural uranium to TENEX for the LEU's uranium component. The LEU that the Company obtains from TENEX is subject to quotas and other restrictions applicable to commercial Russian LEU. Further, the ability of the Company or TENEX to perform under the TENEX Supply Contract is vulnerable to (i) sanctions or restrictions that might be imposed by Russia, the United States, or other countries as a result of the war in Ukraine, or otherwise, (ii) customers and other parties who may object to receiving or handling Russian LEU or SWU, or (iii) suppliers and service providers seeking to limit their involvement with business related to Russia.

The TENEX Supply Contract originally was signed with commitments through 2022, but was modified in 2015 to give the Company the right to reschedule certain quantities of SWU of the original commitments into the period 2023 and beyond, in return for the purchase of additional SWU in those years. The Company has exercised this



right to reschedule in each year through December 31, 2022. As a result of exercising this right to reschedule, the Company will have purchase commitments that could extend through 2028.

The TENEX Supply Contract provides that the Company must pay for all SWU in its minimum purchase obligation each year, even if it fails to submit orders for such SWU. In such a case, the Company would pay for the SWU, but have to take the unordered SWU in the following year.

Pricing terms for SWU under the TENEX Supply Contract are based on a combination of market-related price points and other factors. This formula was subject to an adjustment at the end of 2018 that reduced the unit costs of SWU under this contract in 2019 and for the duration of the contract.

Orano

In 2018, the Company entered into the Orano Supply Agreement with the French company Orano Cycle for the long-term supply to the Company of SWU contained in LEU. The Orano Supply Agreement subsequently was assigned by Orano Cycle to its affiliate, Orano CE. Under the amended Orano Supply Agreement, the supply of SWU runs through 2030. The Orano Supply Agreement provides significant flexibility to adjust purchase volumes, subject to annual minimums and maximums in fixed amounts that vary year by year. The pricing for the SWU purchased by the Company is determined by a formula that uses a combination of market-related price points and other factors and is subject to certain floors and ceilings.

Russian Suspension Agreement

Beginning in September 2022, the DOC and the ITC, respectively, initiated two "sunset" reviews of the RSA that will determine if the RSA should be maintained. These "sunset" reviews are required to be conducted every five years. This is the fifth round of "sunset reviews" of the RSA. The last round of reviews in 2016-17 concluded that termination of the RSA would lead to the continuation or recurrence of dumping of French LEU (a determination made by the DOC), and to the continuation or recurrence of material injury to the U.S. uranium industry (a determination made by the ITC), which resulted in the RSA being maintained. Even if the RSA were terminated as a result of the "sunset" reviews, the quotas under the 2020 legislation would remain in place.

Milestones Under the 2002 DOE-USEC Agreement

The Company's predecessor USEC Inc. and the DOE signed the 2002 DOE-USEC Agreement dated June 17, 2002, pursuant to which the parties made long-term commitments directed at resolving issues related to the stability and security of the domestic uranium enrichment industry. The 2002 DOE-USEC Agreement requires Centrus to develop, demonstrate and deploy advanced enrichment technology in accordance with milestones, including the deployment of a commercial American Centrifuge Plant, and provides for remedies in the event of a failure to meet a milestone under certain circumstances, including terminating the 2002 DOE-USEC Agreement, revoking Centrus' access to the DOE's centrifuge technology that is required for the success of the Company's ongoing work with the American Centrifuge technology, requiring Centrus to transfer certain rights in the American Centrifuge technology and facilities to the DOE, and requiring Centrus to reimburse the DOE for certain costs associated with the American Centrifuge technology. The 2002 DOE-USEC Agreement provides that if a delaying event beyond the control and without the fault or negligence of Centrus occurs that could affect Centrus' ability to meet the American Centrifuge Plant milestone under the 2002 DOE-USEC Agreement, the DOE and the Company will jointly meet to discuss in good faith possible adjustments to the milestones as appropriate to accommodate the delaying event. In 2014, the 2002 DOE-USEC Agreements between the Company and the DOE were assumed by Centrus subject to an express reservation of all rights, remedies and defenses by the DOE and the Company under those agreements. The DOE and the Company have agreed that all rights, remedies and defenses of the parties with respect to any missed milestones and all other matters under the 2002 DOE-USEC Agreement continue to be preserved, and that the time limits for each party to respond to any missed milestones continue to be tolled.

Legal Matters

From time to time, the Company is involved in various pending legal proceedings, including the pending legal proceedings described below.

In 1993, USEC-Government entered into a lease for the Paducah and Portsmouth GDPs with the DOE. As part of that lease, the DOE and USEC-Government also entered into a Power MOU regarding power purchase agreements between DOE and the providers of power to the GDPs. Under the Power MOU, the DOE and USEC-Government agreed upon the allocation of rights and liabilities under the power purchase agreements. In 1998, USEC-Government was privatized and became Enrichment Corp., now a principal subsidiary of the Company. Pursuant to legislation authorizing the privatization, the lease for the GDPs, which included the Power MOU as an Appendix, was transferred to Enrichment Corp. and Enrichment Corp. was given the right to purchase power from the DOE. The Paducah GDP was shut down in 2013 and deleased by Enrichment Corp. in 2014. On August 4, 2021, the DOE informally informed Enrichment Corp. that the Joppa power plant, which had supplied power to the Paducah GDP, was planned to be D&D. According to the DOE, the power purchase agreement with Electric Energy Inc. requires the DOE to pay for a portion of the D&D costs of the Joppa power plant and the DOE has asserted that a portion of the DOE liability is the responsibility of Enrichment Corp. under the Power MOU in the amount of approximately \$9.6 million. The Company is assessing the DOE's assertions including whether all or a portion of any such potential liability had been previously settled. The Company has not formed an opinion on the merits nor is it able to estimate the potential liability, if any, and no expense or liability has been accrued.

On May 26, 2019, the Company, Enrichment Corp., and six other DOE contractors who have operated facilities at the Portsmouth GDP (including, in the case of the Company, the American Centrifuge Plant site located on the premises) were named as defendants in a class action complaint filed by Ursula McGlone, Jason McGlone, Julia Dunham, and K.D. and C.D., minor children by and through their parent and natural guardian Julia Dunham (collectively, the "McGlone Plaintiffs") in the U.S. District Court in the Southern District of Ohio, Eastern Division. The complaint seeks damages for alleged off-site contamination allegedly resulting from activities on the Portsmouth GDP site. The McGlone Plaintiffs are seeking to represent a class of (i) all current or former residents within a seven-mile radius of the Portsmouth GDP site and (ii) all students and their parents at the Zahn's Corner Middle School from 1993-present. The complaint was amended on December 10, 2019 and on January 10, 2020 to add additional plaintiffs and new claims. On July 31, 2020, the court granted in part and denied in part the defendants' motion to dismiss the case. The court dismissed ten of the fifteen claims and allowed the remaining claims to proceed to the next stage of the litigation process. On August 18, 2020, the McGlone Plaintiffs filed a motion for leave to file a third amended complaint and notice of dismissal of three of the individual plaintiffs. On March 18, 2021, the McGlone Plaintiffs filed a motion for leave to file a fourth amended complaint to add new plaintiffs and allegations. On March 19, 2021, the court granted the McGlone Plaintiffs' motion for leave to amend the complaint to include Price-Anderson Act and eight other state law claims. On May 24, 2021, the Company, Enrichment Corp., and the other defendants filed their motion to dismiss the complaint. On March 31, 2022, the court granted our motion in part by dismissing claims brought on behalf of the minor children but allowed the other claims to proceed. As such, the discovery stage of litigation is continuing. On April 28, 2022, the Company, Enrichment Corp., and the other defendants filed their answer to the fourth amended complaint. The Company believes that its operations at the Portsmouth GDP site were fully in compliance with the Nuclear Regulatory Commission's regulations. Further, the Company and Enrichment Corp. believe that any such liability should be indemnified under the Price-Anderson Act. The Company and Enrichment Corp. have provided notifications to DOE required to invoke indemnification under the Price-Anderson Act and other contractual provisions.

On June 8, 2022, the Company, Enrichment Corp., and six other DOE contractors who operated facilities at the Portsmouth GDP were named as defendants in a complaint filed by Brad Allen Lykins, as administrator of the estate of Braden Aaron Lee Lykins in the U.S. District Court in the Southern District of Ohio, Eastern Division ("Lykins Complaint"). In March 2021, Brayden Lykins, who was thirteen years old, passed away from leukemia. The complaint alleges that the defendants released radiation into the environment in violation of the Price-Anderson Act causing Lykins' death and seeks monetary damages. On August 30, 2022, the Company, Enrichment Corp. and the

other defendants filed their answer to the Lykins Compliant. The Company and Enrichment Corp. believe that their operations at the Portsmouth GDP site were fully in compliance with the NRC's regulations. Further, the Company and Enrichment Corp. believe that any such liability should be indemnified under the Price-Anderson Act. The Company and Enrichment Corp. have provided notifications to the DOE required to invoke indemnification under the Price-Anderson Act and other contractual provisions.

Centrus is subject to various legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. While the outcome of these claims cannot be predicted with certainty, other than the above, Centrus does not believe that the outcome of any of these legal matters, individually and in the aggregate, will have a material adverse effect on its cash flows, results of operations or Consolidated Financial Condition.

17. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The sole component of accumulated other comprehensive income (loss) relates to activity in the accounting for pension and postretirement health and life benefit plans. The amortization of prior service costs (credits) is reclassified from accumulated other comprehensive income (loss) and included in the computation of net periodic benefit cost. For further details, refer to Note 11, *Pension and Postretirement Health and Life Benefits*.

18. REVENUE BY GEOGRAPHIC AREA, MAJOR CUSTOMERS AND SEGMENT INFORMATION

Revenue by customer location, including customers in a foreign country representing 10% or more of total revenue, follows (in millions):

	Year Ended December 31,						
	2022		2021		2020		
United States	\$ 154.3	\$	220.5	\$	171.7		
Foreign:							
Belgium	38.3		36.6		35.8		
Japan	61.6		34.6		23.4		
Other	39.6		6.6		16.3		
Total foreign	139.5		77.8		75.5		
Total revenue	\$ 293.8	\$	298.3	\$	247.2		
* less than 10%	 		·				

The U.S. Government and its contractors, in the Company's Technical Solutions segment, represented approximately 20% of total revenue for the year ended December 31, 2022, 38% for the year ended December 31, 2021, and 21% for the year ended December 31, 2020.

The ten largest customers in the Company's LEU segment represented approximately 75% of total revenue for the year ended December 31, 2022. Revenue from Kyushu Electric Power Company and Synatom represented approximately 15% and 13%, respectively, of total revenue for the year ended December 31, 2022.

The ten largest customers in the Company's LEU segment represented approximately 57% of total revenue for the year ended December 31, 2021. Revenue from each of Synatom and Kyushu Electric Power Company represented approximately 12% of total revenue for the year ended December 31, 2021.

The ten largest customers in the Company's LEU segment represented approximately 71% of total revenue for the year ended December 31, 2020. Revenue from Synatom, Energy Harbor Nuclear Corp. and Dominion Energy South Carolina represented approximately 14%, 13%, and 10%, respectively, of total revenue for the year ended December 31, 2020.

No other customer represented more than 10% of total revenue for the year ended December 31, 2022, 2021, or 2020.

Centrus has two reportable segments: the LEU segment with two components, SWU and uranium, and the Technical Solutions segment. The LEU segment includes sales of the SWU component of LEU, sales of both the SWU and uranium components of LEU, and sales of uranium. The Technical Solutions segment includes revenue and cost of sales for work that Centrus performs under the HALEU Demonstration and Operation Contracts. The Technical Solutions segment also includes limited services provided by Centrus to DOE and its contractors at the Piketon facility. Gross profit is Centrus' measure for segment reporting. There were no intersegment sales in the periods presented. Refer to Note 2, *Revenue and Contracts with Customers*, for additional details on revenue for each segment.

The following table presents the Company's segment information (in millions):

	Year Ended December 31,						
	2022		2021		2020		
Revenue							
LEU segment:							
Separative work units	\$	196.2	\$	163.3	\$	151.5	
Uranium		39.4		22.8		39.0	
Total		235.6		186.1		190.5	
Technical Solutions segment		58.2		112.2		56.7	
Total revenue	\$	293.8	\$	298.3	\$	247.2	
Segment Gross Profit (Loss)							
LEU segment	\$	130.6	\$	73.0	\$	97.8	
Technical Solutions segment		(12.7)		41.5		(0.2)	
Gross profit	\$	117.9	\$	114.5	\$	97.6	

The Company's total assets are not presented for each reportable segment as they are not reviewed by, nor otherwise regularly provided to, the chief operating decision maker. Centrus' long-term or long-lived assets, which include property, plant and equipment and other assets reported on the Consolidated Balance Sheet, were located in the United States as of December 31, 2022, and December 31, 2021.

Execution Version

CENTRUS ENERGY CORP.

AMENDMENT NO. 1 TO AT MARKET ISSUANCE SALES AGREEMENT

December 5, 2022

B. Riley Securities, Inc. 299 Park Avenue, 21st Floor New York, NY 10171

Lake Street Capital Markets, LLC 920 Second Avenue South, Suite 700 Minneapolis, MN 55402

Ladies and Gentlemen:

Reference is made to the At Market Issuance Sales Agreement, dated December 31, 2020 (the "Agreement") between Centrus Energy Corp., a Delaware corporation (the "Company"), and B. Riley Securities, Inc. and Lake Street Capital Markets, LLC (each, an "Agent" and collectively, the "Agents"), pursuant to which the Company agreed to issue and sell through or to the Agents, as sales agent or principal, shares of the Company's Class A Common Stock, par value \$0.10 per share (the "Common Stock"). All capitalized terms used in this Amendment No. 1 to the Agreement (this "Amendment") and not otherwise defined herein shall have the respective meanings assigned to such terms in the Agreement.

The Company and the Agents agree as follows:

Section 1. <u>Amendments to Agreement</u>. The Agreement is amended as follows, effective as of the date hereof.

(a) The fifth sentence of the first paragraph of Section 1 is hereby deleted and replaced with the following:

"The Company has prepared a prospectus supplement to the base prospectus included as part of such registration statement, with such prospectus supplement and any subsequent prospectus supplement filed with the Commission pursuant to Rule 424(b) under the Securities Act specifically relating to the Placement Shares to be issued from time to time pursuant to this Agreement (the "Prospectus Supplement")."

(b) The eighth sentence of the first paragraph of Section 1 is hereby deleted and replaced with the following:

"The base prospectus, including all documents incorporated or deemed incorporated therein by reference to the extent such information has not been superseded or modified in accordance with Rule 412 under the Securities Act (as qualified by Rule 430B(g) of the Securities Act), included in the Registration Statement, as it may be supplemented by the Prospectus Supplement and any prospectus supplement filed with the Commission pursuant to Rule 424(b) under the Securities Act relating to the Placement Shares, in the form in which such base prospectus and/or Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act is herein called the "Prospectus."

Section 2. <u>No Other Amendments</u>. Except as set forth in Section 1 above, all the terms and provisions of the Agreement shall continue in full force and effect.

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Section 3. <u>Counterparts</u>. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Amendment by one party to the other may be made by facsimile transmission or email of a .pdf attachment.

Section 4. <u>Law; Construction</u>. This Amendment and any claim, counterclaim or dispute of any kind or nature whatsoever arising out of or in any way relating to this Amendment, directly or indirectly, shall be governed by, and construed in accordance with, the internal laws of the State of New York.

[Signature Page Follows]

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If the foregoing correctly sets forth the understanding between the Company and each of the Agents, please so indicate in the space provided below for that purpose, whereupon this Amendment shall constitute a binding agreement between the Company and each of the Agents.

Very truly yours,

CENTRUS ENERGY CORP.

PEPSter By:

Name: Philip Strawbridge Title: Chief Financial Officer

ACCEPTED as of the date first above written:

B. RILEY SECURITIES, INC.

By: Name: Title:

LAKE STREET CAPITAL MARKETS, LLC

By: Name: Title:

[Signature Page to Amendment No. 1 to At Market Issuance Sales Agreement]

If the foregoing correctly sets forth the understanding between the Company and each of the Agents, please so indicate in the space provided below for that purpose, whereupon this Amendment shall constitute a binding agreement between the Company and each of the Agents.

Very truly yours,

CENTRUS ENERGY CORP.

By:

Name: Philip Strawbridge Title: Chief Financial Officer

ACCEPTED as of the date first above written:

B. RILEY SECURITIES, INC.

By: Petru MW/ll

Name: Patrice McNicoll Title: Co-Head of Investment Banking

LAKE STREET CAPITAL MARKETS, LLC

By: Name: Title:

[Signature Page to Amendment No. 1 to At Market Issuance Sales Agreement]

If the foregoing correctly sets forth the understanding between the Company and each of the Agents, please so indicate in the space provided below for that purpose, whereupon this Amendment shall constitute a binding agreement between the Company and each of the Agents.

Very truly yours,

CENTRUS ENERGY CORP.

By:

Name: Philip Strawbridge Title: Chief Financial Officer

ACCEPTED as of the date first above written:

B. RILEY SECURITIES, INC.

By: Name: Title:

LAKE STREET CAPITAL MARKETS, LLC

By: <u>777</u> Name: Michael Townley

Title: Head of Investment Banking

[Signature Page to Amendment No. 1 to At Market Issuance Sales Agreement]

CENTRUS ENERGY CORP. DESCRIPTION OF SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934 (as of December 31, 2022)

The authorized capital stock of Centrus Energy Corp (the "Company," "Centrus" or "us") consists of (a) 100,000,000 shares of common stock, par value \$0.10 per share, of which 70,000,000 shares are classified as Class A Common Stock, and 30,000,000 shares are classified as Class B Common Stock, and (b) 20,000,000 shares of preferred stock, par value \$1.00 per share, of which 2,000,000 shares have been designated Series A Participating Cumulative Preferred Stock. The Class A Common Stock is registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, and trades on the NYSE American platform under the symbol "LEU."

The following description of the terms of our securities is not complete and is qualified in its entirety by reference to the Company's Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the Company's Third Amended and Restated Bylaws (the "Bylaws"), and the Rights Agreement (as defined below), all of which are exhibits to our Annual Report on Form 10-K.

Class A Common Stock

The holders of Class A Common Stock are entitled to one vote for each outstanding share of Class A Common Stock owned by that stockholder on every matter properly submitted to the stockholders for their vote, except for any amendment for the Certificate of Incorporation that relates solely to the terms of one or more outstanding series of preferred stock or Class B Common Stock. Generally, all matters to be voted on by stockholders, other than the election of directors, must be approved by a majority in voting power of the stock represented and entitled to vote. However, questions governed expressly by provisions of the Certificate of Incorporation, bylaws, applicable stock exchange rules or applicable law require approval as set forth in the applicable governing document, stock exchange rule or law. The holders of Class B Common Stock are entitled to elect up to two directors, which right is subject to change based on certain holding requirements. Otherwise, the directors are elected by a plurality of votes cast on the election of directors.

Subject to the rights of the holders of any series of preferred stock outstanding at any time, the holders of Class A Common Stock and Class B Common Stock will be entitled to share ratably, based upon the number of shares held, in such dividends and other distributions of cash or any other right or property as may be declared by the Board of Directors out of the assets or funds legally available for such dividends or distributions, with sharing equally in such dividends or distributions.

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company's affairs, holders of Class A Common Stock and Class B Common Stock would be entitled to share ratably, based upon the number of shares held, in assets that are legally available for distribution to stockholders after payment of liabilities. If there is any preferred stock outstanding at such time, holders of the preferred stock may be entitled to distribution and/or liquidation preferences.

The Certificate of Incorporation does not provide for any conversion, sinking fund, redemption, preference, preemptive right, or right of subscription for the Class A Common Stock. Issued and outstanding shares of Class B Common Stock convert into shares of Class A Common Stock upon transfer to a party other than the current Class B stockholders and their respective affiliates.

Provisions of the Company's Certificate of Incorporation, Bylaws and Delaware Law that May Have an Anti-Takeover Effect

Certificate of Incorporation and Bylaws. The Certificate of Incorporation and Bylaws provide that a special meeting of stockholders may be called only by the Chairman, the President, the Board of Directors

or a committee empowered by the Board of Directors to call a special meeting. Stockholders are not permitted to call, or to require that the Board of Directors call, a special meeting of stockholders.

In the event that levels of foreign ownership of the Company's stock established by the Certificate of Incorporation are exceeded, the Board of Directors has the right to take certain actions with respect to such ownership. These actions include requesting information from holders (or proposed holders) of the Company's securities, refusing to permit the transfer of securities by such holders, suspending or limiting voting rights of such holders, redeeming or exchanging shares of the Company's stock owned by such holders on terms set forth in the Certificate of Incorporation, and taking other actions that are deemed necessary or appropriate to ensure compliance with the foreign ownership restrictions.

Delaware Takeover Statute. The Company is subject to Section 203 of the Delaware General Corporation Law (the "DGCL"), which, subject to certain exceptions, prohibits a Delaware corporation from engaging in any "business combination" (as defined below) with any "interested stockholder" (as defined below) for a period of three years following the date that such stockholder became an interested stockholder, unless: (i) prior to such date, the Board of Directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) on consummation of the transaction that resulted in the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (x) by persons who are directors and also officers and (y) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or (iii) on or subsequent to such date, the business combination is approved by the Board of Directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 62/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 of the DGCL defines "business combination" to include: (i) any merger or consolidation involving the corporation and the interested stockholder; (ii) any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder; (iii) subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; (iv) any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or (v) the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation and any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person.

Rights to Acquire Series A Participating Cumulative Preferred Stock

Centrus has adopted a Section 382 stockholders rights plan and declared a dividend distribution of one right for each outstanding share of our common stock to stockholders of record on April 6, 2016. Each right entitles its holder, under the circumstances described below, to purchase from us one one-thousandth of a share of our Series A Participating Cumulative Preferred Stock, par value \$1.00 per share, at an exercise price of \$18.00 per right, subject to adjustment. The terms of the rights are set forth in a Section 382 Rights Agreement between us, Computershare, Inc. and Computershare Trust Company, N.A., as amended (the "Rights Agreement").

The rights plan is intended to act as a deterrent to any person or group, together with its affiliates and associates, being or becoming the beneficial owner of 4.99% or more of common stock, with certain exceptions. The rights initially trade together with the common stock and are not exercisable. In the absence of further action by the Board, the rights would generally become exercisable and allow a holder to acquire shares of a new series of the Company's preferred stock if any person or group acquires 4.99% or more of the outstanding shares of the Company's common stock, or if a person or group that already owns 4.99% or more of the Company's Class A Common Stock acquires additional shares representing 0.5% or more of the outstanding shares of the Company's Class A Common Stock. The rights beneficially

owned by the acquirer would become null and void, resulting in significant dilution in the ownership interest of such acquirer.

The Board may exempt any acquisition of the Company's common stock from the provisions of the Rights Agreement if it determines that doing so would not jeopardize or endanger the Company's use of its tax assets or is otherwise in the best interests of the Company. The Board also has the ability to amend or terminate the Rights Agreement prior to a triggering event. Unless earlier terminated or extended in accordance with the Rights Agreement, the rights issued under the Rights Agreement expire on June 30, 2023.

THIS WARRANT AND THE UNDERLYING SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR UNDER THE SECURITIES LAWS OF ANY STATE. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT AS PERMITTED UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS IN ACCORDANCE WITH APPLICABLE REGISTRATION REQUIREMENTS OR AN EXEMPTION THEREFROM. THE ISSUER OF THIS WARRANT MAY REQUIRE AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE ISSUER THAT SUCH OFFER, SALE, TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE SECURITIES ACT AND ANY APPLICABLE STATE SECURITIES LAWS. THIS WARRANT MUST BE SURRENDERED TO THE COMPANY OR ITS TRANSFER AGENT AS A CONDITION PRECEDENT TO THE SALE, TRANSFER, PLEDGE OR HYPOTHECATION OF THIS WARRANT OR ANY OF THE UNDERLYING SECURITIES REPRESENTED HEREBY.

SECOND AMENDED AND RESTATED WARRANT

CENTRUS ENERGY CORP.

WARRANT TO PURCHASE COMMON STOCK

To Purchase 250,000 Shares of Class A Common Stock, Par Value \$0.10 Per Share

Date of Issuance: December 29, 2022

VOID AFTER FEBRUARY 5, 2024

THIS CERTIFIES THAT, pursuant to this Second Amended and Restated Warrant (this "Warrant"), for value received, Kulayba LLC, or permitted registered assigns (the "Holder"), is entitled, subject to the terms and conditions set forth herein, to subscribe for and purchase at the Exercise Price (as defined below) from Centrus Energy Corp., a Delaware corporation (the "Company"), 250,000 shares of Class A Common Stock, par value \$0.10 per share (the "Common Stock") of the Company. For good and valuable consideration received, the Holder and the Company each acknowledge and agree that this Second Amended and Restated Warrant replaces that certain Amended and Restated Warrant dated October 17, 2022 between the Holder and the Company (the "Prior Warrant"). By accepting this Warrant, the Holder hereby agrees to surrender to the Company for cancellation the Prior Warrant or, at the request of the Company, to execute an instrument of cancellation in form and substance acceptable to the Company. The Holder and the Company hereby acknowledge and agree that upon the issuance of this Warrant, the Prior Warrant shall be amended and restated and all of the Company's obligations under such Prior Warrant shall be discharged and released in full without any further action on the part of the Company or the Holder.

1. <u>DEFINITIONS</u>. As used herein, the following terms shall have the following respective meanings:

(a) "**Business Day**" shall mean any day that is not a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by law to remain closed.

(b) "**Exercise Period**" shall mean the period commencing with the date hereof and ending, unless sooner terminated as provided below, on the first to occur of: (a) February 5, 2024 or (b) the last Business Day immediately prior to the consummation of a Fundamental Transaction (as defined below) which results in the shareholders of the Company immediately prior to such Fundamental Transaction owning less than 50% of the voting equity of the surviving entity immediately after the consummation of the Fundamental Transaction.

(c) "**Exercise Price**" shall mean \$21.62 per share, subject to adjustment pursuant to <u>Section 5</u> below.

(d) "Exercise Shares" shall mean the shares of Common Stock issuable upon exercise of this Warrant.

(e) "**Fundamental Transaction**" shall mean the occurrence of any of the following at any time while this Warrant is outstanding: (i) the Company effects any merger or consolidation of the Company with or into another entity, in which the shareholders of the Company as of immediately prior to the transaction own less than a majority of the outstanding stock of the surviving entity, (ii) the Company effects any sale of all or substantially all of its assets in one or a series of related transactions, (iii) any tender offer or exchange offer (whether by the Company or another person or entity) is completed pursuant to which holders of Common Stock are permitted to tender or exchange their shares for other securities, cash or property, or (iv) the Company effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 5 below).

(f) "**Market Price**" means, as to any security, the closing price for such security on the principal domestic securities exchange on which such security is listed, or, if there have been no sales on such exchange on any day, the average of the highest bid and lowest asked prices on such exchange at the end of such day, or, if on any day such security is not so listed, the average of the highest bid and lowest asked prices on such day in the domestic over-the-counter market as reported by OTC Markets Group, or any similar successor organization; provided that if such security is listed on any domestic securities exchange the term "business days" as used in this sentence means business days on which such exchange or quoted in the domestic over-the-counter market, the "Market Price" shall be determined in good faith by the Board of Directors of the Company.

2. <u>EXERCISE OF WARRANT</u>. The rights represented by this Warrant may be exercised in whole at any time during the Exercise Period by delivery of the following to the

Company at its address set forth on the signature page hereto (or at such other address as it may designate by notice in writing to the Holder):

(a) An executed notice of exercise in the form attached hereto (the "Notice of Exercise");

(b) Payment of the Exercise Price either in cash or by check; and

(c) This Warrant for cancellation.

As an alternative to the exercise of this Warrant by payment the Exercise Price as provided above, the Holder may elect to exchange all or part of the purchase rights represented by this Warrant by surrendering this Warrant to the Company, together with a written notice to the Company that the holder is exchanging the Warrant (or a portion thereof) for an aggregate number of shares of Common Stock specified in the Notice of Exercise, from which the Company shall withhold and not issue to the holder a number of shares of Common Stock with an aggregate Market Price equal to the Exercise Price for the number of shares of Warrant Stock specified in such notice (and such withheld shares shall no longer be issuable under this Warrant). The exercise of the option described in this paragraph is referred to as a "**Cashless Exercise**."

The Company shall deliver any objection to any Notice of Exercise within two (2) Business Days of receipt of such notice. In the event of any discrepancy or dispute, the records of the Company shall be controlling and determinative in the absence of manifest error.

Certificates for shares purchased hereunder shall be transmitted by the transfer agent of the Company to the Holder by crediting the account of the Holder's prime broker with the Depository Trust Company ("DTC") through its Deposits and Withdrawal at Custodian (DWAC) system if the Company is a participant in such system, or otherwise through book-entry recordation by the Company's transfer agent, or physical delivery to the address specified by the Holder in the Notice of Exercise as soon as practicable after the delivery to the Company of the Notice of Exercise (the "Share Delivery Date"), the surrender of this Warrant and the payment of the aggregate Exercise Price as set forth above. This Warrant shall be deemed to have been exercised on the date the Exercise Price is received by the Company (or, in the case of Cashless Exercise, the date the Company receives the Notice of Exercise in respect of such Cashless Exercise). The Exercise Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date this Warrant has been exercised by payment to the Company of the Exercise Price and surrender of this Warrant by the Holder, irrespective of the date of delivery of the Exercise Shares, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

3. COVENANTS OF THE COMPANY.

3.1 COVENANTS AS TO EXERCISE SHARES.

(a) The Company covenants and agrees that all Exercise Shares that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be validly issued and outstanding, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issuance thereof.

(b) The Company further covenants and agrees that the Company will at all times during the Exercise Period, have authorized and reserved, free from preemptive rights, a sufficient number of shares of Common Stock to provide for the exercise of the rights represented by this Warrant. If at any time during the Exercise Period the number of authorized but unissued shares of Common Stock shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes.

3.2 <u>NOTICES OF RECORD DATE AND CERTAIN OTHER EVENTS</u>. In the event of any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, the Company shall mail to the Holder, at least ten (10) days prior to the date on which any such record is to be taken for the purpose of such dividend or distribution, a notice specifying such date. In the event of any voluntary dissolution, liquidation or winding up of the Company, the Company shall mail to the Holder, at least ten (10) days prior to the date of the occurrence of any such event, a notice specifying such date. In the event the Company authorizes or approves, enters into any agreement contemplating, or solicits stockholder approval for any Fundamental Transaction, as defined in <u>Section 1</u> herein, the Company shall mail to the Holder, at least ten (10) days prior to the date of the occurrence of such event, a notice specifying such date.

4. COVENANTS OF THE HOLDER.

4.1 <u>AUTHORIZATION</u>. The Holder hereby represents and warrants that it has full power and authority to enter into this Warrant and such Warrant constitutes its valid and legally binding obligations, enforceable in accordance with its terms.

4.2 <u>PURCHASE FOR OWN ACCOUNT</u>. The Holder acknowledges that this Warrant is issued to the Holder in reliance upon the Holder's representation to the Company, which by the Holder's execution of this Warrant the Holder hereby confirms, that this Warrant and the Exercise Shares (collectively, the "Securities") will be acquired for investment for the Holder's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Holder has no present intention of selling, granting any participation in or otherwise distributing the same. By executing this Warrant, the Holder represents that it does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participations to such person or to any third person, with respect to any of the Securities. The Holder also represents that it has not been organized for the specific purpose of acquiring the Securities.

4.3 <u>DISCLOSURE OF INFORMATION</u>. The Holder acknowledges that it has received all of the information it considers necessary or appropriate for deciding whether to purchase the Securities. The Holder further represents that it has had an opportunity to ask questions and

receive answers from the Company regarding the terms and conditions of this Warrant and the business, properties, prospects and financial condition of the Company.

4.4 <u>INVESTMENT EXPERIENCE</u>. The Holder hereby represents and warrants that it is an investor in securities of companies and acknowledges that it can bear the economic risk of its investment, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Securities.

4.5 <u>ACCREDITED INVESTOR</u>. The Holder hereby represents and warrants that it is an "accredited investor" within the meaning of the Securities and Exchange Commission ("**SEC**") Rule 501 of Regulation D, as presently in effect.

4.6 RESTRICTED SECURITIES.

(a) The Holder understands and acknowledges that the Securities are characterized as "restricted securities" under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such Securities may be resold without registration under the Securities Act only in certain limited circumstances. In the absence of an effective registration statement covering the Securities or an available exemption from registration under the Securities Act, the Securities must be held indefinitely. The Holder represents that it is familiar with SEC Rule 144 ("**Rule 144**") as presently in effect and understands the resale limitations imposed thereby and by the Securities Act.

(b) The Exercise Shares shall be stamped or imprinted with a legend substantially similar to the following (in addition to any legend required by state securities laws):

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER THE SECURITIES LAWS OF CERTAIN STATES. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT AS PERMITTED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS IN ACCORDANCE WITH APPLICABLE REGISTRATION REQUIREMENTS OR AN EXEMPTION THEREFROM. THE ISSUER OF THESE SECURITIES MAY REQUIRE AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE ISSUER THAT SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE ACT AND ANY APPLICABLE STATE SECURITIES LAWS. THIS CERTIFICATE MUST BE SURRENDERED TO THE COMPANY OR ITS TRANSFER AGENT AS A CONDITION PRECEDENT TO THE SALE, TRANSFER, PLEDGE OR HYPOTHECATION OF ANY INTEREST IN ANY OF THE SECURITIES REPRESENTED HEREBY.

(c) The Holder covenants that in no event will the Holder dispose of any of the Securities other than in conjunction with an effective registration statement for the Securities under the Securities Act or in compliance with Rule 144 unless and until (i)(A) the Holder shall have

notified the Company of the proposed disposition and shall have furnished the Company with a statement of the circumstances surrounding the proposed disposition and (B) the Holder shall have furnished the Company with an opinion of counsel satisfactory in form and substance to the Company to the effect that (x) such disposition will not require registration under the Securities Act and (y) appropriate action necessary for compliance with the Securities Act and any other applicable state, local or foreign law has been taken or (ii) the Company shall have received a letter secured by the Holder from the SEC stating that no action will be recommended to the SEC with respect to the proposed disposition.

5. ADJUSTMENT OF EXERCISE PRICE AND SHARES.

(a) In the event of changes in the outstanding Common Stock of the Company by reason of stock dividends, split-ups, recapitalizations, reclassifications, combinations or exchange of shares, separations, reorganizations, liquidations, consolidation, acquisition of the Company (whether through merger or acquisition of substantially all the assets or stock of the Company), or the like, the number, class and type of shares available under this Warrant in the aggregate and the Exercise Price shall be correspondingly adjusted to give the Holder of this Warrant, on exercise for the same aggregate Exercise Price, the total number, class, and type of shares or other property as the Holder would have owned had this Warrant been exercised prior to the event and had the Holder continued to hold such shares until the event requiring adjustment. The form of this Warrant need not be changed because of any adjustment in the number of Exercise Shares subject to this Warrant.

(b) If at any time or from time to time the holders of Common Stock of the Company (or any shares of stock or other securities at the time receivable upon the exercise of this Warrant) shall have received or become entitled to receive, without payment therefor,

(i) Common Stock or any shares of stock or other securities which are at any time directly or indirectly convertible into or exchangeable for Common Stock, or any rights or options to subscribe for, purchase or otherwise acquire any of the foregoing by way of dividend or other distribution (other than a dividend or distribution covered in Section 5(a) above);

(ii) any cash paid or payable otherwise than as a cash dividend; or

(iii) Common Stock or additional stock or other securities or property (including cash) by way of spinoff, split-up, reclassification, combination of shares or similar corporate rearrangement (other than shares of Common Stock pursuant to Section 5(a) above),

then and in each such case, the Holder hereof will, upon the exercise of this Warrant, be entitled to receive, in addition to the number of shares of Common Stock receivable thereupon, and without payment of any additional consideration therefor, the amount of stock and other securities and property (including cash in the cases referred to in clauses (ii) and (iii) above) which such Holder would hold on the date of such exercise had such Holder been the holder of record of such Common Stock as of the date on which holders of Common Stock received or became entitled to receive such shares or all other additional stock and other securities and property. (c) Upon the occurrence of each adjustment pursuant to this Section 5, the Company at its expense will, at the written request of the Holder, promptly compute such adjustment in accordance with the terms of this Warrant and prepare a certificate describing the transactions giving rise to and setting forth in reasonable detail the calculation of such adjustment, including a statement of the adjusted Exercise Price and adjusted number or type of Exercise Shares or other securities issuable upon exercise of this Warrant (as applicable). The Company will promptly deliver a copy of each such certificate to the Holder and to the Company's transfer agent.

6. FRACTIONAL SHARES. No fractional shares shall be issued upon the exercise of this Warrant as a consequence of any adjustment pursuant hereto. All Exercise Shares (including fractions) issuable upon exercise of this Warrant may be aggregated for purposes of determining whether the exercise would result in the issuance of any fractional share. If, after aggregation, the exercise would result in the issuance of a fractional share, the Company shall, at its election, either pay the Holder otherwise entitled to such fraction a sum in cash equal to the product resulting from multiplying the then current fair market value of an Exercise Share by such fraction or the number of Exercise Shares to be issued shall be rounded up or down, as applicable, to the nearest whole number.

7. <u>NO STOCKHOLDER RIGHTS</u>. Other than as provided in <u>Section 3.2</u> or otherwise herein, this Warrant in and of itself shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

8. <u>TRANSFER OF WARRANT</u>. Subject to compliance with any applicable laws, this Warrant and all rights hereunder are transferable, by the Holder in person or by duly authorized attorney, upon delivery of this Warrant and the form of assignment attached hereto to any transferee designated by Holder. The transferee shall sign an investment letter in form and substance reasonably satisfactory to the Company and its counsel.

9. LOST, STOLEN, MUTILATED OR DESTROYED WARRANT. If this Warrant is lost, stolen, mutilated or destroyed, the Company may, on such terms as to indemnity or otherwise as it may reasonably impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination and tenor as this Warrant so lost, stolen, mutilated or destroyed. Any such new Warrant shall constitute an original contractual obligation of the Company, whether or not the allegedly lost, stolen, mutilated or destroyed Warrant shall be at any time enforceable by anyone.

10. <u>NOTICES, ETC</u>. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed email or facsimile if sent during normal business hours of the recipient, if not, then on the next Business Day, (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of

receipt. All communications shall be sent to the Company at the address listed on the signature page hereto, with a copy to:

O'Melveny & Myers LLP Two Embarcadero Center, 28th Floor San Francisco, CA 9411-3823 Attention: C. Brophy Christensen Email: bchristensen@omm.com Facsimile No.: (415) 984-8701

and to Holder at:

15 Ocean Avenue Brooklyn, NY 11225 Email: morris@bawabeh.com

or at such other address as the Company or Holder may designate by ten (10) days advance written notice to the other parties hereto, with a copy to:

Breslow & Walker, LLP 100 Jericho Quadrangle, Suite 230 Jericho, NY 11753 Attention: Len Breslow, Esq. Email: lbreslow@breslowwalker.com Facsimile No.: (516) 822-6544

11. <u>ACCEPTANCE</u>. Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

12. <u>GOVERNING LAW</u>. This Warrant shall be governed by, and construed in accordance with, the laws of the State of New York. The Holder hereby submits to the non-exclusive jurisdiction of the Federal and state courts in the Borough of Manhattan in The City of New York in any suit or proceeding arising out of or relating to this Agreement or the transactions contemplated thereby. The Holder irrevocably and unconditionally waives any objection to the laying of venue of any suit or proceeding arising out of or relating to this Warrant in Federal and state courts in the Borough of Manhattan in The City of New York and irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such suit or proceeding in any such court has been brought in an inconvenient forum.

13. <u>AMENDMENT OR WAIVER</u>. Any term of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and the Holder. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its duly authorized officer as of December 29, 2022.

CENTRUS ENERGY CORP.

By:

Name: Philip Strawbridge Title: Senior Vice President, Chief Financial Officer, Chief Administrative Officer, and Treasurer

Centrus Energy Corp. 6901 Rockledge Drive, Suite 800 Bethesda, Maryland 20817 Attention: Dennis Scott Email: scottd@centrusenergy.com Facsimile No.: (605) 696-7250

NOTICE OF EXERCISE

TO: CENTRUS ENERGY CORP.

(1) [CHECK ONE]

[] The undersigned hereby elects to purchase 250,000 shares of the Class A Common Stock, par value \$0.10 (the "**Common Stock**"), of CENTRUS ENERGY CORP. (the "**Company**") pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

[] The undersigned hereby elects to purchase 250,000 shares of Common Stock of the Company pursuant to the terms of the attached Warrant, pursuant to Cashless Exercise (as defined in the Warrant).

(2) Please issue the certificate for shares of Common Stock in the name of, and pay any cash for any fractional share to:

Print or type name

Social Security or other Identifying Number

Street Address

City State Zip Code

(Signature)

(Print Name)

(Date)

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

(Please Print)

Address:

(Please Print)

Dated: , 202_

Holder's Signature:

Holder's Address:

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

	NT OF SOLICITATION/MODIFIC	ATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES				
2		v		1 1				
2. AMENDME	NT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)				
P00027		See Block 16C	23NE000045					
6. ISSUED BY	CODE	893035	7. ADMINISTERED BY (If other than Item	6) CODE 00701				
200 Adm Oak Ride	partment of Energy inistration Road ge TN 37831		U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415					
American Attn: Ch 5901 Roc	ADDRESS OF CONTRACTOR (No., street a Centrifuge Operatin- narles Kerner skledge Dr Ste 800 a MD 208171867	CA	(x) 94. AMENDMENT OF SOLICITATION 98. DATED (SEE ITEM 11) x 104. MODIFICATION OF CONTRACT/ 89303519CNE000005 108. DATED (SEE ITEM 13)					
CODE L8	VHV5CNBV97	FACILITY CODE	05/31/2019					
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The purpose of this incremental funding modifation is to obligate funds of +\$5,343,521.34 from \$158,940,188.63 by +\$5,343,521.34 to \$164,283,709.97. The total contract value is hereby increased from \$158,940,188.63 by \$5,343,521.34 to \$164,283,709.97 to allow for the continuation of services. The All other terms and conditions remain unchanged and are in full force and effect.

Period of Performance: 05/31/2019 to 11/30/2022

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect. 15A. NAME AND TITLE OF SIGNER (*Type or print*) 16A. NAME AND TITLE OF CONTRACTING OFFICER (*Type or print*)

		Jeffrey C. Fogg				
		Jerrey C. rogg				
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED			
(Signature of person authorized to sign)		(Signature of Contracting Officer)	11/28/2022			
Previous edition unusable		STAND	ARD FORM 30 (REV. 11/2016)			
		Prescri	bed by GSA FAR (48 CFR) 53.243			

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X	C D	DESCRIPTION/SPECS./WORK STATEMENT PACKAGING AND MARKING			12		1	- REPRESENTATION	VIS AND INSTRUCTIONS			114
X	E	INSPECTION AND ACCEPTANCE			20		ĸ		NS, CERTIFICATIONS A	00 0408		
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214(c)

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED 89243223CNE000030

OF 149

PAGE

2

NAME OF OFFEROR OR CONTRACTOR . .

EM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	UEI: L8VHV5CNBV97	8			
	Delivery: 12/31/2024				
	Delivery Location Code: 00701				
	Idaho Operations				
	U.S. Department of Energy				
	Idaho Operations				
	1955 Fremont Avenue				
	Idaho Falls ID 83415 US				
	Payment:				
	OR for Idaho				
	https://vipers.doe.gov				
	Any questions, please contact				
	by call/email 855-384-7377 or				
	VipersSupport@hq.doe.gov				
	Accounting Info:				
	05350-2023-60-302218-25233-2721136-0000000-000000	0			
	-0000000 Fund: 05350 Appr Year: 2023 Allottee: 60				
	Report Entity: 302218 Object Class: 25233				
	Program: 2721136 Project: 0000000 WFO: 0000000				
	Local Use: 0000000				
0001	Completion of Cascade, Initial Cascade Operation,				29,418,741.
	and Production of 20 kilograms (kg) of HALEU				
	(Phase 1)				
	Line item value is: \$29,418,741.50				
	Incrementally Funded Amount: \$2,203,879.00				
0002	Ongoing Cascade Operation and Production of 900 kg minimum of HALEU, Year 1 (Phase 2)				90,689,166.
0003					294,620,185
	Amount: \$294,620,185.00(Option Line Item)				
0004					294, 527, 341
	Amount: \$294,527,341.00(Option Line Item)				
0005					321,017,106.
	Amount: \$321,017,106.00(Option Line Item)				
	152-8067				OPTIONAL FORM 336 (4-86)

Contract No. 89243223CNE000030

HALEU Demonstration Cascade Completion and HALEU Production

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Contract No. 89243223CNE000030

Section A - Solicitation/Contract Form

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Contract No. 89243223CNE000030

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Section B - Supplies or Services/Prices

TYPE OF CONTRACT – ITEMS BEING ACQUIRED

This is a performance-based contract that includes Cost-Shared No-Fee Contract Line Item Numbers (CLINs) and Cost-Plus-Incentive-Fee CLINS. The Contractor shall be responsible for planning, managing, integrating, and executing the work as described in Section C, Description/Specifications.

Contract Line- Item Number (CLIN)	Description
00001	Completion of Cascade, Initial Cascade Operation, and Production of 20 kilograms (kg) of HALEU (Phase 1)
00002	Ongoing Cascade Operation and Production of 900 kg minimum of HALEU, Year 1(Phase 2)
00003	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 1: Years 2-4 (Phase 3)
00004	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 2: Years 5-7 (Phase 3)
00005	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 3: Years 8-10) (Phase 3)

This contract contains the following CLINs:

TOTAL CONTRACT TARGET COST AND INCENTIVE FEE

The target cost of this contract is as follows, exclusive of any target fee increases/decreases:

Contract Line-Item Number (CLIN)	Target Cost	Target Incentive Fee (x% of target cost)	Total Cost/Fee
00001	\$58,837,483	\$0	\$58,837,483
00002	\$83,201,070	\$7,488,096	\$90,689,167
00003	\$270,293,748	\$24,326,437	\$294,620,185
00004	\$270,208,570	\$24,318,771	\$294,527,341
00005	\$294,511,106	\$26,506,000	\$321,017,106

DOE-B-2005 COST SHARING - NO FEE CONTRACT: TOTAL ESTIMATED COST AND COST SHARES (OCT 2014)

This contract will be a performance-based contract with three Phases. Phase 1, comprising CLIN 00001, will be awarded on a cost-reimbursement no-fee basis with a contractor cost share requirement of, at minimum, 50%. CLIN 00001 will result in the completion of the Cascade Demo and will conclude upon filling and storing the first 5B cylinder with a minimum of 20 kg of HALEU.

Phase 2, comprising CLIN 00002, will be awarded on a cost-plus incentive fee (see FAR 52.216-10) basis, resulting in the first year of HALEU production. Phase 3, comprising CLINs 00003, 00004, and 00005, is divided into three three-year contract option periods with each option period structured on a cost-plus incentive fee basis for continued HALEU production.

Only CLIN 00001 shall be priced in accordance with the clause at FAR 52.216-12, Cost- Sharing Contract-No Fee, the total estimated CLIN 00001 cost-sharing ratios is at a minimum 50%. DOE-H-2005 and Energy Policy Act of 2005 (EPAct 2005) supersedes percentages and amounts outlined in FAR 52.216-12.

Contractor will perform all Phase I work scope under a cost share, no fee contractual arrangement. Contractor will be responsible for paying a minimum of 50% of the allowable incurred costs during Phase I. DOE will reimburse the Contractor a maximum of 50% cost share for the remaining allowable costs incurred during Phase I (the Government's cost share may vary depending upon the agreed upon cost share allocation but will not exceed 50%). The Contractor's cost share amount is based on the agreed upon cost share percentage of allowable incurred costs, as defined in FAR part 31, with the remaining allowable costs eligible for reimbursement under this DOE contract. To satisfy the cost share requirement, the contractor may not use funds received from any other Federal Government award or other appropriated Federal funds source may not be counted as cost share if they are paid by the Federal Government under another award unless expressly authorized by Federal statute to be used for cost sharing.

All remaining CLIN's (00002, 00003, 00004 and 00005) shall be priced in accordance with FAR 52.216-10 Incentive Fee.

CLIN 0006 shall be structured as a cost reimbursement effort with no fee and no cost share requirements.

(End of Clause)

DOE-B-2003 COST-PLUS-INCENTIVE-FEE CONTRACT: TOTAL ESTIMATED COST AND INCENTIVE FEE (OCT 2014)

(a) In accordance with the clause at FAR 52.216-10, Incentive Fee (JUN 2011), the target cost, target fee, maximum and minimum fees, and the target fee increase and decrease for this contract are shown below:

Target Cost: [\$977,051,977]

Target Fee: [\$82,639,304 (9% of target cost for only CLINS 0002-0005, no fee on CLIN 0001)]

Target Fee Increase: \$1,200 per kg for every kg above the minimum requirement of 900 kg per year

Target Fee Decrease: \$1,200 more for every kg of production below the minimum requirement of 900 kg per year

Fee Calculation: The fee payable under this contract shall be the target fee increased by \$1,200 for every kg of production above the minimum requirement of 900 kg per year or decreased by \$1,200 for kg of production below the minimum requirement of 900 kg per year, as specified in FAR 52.216-10 and subject to the maximum fee limitation above.

(b) The target cost, target fee, minimum and maximum fee, and target fee increase/decreases are applicable to the following CLINs:

Contract Line- Item Number (CLIN)	Description
00002	Ongoing Cascade Operation and Production of 900 kg minimum of HALEU, Year 1(Phase 2)
00003	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 1: Years 2-4 (Phase 3)
00004	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 2: Years 5-7 (Phase 3)
00005	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 3: Years 8-10) (Phase 3)

(c) Payment of fee shall be made in accordance with the clause 52.216-10, Incentive Fee.

(End of Clause)

DOE-B-2012 SUPPLIES/SERVICES BEING PROCURED/DELIVERY REQUIREMENTS (OCT 2014)

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set for in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, the performance of work as described in Section C, SOW.

(End of Clause)

DOE-B-2013 OBLIGATION OF FUNDS (OCT 2014)

Pursuant to the clause of this contract at FAR 52.232-22, Limitation of Funds, total funds in the amount(s) specified below are obligated for the payment of allowable costs and fee. It is estimated that this amount is sufficient to cover performance through the dates shown below.

Contract Line Item Number (CLIN)	Description	Total Cost	Total Obligation	
00001	Completion of Cascade, Initial Cascade Operation, and Production of 20kg of HALEU (Phase 1)	\$58,837,483	\$2,203,879.00	
00002	Ongoing Cascade Operation and Production of 900 kg minimum of HALEU, Year 1(Phase 2)	\$90,689,167	0	
00003	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 1: Years 2-4 (Phase 3)	\$294,620,185	0	
00004	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 2: Years 5-7 (Phase 3)	\$294,527,341	0	
00005	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 3: Years 8-10) (Phase 3)	\$321,017,106	\$0	

(End of Clause)

DOE-B-2014 OPTION TO EXTEND THE TERM OF THE CONTRACT: ESTIMATED COST, FEE AND PERIOD OF PERFORMANCE (OCT 2014)

In accordance with the clause at FAR 52.217-9, Option to Extend the Term of the Contract, the Government may unilaterally extend the contract period of performance (as set forth in Section F, Deliveries) to require the Contractor to perform the work set out by Section C, Description/Specs/Work Statement of the contract. In the event that the Government elects to exercise its unilateral right to extend the term of the contract pursuant to this clause and FAR 52.217-9, all terms and conditions of the contract will remain in full force and effect.

The Contracting Officer will consider factors set forth in FAR 17.207, Exercise of Options, in determining whether to exercise an option to extend the term of the contract. The Government is concerned with ensuring that the Contractor's performance meets, or exceeds, the performance requirements of the contract in a cost-effective manner. Accordingly, the Contracting Officer will consider the Contractor's performance as part of the determination to exercise any option to extend the contract term.

The Estimated Cost, Fee, and Period of Performance of each option to extend the term of the contract are set forth below:

Contract Line- Item Number (CLIN)	Description	Estimated Cost	Estimated Fee
00003	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 1: Years 2-4 (Phase 3)	\$270,293,748	\$24,326,437
00004	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 2: Years 5-7 (Phase 3)	\$270,208,570	\$24,318,771
00005	Ongoing Cascade Operation and Production of 900kg minimum of HALEU per year: Option Period 3: Years 8-10) (Phase 3)	\$294,511,106	\$26,506,000

(End of Clause)

Section C - Description/Specifications

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- 1.0 General
- 2.0 Specific Requirements/Tasks
- 3.0 Delivery or Deliverables
- 4.0 Meetings
- 5.0 Required Travel and Other Direct Costs (ODCs)
- 6.0 Government Furnished Property/Equipment/Information
- 7.0 Special Instructions.
- 8.0 Glossary of Abbreviations and Acronyms

Statement of Work (SOW) for High Assay Low Enriched Uranium (HALEU) Demonstration Cascade Completion and HALEU Production

1.0 General

1.1 Contract Structure

This competitive solicitation will result in a new contract (the Contract) awarded to the successful offeror (the Contractor) in response to this Request for Proposal (RFP). DOE intends to use a phased approach with options during the period of performance. Phase 1 of the Contract will require a 50:50 cost share in accordance with the EPAct 2005 and DOE-B-2005. DOE anticipates that both Phase 2 and Phase 3 of the Contract will be cost reimbursement with incentive fee with no cost share requirements. All option periods will be based on the availability of funds and Contractor performance.

1.2 Place of Performance

The primary place of performance for this contract will be at the Department of Energy (DOE)owned facilities in Piketon, Ohio, known as the American Centrifuge Plant (ACP). The facility is involved with enriching uranium and, therefore, operates under a security plan that includes protecting technology and information up to secret restricted data. As such, many of the positions require DOE security clearances. DOE will lease the ACP to the Contractor. More information on the lease can be found below in **Section C 1.5.1.2 ACP Lease and Services** While the facility is DOE owned, it is regulated by the **Nuclear Regulatory Commission** (**NRC**). Additional information on the facility can be found at <u>https://www.nrc.gov/materials/fuel-cyclefac/usecfacility.html</u>.

The work under this contract includes the operation of nuclear facilities. The Contractor recognizes that such operations involve the risk of a nuclear incident which, while the chances are remote, could adversely affect the public's health and safety and the environment. Therefore, the Contractor shall exercise a degree of care commensurate with the risks involved. For more information, please refer to DOE-H-2038 in this RFP below.

1.3 Background

It is important for the Unites States to demonstrate a leadership position in a clean energy economy. The mission of the DOE is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. The DOE Office of Nuclear Energy's (DOE-NE) mission is to advance nuclear energy science and technology to meet the United States energy, environmental, and economic needs.

The Contract aims to complete assembly of a uranium enrichment demonstration cascade and, through operation of the cascade, a uranium enrichment capability that is technically mature and capable to produce enriched uranium that will be used in advanced reactor design programs such as the Advanced Reactor Demonstration Program (ARDP), currently under development in the United States in partnership with DOE. ARDP is crucial to demonstrate a leadership position in clean energy economy.

The Contract shall be a follow-on to Centrus' (incumbent contractor) cascade demonstration work with the AC100M centrifuges. The AC100M centrifuge technology represents the culmination of many years of domestic development. While being a complex design, it is one of the most capable in terms of enrichment capacity. The incumbent contract was awarded by DOE through a non-competitive process in 2019, and work began in May 2019. The demonstration was on schedule to produce between 200 kg and 600 kg of HALEU using 16 of the 18 AC100M centrifuges (2 AC100M designated as spares) by June 1, 2022; however, the incumbent contract schedule was affected by COVID related supply chain cost and schedule issues near the completion of the work. As of March 29, 2022, the incumbent contractor had completed approximately 86% of the activities required for demonstrating production of HALEU. Manufacturing of the centrifuges is complete; however, construction of the cascade requires the installation of the centrifuges. The centrifuges were manufactured and delivered by the incumbent contractor and have been fully balanced and are stored in an appropriate environment. Due to COVID travel restrictions, DOE-NE will inspect the centrifuges and assembly records and will accept these machines prior to award of the new Contract. After DOE-NE inspection and acceptance of the centrifuges, installation will occur under the SOW contained in this RFP.

1.4 Objectives

DOE-NE wishes to minimize the impacts to union jobs, non-union workforce, and other existing skilled workforce while preventing adverse human health, environmental, social, economic, and other impacts to communities and other demographics potentially affected by the HALEU demonstration. Such impacts may be direct, impact, or cumulative. This Contract supports DOE and Congressional objectives, established in Section 2001 of the Energy Act of 2020. All aspects of this procurement will require compliance with labor laws. In addition, this Contract requires that best efforts be used to promote policies that advance environmental justice and spur economic opportunity for underserved and disadvantaged communities, such as through the Justice40 Initiative created through Executive Order 14008 on *Tackling the Climate Crisis at Home and Abroad*. More

information on the implementation of these policies can be found at: https://www.energy.gov/diversity/energy-justice-dashboard-beta, the Climate and Economic Justice Screening Tool (https://screeningtool.geoplatform.gov/), and the Justice40 Interim Implementation Guidance (https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf)._

The Contract shall procure a HALEU production capability that directly supports DOE and larger U.S. missions stated above. DOE-NE, through this Contract, will complete the HALEU demonstration cascade, followed by a sustained production of HALEU that will begin to supply the ARDP with fuel. In addition, the demonstration cascade will provide data to document the performance and reliability of the completed cascade when configured using the AC100M centrifuges.

Commercial use or sale is not expected under the Contract. The ARDP will require more than the annual production of 900 kg of HALEU. DOE envisions in the future that the commercial sector will develop and provide the additional HALEU required for the ARDP outside of this Contract.

1.5 Scope of Work

The Contractor shall provide or obtain resources necessary to accomplish the tasks and deliverables described in this SOW, including but not limited to labor, leases, equipment, and procurement of the required feed material. DOE encourages the use of currently employed skilled union and non-union workforce to the maximum extent practicable and any other efficiencies that will benefit the project success.

1.5.1 Phase 1 Scope

The Contractor shall facilitate transition from incumbent contractor; complete construction of the AC100M cascade; complete construction of the Fissile Material Storage Area (FMSA) with expanded capacity; and operate the completed cascade to demonstrate an initial 20 kg of HALEU production to a nominal 19.75 weight percent U-235. All material produced must be withdrawn from the cascade and securely stored in the FSMA for future shipment to DOE customers. The Contractor shall collect and document operational data associated with the cascade throughout the Contract period of performance. Types of information required are described further in section 2.0.

The Contractor shall install the 16 AC100M centrifuges, prepare them for operation, and complete operational readiness. Other Balance of Plant (BOP) and cascade infrastructure needed for the operation of the facility have been completed as of October 7, 2021. The Contractor shall test those systems once the centrifuges have been installed and process gas (feed material) has been introduced. Once the HALEU demonstration cascade is operational, the Contractor shall begin operation of the HALEU demonstration cascade for production of the first 20 kg of HALEU. Phase 1 activities will conclude once the first 20 kg of HALEU has been produced and accepted by the DOE.

The Offeror shall propose a schedule of Phase 1 with major milestones for consideration and evaluation.

1.5.1.1 Contractor Transition (if applicable)

If a Contractor, other than the current incumbent, is selected in accordance with the Merit Review Criteria contained in Section M of this RFP, a transition period, not to exceed 90 calendar days, will be required. The transition period shall facilitate identification and resolution of any issues related to hand-off and transfer of the lease of the ACP, any Government Furnished Equipment (GFE), and any installed government-owned equipment/property, and provide a transition period for workforce personnel moving from incumbent contractor employ to the new Contractors firm under the new Contract, as applicable.

1.5.1.2 ACP Lease and Services

The DOE will make available the ACP through a lease arrangement with the Contractor. The terms of the lease shall be negotiated separately following the award of this Contract. The lease payment is estimated to be approximately \$250,000 per month during the first year and \$175,000 per month in subsequent years. The rent shall be increased or decreased during the rent period by the DOE to reflect actual costs incurred in the lease administration. The contractor will be responsible for obtaining its utility services for the leased premises, such as electric power, telephone services, natural gas, sanitary water, and sewer, to be negotiated through a services agreement with DOE Office of Environmental Management, the landlord for the larger DOE-Owned Portsmouth Site. Additionally, any applicable taxes related to the lease will be included in the lease agreement. These agreements are separate from the lease arrangement and will be established in work authorizations.

The Contractor will be responsible for physical security at the leased facility, separate from the lease agreement. Requirements for physical security are established through the NRC-regulated Site Security Plan. The Contract direct monthly expense of work authorizations is estimated to be \$747,500 inclusive of the approximate cost of indirect expenses and utilities.

1.5.1.3 Fissile Material Storage Area (FMSA)

Under the incumbent contract, the FMSA is approximately 60% complete (based on the incumbent contract scope). The Contractor shall complete the FMSA at a size appropriate to support the expected production. More information on the FMSA, which is considered proprietary and therefore not provided herein, will be provided at the mandatory site visit. (see DOE-L-2019 SITE VISITS (OCT 2015)

1.5.1.4 Cascade Completion

The Contractor shall install the 16 AC100M centrifuges and prepare them for operation. Other Balance of Plant (BOP) and cascade infrastructure needed for the operation of the

facility have been completed as of October 7, 2021. The Contractor shall test those systems once the centrifuges have been installed and process gas (feed material) has been introduced. Once the HALEU demonstration cascade is operational, the Contractor offeror will be required to produce, on an annual basis, a minimum of 900 Kg UF6 enriched to a nominal 19.75% U-235. Such produced material must be withdrawn from the cascade, securely stored, and prepared for shipment to DOE ARDP customers as needed.

DOE has initiated a contract to procure 85 5B type UF6 containers. The 85 containers are under contract for manufacture at this time and are expected to be available at the Piketon site beginning in December 2022, depending on the strength of the supply chain. These 85 containers will be provided as Government-Furnished Property. The Contractor will be responsible for procuring storage containers beyond the initial 85 provided by DOE and may want to consider withdrawal capabilities to support using a commercial-sized storage and transport container once such a container is made available through the industry. Containers must comply with ANSI N14.1 standards.

1.5.1.5 NRC Considerations

The NRC is the legal regulatory authority with respect to the possession and management of materials under the subject licenses. Therefore, in instances where DOE orders, requirements, and/or guidelines overlap or duplicate requirements of the NRC related to radiation protection, nuclear safety (including quality assurance), and safeguards and security of nuclear materials(s), the NRC requirements will take precedence unless otherwise directed by DOE. The Contractor shall provide written justification and receive approval from the DOE Federal license holder for any DOE orders, regulations, and/or guidelines that the Contractor requests to use to meet NRC requirements. The use of DOE requirements is a self-imposed standard that will become part of the NRC license and subject to inspection once approved.

The possession and operation of ACP requires the Contractor to hold or obtain an NRC fuel cycle license to cover the operations under the Contract. The Contractor shall obtain an NRC license to complete construction and operate the facility.

The Contractor shall describe how it plans to obtain an NRC license as expeditiously as possible to minimize any impacts on the date of initial production. DOE acknowledges it could take up to one year for an offeror to obtain and/or renew a license to begin demonstration of HALEU production but encourages production as expeditiously as possible. Initial production must begin no later than December 31, 2023.

The NRC will oversee readiness reviews prior to the introduction of the feed material to the cascade.

1.5.2 Phase 2 Scope

After completion of Phase 1, the Contractor shall produce at a minimum 900 kg of HALEU to a nominal 19.75 weight percent U-235 within one calendar year from the date of inspection and

acceptance of Phase 1 work by the DOE. This year of production shall be utilized to resolve any issues with full scale production and provide DOE performance data on the Contractor and AC100M centrifuge.

Completion of Phases 1 and 2 shall be considered the Base Contract.

1.5.3 Phase 3 Scope (Options)

After completion of the Base Contract, DOE anticipates a Phase 3, which would exercise up to three three-year option periods for a combined total of 10 years of production (Phases 2 and 3) at a minimum production level of 900 kg per year. Performance of Phase 1 and Phase 2 does not guarantee the Contractor will be authorized to proceed with the Phase 3 option periods of production.

The Offeror shall prepare a description of how it would provide maintenance to the centrifuges, including any required business partnerships, to assure centrifuges can be prepared following repairs or maintenance to include rotor balancing.

1.6 Period of Performance

Annual Congressional appropriations will inform the duration of the contract based on the availability of funding; however, the DOE expects this duration to approach 10 years, including base and all option years, assuming all options are exercised.

2.0 Specific Requirements/Tasks

2.1 The Contractor will complete assembly of the HALEU Demonstration Cascade (16 AC100M machine HALEU demonstration cascade to allow the production of HALEU), Conduct an Operational Readiness Review, and initiate operations. Pre-requisites for beginning operation include obtaining an NRC fuel cycle license, startup testing, and support system calibrations. (CLIN 00001)

- **2.2** Startup and operate the demonstration cascade and begin HALEU production no later than December 31, 2023.
- 2.2.1 Produce 900 Kg UF6 enriched to a nominal 19.75% U-235 within one year of initial operations (CLIN 00002). Produce 900 Kg UF6 enriched to a nominal 19.75% U-235 annually for CLINs 00003, 00004 and 00005.
- 2.2.2 The awardee shall prepare a Performance Plan delineating and addressing machine, cascade, and BOP operating and reliability metrics, measurements/data, and reporting. A draft of the Plan shall be submitted within 30 days of award of the contract and shall be updated on an agreed upon schedule with DOE to include key classified information parameters. The Plan shall address such parameters as separative work unit (SWU)

production, assay/isotopic analyses, machine runtime, individual machine operating data (both unclassified and classified), and BOP systems operating and maintenance performance. The plan shall address the type, frequency, and method(s) of reporting the performance and reliability information to DOE. The Performance Plan must include notification to DOE of any off-normal operating performance occurrences or maintenance issues of significance, and the Contractor will provide DOE with a copy of the NRC event notification.

2.3 As-Presented Condition

Section C.3.0 of this RFP provides more detail regarding the status of the HALEU demonstration cascade. Additional information will be provided during the mandatory site visit. (see DOE-L-2019 SITE VISITS (OCT 2015)

2.3.1 AC100M Centrifuges

A total of 18 AC100M centrifuges have been completely assembled, including the rotor balancing to enable their use in production. Given the importance of maintaining a dry condition within the interior of the centrifuges, all 18 AC100Ms are in a secure storage environment that precludes introduction of moisture. The cascade design is based around installing 16 of these AC100Ms for operation of the demonstration. Two AC100Ms are held in reserve.

2.3.2 Cascade Balance of Plant (BOP) Infrastructure

BOP Infrastructure has been completed and support systems required to operate the HALEU demonstration have been completed. Some systems will require the introduction of UF_6 gas before they can be calibrated, such as distributed control system, mass spectroscopy system, and the criticality accident alarm system. The Offeror will be afforded the opportunity to see the BOP Infrastructure and support systems during the site-visit. Any additional questions after the site-visit may be submitted via a request for information (RFI) to the Contracting Officer after the site-visit to the facility. (see DOE-L-2019 SITE VISITS (OCT 2015)

2.3.3 Required System Maintenance

The required maintenance has been kept up to date to assure reliability and to conform with regulatory requirements of the existing NRC license. DOE will provide maintenance logs to the successful Offeror.

2.3.4 Onsite Utilities

The utilities required to support the HALEU demonstration are installed and operational and are largely provided through a reimbursable work agreement with the DOE owner and caretaker of the Piketon site. Reimbursable work costs are paid through standard VIPERS

invoicing and are debited from appropriations allocated to support this contract. The utilities costs are subject to terms of the cost share and are shared between DOE and the contractor based on that cost share ratio. Utility charges are invoiced separately from the lease and are described in C 1.5.1.2.

3.0 Deliverables - Milestones

Milestones:

Phase 1 (CLIN 00001)

- Transition completed from incumbent contractor (if applicable).
- Complete construction of the HALEU demonstration cascade.
- Obtain NRC Licensing.
- Finish the FMSA to accommodate sufficient volume of the produced HALEU.
- Inert startup of HALEU Demonstration Cascade on inert gas (operate centrifuges on inert gas prior to introduction of UF6 gas).
- Complete operational readiness review for operation of the HALEU Demonstration Cascade on UF₆.
- Initiate operation of the HALEU 16 AC100M machine cascade.
- Production sample completed (HALEU sample in pinch tube or P-10 sample cylinder).
- Complete small-scale production (first 20 kg UF6 of HALEU produced and stored in FMSA).

Phase 2 (CLIN 00002, First year of Production)

- Operate and maintain the cascade to produce a minimum of 900 kg UF6 enriched to a nominal 19.75% U-235 (the first 900 kg of HALEU produced) and store in the NRC approved area.
- Contractor will monitor performance of the cascade operations and provide monthly written reports of metrics to DOE management (as described in C 2.2.2).

Phase 3 (CLIN's 00003, 00004, and 00005, i.e., options 1, 2, and 3 of contract exercised)

- Operate and maintain the cascade to produce a minimum of 900 kg UF₆ enriched to a nominal 19.75% U-235 yearly, and store in the NRC approved area.
- Contractor will monitor performance of the cascade operations and provide quarterly written reports of metrics to DOE management (as described in C 2.2.2).

Deliverables:

Phase 1 (CLIN 00001):

- Performance Plan delineating and addressing machine, cascade, and BOP operating and reliability metrics, measurements/data, and reporting.
- Provide documentation of assurance for completion of demonstration cascade and necessary support facilities such as the FMSA.
- NRC license to function as a Fuel Cycle Facility Operator.
- Operational Readiness Report for operation of the HALEU cascade on UF6 gas.

- Evidence of production of a pinch tube or P-10 sample of nominal 19.75% +/- .24% U-235 through operation of the HALEU Cascade on UF6.
- Monthly cascade test data (pre-operational and operational readiness).
- Reports of any off-normal operating performance occurrences or maintenance issues of significance (all Phases).
- Documentation of production and ability to store a minimum 20 kg UF6 of HALEU for acceptance by DOE.
- Plan to supply produced HALEU to DOE programs that are prepared to accept HALEU UF6.

Phases 2 and 3(CLIN's 00002, 00003, 00004, and 00005):

- Report documenting production and ability to store minimum of 900 kg UF₆ of HALEU per year.
- Monthly report on cascade operations and maintenance data during Phase 2 (CLIN 00002), and quarterly cascade operations and maintenance data for Phase 3 (CLIN's 00003, 00004, and 00005).
- Reports of any off-normal operating performance occurrences or maintenance issues of significance (all Phases).

4.0 Meetings

Post-award Kickoff Meeting: Within 10 business days of contract award, DOE will conduct a post-award kickoff meeting through a Teams Conference call. That conference call is tentatively scheduled for the afternoon of November 28, 2022, Eastern Time, to accommodate participants from the Mountain Time Zone.

Intermittent Status Reviews: As needed, intermittent status reviews may be scheduled by either party to be conducted through telephone or MS Teams/WebEx. Such reviews would be limited to a specific list of topics to be provided by agenda in advance of the review.

Program Management Review: DOE will conduct quarterly program management reviews at Piketon, Ohio to assess the progress of the program, identify any risks, issues, or concerns, and provide feedback on the Contractor's progress and performance, and walk down system progress. The Contractor shall provide written data and verbal presentations as to the financial status of the HALEU demonstration (projected vs. incurred costs), any identified risks, issues, or concerns (and their mitigation or its plans for their mitigation).

5.0 Required Travel

If travel is required, the travel shall be in accordance with the Federal Travel Regulation (FTR) to be reimbursed by the Government through invoice approval. Anticipated travel may include program management reviews, travel to suppliers, and quality assurance inspections.

The principal place of performance is Piketon, Ohio. Accordingly, reimbursable travel and per diem for the contractor's employees performing work on a regular basis at this place of

performance is not authorized. Any changes to this must be approved in advance by the Contracting Officer.

6.0 Government Furnished Property/Equipment/Information

See Property List in Section J of this RFP.

7.0 Special Instructions

A transition period from the incumbent demonstration contractor to the successful offeror of not more than 90 days will be required.

Section D - Packaging and Marking

DOE-D-2001 PACKAGING AND MARKING (OCT 2014)

Preservation, packaging, and packing for shipment or mailing of all work delivered under this new contract shall be in accordance with good commercial practice and adequate to ensure acceptance by common carrier and safe transportation at the most economical rate(s), including electronic means.

Each package, report or other deliverable shall be accompanied by a letter or other document which -

Identifies the contract by number pursuant to which the item is being delivered;

Identifies the deliverable item number or report requirement which requires the delivered item; and

Indicates whether the Contractor considers the delivered item to be a partial or full satisfaction of the requirement.

For any package, report, or other deliverable being delivered to a party other than the Contracting Officer, a copy of the document required by paragraph (b) shall be simultaneously delivered to the office administering this contract, as identified in Section G of the contract, or if none, to the Contracting Officer.

(End of Clause)

Section E - Inspection and Acceptance

52.246-3 INSPECTION OF SUPPLIES - COST-REIMBURSEMENT. (MAY 2001) 52.246-5 INSPECTION OF SERVICES - COST-REIMBURSEMENT. (APR 1984)

Section F - Deliveries or Performance

52.242-15 STOP-WORK ORDER. (AUG 1989)

52.242-17 GOVERNMENT DELAY OF WORK. (APR 1984)

DOE-F-2002 PLACE OF PERFORMANCE - SERVICES (OCT 2014)

The work scope, specified by this contract, shall be performed at the following location(s): DOE Site in Piketon, Ohio.

(End of Clause)

DOE-F-2003 PERIOD OF PERFORMANCE (OCT 2014)

The Contractor shall commence performance of this contract in accordance with the contract terms and conditions on November14, 2022 and continue through December 31, 2024. It is anticipated that the contract period be approximately 2 years for the base, and 10 years in total if all option periods are exercised. CLIN 00001 initial production must begin no later than December 31, 2023.

(End of Clause)

Section G - Contract Administration Data

DOE-G-2001 CONTRACTING OFFICER AUTHORITY (OCT 2014)

The Contracting Officer is responsible for administration of the contract. The Contracting Officer may appoint a Contracting Officer's Representative (COR), in accordance with the clause entitled Contracting Officer's Representative, to perform specifically delegated functions. The Contracting Officer is the only individual who has the authority on behalf of the Government, among other things, to take the following actions under the contract:

- Assign additional work within the general scope of the contract.
- Issue a change in accordance with the clause entitled Changes.
- Change the cost or price of the contract.
- Change any of the terms, conditions, specifications, or services required by the contract.
- Accept non-conforming work.
- Waive any requirement of the contract.

(End of Clause)

DOE-G-2002 CONTRACTING OFFICER'S REPRESENTATIVE (OCT 2014)

Pursuant to the clause at DEAR 952.242-70, Technical Direction, the Contracting Officer shall designate in writing a Contracting Officer's Representative (COR) for this contract and provide a copy of such designation to the contractor, including the delegated responsibilities and functions. The COR does not have authority to perform those functions reserved exclusively for the Contracting Officer.

(End of Clause)

DOE-G-2003 CONTRACTOR'S PROGRAM MANAGER (OCT 2014)

The Contractor shall designate a Program Manager who will be the Contractor's authorized supervisor for technical and administrative performance of all work hereunder. The Program Manager shall be the primary point of contact between the Contractor and the Contracting Officer's Representative (COR) under this contract.

The Program Manager shall receive and execute, on behalf of the Contractor, such technical directions as the COR may issue within the terms and conditions of the contract.

(End of Clause)

DOE-G-2004 CONTRACT ADMINISTRATION (OCT 2014)

To promote timely and effective contract administration, correspondence delivered to the Government under this contract shall reference the contract number, title, and subject matter, and shall be subject to the following procedures:

Technical correspondence. Technical correspondence shall be addressed to the Contracting Officer's Representative (COR) for this contract, and a copy of any such correspondence shall be sent to Contract Specialist. As used herein, technical correspondence does not include correspondence where patent or rights in data issues are involved, nor technical correspondence which proposes or involves waivers, deviations, or modifications to the requirements, terms, or conditions of this contract. Other Correspondence.

Correspondence regarding patent or rights in data issues should be sent to the Intellectual Property Counsel. A copy of such correspondence shall be provided to Contract Specialist.

If no Government Contract Administration Office is designated on Standard Form 33 (Block 24) or Standard Form 26 (Block 6), all correspondence, other than technical correspondence and correspondence regarding patent or rights in data, including correspondence regarding waivers, deviations, or modifications to requirements, terms or conditions of the contract, shall be addressed to the Contract Specialist. Copies of all such correspondence shall be provided to the COR.

Where a Government Contract Administration Office, other than DOE, is Designated on either Standard Form 33 (Block 24), or Standard Form 26 (Block 6), of this contract, all correspondence, other than technical correspondence, shall be addressed to the Government Contract Administration Office so designated, with copies of the correspondence to the Contract Specialist and the COR.

Information regarding correspondence addresses and contact information is as follows:

Contract Specialist:

Jacob N. Lingard Address: U.S. Department of Energy, Office of Nuclear Energy, Contract Management Division, 1955 N. Fremont Ave., Idaho Falls, ID 83415 Email address: lingarjn@id.doe.gov Telephone number: (208) 526-5820

Contracting Officer:

Andrew J. Ford Address: U.S. Department of Energy, Office of Nuclear Energy, Contract Management Division, 1955 N. Fremont Ave., Idaho Falls, ID 83415 Email address: fordaj@id.doe.gov Telephone number: (208) 526-3059

Contracting Officer's Representative:

Scott E. Harlow Address: U.S. Department of Energy, Office of Nuclear Energy, 19901 Germantown Road, Germantown, MD 20874 Email address: scott.harlow@nuclear.energy.gov Telephone number: (301) 903-3352

Intellectual Property Counsel:

Daniel Park Address: U.S. Department of Energy, Chicago Field Office 9800 South Cass Avenue Argonne, IL 60439 Email address: daniel.park@science.doe.gov Telephone number: (630) 252-2308

(End of Clause)

DOE-G-2005 BILLING INSTRUCTIONS (MAR 2019) - ALTERNATE I (MAR 2019)

- (a) Contractors shall use Standard Form 1034, Public Voucher for Purchases and Services Other than Personal, when requesting payment for work performed under the contract.
- (b) Contractors shall submit vouchers electronically through the DOE Office of Finance and Accounting's Vendor Invoicing Portal and Electronic Reporting System (VIPERS). VIPERS allows vendors to submit vouchers, attach supporting documentation and check the payment status of any voucher submitted to the DOE. Instructions concerning contractor enrollment and use of VIPERS can be found at <u>https://vipers.doe.gov</u>.
- (c) A paper copy of a voucher that has been submitted electronically will not be accepted.
- (d) The voucher must include a statement of cost and supporting documentation for services rendered. This statement should include, as a minimum, a breakout by cost or price element and task order (if applicable) of all services provided by the Contractor, both for the current billing period and cumulatively for the entire contract.
 - 1. Statement of Cost. The Contractor shall prepare and submit a Statement of Cost with each voucher in accordance with the following:

- A. Statement of Cost must be completed in accordance with the Contractor's cost accounting system.
- B. Costs claimed must be only those recorded costs authorized for billing by the payment provisions of the contract.
- C. Indirect costs claimed must reflect the rates approved for billing purposes by the Contracting Officer.
- D. The Direct Productive Labor Hours (DPLH) incurred during the current billing period must be shown and the DPLH summary completed, if applicable.
- E. The total fee billed, retainage amount, and available fee must be shown.
- F. If task orders or task assignments are issued under this contract, the Contractor must prepare a Statement of Cost for each task order work assignment and a summary for the total invoiced cost.
- 2. The Contractor shall prepare and submit the supporting documentation with each voucher in accordance with the following:
 - A. Direct costs (e.g., labor, equipment, travel, supplies, etc.) claimed for reimbursement on the Statement of Cost must be adequately supported. The level of detail provided must clearly indicate where the funds were expended. For example, support for labor costs must include the labor category (e.g., program manager, senior engineer, technician, etc.), the hourly rate, the labor cost per category, and any claimed overtime; equipment costs must be supported by a list of the equipment purchased, along with the item's cost; supporting data for travel must include the destination of the trip, number and labor category of travelers, transportation costs, per diem costs, and purpose of the trip; and supplies should be categorized by the nature of the items (e.g., office, lab, computer, etc.) and the dollar amount per category.
 - B. Any cost sharing or in-kind contributions incurred by the Contractor and/or third party during the billing period must be included.
 - C. Indirect rates used for billings must be clearly indicated, as well as their basis of application. When the cognizant Administrative Contracting Officer (ACO) or auditor approves a change in the billing rates, include a copy of the approval.
 - D. All claimed subcontractor costs must be supported by submitting the same detail as outlined herein.

(End of Clause)

DOE-G-2007 CONTRACTOR PERFORMANCE ASSESSMENT REPORTING (NOV 2021)

The Contracting Officer will document the Contractor's performance under this contract (including any task orders placed against it, if applicable) by using the Contractor Performance Assessment Reporting System (CPARS). CPARS information is handled as "Source Selection Information," available to authorized Government personnel seeking past performance information when evaluating proposals for award.

Contractor performance will be evaluated at least annually at the contract or task-order level, as determined by the Contracting Officer. Evaluation categories may include any or all of the following at the Government's discretion: (1) technical/quality, (2) cost control, (3) schedule, (4) management or business relations, and (5) small business subcontracting. Past performance information is available at <u>https://www.cpars.gov.</u> It is recommended that the Contractor take the overview training found on the CPARS website. The Contractor shall acknowledge receipt of the Government's request for comments on CPARS assessments at the time it is received and shall respond to such requests within fourteen (14) calendar days of the request.

Joint Ventures. Performance assessments shall be prepared on contracts with joint ventures. When the joint venture has a unique Commercial and Government Entity (CAGE) code and unique entity identifier, a single assessment will be prepared for the joint venture using its CAGE code and unique entity identifier. If the joint venture does not have a unique CAGE code and unique entity identifier, separate assessments, containing identical narrative, will be prepared for each participating contractor and will state that the evaluation is based on performance under a joint venture and will identify the contractors that were part of the joint venture.

In addition to the performance assessments addressed above, the Government will perform other performance assessments necessary for administration of the contract in accordance with other applicable clauses in this contract.

(End of Clause)

DOE-G-2008 NON-SUPERVISION OF CONTRACTOR EMPLOYEES (OCT 2014)

The Government shall not exercise any supervision or control over Contractor employees performing services under this contract. The Contractor's employees shall be held accountable solely to the Contractor's management, who in turn is responsible for contract performance to the Government.

(End of Clause)

Section H - Special Contract Requirements

DOE-H-2001 EMPLOYEE COMPENSATION: PAY AND BENEFITS (OCT 2017)

(a) Contractor Employee Compensation Plan

The Contractor shall submit, for Contracting Officer approval, by **[December 16, 2022]**, a Contractor Employee Compensation Plan (to be submitted during contract transition only) demonstrating how the Contractor will comply with the requirements of this Contract. The Contractor Employee Compensation Plan shall describe the Contractor's policies regarding compensation, pensions and other benefits, and how these policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce.

A description of the Contractor Employee Compensation Program should include the following components;

(1) Philosophy and strategy for all pay delivery programs.

(2) System for establishing a job worth hierarchy.

(3) Method for relating internal job worth hierarchy to external market.

(4) System that links individual and/or group performance to compensation decisions.

(5) Method for planning and monitoring the expenditure of funds.

(6) Method for ensuring compliance with applicable laws and regulations.

(7) System for communicating the programs to employees.

(8) System for internal controls and self-assessment.

(9) System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be on a pro-rated basis.

(b) Total Compensation System

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system consistent with FAR <u>31.205-6</u> and DEAR <u>970.3102-05-6</u>; "Compensation for Personal Services". DOE-approved standards (e.g., set forth in an advance understanding or appendix), if any, shall be applied to the Total Compensation System. The Contractor's Total Compensation System shall be fully documented, consistently applied, and acceptable to the Contracting Officer. Costs incurred in implementing the Total Compensation System shall be consistent with the Contractor's documented Contractor Employee Compensation Plan as approved by the Contracting Officer.

(c) Reports and Information

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

(1) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure showing actual against approved amounts; and planned distribution of funds for the following year.

(2) A list of the top five most highly compensated executives as defined in FAR $\underline{31.205-6}(p)(4)(ii)$ and their total cash compensation at the time of Contract award, and at the time of any subsequent change to their total cash compensation. This should be the same information provided to the System for Award Management (SAM) per FAR $\underline{52.204-10}$.

(3) An Annual Compensation and Benefits Report no later than March 1st of each year.

(d) Pay and Benefit Programs

The Contractor shall establish pay and benefit programs for Incumbent Employees and Non-Incumbent Employees as defined in paragraphs (1) and (2) below; provided, however, that employees scheduled to work fewer than 20 hours per week receive only those benefits required by law. Employees are eligible for benefits, subject to the terms, conditions, and limitations of each benefit program.

(1) Incumbent Employees are the employees [of the incumbent Contractor.

(A) Pay. Subject to the Workforce Transition Clause, the Contractor shall provide equivalent base pay to Incumbent Employees as compared to pay provided by Centrus Energy Corporation for at least the first year of the term of the Contract.

(B) Pension and Other Benefits. The Contractor shall provide a total package of benefits to Incumbent Employees comparable to that provided by Centrus Energy Corporation. Comparability of the total benefit package shall be determined by the Contracting Officer in his/her sole discretion.

Incumbent Employees shall remain in their existing pension plans (or comparable successor plans if continuation of the existing plans is not practicable) pursuant to pension plan eligibility requirements and applicable law.

(2) Non-Incumbent Employees are new hires, i.e., employees other than Incumbent Employees who are hired by the Contractor after date of award. All Non-Incumbent Employees shall receive a total pay and benefits package that provides for market-based retirement and medical benefit plans that are competitive with the industry from which the Contractor recruits its employees and in accordance with Contract requirements.

(3) Cash Compensation

(A) The Contractor shall submit the below information, as applicable, to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract:

(i) Any proposed major compensation program design changes prior to implementation.

(ii) Variable pay programs/incentives. If not already authorized under Appendix A of the contract, a justification shall be provided with proposed costs and impacts to budget, if any.

(iii) In the absence of Departmental policy to the contrary (e.g., Secretarial pay freeze) a Contractor that meets the criteria, as set forth below, is not required to submit a Compensation Increase Plan (CIP) request to the Contracting Officer for an advance determination of cost allowability for a Merit Increase fund or Promotion/Adjustment fund:

> • The Merit Increase fund does not exceed the mean percent increase included in the annual Departmental guidance providing the World at Work Salary Budget Survey's salary increase projected for the CIP year. The Promotion/Adjustment fund does not exceed [1% (one percent) of payroll].

• The budget used for both Merit Increase funds and Promotion/Adjustment funds shall be based on the payroll for the end of the previous CIP year.

• Salary structure adjustments do not exceed the mean World at Work structure adjustments projected for the CIP year and communicated through the annual Department CIP guidance.

• Please note: No later than the first day of the CIP cycle, Contractors must provide notification to the Contracting Officer of planned increases and position to market data by mutually agreed-upon employment categories. No presumption of allow ability will exist for employee job classes that exceed market position.

(iv) If a Contractor does not meet the criteria included in (iii) above, a CIP must be submitted to the Contracting Officer for an

advance determination of cost allow ability. The CIP should include the following components and data:

(1) Comparison of average pay to market average pay.

(2) Information regarding surveys used for comparison.

(3) Aging factors used for escalating survey data and supporting information.

(4) Projection of escalation in the market and supporting information.

(5) Information to support proposed structure adjustments, if any.

(6) Analysis to support special adjustments.

(7) Funding requests for each pay structure to include breakouts of merit, promotions, variable pay, special adjustments, and structure movement. (a) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous CIP year. (b) All pay actions granted under the compensation increase plan are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year end. (c) Specific payroll groups (e.g., exempt, nonexempt) for which CIP amounts are intended shall be defined by mutual agreement between the Contractor and the Contracting Officer. (d) The Contracting Officer may adjust the CIP amount after approval based on major changes in factors that significantly affect the plan amount (for example, in the event of a major reduction in force or significant rampup).

(8) A discussion of the impact of budget and business constraints on the CIP amount.

(9) Comparison of pay to relevant factors other than market average pay.

(v) After receiving DOE CIP approval or if criteria in (d)(3)(A)(iii) was met, contractors may make minor shifts of up to 10% of approved CIP funds by employment category (e.g., Scientist/Engineer, Admin, Exempt, Non-Exempt) without obtaining DOE approval. (vi) Individual compensation actions for the top Contractor official (e.g., laboratory director/plant manager or equivalent) and Key Personnel not included in the CIP. For those Key Personnel included in the CIP, DOE will approve salaries upon the initial contract award and when Key Personnel are replaced during the life of the contract. DOE will have access to all individual salary reimbursements. This access is provided for transparency; DOE will not approve individual salary actions (except as previously stated).

(B) The Contracting Officer's approval of individual compensation actions will be required only for the top Contractor official (e.g., laboratory director/plant manager or equivalent) and Key Personnel as stated in (d)(3)(A)(vi) above. The base salary reimbursement level for the top Contractor official establishes the maximum allowable base salary reimbursement under the contract. Unusual circumstances may require a deviation for an individual on a case-by-case basis. Any such deviations must be approved by the Contracting Officer.

(C) Severance Pay is not payable to an employee under this Contract if the employee:

(i) Voluntarily separates, resigns or retires from employment,

(ii) Is offered employment with a successor/replacement Contractor,

(iii) Is offered employment with a parent or affiliated company, or

(iv) Is discharged for cause.

(D) Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement contract.

(e) Pension and Other Benefit Programs

(1) No presumption of allowability will exist when the Contractor implements a new benefit plan, or makes changes to existing benefit plans that increase costs or are contrary to Departmental policy or written instruction or until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans. Changes shall be in accordance with and pursuant to the terms and conditions of the contract. Advance notification, rather than approval, is required for changes that do not increase costs and are not contrary to Departmental policy or written instruction. (2) Cost reimbursement for Employee pension and other benefit programs sponsored by the Contractor will be based on the Contracting Officer's approval of Contractor actions pursuant to an approved "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described below.

(3) Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall submit the studies required in paragraphs (A) and (B) below. The studies shall be used by the Contractor in calculating the cost of benefits under existing benefit plans. An Employee Benefits Value (Ben-Val) Study Method using no less than 15 comparator organizations and an Employee Benefits Cost Survey Comparison method shall be used in this evaluation to establish an appropriate comparison method. In addition, the Contractor shall submit updated studies to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan which increases costs.

(A) The Ben-Val, every two years for each benefit tier (e.g., group of employees receiving a benefit package based on date of hire), which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to Employees measured against the RV of benefit programs offered by the Contracting Officer approved comparator companies. To the extent that the value studies do not address postretirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post-retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources and,

(B) An Employee Benefits Cost Study Comparison, annually for each benefit tier that analyzes the Contractor's employee benefits cost for employees as a percent of payroll and compares it with the cost as a percent of payroll, including geographic factor adjustments, reported by the U.S. Department of Labor's Bureau of Labor Statistics or other Contracting Officer approved broad based national survey.

(4) When the net benefit value exceeds the comparator group by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer for approval, unless waived in writing by the Contracting Officer.

(5) When the benefit costs as a percent of payroll exceeds the comparator group by more than five percent, when and if required by the Contracting Officer, the Contractor shall submit an analysis of the specific plan costs that result in or contribute to the percent of payroll exceeding the costs of the comparator group and submit a corrective action plan if directed by the Contracting Officer.

(6) Within two years, or longer period as agreed to between the Contractor and the Contracting Officer, of the Contracting Officer acceptance of the Contractor's corrective action plan, the Contractor shall align employee benefit programs with the benefit value and the cost as a percent of payroll in accordance with its corrective action plan.

(7) The Contractor may not terminate any benefit plan during the term of the Contract without the prior approval of the Contracting Officer in writing.

(8) Cost reimbursement for post-retirement benefits other than pensions (PRBs) is contingent on DOE approved service eligibility requirements for PRB that shall be based on a minimum period of continuous employment service not less than 5 years under a DOE cost reimbursement contract(s) immediately prior to retirement. Unless required by Federal or State law, advance funding of PRBs is not allowable.

(9) Each Contractor sponsoring a defined benefit pension plan and/or postretirement benefit plan will participate in the plan management process which includes written responses to a questionnaire regarding plan management, providing forecasted estimates of future reimbursements in connection with the plan(s) and participating in a conference call to discuss the Contractor submission (see (g)(6) below for Pension Management Plan requirements).

(10) Each Contractor will respond to quarterly data calls issued through iBenefits, or its successor system.

(f) Establishment and Maintenance of Pension Plans for which DOE Reimburses Costs

(1) Employees working for the Contractor shall only accrue credit for service under this Contract after the date of Contract award.

(2) Except for Commingled Plans in existence as of the effective date of the Contract, any pension plan maintained by the Contractor for which DOE reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan that provides credit for service not performed under a DOE cost-reimbursement contract. When deemed appropriate by the Contracting Officer, Commingled Plans shall be converted to Separate Plans at the time of new contract award or the extension of a contract.

(g) Basic Requirements

The Contractor shall adhere to the requirements set forth below in the establishment and administration of pension plans that are reimbursed by DOE pursuant to cost reimbursement contracts for management and operation of DOE facilities and pursuant to other cost reimbursement facilities contracts. Pension Plans include Defined Benefit and Defined Contribution plans.

(1) The Contractor shall become a sponsor of the existing pension and other benefit plans (or comparable successor plans), including other PRB plans, as applicable, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of those plans consistent with the requirements of ERISA and the Internal Revenue Code (IRC). The Contractor shall carry over the length of service credit and leave balances accrued as of the date of the Contractor's assumption of Contract performance.

(2) Each Contractor defined benefit and defined contribution pension plan shall be subjected to a limited-scope audit annually that satisfies the requirements of ERISA section 103, except that every third year the Contractor must conduct a full-scope audit of defined benefit plan(s) satisfying ERISA section 103. Alternatively, the Contractor may conduct a full-scope audit satisfying ERISA section 103 annually. In all cases, the Contractor must submit the audit results to the Contracting officer. In years in which a limited scope audit is conducted, the Contractor must provide the Contracting Officer with a copy of the qualified trustee or custodian's certification regarding the investment information that provides the basis for the plan sponsor to satisfy reporting requirements under ERISA section 104.

While there is no requirement to submit a full scope audit for defined contribution plans, contractors are responsible for maintaining adequate controls for ensuring that defined contribution plan assets are correctly recorded and allocated to plan participants.

(3) For existing Commingled Plans, the Contractor shall maintain and provide annual separate accounting of DOE liabilities and assets as for a Separate Plan.

(4) For existing Commingled Plans, the Contractor shall be liable for any shortfall in the plan assets caused by funding or events unrelated to DOE contracts.

(5) The Contractor shall comply with the requirements of ERISA if applicable to the pension plan and any other applicable laws.

(6) The Pension Management Plan (PMP) shall include a discussion of the Contractor's plans for management and administration of all pension plans consistent with the terms of the Contract. The PMP shall be submitted in the iBenefits system, or its successor system no later than January 31st of each applicable year. A full description of the necessary reporting will be provided in the annual management plan data request. Within sixty (60) days after the date of the submission, appropriate Contractor representatives shall participate in a conference call to discuss the Contractor's PMP submission and any other current plan issues or concerns.

(h) Reimbursement of Contractors for Contributions to Defined Benefit (DB) Pension Plans

(1) Contractors that sponsor single employer or multiple employer defined benefit pension plans will be reimbursed for the annual required minimum contributions under the Employee Retirement Income Security Act (ERISA), as amended by the Pension Protection Act (PPA) of 2006 and any other subsequent amendments. Reimbursement above the annual minimum required contribution will require prior approval of the Contracting Officer. Minimum required contribution amounts will take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the Head of Contracting Activity (HCA) when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

(2) Contractors that sponsor multi-employer DB pension plans will be reimbursed for pension contributions in the amounts necessary to ensure that the plans are funded to meet the annual minimum requirement under ERISA, as amended by the PPA. However, reimbursement for pension contributions above the annual minimum contribution required under ERISA, as amended by the PPA, will require prior approval of the Contracting Officer and will be considered on a case by case basis. Reimbursement amounts will take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the HCA when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

(i) Reporting Requirements for Designated Contracts

The following reports shall be submitted to DOE as soon as possible after the last day of the plan year by the Contractor responsible for each designated pension plan funded by DOE but no later than the dates specified below:

(1) Actuarial Valuation Reports. The annual actuarial valuation report for each DOE-reimbursed pension plan and when a pension plan is commingled, the Contractor shall submit separate reports for DOE's portion and the plan total by the due date for filing IRS Form 5500.

(2) Forms 5500. Copies of IRS Forms 5500 with Schedules for each DOEfunded pension plan, no later than that submitted to the IRS.

(3) Forms 5300. Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spin-off, or merger of a plan submitted to the IRS.

(j) Changes to Pension Plans

At least sixty (60) days prior to the adoption of changes to a pension plan, the Contractor shall submit the information required below, to the Contracting Officer. The Contracting Officer must approve plan changes that increase costs as part of a determination as to whether the costs are deemed allowable pursuant to FAR <u>31.205-6</u>, as supplemented by DEAR <u>970.3102-05-6</u>.

(1) For proposed changes to pension plans and pension plan funding, the Contractor shall provide the following to the Contracting Officer:

(A) a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout,

(B) an analysis of the impact of any proposed changes on actuarial accrued liabilities and costs,

(C) except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from the counsel used by the plan for purposes of compliance with all legal requirements applicable to private sector defined benefit pension plans,

(D) the Summary Plan Description, and

(E) any such additional information as requested by the Contracting Officer.

(2) Contractors shall submit new benefit plans and changes to plan design or funding methodology with justification to the Contracting Officer for approval, as applicable (see (e)(1) above). The justification must:

(A) demonstrate the effect of the plan changes on the contract net benefit value or percent of payroll benefit costs,

(B) provide the dollar estimate of savings or costs, and

(C) provide the basis of determining the estimated savings or cost.

(k) Terminating Operations

When operations at a designated DOE facility are terminated and no further work is to occur under the prime contract, the following apply:

(1) No further benefits for service shall accrue.

(2) The Contractor shall provide a determination statement in its settlement proposal, defining and identifying all liabilities and assets attributable to the DOE contract.

(3) The Contractor shall base its pension liabilities attributable to DOE contract work on the market value of annuities or lump sum payments or dispose of such liabilities through a competitive purchase of annuities or lump sum payouts.

(4) Assets shall be determined using the "accrual-basis market value" on the date of termination of operations.

(5) DOE and the Contractor(s) shall establish an effective date for spinoff or plan termination. On the same day as the Contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(1) Terminating Plans

(1) DOE Contractors shall not terminate any pension plan (Commingled or site specific) without requesting Departmental approval at least 60 days prior to the scheduled date of plan termination.

(2) To the extent possible, the Contractor shall satisfy plan liabilities to plan participants by the purchase of annuities through competitive bidding on the open annuity market or lump sum payouts. The Contractor shall apply the assumptions and procedures of the Pension Benefit Guaranty Corporation.

(3) Funds to be paid or transferred to any party as a result of settlements relating to pension plan termination or reassignment shall accrue interest from the effective date of termination or reassignment until the date of payment or transfer.

(4) If ERISA or IRC rules prevent a full transfer of excess DOE reimbursed assets from the terminated plan, the Contractor shall pay any deficiency directly to DOE according to a schedule of payments to be negotiated by the parties.

(5) On or before the same day as the Contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(6) DOE liability to a Commingled pension plan shall not exceed that portion which corresponds to DOE contract service. The DOE shall have no other liability to the plan, to the plan sponsor, or to the plan participants.

(7) After all liabilities of the plan are satisfied, the Contractor shall return to DOE an amount equaling the asset reversion from the plan termination and any earnings which accrue on that amount because of a delay in the payment to DOE. Such amount and such earnings shall be subject to DOE audit. To effect the purposes of this paragraph, DOE and the Contractor may stipulate to a schedule of payments.

(m) Special Programs

Contractors must advise DOE and receive prior approval for each early-out program, window benefit, disability program, plan-loan feature, employee contribution refund, asset reversion, or incidental benefit.

(n) Definitions

(1) Commingled Plans. Cover employees from the Contractor's private operations and its DOE contract work.

(2) Current Liability. The sum of all plan liabilities to employees and their beneficiaries. Current liability includes only benefits accrued to the date of valuation. This liability is commonly expressed as a present value.

(3) Defined Benefit Pension Plan. Provides a specific benefit at retirement that is determined pursuant to the formula in the pension plan document.

(4) Defined Contribution Pension Plan. Provides benefits to each participant based on the amount held in the participant's account. Funds in the account may be comprised of employer contributions, employee contributions, investment returns on behalf of that plan participant and/or other amounts credited to the participant's account.

(5) Designated Contract. For purposes of this clause, a contract (other than a prime cost reimbursement contract for management and operation of a DOE facility) for which the Head of the Departmental Contracting Activity determines that advance pension understandings are necessary or where there is a continuing Departmental obligation to the pension plan.

(6) Pension Fund. The portfolio of investments and cash provided by employer and employee contributions and investment returns. A pension fund exists to defray pension plan benefit outlays and (at the option of the plan sponsor) the administrative expenses of the plan.

(7) Separate Accounting. Account records established and maintained within a commingled plan for assets and liabilities attributable to DOE contract service. NOTE: The assets so represented are not for the exclusive benefit of any one group of plan participants.

(8) Separate Plan. Must satisfy IRC Sec. 414(l) definition of a single plan, designate assets for the exclusive benefit of employees under DOE contract, exist under a separate plan document (having its own Department of Labor plan number) that is distinct from corporate plan documents and identify the Contractor as the plan sponsor.

(9) Spun-off Plan. A new plan which satisfies IRC Reg. 1.414(1)-1 requirements for a single plan and which is created by separating assets and liabilities from a larger original plan. The funding level of each individual participant's benefits shall be no less than before the event, when calculated on a "plan termination basis."

(End of Clause)

DOE-H-2002 NO THIRD PARTY BENEFICIARIES (OCT 2014)

This Contract is for the exclusive benefit and convenience of the parties here to. Nothing contained herein shall be construed as granting, vesting, creating, or conferring any right of action or any other right or benefit upon past, present, or future employees of the Contractor, or upon any other third party. This provision is not intended to limit or impair the rights which any person may have under applicable Federal statutes.

(End of Clause)

DOE-H-2003 WORKER'S COMPENSATION INSURANCE (OCT 2014)

(a) Contractors, other than those whose workers' compensation coverage is provided through a state funded arrangement or a corporate benefits program, shall submit to the Contracting Officer for approval all new compensation policies and all initial proposals for self-insurance (contractors shall provide copies to the Contracting Officer of all renewal policies for workers compensation).

(b) Workers compensation loss income benefit payments, when supplemented by other programs (such as salary continuation, short-term disability) are to be administered so that total benefit payments from all sources shall not exceed 100 percent of the employee's net pay.

(c) Contractors approve all workers compensation settlement claims up to the threshold established by the Contracting Officer for DOE approval and submit all settlement claims above the threshold to DOE for approval.

(d) The Contractor shall obtain approval from the Contracting Officer before making any significant change to its workers compensation coverage and shall furnish reports as may be required from time to time by the Contracting Officer.

(End of Clause)

DOE-H-2004 POST CONTRACT RESPONSIBILITIES FOR PENSION AND OTHER BENEFIT PLANS (OCT 2014)

(a) If this Contract expires or terminates and DOE has awarded a contract under which the new contractor becomes a sponsor and assumes responsibility for management and administration of the pension or other benefit plans covering active or retired contractor employees with respect to service at The American Centrifuge Facility (collectively, the "Plans"), the Contractor shall cooperate and transfer to the new contractor its responsibility for sponsorship, management and administration of the Plans consistent with direction from the Contracting Officer. If a Commingled plan is involved, the contractor shall:

(1) Spin off the DOE portion of any Commingled Plan used to cover employees working at the DOE facility into a separate plan. The new plan will normally provide benefits similar to those provided by the commingled plan and shall carry with it the DOE assets on an accrual basis market value, including DOE assets that have accrued in excess of DOE liabilities.

(2) Bargain in good faith with DOE or the successor contractor to determine the assumptions and methods for establishing the liabilities involved in a spinoff. DOE and the contractor(s) shall establish an effective date of spinoff. On or before the same day as the contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(b) If this Contract expires or terminates and DOE has not awarded a contract to a new contractor under which the new contractor becomes a sponsor and assumes responsibility for management and administration of the Plans, or if the Contracting Officer determines that the scope of work under the Contract has been completed (any one such event may be deemed by the Contracting Officer to be "Contract Completion" for purposes of this clause), whichever is earlier, and notwithstanding any other obligations and requirements concerning expiration or termination under any other clause of this Contract, the following actions shall occur regarding the Contractor's obligations regarding the Plans at the time of Contract Completion:

(1) Subject to subparagraph(2) below, and notwithstanding any legal obligations independent of the Contract the Contractor may have regarding responsibilities for

sponsorship, management, and administration of the Plans, the Contractor shall remain the sponsor of the Plans, in accordance with applicable legal requirements.

(2) The parties shall exercise their best efforts to reach agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion. However, if the parties have not reached agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion, unless and until such agreement is reached, the Contractor shall comply with written direction from the Contracting Officer regarding the Contractor's responsibilities for continued provision of pension and welfare benefits under the Plans, including but not limited to continued sponsorship of the Plans, in accordance with applicable legal requirements. To the extent that the Contractor incurs costs in implementing direction from the Contracting Officer, the Contractor's costs will be reimbursed pursuant to applicable Contract provisions.

(End of Clause)

DOE-H-2011 SUSTAINABLE ACQUISITIONS UNDER CONTRACTS FOR ELECTRONIC PRODUCTS (JUL 2018)

(a) Definition. Electronic products, as used in this clause, means products that are dependent on electric currents or electromagnetic fields in order to work properly.

(b) The contractor, when supplying electronic products in performance of, or delivery under the contract, shall ensure that the equipment is EPEAT-registered at the highest level (Bronze, Silver or Gold) available on the marketplace, which meets technical specifications.

(End of Clause)

DOE-H-2013 CONSECUTIVE NUMBERING (OCT 2014)

Due to automated procedures employed in formulating this document, clauses and provisions contained within may not always be consecutively numbered.

(End of Clause)

DOE-H-2014 CONTRACTOR ACCEPTANCE OF NOTICES OF VIOLATION OR ALLEGED VIOLATIONS, FINES, AND PENALTIES (OCT 2014)

The Contractor shall accept, in its own name, notices of violation(s) or alleged violations (NOVs/NOAVs) issued by federal or state regulators to the Contractor resulting from the Contractor's performance of work under this contract, without regard to liability. The allowability of the costs associated with fines and penalties shall be subject to other provisions of

this contract.

After providing DOE advance written notice, the Contractor shall conduct negotiations with regulators regarding NOVs/NOAVs and fine and penalties. However, the Contractor shall not make any commitments or offers to regulators that would bind the Government, including monetary obligations, without first obtaining written approval from the CO. Failure to obtain advance written approval may result in otherwise allowable costs being declared unallowable and/or the Contractor being liable for any excess costs to the Government associated with or resulting from such offers/commitments.

The Contractor shall notify DOE promptly when it receives service from the regulators of NOVs/NOAVs and fines and penalties.

(End of Clause)

DOE-H-2016 - PERFORMANCE GUARANTEE AGREEMENT (OCT 2014)

The Contractor's parent organization(s) or all member organizations if the Contractor is a joint venture, limited liability company, or other similar entity, shall guarantee performance of the contract as evidenced by the Performance Guarantee Agreement incorporated in the contract in Section J, Attachment J-F.

If the Contractor is a joint venture, limited liability company, or other similar entity where more than one organization is involved, the parent(s) or all member organizations shall assume joint and severable liability for the performance of the contract. In the event any of the signatories to the Performance Guarantee Agreement enters into proceedings related to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Contracting Officer.

(End of Clause)

DOE-H-2017 RESPONSIBLE CORPORATE OFFICIAL AND CORPORATE BOARD OF DIRECTORS (OCT 2014)

The Contractor has provided a guarantee of performance from its parent company(s) in the form set forth in the Section J Attachment entitled, "Performance Guarantee Agreement." The individual signing the "Performance Guarantee Agreement" for the parent company(s) should be the Responsible Corporate Official.

The Responsible Corporate Official is the person who has sole corporate (parent company(s)) authority and accountability for Contractor performance. DOE may contact, as necessary, the single Responsible Corporate Official identified below regarding Contract performance issues.

Responsible Corporate Official

Name: [Daniel B. Poneman] Position: [President and Chief Executive Officer] Company/Organization: [Centrus Energy Corp.] Address: [6901 Rockledge Dr., Suite 800, Bethesda, MD 20817] Phone: [(301) 564-3200] Facsimile: [(240) 630-7808] Email: [ponemand@centrusenergy.com] Should the Responsible Corporate Official or their contact information change during the period of the Contract, the Contractor shall promptly notify the Contracting Officer in writing of the

of the Contract, the Contractor shall promptly notify the Contracting Officer in writing of the change.

Identified below is each member of the Corporate Board of Directors that will have corporate oversight.

DOE may contact, as necessary, any member of the Corporate Board of Directors, who is accountable for corporate oversight of the Contractor organization and key personnel.

Corporate Board of Directors (see attachment J-H, Centrus Board of Directors listing) Name: [] Position: [] Company/Organization: [] Address: [] Phone: [] Mobile: [] Email: [] Should any change occur to the Corporate Board of Directors or their contact information during the period of the Contract, the Contractor shall promptly notify the Contracting Officer in writing of the change.

(End of Clause)

DOE-H-2018 PRIVACY ACT SYSTEM OF RECORDS (OCT 2014)

The Contractor shall design, develop, or adopt the following systems of records on individuals to accomplish an agency function pursuant to the Section I clause entitled, "FAR <u>52.224-2</u>, Privacy Act."

[Oracle Fusion Cloud Human Resources Module]

(End of Clause)

DOE-H-2019 DISPOSITION OF INTELLECTUAL PROPERTY - CONTRACT TERMINATION

The following provisions shall apply in the event the Contract is terminated for any reason:

The Government may take possession of and use all the technical data, including limited rights data, restricted computer software, and data and software obtained from subcontractors, licensors, and licensees, necessary to complete the work in conformance with this contract, including the right to use the data in any Government solicitations for the completion of the work contemplated under this contract. Technical data includes, but is not limited to, specifications, designs, drawings, operational manuals, flowcharts, software, databases, and any other information necessary for the completion of the work under this contract. Limited rights data and restricted computer software will be protected in accordance with the provisions of the Section I clause, DEAR 970.5227-1 Rights in Data-Facilities. The Contractor shall ensure that its subcontractors and licensors make similar rights available to the Government and its contractors.

The Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice by the Contractor, and any other intellectual property, including technical data, which are owned or controlled by the Contractor, at any time through completion of this Contract and which are incorporated or embodied in the construction of the facilities or which are utilized in the operation or remediation of the facilities or which cover articles, materials or products manufactured at a facility: (1) to practice or to have practiced by or for the Government at the facility; and (2) to transfer such license with the transfer of that facility. The acceptance or exercise by the Government of the aforesaid rights and license shall not prevent the Government at any time from contesting the enforceability, validity, or scope of, or title to, any rights or patents or other intellectual property herein licensed.

In addition, the Contractor will take all necessary steps to assign permits, authorizations, leases, and licenses in any third-party intellectual property to the Government, or such other third party as the Government may designate, that are necessary for the completion of the work contemplated under this Contract.

(End of Clause)

DOE-H-2020 PRICE - ANDERSON AMENDMENTS ACT NONCOMPLIANCE (OCT 2014)

The Contractor shall establish an internal Price-Anderson Amendments Act (PAAA) noncompliance identification, tracking, and corrective action system and shall provide access to and fully support DOE reviews of the system. The Contractor shall also implement a Price-Anderson Amendments Act reporting process which meets applicable DOE standards. The Contractor shall be accountable for ensuring that subcontractors adhere to these requirements.

(End of Clause)

DOE-H-2021 WORK STOPPAGE AND SHUTDOWN AUTHORIZATION (OCT 2014)

Imminent Health and Safety Hazard is a given condition or situation which, if not immediately

corrected, could result in a serious injury or death, including exposure to radiation and toxic/hazardous chemicals. Imminent Danger in relation to the facility safety envelope is a condition, situation, or proposed activity which, if not terminated, could cause, prevent mitigation of, or seriously increase the risk of (1) nuclear criticality, (2) radiation exposure, (3) fire/explosion, and/or (4) toxic hazardous chemical exposure.

Work Stoppage. In the event of an Imminent Health and Safety Hazard, identified by facility line management or operators or facility health and safety personnel overseeing facility operations, or other individuals, the individual or group identifying the imminent hazard situation shall immediately take actions to eliminate or mitigate the hazard (i.e., by directing the operator/implementer of the activity or process causing the imminent hazard to stop-work, or by initiating emergency response actions or other actions) to protect the health and safety of the workers and the public, and to protect U.S. Department of Energy (DOE) facilities and the environment. In the event an imminent health and safety hazard is identified, the individual or group identifying the hazard should coordinate with an appropriate Contractor official, who will direct the shutdown or other actions, as required. Such mitigating action should subsequently be coordinated with the DOE and Contractor management. The suspension or stop- work order should be promptly confirmed in writing by the Contracting Officer.

Shutdown. In the event of an imminent danger in relation to the facility safety envelope or a non-Imminent Health and Safety Hazard identified by facility line managers, facility operators, health and safety personnel overseeing facility operations, or other individuals, the individual or group identifying the potential health and safety hazard may recommend facility shutdown in addition to any immediate actions needed to mitigate the situation. However, the recommendation must be coordinated with Contractor management, and the DOE Site Manager. Any written direction to suspend operations shall be issued by the Contracting Officer, pursuant to the Clause entitled, "FAR 52.242-15, Stop-Work Order."

Facility Representatives. DOE personnel designated as Facility Representatives provide the technical/safety oversight of operations. The Facility Representative has the authority to "stop-work," which applies to the shutdown of an entire plant, activity, or job. This stop-work authority will be used for an operation of a facility which is performing work the Facility Representative believes:

Poses an imminent danger to health and safety of workers or the public if allowed to continue;

Could adversely affect the safe operation of, or could cause serious damage to the facility if allowed to continue; or

Could result in the release of radiological or chemical hazards to the environment in excess of regulatory limits.

This clause flows down to all subcontractors at all tiers. Therefore, the Contractor shall insert a clause, modified appropriately to substitute "Contractor Representatives" for "the Contracting Officer" in all subcontracts.

(End of Clause)

DOE-H-2023 COST ESTIMATING SYSTEM REQUIREMENTS (OCT 2014)

Definitions.

Acceptable estimating system means an estimating system that complies with the system criteria in paragraph (d) of this clause, and provides for a system that-

Is maintained, reliable, and consistently applied;

Produces verifiable, supportable, documented, and timely cost estimates that are an acceptable basis for negotiation of fair and reasonable prices;

Is consistent with and integrated with the Contractor's related management systems; and

Is subject to applicable financial control systems.

Estimating system means the Contractor's policies, procedures, and practices for budgeting and planning controls, and generating estimates of costs and other data included in proposals submitted to customers in the expectation of receiving contract awards or contract modifications. Estimating system includes the Contractor's-

Organizational structure;

Established lines of authority, duties, and responsibilities;

Internal controls and managerial reviews;

Flow of work, coordination, and communication; and

Budgeting, planning, estimating methods, techniques, accumulation of historical costs, and other analyses used to generate cost estimates.

Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

General. The Contractor shall establish, maintain, and comply with an acceptable estimating system.

Applicability. Paragraphs (d) and (e) of this clause apply if the Contractor is a large business to include a contractor teaming arrangement, as defined at 48 CFR 9.601(1), performing a contract in support of a Capital Asset Project (other than a management and operating contract as

described at 917.6), as prescribed in DOE Order (DOE O) 413.3B, or current version; or a non-capital asset project and either-

The total prime contract value exceeds \$50 million, including options; or

The Contractor was notified, in writing, by the Contracting Officer that paragraphs (d) and (e) of this clause apply.

System requirements.

The Contractor shall disclose its estimating system to the Contracting Officer, in writing. If the Contractor wishes the Government to protect the information as privileged or confidential, the Contractor must mark the documents with the appropriate legends before submission. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system requirements required in this clause.

An estimating system disclosure is acceptable when the Contractor has provided the Contracting Officer with documentation no later than 60 days after contract award that -

Accurately describes those policies, procedures, and practices that the Contractor currently uses in preparing cost proposals; and

Provides sufficient detail for the Government to reasonably make an informed judgment regarding the acceptability of the Contractor's estimating practices.

The Contractor shall-

Comply with its disclosed estimating system; and

Disclose significant changes to the cost estimating system to the Contracting Officer on a timely basis.

The Contractor's estimating system shall provide for the use of appropriate source data, utilize sound estimating techniques and good judgment, maintain a consistent approach, and adhere to established policies and procedures. An acceptable estimating system shall accomplish the following functions:

Establish clear responsibility for preparation, review, and approval of cost estimates and budgets.

Provide a written description of the organization and duties of the personnel responsible for preparing, reviewing, and approving cost estimates and budgets.

Ensure that relevant personnel have sufficient training, experience, and guidance to perform estimating and budgeting tasks in accordance with the Contractor's established procedures.

Identify and document the sources of data and the estimating methods and rationale used in

developing cost estimates and budgets.

Provide for adequate supervision throughout the estimating and budgeting process.

Provide for consistent application of estimating and budgeting techniques.

Provide for detection and timely correction of errors.

Protect against cost duplication and omissions.

Provide for the use of historical experience, including historical vendor pricing information, where appropriate.

Require use of appropriate analytical methods.

Integrate information available from other management systems.

Require management review, including verification of compliance with the company's estimating and budgeting policies, procedures, and practices.

Provide for internal review of, and accountability for, the acceptability of the estimating system, including the budgetary data supporting indirect cost estimates and comparisons of projected results to actual results, and an analysis of any differences.

Provide procedures to update cost estimates and notify the Contracting Officer in a timely manner.

Provide procedures that ensure subcontract prices are reasonable based on a documented review and analysis provided with the prime proposal, when practicable.

Provide estimating and budgeting practices that consistently generate sound proposals that are compliant with the provisions of the solicitation and are adequate to serve as a basis to reach a fair and reasonable price.

Have an adequate system description, including policies, procedures, and estimating and budgeting practices, that comply with the Federal Acquisition Regulation (48 CFR chapter 1) and Department of Energy Acquisition Regulation (48 CFR chapter 9).

Significant deficiencies.

The Contracting Officer will provide an initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's estimating system.

If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.

The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning-

Remaining significant deficiencies;

The adequacy of any proposed or completed corrective action; and

System disapproval if the Contracting Officer determines that one or more significant deficiencies remain.

If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant

deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's estimating system, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of Clause)

DOE-H-2025 ACCOUNTING SYSTEM ADMINISTRATION (OCT 2014)

Definitions. As used in this clause-

Acceptable accounting system means a system that complies with the system criteria in Paragraph (c) of this clause to provide reasonable assurance that -

Applicable laws and regulations are complied with;

The accounting system and cost data are reliable;

Risk of misallocations and mischarges are minimized; and

Contract allocations and charges are consistent with billing procedures.

Accounting system means the Contractor's system or systems for accounting methods,

procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for reporting in compliance with applicable laws, regulations, and management decisions, and may include subsystems for specific areas such as indirect and other direct costs, compensation, billing, labor, and general information technology.

Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

General. The Contractor shall establish and maintain an acceptable accounting system. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system criteria required in this clause. The Contractor shall provide in writing to the Contracting Officer documentation that its accounting system meets the system criteria in paragraph (c) of this clause no later than 60 days after contract award. Failure to maintain an acceptable accounting system, as defined in this clause, shall result in the withholding of payments if the contract includes the Section H clause Contractor Business Systems, and also may result in disapproval of the system.

System criteria. The Contractor's accounting system shall provide for-

A sound internal control environment, accounting framework, and organizational structure;

Proper segregation of direct costs from indirect costs;

Identification and accumulation of direct costs by contract;

A logical and consistent method for the accumulation and allocation of indirect costs to intermediate and final cost objectives;

Accumulation of costs under general ledger control;

Reconciliation of subsidiary cost ledgers and cost objectives to general ledger;

Approval and documentation of adjusting entries;

Management reviews or internal audits of the system to ensure compliance with the Contractor's established policies, procedures, and accounting practices;

A timekeeping system that identifies employees' labor by intermediate or final cost objectives;

A labor distribution system that charges direct and indirect labor to the appropriate cost objectives;

Interim (at least monthly) determination of costs charged to a contract through routine

posting of books of account;

Exclusion from costs charged to Government contracts of amounts which are not allowable in terms of 48 CFR part 31, Contract Cost Principles and Procedures, and other contract provisions;

Identification of costs by contract line item and by units (as if each unit or line item were a separate contract), if required by the contract;

Segregation of preproduction costs from production costs, as applicable;

Cost accounting information, as required-

By contract clauses concerning limitation of cost (48 CFR 52.232-20), limitation of funds (48 CFR 52.232-22), or allowable cost and payment (48 CFR 52.216-7); and

To readily calculate indirect cost rates from the books of accounts;

Billings that can be reconciled to the cost accounts for both current and cumulative amounts claimed and comply with contract terms;

Adequate, reliable data for use in pricing follow-on acquisitions; and

Accounting practices in accordance with standards promulgated by the Cost Accounting Standards Board, if applicable, otherwise, Generally Accepted Accounting Principles.

Significant deficiencies.

The Contracting Officer will provide an initial determination to the Contractor, in writing, on any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's accounting system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.

The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning-

Remaining significant deficiencies;

The adequacy of any proposed or completed corrective action; and

System disapproval if the Contracting Officer determines that one or more significant deficiencies remain.

If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's accounting system, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of Clause)

DOE-H-2027 CONTRACTOR PROPERTY MANAGEMENT SYSTEM ADMINISTRATION (OCT 2014)

(a) Definitions. As used in this clause-

Acceptable property management system means a property system that complies with the system criteria in paragraph (c) of this clause.

Property management system means the Contractor's system or systems for managing and controlling Government property.

Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

- (b) General. The Contractor shall establish and maintain an acceptable property management system. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system criteria required in this clause. The Contractor shall provide in writing to the Contracting Officer documentation that its property management system meets the system criteria in paragraph (c) of this clause no later than 60 days after contract award. Failure to maintain an acceptable property management system, as defined in this clause, may result in disapproval of the system by the Contracting Officer and/or withholding of payments.
- (c) System criteria. The Contractor's property management system shall be in accordance with paragraph (f) of the contract clause at 48 CFR <u>52.245-1</u>.
- (d) Significant deficiencies

(1) The Contracting Officer will provide an initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

(2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's property management system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.

(3) The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning

(i) Remaining significant deficiencies;

(ii) The adequacy of any proposed or completed corrective action; and

(iii) System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

- (e) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.
- (f) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's property management system, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of Clause)

DOE-H 2028 LABOR RELATIONS (OCT 2014)

- (a) The Contractor shall respect the right of employees to organize, form, join, or assist labor organizations; bargain collectively through their chosen labor representatives; engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; and to refrain from any or all of these activities.
- (b) The Contractor shall meet with the Contracting Officer or designee(s) for the purpose of reviewing the Contractor's bargaining objectives prior to negotiation of any collective bargaining agreement or revision there to and shall consult with and obtain the approval of the Contracting Officer regarding appropriate economic bargaining parameters, including those for pension and medical benefit costs, prior to the Contractor entering into the collective bargaining process. During the collective bargaining process, the Contractor shall

notify the Contracting Officer before submitting or agreeing to any collective bargaining proposal which can be calculated to affect allowable costs under this contract or which could involve other items of special interest to the Government. During the collective bargaining process, the Contractor shall obtain the approval of the Contracting Officer before proposing or agreeing to changes in any pension or other benefit plans.

- (c) The Contractor shall seek to maintain harmonious bargaining relationships that reflect a judicious expenditure of public funds, equitable resolution of disputes and effective and efficient bargaining relationships, consistent with the requirements of FAR, Subpart <u>22.1</u>, Basic Labor Policies and all applicable Federal and state labor relations laws
- (d) The Contractor shall notify the Contracting Officer or designee in a timely fashion of all labor relations issues and matters of local interest including organizing initiatives, unfair labor practice, work stoppages, picketing, labor arbitrations, and settlement agreements and shall furnish such additional information as may be required from time to time by the Contracting Officer.

(End of Clause)

DOE-H-2033 ALTERNATIVE DISPUTE RESOLUTION (OCT 2014)

The DOE and the Contractor both recognize that methods for fair and efficient resolution of contractual issues in controversy by mutual agreement are essential to the successful and timely completion of contract requirements. Accordingly, DOE and the Contractor shall use their best efforts to informally resolve any contractual issue in controversy by mutual agreement. Issues of controversy may include a dispute, claim, question, or other disagreement. The parties agree to negotiate with each other in good faith, recognizing their mutual interests, and attempt to reach a just and equitable solution satisfactory to both parties.

If a mutual agreement cannot be reached through negotiations within a reasonable period of time, the parties may use a process of alternate dispute resolution (ADR) in accordance with the clause at FAR 52.233-1, Disputes. The ADR process may involve mediation, facilitation, fact-finding, group conflict management, and conflict coaching by a neutral party. The neutral party may be an individual, a board comprised of independent experts, or a company with specific expertise in conflict resolution or expertise in the specific area of controversy. The neutral party will not render a binding decision but will assist the parties in reaching a mutually satisfactory agreement. Any opinions of the neutral party shall not be admissible in evidence in any subsequent litigation proceedings.

Either party may request that the ADR process be used. The Contractor shall make a written request to the Contracting Officer, and the Contracting Officer shall make a written request to the appropriate official of the Contractor. A voluntary election by both parties is required to participate in the ADR process. The parties must agree on the procedures and terms of the process, and officials of both parties who have the authority to resolve the issue must participate in the agreed upon process.

ADR procedures may be used at any time that the Contracting Officer has the authority to resolve the issue in controversy. If a claim has been submitted by the Contractor, ADR procedures may be applied to all or a portion of the claim. If ADR procedures are used subsequent to issuance of a Contracting Officer's final decision under the clause at FAR 52.233-1, Disputes, their use does not alter any of the time limitations or procedural requirements for filing an appeal of the Contracting Officer's final decision and does not constitute reconsideration of the final decision.

If the Contracting Officer rejects the Contractor's request for ADR proceedings, the Contracting Officer shall provide the Contractor with a written explanation of the specific reasons the ADR process is not appropriate for the resolution of the dispute. If the Contractor rejects the Contracting Officer's request to use ADR procedures, the Contractor shall provide the Contracting Officer with the reasons for rejecting the request.

(End of Clause)

DOE-H-2034 CONTRACTOR INTERFACE WITH OTHER CONTRACTORS AND/OR GOVERNMENT EMPLOYEES (OCT 2014)

The Government may award contracts to other contractors for work to be performed at a DOEowned or -controlled site or facility. The Contractor shall cooperate fully with all other on-site DOE contractors and Government employees. The Contractor shall coordinate its own work with such other work as maybe directed by the Contracting Officer or a duly authorized representative. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by a Government employee.

(End of Clause)

DOE-H-2035 ORGANIZATIONAL CONFLICT OF INTEREST MANAGEMENT PLAN (OCT 2014)

Within 30 calendar days after the effective date of the contract, the Contractor shall submit to the Contracting Officer for approval an Organizational Conflict of Interest (OCI) Management Plan (Plan). The Plan shall describe the Contractor's program to identify, avoid, neutralize, or mitigate potential or actual conflicts of interest that exist or may arise during contract performance and otherwise comply with the requirements of the clause at DEAR 952.209-72, Organizational Conflicts of Interest. The Plan shall be periodically updated as required during the term of the contract. The Plan shall include, as a minimum, the following:

(a) The procedures for identifying and evaluating past, present, and anticipated contracts of the Contractor, its related entities, and other performing entities under the contract.

(b) The procedures the Contractor will utilize to avoid, neutralize, or mitigate potential or actual

conflicts of interest.

(c) The procedures for reporting actual or potential conflicts of interest to the Contracting Officer.

(d) The procedures the Contractor will utilize to oversee, implement, and update the Plan, to include assigning responsibility for management, oversight and compliance to an individual in the Contractor's organization with full authority to implement the Plan.

(e) The procedures for ensuring all required representations, certifications and factual analyses are submitted to the Contracting Officer for approval in a timely manner.

(f) The procedures for protecting agency information that could lead to an unfair competitive advantage if disclosed including collecting disclosure agreements covering all individuals, subcontractors, and other entities with access to agency-sensitive information and physical safeguarding of such information.

(g) An OCI training and awareness program that includes periodic, recurring training and a process to evidence employee participation.

(h) The enforceable, employee disciplinary actions to be used by the Contractor for violation of OCI requirements.

(End of Clause)

DOE-H-2036 OBLIGATIONS AS TO PROTECTED ENERGY POLICY ACT (EPACT) INFORMATION (OCT 2014)

(a) The provisions of the Energy Policy Act of 1992, P.L. 102-486 (42 U.S.C. §13541(d)) require the protection from public disclosure, for a period of up to five years from development, of information resulting from the award or performance of this contract that would be trade secret or privileged or confidential commercial or financial information if the information that is privileged or confidential had been obtained from a non-Federal party for a period of up to 5 years after the submittal of the information. This protection from public disclosure includes exemption from disclosure pursuant to 5 U.S.C. §552(b) (The Freedom of Information Act).

(b) The cover page of any document subject to and protectable under the provisions of P.L. 2 U.S.C. §13541(d)), shall be marked with the following legend:

PROTECTED EPACT INFORMATION

THIS DOCUMENT CONTAINS PROTECTED INFORMATION WHICH WAS SUBMITTED ON **[DATE]** UNDER AGREEMENT NO. **[**89243223CNE000030**]** AND IS NOT TO BE FURTHER DISCLOSED FOR A PERIOD OF UP TO 5 YEARS AFTER DEVELOPMENT OF THE INFORMATION EXCEPT AS EXPRESSLY PROVIDED FOR IN THE SUBJECT AWARD. In addition, each page of the document shall be marked with the words "PROTECTED EPACT INFORMATION."

(c) The Government agrees not to further disclose such protected information for a period of up to 5 years from the date it was submitted, except (1) to be provided to other DOE facilities with the same protection in place, (2) as necessary to perform this agreement or (3) as otherwise mutually agreed to in advance.

(d) The obligations in (c) above shall end when any such protected information becomes publicly known without fault of the Government, comes into the Government's possession without breach by the Government of its obligations or is independently developed by someone who did not have access to the Protected Agreement Information.

(e) Notwithstanding any other provision of this contract, the following technical data first produced under this contract, as a minimum, shall be delivered to the DOE with unlimited rights: designs, operation manuals, flowcharts, software, etc., construction work in progress, completed manuals, flowcharts, completed facilities, equipment and other property and information necessary for performance of the work or operation of the facility in conformance with the purpose of this contract.

(End of Clause)

DOE-H-2037 NATIONAL ENVIRONMENTAL POLICY ACT (OCT 2014)

The work under this contract requires activities to be subject to the National Environmental Policy Act of 1969 (NEPA). The Contractor shall supply to DOE certain environmental information, as requested, in order for DOE to comply with NEPA and its implementing policies and regulations. Funds obligated under this contract shall only be expended by the Contractor on the activities set out below, unless the Contracting Officer modifies the listed activities or notifies the Contractor that NEPA requirements have been satisfied and the Contractor is authorized to perform the complete work required under the contract.

DOE Direct Contract Environmental Checklist (attachment J-D) is included with this RFP. Attachment J-D will be completed by the Contractor and will be incorporated into the Contract. ACO shall provide Attachment J-D within 30 days of contract award.

(End of Clause)

DOE-H-2038 NUCLEAR FACILITIES OPERATIONS (OCT 2014)

The work under this contract includes the operation of nuclear facilities. The Contractor recognizes that such operations involve the risk of a nuclear incident which, while the chances are remote, could adversely affect the public's health and safety and the environment. Therefore, the Contractor shall exercise a degree of care commensurate with the risks involved.

As used in this clause, the term "nuclear materials" is a collective term which includes source material, special nuclear material, and those other materials to which, by direction of DOE, the provisions of DOE's Orders or Directives regarding the control of nuclear materials, which have been or may be furnished to the Contractor by DOE, apply. The Contractor shall accept existing procedures and, in a manner satisfactory to the Contracting Officer, propose revised, as appropriate, accounting and measurement procedures, maintain current records and institute appropriate control measures for nuclear materials in its possession commensurate with the national security and DOE policy. The Contractor shall make such reports and permits subject to inspection as DOE may require with reference to nuclear materials. The Contractor shall take all reasonable steps and precautions to protect such materials against theft and misappropriations and to minimize all losses of such materials.

Transfers of nuclear materials shall only be made with the prior written approval of the Contracting Officer, or authorized designee. Nuclear materials in the Contractor's possession, custody, or control shall be used only for furtherance of the work under this contract. The Contractor shall be responsible for the control of such nuclear materials in accordance with applicable DOE Orders and Directives regarding the control of nuclear materials, which have been or may be issued to the Contractor by DOE. The Contractor shall make a part of each purchase order, subcontract, and other commitment under this contract involving the use of nuclear materials for which the Contractor has accountability, appropriate terms and conditions for the use of nuclear materials and the responsibilities of the subcontractor or vendor regarding control of nuclear materials. In the case of fixed- price purchase orders, subcontracts, or other commitments involving the use of nuclear materials for which the Contractor has accountability, the terms and conditions with respect to nuclear materials shall also identify who has the financial responsibilities, if any, regarding such items as losses, scrap recovery, product recovery, and disposal.

(End of Clause)

DOE-H-2041 SUSTAINABLE ACQUISITION UNDER DOE SERVICE CONTRACTS (OCT 2014)

Pursuant to Executive Orders 13423, Strengthening Federal Environmental, Energy and Transportation Management, and 13514, Federal Leadership in Environmental, Energy, and Economic Performance, the Department of Energy (DOE) is committed to managing its facilities in a manner that will promote the natural environment and protect the health and well-being of its Federal employees and contractor service providers. The Contractor shall use its best efforts to support DOE in meeting those commitments, including sustainable acquisition or environmentally preferable contracting which may involve several interacting initiatives, such as

Alternative Fueled Vehicles and Alternative Fuels;

Biobased Content Products (USDA Designated Products);

Energy Efficient Products;

Non-Ozone Depleting Alternative Products;

Recycled Content Products (EPA Designated Products); and

Water Efficient Products (EPA Water Sense Labeled Products).

The Contractor should become familiar with these information resources:

Recycled Products are described at <u>https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program</u>.

Biobased Products are described at https://www.biopreferred.gov/BioPreferred/.

Energy efficient products are described at <u>https://www.energystar.gov/products</u> for Energy Star products.

FEMP designated products are described at <u>https://www.energy.gov/eere/femp/energy-</u> efficient-products-and-energy-saving-technologies

Environmentally Preferable Computers are described at https://www.epeat.net.

Non-Ozone Depleting Alternative Products are described at <u>https://www.epa.gov/ozone-layer-protection</u>.

Water efficient plumbing fixtures are described at https://epa.gov/watersense.

If, while providing services at the DOE site, the Contractor's services necessitate the acquisition of any of the above types of products, it is expected that the Contractor will acquire the sustainable, environmentally preferable models unless the product is not available competitively within a reasonable time, at a reasonable price, is not life cycle cost efficient in the case of energy consuming products or does not meet reasonable performance standards. While there is no formal reporting, DOE prepares a sustainable acquisition annual report, and the Contractor may be asked by the Contracting Officer to provide information in support of DOE's report.

(End of Clause)

DOE-H-2042 Contractor Performance Commitments (OCT 2014)

(a) Per ACO's proposal dated 8/22/2022 did not include any performance commitments that are tied to fee criteria. Identified below in paragraphs (b) and (c) are performance commitments proposed by the Contractor. These performance commitments may be included in the performance criteria for earning fee in accordance with the clause FAR 52.216-10, Incentive Fee (JUN 2011). See attachment J-I for fee schedule (max and min)

(b) Basic Contract Periodha

[Contractor Performance Commitments to be accomplished during the basic contract period: PHASE 1 Completion of Cascade, Initial Cascade Operation, and Production of 20 kilograms (kg) UF₆ of HALEU followed by PHASE 2 which is the Ongoing Cascade Operation and Production of 900 kg UF₆ of HALEU minimum, Year 1(Phase 2)]

(c) Option Periods

[Ongoing Cascade Operation and Production of 900 kg UF₆ of HALEU minimum per year: Option Periods 1 through 3 encompassing Years 3-10 (Phase 3)]

(End of Clause)

DOE-H-2043 Assignment and Transfer of Contracts and Subcontracts (OCT 2014)

(a) Assignment of DOE Prime Contracts. During the period of performance of this contract, it may become necessary for the U.S. Department of Energy (DOE) to transfer and assign existing or future DOE prime contracts supporting site work to this contract. The Contractor shall accept the transfers and assignments of such contracts. Any recommendations and/or suggestions regarding individual transfers directed by DOE shall be submitted in writing to the Contracting Officer prior to the transfer or assignment.

(b) Transfer of Subcontracts. As the successor contractor, the Contractor agrees to accept the transfer of existing subcontracts as determined necessary by DOE for continuity of operations. The Contractor shall use its best efforts to negotiate changes to the assigned subcontracts incorporating mandatory flow-down provisions at no cost. If the subcontractor refuses to accept the changes or requests price adjustments, the Contractor will notify the Contracting Officer in writing. DOE reserves the right to direct the Contractor to transfer to DOE or another Contractor any subcontract awarded under this contract.

(End of Clause)

DOE-H-2044 MATERIAL SAFETY DATA SHEET AVAILABILITY (OCT 2014)

In implementation of the clause at FAR 52.223-3, Hazardous Material Identification and Material Safety Data, the Contractor shall obtain, review and maintain a Material Safety Data Sheet (MSDS) in a readily accessible manner for each hazardous material (or mixture containing a hazardous material) ordered, delivered, stored or used; and maintain an accurate inventory and history of use of hazardous materials at each use and storage location. The MSDS shall conform to the requirements of 29 CFR 1910.1200(g).

(End of Clause)

DOE-H-2045 Contractor Community Commitment (OCT 2014)

(a) The Contractor, in fulfilling its commitments pursuant to the clause at DEAR <u>970.5226-3</u>, Community Commitment, shall submit to DOE an annual plan for community commitment activities and report on program progress semi-annually.

(b) The Contractor's annual plan for community commitment activities will identify those meaningful actions and activities that it intends to implement within the surrounding counties and local municipalities. The Contractor may engage in any community actions or activities it determines meets the objectives of DOE's community commitment policy. Actions and activities in the areas listed below are representative of the areas in which the Contractor may choose to perform. However, the list is not all inclusive and is not intended to preclude the Contractor from initiating and performing other constructive community activities nor involvement in charitable endeavors it deems worthwhile.

(1) Regional educational outreach programs. The objectives of these programs include teacher enhancement, student support, curriculum enhancement, educational technology, public understanding, and providing the services of contractor employees to schools, colleges, and universities. Regional educational outreach programs could involve providing contractor employees the opportunity to improve their employment skills and opportunities by an educational assistance allowance, provision for outside training programs either during or outside regular work hours, or executive training programs for non-executive employees. This could also involve participating in activities that foster relationships with regional educational institutions and other institutions of higher learning or encouraging students to pursue science, engineering, and technology careers.

(2) Regional purchasing programs. The Contractor may conduct business alliances with regional vendors. These alliances may include training and mentoring programs to enable regional vendors to compete effectively for subcontracts and purchase orders and/or assistance with the development of business systems (accounting, budget, payroll, property, etc.) to enable regional vendors to meet the audit and reporting requirements of the Contractor and DOE. These alliances may also serve to encourage the formation of regional trade associations which will better enable regional businesses to satisfy the Contractor's needs.

The Contractor may coordinate and cooperate with the Chambers of Commerce, Small Business Development Centers, and like organizations, and make prospective regional vendors aware of any assistance that may be available from these entities. DOE encourages the use of regional vendors in fulfilling contract requirements.

(3) Community support. The Contractor may directly sponsor specific local community activities or sponsor individual employees to work with a specific local community activity. The Contractor may provide support and assistance to community service organizations. The Contractor may support strategic partnerships with professional and scientific organizations to enhance recruitment into all levels of its organization.

(c) The Contractor may use fee dollars to pay for its community commitment actions as it deems appropriate. All costs to be incurred by the Contractor for community commitment actions and activities are unallowable and non-reimbursable under the contract.

(d) The Contractor shall encourage its subcontractors, at all tiers, to participate in these activities.

(End of Clause)

DOE-H-2046 DIVERSITY PROGRAM (OCT 2014)

The Contractor shall develop and implement a diversity program consistent with and in support of the DOE's diversity program. A diversity plan covering the full period of performance (base and option periods) shall be submitted to the Contracting Officer for approval within 30 calendar days after the effective date of the contract. Once the diversity plan is approved by the Contracting Officer, the Contractor shall implement the diversity plan within 15 calendar days of its approval by the Contracting Officer.

The diversity plan shall address, at a minimum, the Contractor's approach to ensure an effective diversity program (including addressing applicable affirmative action and equal employment opportunity regulations) to include:

(1) a statement of the Contractor's policies and practices; and

(2) planned initiatives and activities which demonstrate a commitment to a diversity program, including recruitment strategies for hiring a diverse workforce.

The diversity plan shall also address, as a minimum, the Contractor's approach for promoting diversity through

(1) the Contractor's workforce;

- (2) educational outreach, including a mentor-protégé program;
- (3) stakeholder involvement and outreach;
- (4) subcontracting; and
- (5) economic development.

An annual diversity report shall be submitted pursuant to Section J. This report shall provide a list of accomplishments achieved, both internally and externally during the current reporting period, and projected initiatives during the next reporting period. The report shall also list any proposed changes to the diversity plan which shall be subject to the Contracting Officer's approval.

(End of Clause)

DOE-H-2047 ALT III Federal Holidays and Other Closures (JUL 2021) - Alternate III

(a) Designated Federal holidays. Federal employees observe the following Federal holidays:

- (1) New Year's Day;
- (2) Birthday of Martin Luther King, Jr.;
- (3) Washington's Birthday;
- (4) Memorial Day;
- (5) Juneteenth;
- (6) Independence Day;
- (7) Labor Day;
- (8) Columbus Day;
- (9) Veterans Day;
- (10) Thanksgiving Day; and
- (11) Christmas Day.

Generally, Federal holidays that fall on Saturday are observed on the preceding Friday; and holidays that fall on Sunday are observed on the following Monday. The exact calendar day and/or date on which any of the listed holidays are observed may change year to year.

(b) Other Federal Holidays. In addition to the holidays specified above in paragraph (a), Federal employees may observe other holidays designated by Federal Statute, Executive Order, or Presidential Proclamation as a one-time, day-off such as Inauguration Day for the President of the United States.

(c) Unscheduled closures. Occasionally, an individual Federally-owned or -controlled site or facility will be closed or have an early closure on a normal workday for other reasons such as inclement weather or facility conditions. If an unplanned closure occurs, the Contractor will be notified as soon as possible after the determination that the Federally-owned or -controlled site or facility will be closed.

(d) The Contractor shall provide the services required by the contract at Federally-owned or - controlled sites or facilities on all regularly scheduled Federal workdays and other days as may be required by the contract. The Contractor shall not provide the services required by the contract on those days, or portions thereof, specified in paragraphs (a), (b) and (c), except as required under paragraph (e). Accordingly, the Contractor's employees, whose regular duty station in performance of this contract is a Federally-owned or -controlled site or facility, shall

not be granted access to the facility during those times specified in paragraphs (a), (b) and (c), unless required by paragraph (e) below.

(e) There may be times that the Contractor is required to perform the services required by the contract on a Federal holiday or other closure times. In the event that such performance is required, the Contracting Officer will notify the Contractor, in writing, and specify the extent to which performance of the contract will be required. The Contractor shall provide sufficient personnel to perform the contractually-required work on those days, as directed by the Contracting Officer.

(f) In accordance with the payment and other applicable clauses of the contract, the Government will not pay the Contractor for its employees' regularly scheduled work hours not actually provided directly in performance of the contract due to an unscheduled closure as contemplated in paragraphs (b) and (c) above.

(g) In accordance with the payment and other applicable clauses of the contract, the Government will not pay the Contractor for its employees' regularly scheduled work hours not actually provided directly in performance of the contract due to an unscheduled closure as contemplated in paragraphs (b) and (c) above unless the employees are covered by a labor or bargaining unit agreement that requires the Contractor to pay its employees for such work hours.

(End of Clause)

DOE-H-2048 PUBLIC AFFAIRS - CONTRACTOR RELEASES OF INFORMATION (OCT 2014)

In implementation of the clause at DEAR 952.204-75, Public Affairs, all communications or releases of information to the public, the media, or Members of Congress prepared by the Contractor related to work performed under the contract shall be reviewed and approved by DOE prior to issuance. Therefore, the Contractor shall, at least 5 calendar days prior to the planned issue date, submit a draft copy to the Contracting Officer of any planned communications or releases of information to the public, the media, or Members of Congress related to work performed under this contract. The Contracting Officer will obtain necessary reviews and clearances and provide the Contractor with the results of such reviews prior to the planned issue date.

(End of Clause)

DOE-H-2049 INSURANCE REQUIREMENTS (OCT 2014)

In accordance with the clause FAR 52.228-5, Insurance - Work on a Government Installation, the following types and minimum amounts of insurance shall be maintained by the Contractor:

Workers' compensation - Amount in accordance with applicable Federal and State workers' compensation and occupational disease statutes.

Employer's liability - \$100,000.00 (except in States with exclusive or monopolistic funds that do not permit worker's compensation to be written by private carriers).

Comprehensive bodily injury liability - \$500,000.00.

Property damage liability - Is required by the lease agreement. The Lease agreement will be negotiated outside of this Contract.

Comprehensive automobile bodily injury liability - \$200,000.00 per person and \$500,000.00 per occurrence.

Comprehensive automobile property damage - \$20,000.00 per occurrence.

The Contractor shall provide evidence of such insurance, if requested by the Contracting Officer; and the Contracting Officer may require such evidence to be provided prior to the commencement of work under the contract.

(End of Clause)

DOE-H-2050 INCORPORATION OF SMALL BUSINESS SUBCONTRACTING PLAN -ALTERNATE I (OCT 2014)

(a) In accordance with the clause at FAR <u>52.219-9</u>, Small Business Subcontracting Plan, the master subcontracting plan contained in Section J, Appendix J-G is hereby incorporated into and made a part of this contract.

(b) Prior to the beginning of each Government fiscal year, or other period as required by the Contracting Officer, the Contractor shall submit an individual subcontracting plan containing the annual subcontracting goals required by the clause at FAR <u>52.219-9</u>, Small Business Subcontracting Plan, and any changes to the master subcontracting plan. The annual, individual subcontracting plan and changes to the master plan are subject to the Contracting Officer's approval; and the approved plan is incorporated by reference into the contract.

(End of Clause)

DOE-H-2052 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF THE OFFEROR (OCT 2014)

The following additional contractor Representations, Certifications and Other Statements are hereby incorporated into the contract by reference:

Section K - Representations, Certification, and Other Statements of Offerors

(End of Clause)

DOE-H-2053 WORKER SAFETY AND HEALTH PROGRAM IN ACCORDANCE WITH 10 CFR 851 (OCT 2014)

- a) The Contractor shall comply with all applicable safety and health requirements set forth in 10 CFR 851, Worker Safety and Health Program, and any applicable DOE Directives incorporated into the contract. The Contractor shall develop, implement, and maintain a written Worker Safety and Health Program (WSHP) which shall describe the Contractor's method for complying with and implementing the applicable requirements of 10 CFR 851. The WSHP shall be submitted to and approved by DOE. The approved WSHP must be implemented prior to the start of work. In performance of the work, the Contractor shall provide a safe and healthful workplace and must comply with its approved WSHP and all applicable federal and state environment, health, and safety regulations.
- b) The Contractor shall take all reasonable precautions to protect the environment, health, and safety of its employees, DOE personnel, and members of the public. When more than one contractor works in a shared workplace, the Contractor shall coordinate with the other contractors to ensure roles, responsibilities, and worker safety and health provisions are clearly delineated. The Contractor shall participate in all emergency response drills and exercises related to the Contractor's work and interface with other DOE contractors
- c) The Contractor shall take all necessary and reasonable steps to minimize the impact of its work on DOE functions and employees, and immediately report all job-related injuries and/or illnesses which occur in any DOE facility to the Contracting Officer Representative (COR). Upon request, the Contractor shall provide to the COR a copy of occupational safety and health self-assessments and/or inspections of work sites for job hazards for work performed at DOE facilities.
- d) The Contracting Officer may notify the Contractor, in writing, of any noncompliance with the terms of this clause, and the corrective action(s) to be taken. After receipt of such notice, the Contractor shall immediately take such corrective action(s).
- e) In the event that the Contractor fails to comply with the terms and conditions of this clause, the Contracting Officer may, without prejudice to any other legal or contractual rights, issue a stop-work order halting all or any part of the work. Thereafter, the Contracting Officer may, at his or her discretion, cancel the stop-work order so that the performance of work may be resumed. The Contractor shall not be entitled to an equitable adjustment of the contract amount or extension of the performance schedule due to any stop-work order issued under this clause.
- f) The Contractor shall flow down the requirements of this clause to all subcontracts at any tier.
- g) In the event of a conflict between the requirements of this clause and 10 CFR 851, the requirements of 10 CFR 851 shall take precedence

(End of Clause)

DOE-H-2055 GOVERNMENT FURNISHED PROPERTY (OCT 2014)

In accordance with this contract, the Government will provide the property listed in Section J,

Attachment J-B Government furnished information is listed in Section J.

(End of Clause)

DOE-H-2056 ANNUAL INDIRECT BILLING RATES (OCT 2014)

Pursuant to the clause at FAR 52.216-7, Allowable Cost and Payment, indirect billing rates, revised billing rates (as necessary), and final indirect cost rate agreements must be established between the Contractor and the Department of Energy (DOE) for each of the Contractor's fiscal years for the life of the cost reimbursement type contract. These indirect rate agreements allow the Contractor to recover indirect expenses incurred during a fiscal year for which final indirect rates have not been established.

Indirect billing and revised indirect billing rate proposals must represent the Contractor's best estimate of the anticipated indirect expenses to be incurred and the estimated allocation base for the current fiscal year in accordance with its approved accounting system. Revised billing rates allow the adjustment of the approved billing rates, based upon updated information, in order to prevent significant over or under billings.

The establishment of rates for the reimbursement of independent research and development/bid and proposal costs shall be in accordance with the provisions of FAR Subpart 42.7, "Indirect Cost Rates," FAR 31.205-18, "Independent Research and Development and Bid and Proposal Costs," and DEAR 931.205-18, "Independent Research and Development (IR&D) and Bid and Proposal (B&P)Costs."

Paragraph \in below, identifies the requirements and process to be followed by the Contractor in establishing indirect rates for contracts when DOE is the Cognizant Federal Agency (CFA) and when DOE is not the CFA. Specific instructions for submittal of indirect rate proposals to agencies other than DOE must be obtained from the agency involved.

Requirements whether or not DOE is the CFA.

Allowability of costs and acceptability of cost allocation methods shall be determined in accordance with the applicable sections of FAR Part 30, Cost Accounting Standards, FAR Part 31 and DEAR 931, Contract Cost Principles and Procedures, in effect as of the date of this contract.

Pending settlement of the final indirect expense rates for any period, the Contractor shall be reimbursed at billing rates approved by the CFA subject to acknowledgment by the cognizant DOE Contracting Officer. These billing rates are subject to appropriate adjustments when revised by mutual agreement or when the final indirect rates are settled, either by mutual agreement or unilateral determination by the CFA subject to acknowledgment by the cognizant DOE Contracting Officer.

The Contractor shall continue to use the latest DOE or CFA approved billing rate(s) which have been acknowledged by the cognizant DOE Contracting Officer until those rates are superseded

by establishment of final rates or more current billing rates. In those cases where current billing rates have not been established, the latest approved final rates shall be used for invoicing, unless it is determined by the cognizant DOE Contracting Officer that use of said rates would not provide for an equitable recovery of indirect costs. In those instances, the cognizant DOE Contracting Officer will take whatever steps are necessary to establish rates that DOE considers to be reasonable for billing purposes.

(End of Clause)

DOE-H-2057 DEPARTMENT OF LABOR WAGE DETERMINATIONS (OCT 2014)

The Contractor's performance under this contract shall comply with the requirements of the U.S. Department of Labor Wage Determination(s) located in Section J, Attachment J-E and the clause at FAR 52.222-42, Statement of Equivalent Rates for Federal Hires.

(End of Clause)

DOE-H-2058 DESIGNATION AND CONSENT OF MAJOR OR CRITICAL SUBCONTRACTS (OCT 2014)

(a) In accordance with the clause at FAR 52.244-2(d), Subcontracts, the following subcontracts have been determined to be major or critical subcontracts:

Paschal Solutions, Inc., Longenecker & Associates, Inc., DKM Construction, Inc., Geiger Brothers Mechanical Contractors, Inc., United States Enrichment Corporation (USEC) (affiliate under Centrus Energy umbrella)

USEC will provide LEU feed material to ACO under contract EC-SC01-22MI03245.

(b) In the event that the Contractor plans either to award or use a new major or critical subcontract or replace an existing, approved major or critical subcontract identified in paragraph(a) above, the Contractor shall provide advance notification to, and obtain consent from, the Contracting Officer, notwithstanding the consent requirements under any approved purchasing system or any other terms or conditions of the contract. Consent to these subcontracts is retained by the Contracting Officer and will not be delegated.

(End of Clause)

DOE-H-2059 PRESERVATION OF ANTIQUITIES, WILDLIFE AND LAND AREAS (OCT 2014)

Federal Law provides for the protection of antiquities located on land owned or controlled by the Government. Antiquities include Indian graves or campsites, relics and artifacts. The Contractor shall control the movements of its personnel and its subcontractor's personnel at the job site to

ensure that any existing antiquities discovered thereon will not be disturbed or destroyed by such personnel. It shall be the duty of the Contractor to report to the Contracting Officer the existence of any antiquities so discovered.

The Contractor shall also preserve all vegetation (including wetlands) except where such Vegetation must be removed for survey or construction purposes. Any removal of vegetation shall be in accordance with the terms of applicable habitat mitigation plans and permits. Furthermore, all wildlife must be protected consistent with programs approved by the Contacting Officer.

Except as required by or specifically provided for in other provisions of this contract, the Contractor shall not perform any excavations, earth borrow, preparation of borrow areas, or otherwise disturb the surface soils within the job site without the prior approval of DOE or its designee.

(End of Clause)

DOE-H-2061 CHANGE ORDER ACCOUNTING (OCT 2014)

The Contractor shall maintain change order accounting whenever the estimated cost of a change or series of related changes exceeds \$100,000. The Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change. The Contractor shall maintain such accounts until the parties agree to an equitable adjustment for the changes ordered by the Contracting Officer or the matter is conclusively disposed of in accordance with the Disputes clause.

(End of Clause)

DOE-H-2062 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (OCT 2014)

Pursuant to the clause at FAR 52.204-9, Personal Identity Verification of Contractor Personnel, the Contractor shall comply with applicable DOE regulations, policies and directives regarding identification, credential and access management for its personnel who have routine physical access to DOE-owned or -controlled sites or facilities or routine access to DOE information systems.

The Contractor shall comply with the requirements of those DOE directives, or parts thereof, identified below in implementing the requirements of this clause. The Contracting Officer may, at any time, unilaterally amend this clause in order to add, modify or delete specific requirements.

(End of Clause)

DOE-H-2063 CONFIDENTIALITY OF INFORMATION (OCT 2014)

(a) Performance of work under this contract may result in the Contractor having access to confidential information via written or electronic documents, or by virtue of having access to DOE's electronic or other systems. Such confidential information includes personally identifiable information (such as social security account numbers) or proprietary business, technical, or financial information belonging to the Government or other companies or organizations. The Contractor shall treat this information as confidential and agrees not to use this information for its own purposes, or to disclose the information to third parties, unless specifically authorized to do so in writing by the Contracting Officer.

(b) The restrictions set out in paragraph(a) above, however, do not apply to -

Information which, at the time of receipt by the Contractor, is in the public domain;
 Information which, subsequent to receipt by the Contractor, becomes part of the public domain through no fault or action of the Contractor;

(3) Information which the Contractor can demonstrate was previously in its possession and was not acquired directly or indirectly as a result of access obtained by performing work under this contract;

(4) Information which the Contractor can demonstrate was received from a third party who did not require the Contractor to hold it in confidence; or

(5) Information which is subject to release under applicable law.

(c)The Contractor shall obtain a written agreement from each of its employees who are granted access to, or furnished with, confidential information, whereby the employee agrees that he or she will not discuss, divulge, or disclose any such information to any person or entity except those persons within the Contractor's organization directly concerned with the performance of the contract. The agreement shall be in a form satisfactory to the Contracting Officer.

(d) Upon request of the Contracting Officer, the Contractor agrees to execute an agreement with any party which provides confidential information to the Contractor pursuant to this contract, or whose facilities the Contractor is given access to that restrict use and disclosure of confidential information obtained by the Contractor. A copy of the agreement, which shall include all material aspects of this clause, shall be provided to the Contracting Officer for approval.

(e) Upon request of the Contracting Officer, the Contractor shall supply the Government with reports itemizing the confidential or proprietary information it receives under this contract and identify the source (company, companies, or other organizations) of the information.

(f) The Contractor agrees to flow down this clause to all subcontracts issued under this contract.

(End of Clause)

DOE-H-2064 – USE OF INFORMATION TECHNOLOGY EQUIPMENT, SOFTWARE, AND THIRD-PARTY SERVICES (OCT 2014)

(a) Acquisition of Information Technology. The Government may provide information technology equipment, existing computer software (as described in 48 CFR <u>27.405</u>), and third-party services for the Contractor's use in the performance of the contract; and the Contracting Officer may provide guidance to the Contractor regarding usage of such equipment, software, and third-party services. The Contractor is not authorized to acquire (lease or purchase) information technology equipment, existing computer software, or third-party services at the Government's direct expense without prior written approval of the Contracting Officer. Should the Contractor propose to acquire information technology equipment, existing computer software, or third-party services, the Contractor shall provide to the Contracting Officer justification for the need, including a complete description of the equipment, software or third-party service to be acquired, and a lease versus purchase analysis if appropriate.

(b) The Contractor shall immediately provide written notice to the Contracting Officer's Representative when an employee of the Contractor no longer requires access to the Government information technology systems.

(c) The Contractor shall not violate any software licensing agreement, or cause the Government to violate any licensing agreement.

(d) The Contractor agrees that its employees will not use, copy, disclose, modify, or reverse engineer existing computer software provided to it by the Government except as permitted by the license agreement or any other terms and conditions under which the software is made available to the Contractor.

(e) If at any time during the performance of this contract the Contractor has reason to believe that its utilization of Government furnished existing computer software may involve or result in a violation of the software licensing agreement, the Contractor shall promptly notify the Contracting Officer, in writing, of the pertinent facts and circumstances. Pending direction from the Contracting Officer, the Contractor shall continue performance of the work required under this contract without utilizing the software.

(f) The Contractor agrees to include the requirements of this clause in all subcontracts at any tier.

(End of Clause)

DOE-H-2065 REPORTING OF FRAUD, WASTE, ABUSE, CORRUPTION, OR MISMANAGEMENT (OCT 2014)

The Contractor shall comply with the following:

Notify employees annually of their duty to report allegations of fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement relating to DOE programs, operations, facilities,

contracts, or information technology systems to an appropriate authority (e.g., OIG, other law enforcement, supervisor, employee concerns office, security officials). Examples of violations to be reported include, but are not limited to, allegations of false statements; false claims; bribery; kickbacks; fraud; DOE environment, safety, and health violations; theft; computer crimes; contractor mischarging; conflicts of interest; and conspiracy to commit any of these acts. Contractors must also ensure that their employees are aware that they may always report incidents or information directly to the Office of Inspector General (OIG).

Display the OIG hotline telephone number in buildings and common areas such as cafeterias, public telephone areas, official bulletin boards, reception rooms, and building lobbies.

Publish the OIG hotline telephone number in telephone books and newsletters under the Contractor's cognizance.

Ensure that its employees report to the OIG within a reasonable period of time, but not later than 24 hours after discovery, all alleged violations of law, regulations, or policy, including incidents of fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement, that have been referred to Federal, State, or local law enforcement entities.

Ensure that its employees report to the OIG any allegations of reprisals taken against employees who have reported to the OIG fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement.

Ensure that its managers do not retaliate against DOE contractor employees who report fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement.

Ensure that all their employees understand that they must-

Comply with requests for interviews and briefings and must provide affidavits or sworn statements, if so requested by an employee of the OIG so designated to take affidavits or sworn statements;

Not impede or hinder another employee's cooperation with the OIG; and

Not take reprisals against DOE contractor employees who cooperate with or disclose information to the OIG or other lawful appropriate authority.

Seek more specific guidance concerning reporting of fraud, waste, abuse, corruption, or mismanagement, and cooperation with the Inspector General, in DOE directives.

(End of Clause)

DOE-H-2066 – SAFEGUARDS AND SECURITY PROGRAM (OCT 2014)

- (a) Pursuant to the clause at DEAR <u>952.204-2</u>, Security, the Contractor agrees to comply with all security regulations and contract requirements as incorporated into the contract.
- (b) The Contractor shall comply with the requirements of those DOE directives, or parts thereof, identified below in implementing the requirements of this clause. The Contracting Officer, may, at any time, unilaterally amend this clause in order to add, modify or delete specific requirements.

(End of Clause)

DOE-H-2067 – GOVERNMENT FURNISHED ON-SITE FACILITIES OR SERVICES (APR 2018)

(a) Pursuant to the Government Property clause of this contract, the Government shall, during the period of performance of this contract, furnish to the Contractor office space for approximately **[115]** contractor personnel. Additional office space may be provided by the Government as necessary for contract performance. The Contractor shall not acquire or lease any office space without the prior written approval of the Contracting Officer.

(b) As necessary during contract performance, the Government shall provide to the Contractor, for that office space described in paragraph (a) above:

See Section J.

(End of Clause)

DOE-H-2068 CONFERENCE MANAGEMENT (OCT 2014)

The Contractor agrees that:

The contractor shall ensure that contractor-sponsored conferences reflect the DOE/NNSA's commitment to fiscal responsibility, appropriate stewardship of taxpayer funds and support the mission of DOE/NNSA as well as other sponsors of work. In addition, the contractor will ensure conferences do not include any activities that create the appearance of taxpayer funds being used in a questionable manner.

For the purposes of this clause, "conference" is defined in Attachment 2 to the Deputy Secretary's memorandum of August 17, 2015, entitled "Updated Guidance on Conference-Related Activities and Spending."

Contractor-sponsored conferences include those events that meet the conference definition and either or both of the following:

The contractor provides funding to plan, promote, or implement an event, except in instances where a contractor:

covers participation costs in a conference for specified individuals (e.g., students, retirees, speakers, etc.) in a total amount not to exceed \$10,000 (by individual contractor for a specific conference) or

purchases goods or services from the conference planners (e.g., attendee registration fees, renting booth space).

The contractor authorizes use of its official seal, or other seals/logos/ trademarks to promote a conference. Exceptions include non-M&O contractors who use their seal to promote a conference that is unrelated to their DOE contract(s) (e.g., if a DOE IT contractor were to host a general conference on cyber security).

Attending a conference, giving a speech or serving as an honorary chairperson does not connote sponsorship.

The contactor will provide information on conferences they plan to sponsor with Expected costs exceeding \$100,000 in the Department's Conference Management Tool, including:

Conference title, description, and date

Location and venue

Description of any unusual expenses (e.g., promotional items)

Description of contracting procedures used (e.g., competition for space/support)

Costs for space, food/beverages, audio visual, travel/per diem, registration costs, recovered costs (e.g., through exhibit fees)

Number of attendees

The contractor will not expend funds on the proposed contractor-sponsored conferences with expenditures estimated to exceed \$100,000 until notified of approval by the Contracting Officer.

For DOE-sponsored conferences, the contractor will not expend funds on the proposed conference until notified by the Contracting Officer.

DOE-sponsored conferences include events that meet the definition of a conference and where the Department provides funding to plan, promote, or implement the conference and/or authorizes use of the official DOE seal, or other seals/logos/trademarks to promote a conference. Exceptions include instances where DOE:

covers participation costs in a conference for specified individuals (e.g., students, retirees, speakers, etc.) in a total amount not to exceed \$10,000 (by individual contractor for a specific

conference) or

purchases goods or services from the conference planners (e.g., attendee registration fees; renting booth space); or provide funding to the conference planners through Federal grants.

Attending a conference, giving a speech, or serving as an honorary chairperson does not connote sponsorship.

The contractor will provide cost and attendance information on their participation in all DOEsponsored conference in the DOE Conference Management Tool.

For non-contractor sponsored conferences, the contractor shall develop and implement a process to ensure costs related to conferences are allowable, allocable, reasonable, and further the mission of DOE/NNSA. This process must at a minimum:

Track all conference expenses.

Require the Laboratory Director (or equivalent) or Chief Operating Officer approve a single conference with net costs to the contractor of \$100,000 or greater.

(i) Contractors are not required to enter information on non-sponsored conferences in DOE'S Conference Management Tool. Once funds have been expended on a non-sponsored conference, contractors may not authorize the use of their trademarks/logos for the conference, provide the conference planners with more than \$10,000 for specified individuals to participate in the conference, or provide any other sponsorship funding for the conference. If a contractor does so, its expenditures for the conference may be deemed unallowable.

(End of Clause)

DOE-H-2069 - PAYMENTS FOR DOMESTIC EXTENDED PERSONNEL ASSIGNMENTS (OCT 2014)

(a) Definition. For purposes of this clause, "domestic extended personnel assignments" are defined as any assignment of contractor personnel to a domestic location different than their permanent duty station for a period expected to exceed 30 consecutive calendar days.

(b) For domestic extended personnel assignments, the Contractor shall be reimbursed the lesser of temporary relocation costs (Temporary Change of Station allowances as described in the Federal Travel Regulation at §302-3.400 - §302-3.429) or a reduced per diem (Extended Travel Duty) in accordance with the allowable cost provisions of the contract and the following:

(1) When a reduced per diem method (Extended Travel Duty) is utilized, the allowances are as follows:

(i) Lodging. For the first 60 days and last 30 days of the assignment, the Government will reimburse costs associated with lodging at the lesser of actual cost or 100% of the Federal per diem rate at the assignment location. The intervening days lodging will be reimbursed at the lesser of actual cost or 55% of Federal per diem.

(ii) Meals and Incidental Expenses. For the first 30 days and last 30 days of the assignment, the Government will reimburse costs associated with meals and incidental expenses (M&IE) at the lesser of actual cost or 100% of the Federal per diem rate at the assignment location. The intervening days M&IE will be reimbursed at the lesser of actual cost or 55% of Federal per diem.

(2) The Government will not reimburse any costs associated with per diem (except for en-route travel) unless the contractor employee maintains a residence at the permanent duty station.

(3) The Government will not reimburse costs associated with salary premiums, per diem, lodging, or other subsidies for contractor employees on domestic extended personnel assignments after 3 years (except for the reimbursements described above during the last 30 days of the assignment).

(4) If an assignment has breaks within a three year period, the calculation of the total length of the assignment will be as follows: If the break between assignments is less than 12 months, the Government will consider the assignment continuous for purposes of the three year clock. For instance, if a contractor employee completes a 2 year assignment at location A and returns to his/her permanent duty station for 12 months, a subsequent new 2 year assignment back to location A will restart the 3 year clock. The assignments will be considered two separate 2 year assignments. On the other hand, if in the previous example the employee's return to his/her permanent duty station was 6 months, the Government would consider the second assignment to be a continuation of the first for purposes of the 3 year rule.

(5) The Government will not reimburse costs associated with salary premiums that exceed 10%.

(6) The Contractor shall include the substance of this clause in all subcontracts in which travel will be reimbursed at cost.

(End of Clause)

DOE-H-2070 KEY PERSONNEL (OCT 2014) - ALTERNATE I (OCT 2014)

(a) Pursuant to the clause at DEAR <u>952.215-70</u>, Key Personnel, the key personnel for this contract are identified below:

[Jonathan Corrado, Project Manager Mathew Snider, Operations Manager]

In addition to the requirement for the Contracting Officer's approval before removing, replacing, or diverting any of the listed key personnel, the Contracting Officer's approval is also required for any change to the position assignment of a current key person.

(b) Key personnel team requirements. The Contracting Officer and designated Contracting Officer's Representative(s) shall have direct access to the key personnel assigned to the contract. All key personnel shall be permanently assigned to their respective positions.

(c) Definitions. In addition to the definitions contained in the clause at DEAR <u>952.215-70</u>, the following shall apply:

(1) The term "reasonably in advance" is defined as 30 calendar days.

(2) Key personnel are considered "managerial personnel" under the clause at DEAR 952.231-71, Insurance - Litigation and Claims.

(d) Contract fee reductions for changes to key personnel.

(1) Notwithstanding the approval by the Contracting Officer, any time the **Project Manager** is removed, replaced, or diverted within two (2) years of being placed in the position, the earned fee under the contract maybe permanently reduced by **\$100 per kg** for each and every such occurrence.

(2) Notwithstanding the approval by the Contracting Officer, any time <u>a key person</u> <u>other than the</u> Project Manager is removed, replaced, or diverted within two (2) years of being placed in the position, the earned fee may be permanently reduced by \$100 per kg for each and every such occurrence.

(3) The Contractor may request in writing that the Contracting Officer consider waiving all or part of a reduction in earned fee. Such written request shall include the Contractor's basis for the removal, replacement, or diversion of any key personnel. The Contracting Officer shall have the unilateral discretion to make the determination to waive all or part of the reduction in earned fee.

(End of Clause)

DOE-H-2071 DEPARTMENT OF ENERGY DIRECTIVES (OCT 2014)

In performing work under this contract, the Contractor shall comply with the requirements of those Department of Energy (DOE) directives, or parts thereof listed in Section J or identified elsewhere in the contract.

The Contracting Officer may, at any time, unilaterally amend this clause, or other clauses which incorporate DOE directives, in order to add, modify or delete specific requirements. Prior to revising the listing of directives, the Contracting Officer shall notify the Contractor in writing of the Department's intent to revise the list, and the Contractor shall be provided with the opportunity to assess the effect of the Contractor's compliance with the revised list on contract cost and funding, technical performance, and schedule, and identify any potential inconsistencies between the revised list and the other terms and conditions of the contract. Within 30 days after receipt of the Contracting Officer's notice, the Contractor shall advise the Contracting Officer in writing of the potential impact of the Contractor's compliance with the revised list. Based on the information provided by the Contractor and any other information available, the Contracting Officer shall decide whether to revise the listing of directives and so advise the Contractor not

later than 30 days prior to the effective date of the revision.

Notwithstanding the process described in paragraph(b), the Contracting Officer may direct the Contractor to immediately begin compliance with the requirements of any directive.

The Contractor and the Contracting Officer shall identify and, if appropriate, agree to any changes to other contract terms and conditions, including cost and schedule, associated with the revision pursuant to the clause of this contract at FAR - 52.243-2A*1 Changes - Cost-Reimbursement. (AUG 1987) - Alternate I (APR 1984).

Regardless of the performer of the work, the Contractor is responsible for compliance with the requirements of this clause. The Contractor shall include this clause in all subcontracts to the extent necessary to ensure the Contractor's compliance with these requirements.

(End of Clause)

DOE-H-2073 RISK MANAGEMENT AND INSURANCE PROGRAMS (DEC 2014)

Contractor officials shall ensure that the requirements set forth below are applied in the establishment and administration of DOE-funded prime cost reimbursement contracts for management and operation of DOE facilities and other designated long-lived onsite contracts for which the contractor has established separate operating business units.

1. BASIC REQUIREMENTS

(a) Maintain commercial insurance or a self-insured program, (i.e., any insurance policy or coverage that protects the contractor from the risk of legal liability for adverse actions associated with its operation, including malpractice, injury, or negligence) as required by the terms of the contract. Types of insurance include automobile, general liability, and other third party liability insurance. Other forms of coverage must be justified as necessary in the operation of the Department facility and/or the performance of the contract, and approved by the DOE.

(b) Contractors shall not purchase insurance to cover public liability for nuclear incidents without DOE authorization (See DEAR <u>970.5070</u>, Indemnification, and DEAR <u>950.70</u>, Nuclear Indemnification of DOE Contractors).

(c) Demonstrate that insurance programs and costs comply with the cost limitations and exclusions at FAR <u>28.307</u>, Insurance Under Cost Reimbursement Contracts, FAR <u>31.205-19</u>, Insurance and Indemnification, DEAR <u>952.231-71</u> Insurance-Litigation and Claims, and DEAR <u>970.5228-1</u>, Insurance-Litigation and Claims.

(d) Demonstrate that the insurance program is being conducted in the government's best interest and at reasonable cost.

(e) The contractor shall submit copies of all insurance policies or insurance arrangements to the Contracting Officer no later than 30 days after the purchase date.

(f) When purchasing commercial insurance, the contractor shall use a competitive process to ensure costs are reasonable.

(g) Ensure self-insurance programs include the following elements:

(1) Compliance with criteria set forth in FAR <u>28.308</u>, Self-Insurance. Approval of selfinsurance is predicated upon submission of verifiable proof that the self-insurance charge does not exceed the cost of purchased insurance. This includes hybrid plans (i.e., commercially purchased insurance with self-insured retention (SIR) such as large deductible, matching deductible, retrospective rating cash flow plans, and other plans where insurance reserves are under the control of the insured). The SIR components of such plans are self-insurance and are subject to the approval and submission requirements of FAR <u>28.308</u>, as applicable.

(2) Demonstration of full compliance with applicable state and federal regulations and Related professional administration necessary for participation in alternative insurance programs.

(3) Safeguards to ensure third party claims and claims settlements are processed in accordance with approved procedures.

(4) Accounting of self-insurance charges.

(5) Accrual of self-insurance reserve. The Contracting Officer's approval is required and predicated upon the following:

(i) The claims reserve shall be held in a special fund or interest bearing account.

(ii) Submission of a formal written statement to the Contracting Officer stating that use of the reserve is exclusively for the payment of insurance claims and losses, and that DOE shall receive its equitable share of any excess funds or reserve.

(iii) Annual accounting and justification as to the reasonableness of the claims reserve submitted for Contracting Officer's review.

(iv) Claim reserves, not payable within the year the loss occurred, are discounted to present value based on the prevailing Treasury rate.

(h) Separately identify and account for interest cost on a Letter of Credit used to guarantee selfinsured retention, as an unallowable cost and omitted from charges to the DOE contract.

(i) Comply with the Contracting Officer's written direction for ensuring the continuation of insurance coverage and settlement of incurred and/or open claims and payments of premiums owed or owing to the insurer for prior DOE contractors.

2. PLAN EXPERIENCE REPORTING. The Contractor shall:

(a) provide the Contracting Officer with annual experience reports for each type of insurance (e.g., automobile and general liability), listing the following for each category:

- (1) The amount paid for each claim.
- (2) The amount reserved for each claim.
- (3) The direct expenses related to each claim.
- (4) A summary for the year showing total number of claims.
- (5) A total amount for claims paid.
- (6) A total amount reserved for claims.
- (7) The total amount of direct expenses.

(b) provide the Contracting Officer with an annual report of insurance costs and/or selfinsurance charges. When applicable, separately identify total policy expenses (e.g., commissions, premiums, and costs for claims servicing) and major claims during the year, including those expected to become major claims (e.g., those claims valued at \$100,000 or greater).

(c) provide additional claim financial experience data as may be requested on a case-by-case basis.

3. TERMINATING OPERATIONS. The Contractor shall:

(a) ensure protection of the government's interest through proper recording of cancellation credits due to policy terminations and/or experience rating.

(b) identify and provide continuing insurance policy administration and management requirements to a successor, other DOE contractor, or as specified by the Contracting Officer.

(c) reach agreement with DOE on the handling and settlement of self-insurance claims incurred but not reported at the time of contract termination; otherwise, the contractor shall retain this liability.

4. SUCCESSOR CONTRACTOR OR INSURANCE POLICY CANCELLATION. The Contractor shall:

(a) obtain the written approval of the Contracting Officer for any change in program direction; and

(b) ensure insurance coverage replacement is maintained as required and/or approved by the Contracting Officer.

(End of Clause)

DOE-H-2075 PROHIBITION ON FUNDING FOR CERTAIN NONDISCLOSURE AGREEMENTS (OCT 2014)

The Contractor agrees that:

No cost associated with implementation or enforcement of nondisclosure policies, forms or agreements shall be allowable under this contract if such policies, forms or agreements do not contain the following provisions: "These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to:

classified information,

communications to Congress,

the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or

any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling."

The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

Notwithstanding the provisions of paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

(End of Clause)

DOE-H-2076 LOBBYING RESTRICTIONS (NOV 2018)

In accordance with 18 U.S.C. § 1913, the Contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress. This restriction is in addition to those prescribed elsewhere in statute and regulation.

(End of Clause)

DOE-H-2077 DEPARTMENT OF ENERGY TRAINING INSTITUTE – OCCUPATIONAL HEALTH, SAFETY, AND EMERGENCY RESPONSE (JAN 2017)

The Contractor shall utilize the Department of Energy (DOE) Training Institute (DTI) resources to the maximum extent practical for occupational, health, safety, and emergency response training. The Contractor, as applicable, shall use DTI by utilizing the reciprocity program, instructor-certification, mobile training teams, and use of common core curriculum as applicable.

Reciprocity: The DTI Training Reciprocity program evaluates and certifies training programs and core content against DOE requirements, establishing a basis for consistent training. Reciprocity reduces redundant training to improve employee mobility and project mobilization, saving time and resources. Reference DOE Policy 364.1.

Common Core Curriculum: Courses in the Common Core Training Program are developed and maintained by DTI instructional designers and subject matter experts. These courses are available enterprise-wide for delivery by DTI-certified instructors. Common Core Training eliminates duplicative course development and maintenance activities while providing maximum flexibility for delivery.

Instructor-Certification: The DTI Instructor Certification Program recognizes subject matter experts and experienced trainers who are qualified to deliver common core courses across the DOE enterprise. The Contractor selects instructors to be certified by DTI.

Mobile Training Teams: Mobile Training Teams are available to DOE locations who do not maintain the capability to deliver a specific course. Courses are delivered by certified DTI instructors who are subject matter experts in the topical area.

DTI course offerings, information on becoming a certified DTI trainer, enrollment, and contact information can be found on <u>https://ntc.doe.gov/</u>.

DTI training shall be considered common core fundamental material. Contractors are expected to provide gap training needed to address site specifics identified through their approved Integrated Safety Management (ISM) Program and associated program plans required by existing DOE requirements. Gap training shall not repeat fundamental training core content.

DTI training is funded by DOE with no cost to the Contractors.

The Contractor shall first consider DTI for all applicable training needs and only obtain such

training outside of DTI after written approval of the Contracting Officer (CO) following the Contractor's written request containing the following:

rationale describing in detail why DTI provided material, including contractor supplemented site specific material, is insufficient,

rationale supporting the increased cost, scope, and schedule of maintaining a local course and capability for training instruction proposed in place of DTI training, and

rationale as to why the loss of standardization DOE is seeking by using alternative materials is of value to the DOE. Prior to requesting CO approval, the contractor shall complete the course request form at <u>https://ntc.doe.gov/</u>. DTI will respond within 10 working days on the availability of DTI course materials that might provide the course or assist in the development of the Contractor course.

This contract clause shall be flowed down to all subcontractors, and the Contractor is responsible for compliance by its employees and subcontractors.

(End of Clause)

DOE-H-2078 MULTIFACTOR AUTHENTICATION FOR INFORMATION SYSTEMS (OCT 2014)

The Contractor shall take all necessary actions to achieve multifactor authentication (MFA) for standard and privileged user accounts of all classified and unclassified networks. In so doing, the Contractor shall comply with the requirements and procedures established in the document "U.S. Department of Energy Multifactor Authentication Implementation Approach" and its appendices as determined by the Contracting Officer.

(End of Clause)

DOE-H-2079 AGREEMENT REGARDING WORKPLACE SUBSTANCE ABUSE PROGRAMS AT DOE SITES (APR 2018)

- (a) Any contract awarded as a result of this solicitation will be subject to the policies, criteria, and procedures of 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites.
- (b) By submission of its offer, the officer agrees to provide to the Contracting Officer, within 30 days after notification of selection for award, or award of a contract, whichever occurs first, pursuant to this solicitation, its written workplace substance abuse program consistent with the requirements of 10 CFR part 707. DOE may grant an extension to the notification or implementation period, if necessary, as per 10 CFR 707.5(g).

(c) Failure of the Offeror to agree to the condition of responsibility set forth in paragraph (b) of this provision, renders the Offeror unqualified and ineligible for award.

(End of Provision)

Section I - Contract Clauses

THE FOLLOWING CLAUSES ARE INCORPORATED BY REFERENCE (IBR)

FAR

52.202-1 DEFINITIONS (JUN 2020)

52.203-3 GRATUITIES (APR 1984)

52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUN 2020)

52.203-7 ANTI-KICKBACK PROCEDURES (JUN 2020)

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2020)

52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (NOV 2021) 52.203-15 WHISTLEBLOWER PROTECTIONS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (JUN 2010)

52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND

REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (JUN 2020)

52.203-19 PROHIBITION ON REQUIRING CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS OR STATEMENTS (JAN 2017)

52.204-2 SECURITY REQUIREMENTS (MAR 2021)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER (MAY 2011)

52.204-9 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (JAN 2011)

52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (JUN 2020)

52.204-12 UNIQUE ENTITY IDENTIFIER MAINTENANCE (OCT 2016)

52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (OCT 2018)

52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE (AUG 2020)

52.204-22 ALTERNATIVE LINE-ITEM PROPOSAL (JAN 2017)

52.204-23 PROHIBITION ON CONTRACTING FOR HARDWARE, SOFTWARE, AND SERVICES DEVELOPED OR PROVIDED BY KASPERSKY LAB AND OTHER COVERED ENTITIES (NOV 2021)

52.207-3 RIGHT OF FIRST REFUSAL OF EMPLOYMENT (MAY 2006) 52.207-5 OPTION TO PURCHASE EQUIPMENT (FEB 1995) 52.208-9 CONTRACTOR USE OF MANDATORY SOURCES OF SUPPLY OR SERVICES (MAY 2014)

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (NOV 2021)

52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (OCT 2018)

52.209-10 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS (NOV 2015)

52.210-1 MARKET RESEARCH (NOV 2021)

52.215-1 INSTRUCTIONS TO OFFERORS – COMPETIVE ACQUISTIONS (NOV 2021) 52.215-2 AUDIT AND RECORDS - NEGOTIATION (JUN 2020)

52.215-8 ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT (OCT 1997) 52.215-10 PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA

(AUG 2011)

52.215-11 PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA - MODIFICATIONS (JUN 2020)

52.215-12 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA (JUN 2020) 52.215-13 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA - MODIFICATIONS (JUN 2020)

52.215-14 INTEGRITY OF UNIT PRICES (NOV 2021)

52.215-15 PENSION ADJUSTMENTS AND ASSET REVERSIONS (OCT 2010)

52.215-17 WAIVER OF FACILITIES CAPITAL COST OF MONEY (OCT 1997)

52.215-18 REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS (JUL 2005)

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

52.215-21 REQUIREMENTS FOR CERTIFIED COST OR PRICING DATA AND DATA

OTHER THAN CERTIFIED COST OR PRICING DATA - MODIFICATIONS (NOV 2021)

52.215-23 LIMITATIONS ON PASS-THROUGH CHARGES (JUN 2020)

52.215-23 LIMITATIONS ON PASS-THROUGH CHARGES (JUN 2020) -- ALTERNATE I (OCT 2009)

52.216-12 COST-SHARING CONTRACT - NO FEE (APR 1984)

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2018)

52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (NOV 2021) - ALTERNATE II (NOV 2016)

52.219-16 LIQUIDATED DAMAGES - SUBCONTRACTING PLAN (SEP 2021)

52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

52.222-3 CONVICT LABOR (JUN 2003)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS - OVERTIME COMPENSATION (MAY 2018)

52.222-6 CONSTRUCTION WAGE RATE REQUIREMENTS (AUG 2018)

52.222-7 WITHHOLDING OF FUNDS (MAY 2014)

52.222-8 PAYROLLS AND BASIC RECORDS (JUL 2021)

52.222-9 APPRENTICES AND TRAINEES (JUL 2005)

52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

52.222-11 SUBCONTRACTS (LABOR STANDARDS) (MAY 2014)

52.222-12 CONTRACT TERMINATION - DEBARMENT (MAY 2014)

52.222-13 COMPLIANCE WITH CONSTRUCTION WAGE RATE REQUIREMENTS AND RELATED REGULATIONS (MAY 2014)

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

52.222-15 CERTIFICATION OF ELIGIBILITY (MAY 2014)

52.222-16 APPROVAL OF WAGE RATES (MAY 2014)

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (APR 2015)

52.222-26 EQUAL OPPORTUNITY (SEP 2016)

52.222-37 EMPLOYMENT REPORTS ON VETERANS (JUN 2020)

52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (DEC 2010)

52.222-41 SERVICE CONTRACT LABOR STANDARDS (AUG 2018)

52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (JAN 2022)

52.222-43 FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT LABOR

STANDARDS- PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS) (AUG 2018)

52.222-50 COMBATING TRAFFICKING IN PERSONS (NOV 2021)

52.222-54 EMPLOYMENT ELIGIBILITY VERIFICATION (NOV 2021)

52.222-55 MINIMUM WAGES UNDER EXECUTIVE ORDER 13658 (NOV 2020)

52.222-62 PAID SICK LEAVE UNDER EXECUTIVE ORDER 13706 (JAN 2017)

52.223-2 AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS (SEP 2013)

52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (FEB 2021)

52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (MAY 2011)

52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

52.223-10 WASTE REDUCTION PROGRAM (MAY 2011)

52.223-11 OZONE-DEPLETING SUBSTANCES AND HIGH GLOBAL WARMING POTENTIAL HYDROFLUOROCARBONS (JUN 2016)

52.223-12 MAINTENANCE, SERVICE, REPAIR, OR DISPOSAL OF REFRIGERATION EQUIPMENT AND AIR CONDITIONERS (JUN 2016)

52.223-13 ACQUISITION OF EPEAT(R)-REGISTERED IMAGING EQUIPMENT (JUN 2014)

52.223-14 ACQUISITION OF EPEAT(R)-REGISTERED TELEVISIONS (JUN 2014) 52.223-15 ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS (MAY 2020) 52.223-16 ACQUISITION OF EPEAT(R)-REGISTERED PERSONAL COMPUTER PRODUCTS (OCT 2015)

52.223-17 AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS (AUG 2018)

52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (JUN 2020)

52.223-19 COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS (MAY 2011)

52.223-20 AEROSOLS (JUN 2016)

52.223-21 FOAMS (JUN 2016)

52.225-1 BUY AMERICAN - SUPPLIES (NOV 2021) 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (FEB 2021) 52.227-1 AUTHORIZATION AND CONSENT (JUN 2020) 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT **INFRINGEMENT (JUN 2020)** 52.227-3 PATENT INDEMNITY (APR 1984) 52.227-6 ROYALTY INFORMATION (APR 1984) 52.227-9 REFUND OF ROYALTIES (APR 1984) 52.227-10 FILING OF PATENT APPLICATIONS - CLASSIFIED SUBJECT MATTER (DEC 2007)52.227-16 ADDITIONAL DATA REQUIREMENTS (JUN 1987) 52.228-5 INSURANCE - WORK ON A GOVERNMENT INSTALLATION (JAN 1997) 52.232-11 EXTRAS (APR 1984) 52.232-17 INTEREST (MAY 2014) 52.232-22 LIMITATION OF FUNDS (APR 1984) 52.232-23 ASSIGNMENT OF CLAIMS (MAY 2014) 52.232-25 PROMPT PAYMENT (JAN 2017) 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER - SYSTEM FOR AWARD MANAGEMENT (OCT 2018) 52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013) 52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (NOV 2021) 52.233-1 DISPUTES (MAY 2014) 52.233-3 PROTEST AFTER AWARD (AUG 1996) - ALTERNATE I (JUN 1985) 52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004) 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984) 52.239-1 PRIVACY OR SECURITY SAFEGUARDS (AUG 1996) 52.242-1 NOTICE OF INTENT TO DISALLOW COSTS (APR 1984) 52.242-3 PENALTIES FOR UNALLOWABLE COSTS (SEP 2021) 52.242-4 CERTIFICATION OF FINAL INDIRECT COSTS (JAN 1997) 52.242-5 PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (JAN 2017) 52.242-13 BANKRUPTCY (JUL 1995) 52.243-2 CHANGES - COST-REIMBURSEMENT (AUG 1987) - ALTERNATE I (APR 1984) 52.243-6 CHANGE ORDER ACCOUNTING (APR 1984) 52.244-5 COMPETITION IN SUBCONTRACTING (DEC 1996) 52.244-6 SUBCONTRACTS FOR COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (NOV 2021) 52.245-1 GOVERNMENT PROPERTY (SEP 2021) 52.245-9 USE AND CHARGES (APR 2012) 52.246-25 LIMITATION OF LIABILITY - SERVICES (FEB 1997) 52.247-63 PREFERENCE FOR U.S.-FLAG AIR CARRIERS (JUN 2003) 52.249-6 TERMINATION (COST-REIMBURSEMENT) (MAY 2004) 52.249-14 EXCUSABLE DELAYS (APR 1984) 52.251-1 GOVERNMENT SUPPLY SOURCES (APR 2012)

52.224-1 PRIVACY ACT NOTIFICATION (APR 1984)

52.224-2 PRIVACY ACT (APR 1984)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

DEAR

952.202-1 DEFINITIONS 952.203-70 WHISTLEBLOWER PROTECTION FOR CONTRACTOR EMPLOYEES (DEC 2000)952.204-2 SECURITY REQUIREMENTS (AUG 2016) 952.204-70 CLASSIFICATION/DECLASSIFICATION (SEP 1997) 952.204-75 PUBLIC AFFAIRS (DEC 2000) 952.204-77 COMPUTER SECURITY (AUG 2006) 952.208-70 PRINTING (APR 1984) 952.223-76 CONDITIONAL PAYMENT OF FEE OR PROFIT (DEC 2010) 952.223-78 SUSTAINABLE ACQUISITION PROGRAM (OCT 2010) 952.226-71 UTILIZATION OF ENERGY POLICY ACT TARGET ENTITIES (JUN 1996) 952.226-74 DISPLACED EMPLOYEE HIRING PREFERENCE (JUNE 1997) 952.227-11 PATENT RIGHTS - RETENTION BY THE CONTRACTOR (SHORT FORM) (MAR 1995) 952.227-13 PATENT RIGHTS-ACQUISITION BY THE GOVERNMENT (SEP 1997) 952.231-71 INSURANCE-LITIGATION AND CLAIMS (JUL 2013) 952.242-70 TECHNICAL DIRECTION (DEC 2000) 952.247-70 FOREIGN TRAVEL (JUN 2010) 952.250-70 NUCLEAR HAZARDS INDEMNITY AGREEMENT (AUG 2016) 952.251-70 CONTRACTOR EMPLOYEE TRAVEL DISCOUNTS (AUG 2009) 970.5204-1 COUNTERINTELLIGENCE (DEC 2010) 970.5226-3 CONTRACTOR COMMUNITY COMMITMENT (OCT 2014)

THE FOLLOWING CLAUSES ARE INCORPORATED BY FULL TEXT

52.203-5 COVENANT AGAINST CONTINGENT FEES (MAY 2014)

The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

Bona fide agency, as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

Bona fide employee, as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts

nor holds out as being able to obtain any Government contract or contracts through improper influence.

Contingent fee, as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

Improper influence, as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

52.203-14 DISPLAY OF HOTLINE POSTER(S) (NOV 2021)

Definition.

United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

Display of fraud hotline poster(s). Except as provided in paragraph (c)-

During contract performance in the United States, the Contractor shall prominently display in common work areas within business segments performing work under this contract and at contract work sites-

Any agency fraud hotline poster or Department of Homeland Security (DHS) fraud hotline poster identified in paragraph (b)(3) of this clause; and

Any DHS fraud hotline poster subsequently identified by the Contracting Officer.

Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

Any required posters may be obtained as follows:

Poster(s) Obtain from

DOE IG Hotline Poster https://www.energy.gov/sites/prod/files/igprod/documents/Hotline poster.pdf

Contact the HOTLINE if you suspect Fraud, Waste, or Abuse involving DOE programs or by a DOE employee, contractor, or grant recipient Call1-800-541-1625 or 202-586-4073 Email: ighotline@hq.doe.gov

Or write U.S. Department of Energy Attn: Office of Inspector General Hotline 1000 Independence Avenue, S.W.

If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a hotline poster, then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed the threshold specified in Federal Acquisition Regulation 3.1004(b)(1) on the date of subcontract award, except when the subcontract-

Is for the acquisition of a commercial product or commercial service; or

Is performed entirely outside the United States.

(End of clause)

52.204-1 APPROVAL OF CONTRACT (DEC 1989)

This contract is subject to the written approval of CONTRACTING OFFICER and shall not be binding until so approved.

(End of clause)

52.204-21 BASIC SAFEGUARDING OF COVERED CONTRACTOR INFORMATION SYSTEMS (NOV 2021)

Definitions. As used in this clause-

Covered contractor information system means an information system that is owned or operated by a contractor that processes, stores, or transmits Federal contract information.

Federal contract information means information, not intended for public release, that is provided by or generated for the Government under a contract to develop or deliver a product or service to the Government, but not including information provided by the Government to the public (such as on public Web sites) or simple transactional information, such as necessary to process payments.

Information means any communication or representation of knowledge such as facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative,

or audiovisual (Committee on National Security Systems Instruction (CNSSI) 4009).

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information (44 U.S.C. 3502).

Safeguarding means measures or controls that are prescribed to protect information systems.

Safeguarding requirements and procedures. (1) The Contractor shall apply the following basic safeguarding requirements and procedures to protect covered contractor information systems. Requirements and procedures for basic safeguarding of covered contractor information systems shall include, at a minimum, the following security controls:

Limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems).

Limit information system access to the types of transactions and functions that authorized users are permitted to execute.

Verify and control/limit connections to and use of external information systems.

Control information posted or processed on publicly accessible information systems.

Identify information system users, processes acting on behalf of users, or devices.

Authenticate (or verify) the identities of those users, processes, or devices, as a prerequisite to allowing access to organizational information systems.

Sanitize or destroy information system media containing Federal Contract Information before disposal or release for reuse.

Limit physical access to organizational information systems, equipment, and the respective operating environments to authorized individuals.

Escort visitors and monitor visitor activity; maintain audit logs of physical access; and control and manage physical access devices.

Monitor, control, and protect organizational communications (i.e., information transmitted or received by organizational information systems) at the external boundaries and key internal boundaries of the information systems.

Implement subnetworks for publicly accessible system components that are physically or logically separated from internal networks.

Identify, report, and correct information and information system flaws in a timely manner.

Provide protection from malicious code at appropriate locations within organizational information systems.

Update malicious code protection mechanisms when new releases are available.

Perform periodic scans of the information system and real-time scans of files from external sources as files are downloaded, opened, or executed.

(2) Other requirements. This clause does not relieve the Contractor of any other specific safeguarding requirements specified by Federal agencies and departments relating to covered contractor information systems generally or other Federal safeguarding requirements for controlled unclassified information (CUI) as established by Executive Order 13556.

Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (c), in subcontracts under this contract (including subcontracts for the acquisition of commercial products or commercial services, other than commercially available off-the-shelf items), in which the subcontractor may have Federal contract information residing in or transiting through its information system.

(End of clause)

52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (NOV 2021)

Definitions. As used in this clause-

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (*e.g.*, connecting cell phones/towers to the core telephone network). Backhaul can be wireless (*e.g.*, microwave) or wired (*e.g.*, fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means-

Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities); Telecommunications or video surveillance services provided by such entities or using such equipment; or

Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means-

Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

For reasons relating to regional stability or surreptitious listening;

Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (*e.g.*, connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (*e.g.*, voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, or service that uses covered telecomment any equipment, system, or service that uses covered telecomment any equipment, system, or service that uses covered telecomment any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, or as critical technology as part of any system, or exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

Exceptions. This clause does not prohibit contractors from providing-

A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

Reporting requirement. (1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at https://dibnet.dod.mil. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the

Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at https://dibnet.dod.mil.

The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial products or commercial services.

(End of clause)

52.208-8 REQUIRED SOURCES FOR HELIUM AND HELIUM USAGE DATA (AUG 2018)

Definitions.

Bureau of Land Management, as used in this clause, means the Department of the Interior, Bureau of Land Management, Amarillo Field Office, Helium Operations, located at 801 South Fillmore Street, Suite 500, Amarillo, TX 79101-3545.

Federal helium supplier means a private helium vendor that has an in-kind crude helium sales contract with the Bureau of Land Management (BLM) and that is on the BLM Amarillo Field Office's Authorized List of Federal Helium Suppliers available via the Internet at *https://www.blm.gov/programs/energy-and-minerals/helium/partners*.

Major helium requirement means an estimated refined helium requirement greater than 200,000 standard cubic feet (scf) (measured at 14.7 pounds per square inch absolute pressure and 70 degrees Fahrenheit temperature) of gaseous helium or 7510 liters of liquid helium delivered to a helium use location per year.

Requirements-(1) Contractors must purchase major helium requirements from Federal helium suppliers to the extent that supplies are available.

The Contractor shall provide to the Contracting Officer the following data within 10 days after the Contractor or subcontractor receives a delivery of helium from a Federal helium supplier-

The name of the supplier;

The amount of helium purchased;

The delivery date(s); and

The location where the helium was used.

Subcontracts. The Contractor shall insert this clause, including this paragraph (c), in any subcontract or order that involves a major helium requirement.

(End of clause)

52.216-7 Allowable Cost and Payment (AUG 2018).

(a) Invoicing.

(1) The Government will make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with Federal Acquisition Regulation (FAR) <u>subpart 31.2</u> in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.

(2) Contract financing payments are not subject to the interest penalty provisions of the Prompt Payment Act. Interim payments made prior to the final payment under the contract are contract financing payments, except interim payments if this contract contains Alternate I to the clause at <u>52.232-25</u>.

(3) The designated payment office will make interim payments for contract financing on the ______ [Contracting Officer insert day as prescribed by agency head; if not prescribed, insert "30th"] day after the designated billing office receives a proper payment request. In the event that the Government requires an audit or other review of a specific payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date.

(b) Reimbursing costs.

(1) For the purpose of reimbursing allowable costs (except as provided in paragraph (b)(2) of this clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term "costs" includes only—

(i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;

(ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for-

(A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made-

(1) In accordance with the terms and conditions of a subcontract or invoice; and

(2) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government;

(B) Materials issued from the Contractor's inventory and placed in the production process for use on the contract;

(C) Direct labor;

(D) Direct travel;

(E) Other direct in-house costs; and

(F) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and

(iii) The amount of financing payments that have been paid by cash, check, or other forms of payment to subcontractors.

(2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until actually paid unless-

(i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's indirect costs for payment purposes).

(3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.

(4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) *Small business concerns*. A small business concern may receive more frequent payments than every 2 weeks.

(d) Final indirect cost rates.

(1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with <u>subpart 42.7</u> of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

(2)

(i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) and auditor within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data.

(ii) The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractor's proposal.

(iii) An adequate indirect cost rate proposal shall include the following data unless otherwise specified by the cognizant Federal agency official:

(A) Summary of all claimed indirect expense rates, including pool, base, and calculated indirect rate.

(B) General and Administrative expenses (final indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts).

(C) Overhead expenses (final indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts) for each final indirect cost pool.

(D) Occupancy expenses (intermediate indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts) and expense reallocation to final indirect cost pools.

(E) Claimed allocation bases, by element of cost, used to distribute indirect costs.

(F) Facilities capital cost of money factors computation.

(G) Reconciliation of books of account (*i.e.*, General Ledger) and claimed direct costs by major cost element.

(H) Schedule of direct costs by contract and subcontract and indirect expense applied at claimed rates, as well as a subsidiary schedule of Government participation percentages in each of the allocation base amounts.

(I) Schedule of cumulative direct and indirect costs claimed and billed by contract and subcontract.

(J) *Subcontract information*. Listing of subcontracts awarded to companies for which the contractor is the prime or upper-tier contractor (include prime and subcontract numbers; subcontract value and award type; amount claimed during the fiscal year; and the subcontractor name, address, and point of contact information).

(K) Summary of each time-and-materials and labor-hour contract information, including labor categories, labor rates, hours, and amounts; direct materials; other direct costs; and, indirect expense applied at claimed rates.

(L) Reconciliation of total payroll per IRS form 941 to total labor costs distribution.

(M) Listing of decisions/agreements/approvals and description of

accounting/organizational changes.

(N) Certificate of final indirect costs (see <u>52.242-4</u>, Certification of Final Indirect Costs).

(O) Contract closing information for contracts physically completed in this fiscal year (include contract number, period of performance, contract ceiling amounts, contract fee computations, level of effort, and indicate if the contract is ready to close).

(iv) The following supplemental information is not required to determine if a proposal is adequate, but may be required during the audit process:

(A) Comparative analysis of indirect expense pools detailed by account to prior fiscal year and budgetary data.

(B) General organizational information and limitation on allowability of compensation for certain contractor personnel. See <u>31.205-6(p)</u>. Additional salary reference information is available at <u>https://www.whitehouse.gov/wp-</u>

content/uploads/2017/11/ContractorCompensationCapContractsAwardedBeforeJune24.pdf and <u>h</u> ttps://www.whitehouse.gov/wp-

content/uploads/2017/11/ContractorCompensationCapContractsAwardedafterJune24.pdf.

(C) Identification of prime contracts under which the contractor performs as a subcontractor.

(D) Description of accounting system (excludes contractors required to submit a CAS Disclosure Statement or contractors where the description of the accounting system has not changed from the previous year's submission).

(E) Procedures for identifying and excluding unallowable costs from the costs claimed and billed (excludes contractors where the procedures have not changed from the previous year's submission).

(F) Certified financial statements and other financial data (*e.g.*, trial balance, compilation, review, *etc.*).

(G) Management letter from outside CPAs concerning any internal control weaknesses.

(H) Actions that have been and/or will be implemented to correct the weaknesses described in the management letter from subparagraph (G) of this section.

(I) List of all internal audit reports issued since the last disclosure of internal audit reports to the Government.

(J) Annual internal audit plan of scheduled audits to be performed in the fiscal year when the final indirect cost rate submission is made.

(K) Federal and State income tax returns.

(L) Securities and Exchange Commission 10-K annual report.

(M) Minutes from board of directors meetings.

(N) Listing of delay claims and termination claims submitted which contain costs relating to the subject fiscal year.

(O) Contract briefings, which generally include a synopsis of all pertinent contract provisions, such as: contract type, contract amount, product or service(s) to be provided, contract performance period, rate ceilings, advance approval requirements, pre-contract cost allowability limitations, and billing limitations.

(v) The Contractor shall update the billings on all contracts to reflect the final settled rates and update the schedule of cumulative direct and indirect costs claimed and billed, as required in paragraph (d)(2)(iii)(I) of this section, within 60 days after settlement of final indirect cost rates.

(3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed-upon final annual indirect cost rates, (ii) the bases to which the rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates. The completion invoice or voucher shall include settled subcontract amounts and rates. The prime contractor is responsible for settling subcontractor amounts and rates included in the completion invoice or voucher and providing status of subcontractor audits to the contracting officer upon request.

(6)

(i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may-

(A) Determine the amounts due to the Contractor under the contract; and

(B) Record this determination in a unilateral modification to the contract.

(ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) *Billing rates.* Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates-

(1) Shall be the anticipated final rates; and

(2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) *Quick-closeout procedures*. Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

(g) *Audit*. At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be-

(1) Reduced by amounts found by the Contracting Officer not to constitute allowable costs; or

(2) Adjusted for prior overpayments or underpayments.

(h) Final payment.

(1) Upon approval of a completion invoice or voucher submitted by the Contractor in accordance with paragraph (d)(5) of this clause, and upon the Contractor's compliance with all terms of this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

(2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver-

(i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and

(ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except-

(A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;

(B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years

following the release date or notice of final payment date, whichever is earlier; and (C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractor's indemnification of the Government against patent liability. (End of clause)

52.216-10 INCENTIVE FEE (JUN 2011)

- (a) General. The Government shall pay the Contractor for performing this contract a fee determined as provided in this contract.
- (b) *Target cost and target fee*. The target cost and target fee specified in the Schedule are subject to adjustment if the contract is modified in accordance with paragraph (d) below.

(1) *Target cost,* as used in this contract, means the estimated cost of this contract as initially negotiated, adjusted in accordance with paragraph (d) below.

(2) *Target fee*, as used in this contract, means the fee initially negotiated on the assumption that this contract would be performed for a cost equal to the estimated cost initially negotiated, adjusted in accordance with paragraph (d) below.

(c) Withholding of payment.

(1) Normally, the Government shall pay the fee to the Contractor as specified in the Schedule. However, when the Contracting Officer considers that performance or cost indicates that the Contractor will not achieve target, the Government shall pay on the basis of an appropriate lesser fee. When the Contractor demonstrates that performance or cost clearly indicates that the Contractor will earn a fee significantly above the target fee, the Government may, at the sole discretion of the Contracting Officer, pay on the basis of an appropriate higher fee.

(2) Payment of the incentive fee shall be made as specified in the Schedule; provided that the Contracting Officer withholds a reserve not to exceed 15 percent of the total incentive fee or \$100,000, whichever is less, to protect the Government's interest. The Contracting Officer shall release 75 percent of all fee withholds under this contract after receipt of an adequate certified final indirect cost rate proposal covering the year of physical completion of this contract, provided the Contractor has satisfied all other contract terms and conditions, including the submission of the final patent and royalty reports, and is not delinquent in submitting final vouchers on prior years' settlements. The Contracting Officer may release up to 90 percent of the fee withholds under this contract based on the Contractor's past performance related to the submission and settlement of final indirect cost rate proposals.

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(d) Equitable adjustments. When the work under this contract is increased or decreased by a modification to this contract or when any equitable adjustment in the target cost is authorized under any other clause, equitable adjustments in the target cost, target fee, minimum fee, and maximum fee, as appropriate, shall be stated in a supplemental agreement to this contract.

(e) Fee payable.

(1) The fee payable under this contract shall be the target fee increased by \$1,200 for every kg of production above the minimum requirement of 900 kg per year or decreased by \$1,200 for kg of production below the minimum requirement of 900 kg per year. In no event shall the fee be greater than [] percent or less than [] percent of the target cost. (See attachment J-I, Incentive Fee Table)

(2) The fee shall be subject to adjustment, to the extent provided in paragraph (d) of this clause, and within the minimum and maximum fee limitations in paragraph (e)(1) of this clause, when the total allowable cost is increased or decreased as a consequence of (i) Payments made under assignments or (ii) claims excepted from the release as required by paragraph (h)(2) of the Allowable Cost and Payment clause.

(3) If this contract is terminated in its entirety, the portion of the target fee payable shall not be subject to an increase or decrease as provided in this paragraph. The termination shall be accomplished in accordance with other applicable clauses of this contract.

(4) For the purpose of fee adjustment, *total allowable cost* shall not include allowable costs arising out of-

(i) Any of the causes covered by the Excusable Delays clause to the extent that they are beyond the control and without the fault or negligence of the Contractor or any subcontractor;

(ii) The taking effect, after negotiating the target cost, of a statute, court decision, written ruling, or regulation that results in the Contractor's being required to pay or bear the burden of any tax or duty or rate increase in a tax or duty;

(iii) Any direct cost attributed to the Contractor's involvement in litigation as required by the Contracting Officer pursuant to a clause of this contract, including furnishing evidence and information requested pursuant to the Notice and Assistance Regarding Patent and Copyright Infringement clause;

(iv) The purchase and maintenance of additional insurance not in the target cost and required by the Contracting Officer, or claims for reimbursement for liabilities to third persons pursuant to the Insurance-Liability to Third Persons clause; (v) Any claim, loss, or damage resulting from a risk for which the Contractor has been relieved of liability by the Government Property clause; or

(vi) Any claim, loss, or damage resulting from a risk defined in the contract as unusually hazardous or as a nuclear risk and against which the Government has expressly agreed to indemnify the Contractor.

(5) All other allowable costs are included in *total allowable cost* for fee adjustment in accordance with this paragraph (e), unless otherwise specifically provided in this contract.

- (f) Contract modification. The total allowable cost and the adjusted fee determined as provided in this clause shall be evidenced by a modification to this contract signed by the Contractor and Contracting Officer.
- (g) Inconsistencies. In the event of any language inconsistencies between this clause and provisioning documents or Government options under this contract, compensation for spare parts or other supplies and services ordered under such documents shall be determined in accordance with this clause.

(End of clause)

FAR 52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (SEP 2021)

(a) *Evaluation preference*. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except-

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference; and

(ii) Otherwise successful offers from small business concerns.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) When the two highest rated offerors are a HUBZone small business concern and a large business, and the evaluated offer of the HUBZone small business concern is equal to the evaluated offer of the large business after considering the price evaluation preference, award will be made to the HUBZone small business concern.

(b) *Waiver of evaluation preference*. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes.

[n/a] Offeror elects to waive the evaluation preference.

(c) Notice. The HUBZone small business offeror acknowledges that a prospective HUBZone awardee must be a HUBZone small business concern at the time of award of this contract. The HUBZone offeror shall provide the Contracting Officer a copy of the notice required by 13 CFR 126.501 if material changes occur before contract award that could affect its HUBZone eligibility. If the apparently successful HUBZone offeror is not a HUBZone small business concern at the time of award of this contract, the Contracting Officer will proceed to award to the next otherwise successful HUBZone small business concern or other offeror.

(End of clause)

52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (SEP 2021)

Definitions. As used in this clause-

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern-

Means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (d) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

Affiliates, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall re-represent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, upon occurrence of any of the following:

Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

For long-term contracts-

Within 60 to 120 days prior to the end of the fifth year of the contract; and

Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall re-represent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, when the Contracting Officer explicitly requires it for an order issued under a multiple-award contract.

The Contractor shall re-represent its size status in accordance with the size standard in effect at the time of this re-representation that corresponds to the North American Industry Classification System (NAICS) code(s) assigned to this contract. The small business size standard corresponding to this NAICS code(s) can be found at *https://www.sba.gov/document/support-table-size-standards*.

The small business size standard for a Contractor providing an end item that it does not manufacture, process, or produce itself, for a contract other than a construction or service contract, is 500 employees if the acquisition-

Was set aside for small business and has a value above the simplified acquisition threshold;

Used the HUBZone price evaluation preference regardless of dollar value, unless the Contractor waived the price evaluation preference; or

Was an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged womenowned, or women-owned small business set-aside or sole-source award regardless of dollar value.

Except as provided in paragraph (h) of this clause, the Contractor shall make the representation(s) required by paragraph (b) and (c) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause, or with its offer for an order (see

paragraph (c) of this clause), that the data have been validated or updated, and provide the date of the validation or update.

If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (f) or (h) of this clause.

If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following re-representation and submit it to the contracting office, along with the contract number and the date on which the re-representation was completed:

The Contractor represents that it [X] is, [] is not a small business concern under NAICS Code 221113 assigned to contract number [89243223CNE000030].

(Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.) The Contractor represents that it [] is, [X] is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.) The Contractor represents that it [] is, [X] is not a women-owned small business concern.

Women-owned small business (WOSB) concern eligible under the WOSB Program. (Complete only if the Contractor represented itself as a women-owned small business concern in paragraph (h)(3) of this clause.) The Contractor represents that-

It [n/a] is, [n/a] is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

It [n/a] is, [n/a] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(4)(i) of this clause is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. The Contractor shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: [n/a]. Each WOSB concern eligible under the WOSB program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

Economically disadvantaged women-owned small business (EDWOSB) concern. (Complete only if the Contractor represented itself as a women-owned small business concern eligible under the WOSB Program in (h)(4) of this clause.) The Contractor represents that-

It [n/a] is, [n/a] is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

It [n/a] is, [n/a] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(5)(i) of this clause is accurate for each EDWOSB concern participating in the joint venture. The Contractor shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: []. Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.) The Contractor represents that it [] is, [X] is not a veteran-owned small business concern.

(Complete only if the Contractor represented itself as a veteran-owned small business concern in paragraph (h)(6) of this clause.) The Contractor represents that it [] is, [X] is not a service-disabled veteran-owned small business concern.

(Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.) The Contractor represents that-

It [] is, [X] **is not** a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

It [] is, [X] is not a HUBZone joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (h)(8)(i) of this clause is accurate for each HUBZone small business concern participating in the HUBZone joint venture. The Contractor shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: [n/a]. Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

[See SAM.gov reps and certs]

(End of clause)

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

The use of overtime is authorized under this contract if the cumulative overtime premium cost does not exceed \$3,000,000 or the overtime premium is paid for work-

Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

By indirect-labor employees such as those performing duties in connection with administration,

protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

That will result in lower overall costs to the Government.

Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall-

Identify the work unit; *e.g.*, department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

(End of clause)

52.222-35 EQUAL OPPORTUNITY FOR VETERANS (JUN 2020)

Definitions. As used in this clause-

"Active duty wartime or campaign badge veteran," "Armed Forces service medal veteran," "disabled veteran," "protected veteran," "qualified disabled veteran," and "recently separated veteran" have the meanings given at Federal Acquisition Regulation (FAR) 22.1301.

Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

Subcontracts. The Contractor shall insert the terms of this clause in subcontracts valued at or above the threshold specified in FAR 22.1303(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms,

including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JUN 2020)

Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.

Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of the threshold specified in Federal Acquisition Regulation (FAR) 22.1408(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

52.223-7 NOTICE OF RADIOACTIVE MATERIALS (JAN 1997)

The Contractor shall notify the Contracting Officer or designee, in writing, 30 calendar days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall-

Be submitted in writing;

State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of clause)

52.223-99 ENSURING ADEQUATE COVID-19 SAFETY PROTOCOLS FOR FEDERAL CONTRACTORS (OCT 2021) (DEVIATION)

(a) Definition. As used in this clause - United States or its outlying areas means-

- (1) The fifty States;
- (2) The District of Columbia;
- (3) The commonwealths of Puerto Rico and the Northern Mariana Islands;

(4) The territories of American Samoa, Guam, and the United States Virgin Islands; and

(5) The minor outlying islands of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Navassa Island, Palmyra Atoll, and Wake Atoll.

(b) Authority. This clause implements Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors, dated September 9, 2021 (published in the Federal Register on September 14, 2021, 86 FR 50985).

(c) Compliance. The Contractor shall comply with all guidance, including guidance conveyed through Frequently Asked Questions, as amended during the performance of this contract, for contractor or subcontractor workplace locations published by the Safer Federal Workforce Task Force (Task Force Guidance) at https://www.saferfederalworkforce.gov/contractors/. (d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph

(d), in subcontracts at any tier that exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation 2.101 on the date of subcontract award, and are for services, including construction, performed in whole or in part within the United States or its outlying areas.

(End of clause)

** The Government will take no action to enforce the clause implementing requirements of Executive Order 14042, absent further written notice from the agency, where the place of performance identified in the contract is in a U.S. state or outlying area subject to a court order prohibiting the application of requirements pursuant to the Executive Order (hereinafter, "Excluded State or Outlying Area"). In all other circumstances, the Government will enforce the clause, except for contractor employees who perform substantial work on or in connection with a covered contract in an Excluded State or Outlying Area, or in a covered contractor workplace located in an Excluded State or Outlying Area. A current list of such Excluded States and Outlying Areas is maintained at https://www.saferfederalworkforce.gov/contractors/.

52.225-9 BUY AMERICAN - CONSTRUCTION MATERIALS (NOV 2021)

Definitions. As used in this clause-

Commercially available off-the-shelf (COTS) item- (1) Means any item of supply (including construction material) that is-

A commercial product (as defined in paragraph (1) of the definition of "commercial product" at Federal Acquisition Regulation (FAR) 2.101);

Sold in substantial quantities in the commercial marketplace; and

Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety

systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means-

For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued);

For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

Domestic construction material means-

For construction material that does not consist wholly or predominantly of iron or steel or a combination of both-

An unmanufactured construction material mined or produced in the United States; or

A construction material manufactured in the United States, if-

The cost of its components mined, produced, or manufactured in the United States exceeds 55 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic. Components of unknown origin are treated as foreign; or

The construction material is a COTS item; or

For construction material that consists wholly or predominantly of iron or steel or a combination of both, a construction material manufactured in the United States if the cost of foreign iron and steel constitutes less than 5 percent of the cost of all components used in such construction material. The cost of foreign iron and steel includes but is not limited to the cost of foreign iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the construction material and a good faith estimate of the cost of all foreign iron or steel components excluding COTS fasteners. Iron or steel components of unknown origin are treated as foreign. If the construction material contains multiple components, the cost of all the materials used in such construction material is calculated in accordance with the definition of "cost of components".

Fastener means a hardware device that mechanically joins or affixes two or more objects together. Examples of fasteners are nuts, bolts, pins, rivets, nails, clips, and screws.

Foreign construction material means a construction material other than a domestic construction material.

Foreign iron and steel means iron or steel products not produced in the United States. Produced in the United States means that all manufacturing processes of the iron or steel must take place in the United States, from the initial melting stage through the application of coatings, except metallurgical processes involving refinement of steel additives. The origin of the elements of the iron or steel is not relevant to the determination of whether it is domestic or foreign.

or

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components excluding COTS fasteners.

Steel means an alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements.

United States means the 50 States, the District of Columbia, and outlying areas.

Domestic preference. (1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the domestic content test of the Buy American statute is waived for construction material that is a COTS item, except that for construction material that consists wholly or predominantly of iron or steel or a combination of both, the domestic content test is applied only to the iron and steel content of the construction materials, excluding COTS fasteners. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

This requirement does not apply to information technology that is a commercial product or to the construction materials or components listed by the Government as follows:

Vacuum Pumps, Carbon Fiber, and Mass Spectrometer

The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that-

The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 20 percent;

The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

Request for determination of inapplicability of the Buy American statute. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including-

A description of the foreign and domestic construction materials;

Unit of measure;

Quantity;

Price;

Time of delivery or availability;

Location of the construction project;

Name and address of the proposed supplier; and

A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute or Balance of Payments Program.

Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction Material	Unit of	Quantity	Price
description	measure		(dollars) [*]

Foreign construction material.	 	s
Domestic construction material.	 	
Item 2:		
Foreign construction material.	 	
Domestic construction	 	

[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

(End of clause)

Item 1:

52.225-11 BUY AMERICAN - CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (NOV 2021)

Definitions. As used in this clause-

Caribbean Basin country construction material means a construction material that-

Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.

Commercially available off-the-shelf (COTS) item- (1) Means any item of supply (including construction material) that is-

A commercial product (as defined in paragraph (1) of the definition of "commercial product" at Federal Acquisition Regulation (FAR) 2.101);

Sold in substantial quantities in the commercial marketplace; and

Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means-

For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

Designated country means any of the following countries:

A World Trade Organization Government Procurement Agreement (WTO GPA) country (Armenia, Aruba, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, Ukraine, or United Kingdom);

A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Korea (Republic of), Mexico, Morocco, Nicaragua, Oman, Panama, Peru, or Singapore);

A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

A Caribbean Basin country ((Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

Designated country construction material means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

Domestic construction material means-

For construction material that does not consist wholly or predominantly of iron or steel or a combination of both-

An unmanufactured construction material mined or produced in the United States; or

A construction material manufactured in the United States, if-

The cost of its components mined, produced, or manufactured in the United States exceeds 55 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic. Components of unknown origin are treated as foreign; or

The construction material is a COTS item; or

For construction material that consists wholly or predominantly of iron or steel or a combination of both, a construction material manufactured in the United States if the cost of foreign iron and steel constitutes less than 5 percent of the cost of all components used in such construction material. The cost of foreign iron and steel includes but is not limited to the cost of foreign iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the construction material and a good faith estimate of the cost of all foreign iron or steel components excluding COTS fasteners. Iron or steel components of unknown origin are treated as foreign. If the construction material contains multiple components, the cost of all the materials used in such construction material is calculated in accordance with the definition of "cost of components".

Fastener means a hardware device that mechanically joins or affixes two or more objects together. Examples of fasteners are nuts, bolts, pins, rivets, nails, clips, and screws.

Foreign construction material means a construction material other than a domestic construction material.

Foreign iron and steel means iron or steel products not produced in the United States. Produced in the United States means that all manufacturing processes of the iron or steel must take place in the United States, from the initial melting stage through the application of coatings, except metallurgical processes involving refinement of steel additives. The origin of the elements of the iron or steel is not relevant to the determination of whether it is domestic or foreign.

Free Trade Agreement country construction material means a construction material that-

Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or

In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

Least developed country construction material means a construction material that-

Is wholly the growth, product, or manufacture of a least developed country; or

In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components excluding COTS fasteners.

Steel means an alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements.

United States means the 50 States, the District of Columbia, and outlying areas.

WTO GPA country construction material means a construction material that-

Is wholly the growth, product, or manufacture of a WTO GPA country; or

In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

Construction materials. (1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the domestic content test of the Buy American statute is waived for construction material that is a COTS item, except that for construction material that consists wholly or predominantly of iron or steel or a combination of both, the domestic content test is applied only to the iron and steel

content of the construction material, excluding COTS fasteners. (See FAR 12.505(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American restrictions are waived for designated country construction materials.

The Contractor shall use only domestic or designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

The requirement in paragraph (b)(2) of this clause does not apply to information technology that is a commercial product or to the construction materials or components listed by the Government as follows:

None

The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that-

The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 20 percent;

The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

Request for determination of inapplicability of the Buy American statute. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including-

A description of the foreign and domestic construction materials;

Unit of measure; Quantity; Price; Time of delivery or availability; Location of the construction project; Name and address of the proposed supplier; and A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction Material description	Unit of measure	Quantity	Price (dollars) [*]
Item 1:			
Foreign construction material.	. 		u
Domestic construction material.			
Item 2:			
Foreign construction material.	·		
Domestic construction			

[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

(End of clause)

52.227-23 RIGHTS TO PROPOSAL DATA (TECHNICAL) (JUNE 1987)

Except for data contained on pages n/a (ACO identified no pages) it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data-General" clause contained in this contract) in and to the technical data contained in the proposal dated 8/22/2022, upon which this contract is based.

(End of clause)

52.243-7 NOTIFICATION OF CHANGES (JAN 2017)

Definitions.

Contracting Officer, as used in this clause, does not include any representative of the Contracting Officer.

Specifically Authorized Representative (SAR), as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within [] (to be negotiated) calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state-

The date, nature, and circumstances of the conduct regarded as a change;

The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;

The identification of any documents and the substance of any oral communication involved in such conduct;

In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including-

What line items have been or may be affected by the alleged change;

What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;

To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;

What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance.

Continued performance. Following submission of the notice required by (b) above, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in (b) above, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly countermand any action which exceeds the authority of the SAR.

Government response. The Contracting Officer shall promptly, within [] (to be negotiated) calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either-

Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

Countermand any communication regarded as a change;

Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

In the event the Contractor's notice information is inadequate to make a decision under (1), (2), or (3) above, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

Equitable adjustments. (1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the

Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made-

In the contract price or delivery schedule or both; and

In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in (b) and (c) above.

Note: The phrases *contract price* and *cost* wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of clause)

52.244-2 SUBCONTRACTS (JUN 2020)

Definitions. As used in this clause-

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that-

Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

Is fixed-price and exceeds-

For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, or 5 percent of the total estimated cost of the contract; or

For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, or 5 percent of the total estimated cost of the contract.

If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts: None.

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

A description of the supplies or services to be subcontracted.

Identification of the type of subcontract to be used.

Identification of the proposed subcontractor.

The proposed subcontract price.

The subcontractor's current, complete, and accurate certified cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

A negotiation memorandum reflecting-

The principal elements of the subcontract price negotiations;

The most significant considerations controlling establishment of initial or revised prices;

The reason certified cost or pricing data were or were not required;

The extent, if any, to which the Contractor did not rely on the subcontractor's certified cost or pricing data in determining the price objective and in negotiating the final price;

The extent to which it was recognized in the negotiation that the subcontractor's certified cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (b), (c), or (d) of this clause.

Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination-

Of the acceptability of any subcontract terms or conditions;

Of the allowability of any cost under this contract; or

To relieve the Contractor of any responsibility for performing this contract.

No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations: Paschal Solutions, Inc., Longenecker & Associates, Inc., DKM Construction, Inc., Geiger Brothers Mechanical Contractors, Inc., United States Enrichment Corporation

(End of clause)

52.247-1 COMMERCIAL BILL OF LADING NOTATIONS (FEB 2006)

When the Contracting Officer authorizes supplies to be shipped on a commercial bill of lading and the Contractor will be reimbursed these transportation costs as direct allowable costs, the Contractor shall ensure before shipment is made that the commercial shipping documents are annotated with either of the following notations, as appropriate:

If the Government is shown as the consignor or the consignee, the annotation shall be:

"Transportation is for the Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are assignable to, and shall be reimbursed by, the Government."

If the Government is not shown as the consignor or the consignee, the annotation shall be:

"Transportation is for the Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee shall be reimbursed by the Government, pursuant to cost- reimbursement contract No. 89243223CNE000030. This may be confirmed by contacting the Contract Administration Office specified in Section G."

(End of clause)

952.215-70 KEY PERSONNEL (DEC 2000)

The personnel listed below or elsewhere in this contract are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel, the Contractor must:

Notify the Contracting Officer reasonably in advance;

submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract; and

obtain the Contracting Officer's written approval. Notwithstanding the foregoing, if the Contractor deems immediate removal or suspension of any member of its management team is necessary to fulfill its obligation to maintain satisfactory standards of employee competency, conduct, and integrity under the clause at 48 CFR 970.5203-3, Contractor's Organization, the Contractor may remove or suspend such person at once, although the Contractor must notify Contracting Officer prior to or concurrently with such action.

The list of personnel may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel.

(End of clause)

952.216-7 Allowable cost and payment.

As prescribed in 916.307(a), when contracting with a commercial organization modify paragraph (a) of the clause at 48 CFR 52.216-7 by adding the phrase "as supplemented by subpart 931.2 of the Department of Energy Acquisition Regulations (DEAR)," after 48 CFR subpart 31.2.

952.226-72 ENERGY POLICY ACT SUBCONTRACTING GOALS AND REPORTING REQUIREMENTS (JUN 1996)

(a) Definition. Energy Policy Act target groups, as used in this provision means-

(1) An institution of higher education that meets the requirements of 34 CFR 600.4(a), and has a student enrollment that consists of at least 20 percent-

(i) Hispanic Americans, i.e., students whose origins are in Mexico, Puerto Rico, Cuba, or Central or South America, or any combination thereof, or

(ii) Native Americans, i.e., American Indians, Eskimos, Aleuts, and Native Hawaiians, or any combination thereof;

(2) Institutions of higher learning determined to be Historically Black Colleges and Universities by the Secretary of education pursuant to 34 CFR 608.2; and

(3) Small business concerns, as defined under section 3 of the Small Business Act (15 U.S.C. 632), that are owned and controlled by individuals who are both socially and economically disadvantaged within the meaning of section 8(d) of the Small Business Act (15 U.S.C. 637(d)) or by a woman or women.

(b) Goals. The Contractor, in performance of this contract, agrees to provide its best efforts to award subcontracts to the following classes of entities-

(1) Small business concerns controlled by socially and economically disadvantaged individuals or by women: [* * *] percent;

(2) Historically Black colleges and universities: [* * *] percent; and

(3) Colleges or universities having a student body in which more than 20 percent of the students are Hispanic Americans or Native Americans: [* * *] percent. * * * These goals are stated in a percentage reflecting the relationship of estimated award value of subcontracts to the value of this contract and appear elsewhere in this contract.

(c) Reporting requirements. (1) The Contractor agrees to report, on an annual Federal Government fiscal year basis, its progress against the goals by providing the actual annual dollar value of subcontract payments for the preceding 12-month period, and the relationship of those payments to the incurred contract costs for the same period. Reports submitted pursuant to this clause must be received by the Contracting Officer (or designee) not later than 45 days after the end of the reporting period.

(2) If the contract includes reporting requirements under FAR 52.219-9, Small Business Subcontracting Plan, the Contractor's progress against the goals stated in paragraph (b) of this clause shall be included as an addendum to Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, as applicable, for the period that corresponds to the end of the Federal Government fiscal year.

(End of clause)

970.5227-1 RIGHTS IN DATA-FACILITIES (DEC 2000)

Definitions. (1) Computer data bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the computer program to be produced, created, or compiled. The term does not include computer data bases.

Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term "data" does not include data incidental to the administration of this contract, such as financial, administrative, cost and pricing, or management information.

Limited rights data, as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of subparagraph (e) of this clause.

Restricted computer software, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose restricted computer software are as set forth in the Restricted Rights Notice of paragraph (f) of this clause.

Technical data, as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

Unlimited rights, as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic

means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so.

Allocation of Rights. (1) The Government shall have:

Ownership of all technical data and computer software first produced in the performance of this Contract;

Unlimited rights in technical data and computer software specifically used in the performance of this Contract, except as provided herein regarding copyright, limited rights data, or restricted computer software, or except for other data specifically protected by statute for a period of time or, where, approved by DOE, appropriate instances of the DOE Strategic Partnership Projects Program;

The right to inspect technical data and computer software first produced or specifically used in the performance of this Contract at all reasonable times. The Contractor shall make available all necessary facilities to allow DOE personnel to perform such inspection;

The right to have all technical data and computer software first produced or specifically used in the performance of this Contract delivered to the Government or otherwise disposed of by the Contractor, either as the Contracting Officer may from time to time direct during the progress of the work or in any event as the Contracting Officer shall direct upon completion or termination of this Contract. The Contractor agrees to leave a copy of such data at the facility or plant to which such data relate, and to make available for access or to deliver to the Government such data upon request by the Contracting Officer. If such data are limited rights data or restricted computer software, the rights of the Government in such data shall be governed solely by the provisions of paragraph (e) of this clause ("Rights in Limited Rights Data") or paragraph (f) of this clause ("Rights in Restricted Computer Software"); and

The right to remove, cancel, correct, or ignore any markings not authorized by the terms of this Contract on any data furnished hereunder if, in response to a written inquiry by DOE concerning the propriety of the markings, the Contractor fails to respond thereto within 60 days or fails to substantiate the propriety of the markings. In either case DOE will notify the Contractor of the action taken.

The Contractor shall have:

The right to withhold limited rights data and restricted computer software unless otherwise provided in accordance with the provisions of this clause; and

The right to use for its private purposes, subject to patent, security or other provisions of this Contract, data it first produces in the performance of this Contract, except for data in DOE's Uranium Enrichment Technology, including diffusion, centrifuge, and atomic vapor laser isotope separation, provided the data requirements of this Contract have been met as of the date of the private use of such data.

The Contractor agrees that for limited rights data or restricted computer software or other technical, business or financial data in the form of recorded information which it receives from, or is given access to by, DOE or a third party, including a DOE Contractor or subcontractor, and for technical data or computer software it first produces under this Contract which is authorized to be marked by DOE, the Contractor shall treat such data in accordance with any restrictive legend contained thereon.

Copyrighted Material. (1) The Contractor shall not, without prior written authorization of the Patent Counsel, assert copyright in any technical data or computer software first produced in the performance of this contract. To the extent such authorization is granted, the Government reserves for itself and others acting on its behalf, a nonexclusive, paid-up, irrevocable, worldwide license for Governmental purposes to publish, distribute, translate, duplicate, exhibit, and perform any such data copyrighted by the Contractor.

(2) The Contractor agrees not to include in the technical data or computer software delivered under the contract any material copyrighted by the Contractor and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in paragraph (c)(1) of this clause. If the Contractor believes that such copyrighted material for which the license cannot be obtained must be included in the technical data or computer software to be delivered, rather than merely incorporated therein by reference, the Contractor shall obtain the written authorization of the Contracting Officer to include such material in the technical data or computer software prior to its delivery.

Subcontracting. (1) Unless otherwise directed by the Contracting Officer, the Contractor agrees to use in subcontracts in which technical data or computer software is expected to be produced or in subcontracts for supplies that contain a requirement for production or delivery of data in accordance with the policy and procedures of 48 CFR Subpart 27.4 as supplemented by 48 CFR 927.401 through 927.409, the clause entitled, "Rights in Data-General" at 48 CFR 52.227-14 modified in accordance with 927.409(a) and including Alternate V. Alternates II through IV of that clause may be included as appropriate with the prior approval of DOE Patent Counsel, and the Contractor shall not acquire rights in a subcontractor's limited rights data or restricted computer software, except through the use of Alternates II or III, respectively, without the prior approval of DOE Patent Counsel. The clause at 48 CFR 52.227-16, Additional Data Requirements, shall be included in subcontracts in accordance with DEAR 927.409(h). The contractor shall use instead the Rights in Data-Facilities clause at 48 CFR 970.5227-1 in subcontracts, including subcontracts for related support services, involving the design or operation of any plants or facilities or specially designed equipment for such plants or facilities that are managed or operated under its contract with DOE.

It is the responsibility of the Contractor to obtain from its subcontractors technical data and computer software and rights therein, on behalf of the Government, necessary to fulfill the Contractor's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Contractor shall:

Promptly submit written notice to the Contracting Officer setting forth reasons or the

subcontractor's refusal and other pertinent information which may expedite disposition of the matter, and

Not proceed with the subcontract without the written authorization of the Contracting Officer.

Neither the Contractor nor higher-tier subcontractors shall use their power to award subcontracts as economic leverage to acquire rights in a subcontractor's limited rights data or restricted computer software for their private use.

Rights in Limited Rights Data. Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license by or for the Government, in any limited rights data of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any limited rights data when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Limited Rights Notice" set forth. All such limited rights data shall be marked with the following "Limited Rights Notice":

Limited Rights Notice

These data contain "limited rights data," furnished under Contract No. **89243223CNE000030** with the United States Department of Energy which may be duplicated and used by the Government with the express limitations that the "limited rights data" may not be disclosed outside the Government or be used for purposes of manufacture without prior permission of the Contractor, except that further disclosure or use may be made solely for the following purposes:

Use (except for manufacture) by support services contractors within the scope of their contracts;

This "limited rights data" may be disclosed for evaluation purposes under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

This "limited rights data" may be disclosed to other contractors participating in the Government's program of which this Contract is a part for information or use (except for manufacture) in connection with the work performed under their contracts and under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

This "limited rights data" may be used by the Government or others on its behalf for emergency repair or overhaul work under the restriction that the "limited rights data" be retained in confidence and not be further disclosed; and

Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, for information or evaluation, or for emergency repair or overhaul work by such government. This Notice shall be marked on any reproduction of this data in whole or in part.

(End of notice)

Rights in restricted computer software.

(1) Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up, license by or for the Government, in any restricted computer software of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any restricted computer software when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Restricted Rights Notice" set forth below. All such restricted computer software shall be marked with the following "Restricted Rights Notice":

Restricted Rights Notice-Long Form

This computer software is submitted with restricted rights under Department of Energy Contract No. **89243223CNE000030**. It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice.

This computer software may be:

Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;

Used, copied for use, in a backup or replacement computer if any computer for which it was acquired is inoperative or is replaced;

Reproduced for safekeeping (archives) or backup purposes;

Modified, adapted, or combined with other computer software, provided that only the portions of the derivative software consisting of the restricted computer software are to be made subject to the same restricted rights; and

Disclosed to and reproduced for use by contractors under a service contract (of the type defined in 48 CFR 37.101) in accordance with subparagraphs (b)(1) through (4) of this Notice, provided the Government makes such disclosure or reproduction subject to these restricted rights.

Notwithstanding the foregoing, if this computer software has been published under copyright, it is licensed to the Government, without disclosure prohibitions, with the rights set forth in the restricted rights notice above.

This Notice shall be marked on any reproduction of this computer software, in whole or in part. (End of notice)

Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used.

Restricted Rights Notice-Short Form

Use, reproduction, or disclosure is subject to restrictions set forth in the Long Form Notice of DOE Contract No._89243223CNE000030 with American Centrifuge Operating, LLC

(End of notice)

If the software is embedded, or if it is commercially impractical to mark it with human readable text, then the symbol R and the clause date (mo/yr), in brackets or a box, a R-mo/yr, may be used. This will be read to mean restricted computer software, subject to the rights of the Government as described in the Long Form Notice, in effect as of the date indicated next to the symbol. The symbol shall not be used to mark human readable material. In the event this Contract contains any variation to the rights in the Long Form Notice, then the contract number must also be cited.

If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, the software will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions and with unlimited rights, unless the Contractor includes the following statement with such copyright notice "Unpublished-rights reserved under the Copyright Laws of the United States."

(g) Relationship to patents. Nothing contained in this clause creates or is intended to imply a license to the Government in any patent or is intended to be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

(End of clause)

Attachment Title Number		Date
J-A	Reporting Requirements Checklist	02/04/2022
J-B	Government Property (EXHIBIT A and B)	11/16/2022
J-C	Applicable DOE Directives	11/16/2022
J-D	DOE Direct Contract Environment Checklist	02/04/2022
J-E	DOL Wage Rates	03/14/2022
J-F	Performance Guarantee	02/04/2022
J-G	Small Business Subcontracting Plan	TBD
J-H	Centrus Corporate Board of Directors	11/16/2022
J-I	Fee Schedule (max and min)	

Section J - List of Documents, Exhibits and Other Attachments

ATTACHMENT J-A REPORTING REQUIREMENTS CHECKLIST 02/04/2022

REPORT	FREQUENCY	# OF COPIES	ADDRESSEES
Status Report	Within 30 Days of Kick-off Meeting, Monthly thereafter	1	А, В
Service Contract Reporting	Annually by October 31st	1	www.SAM.gov/
Quality Assurance Surveillance Plan (if applicable)	As needed	1	Α, Β
Reports and documents associated with Section C.3	Upon Completion	1	Α, Β
Contractor Personal Property Management System shall be submitted to DOE for review and approval	Within 90 days of contract effective date	1	A,B
Reports of loss, damage, destruction or theft of government property or sensitive/high risk/classified contractor owned property	As soon as facts become known	1	A,B
Inventory Results	Initial within 90 days of contract effective date and annually thereafter by 15 October	1	A,B
Input data in Property Inventory Database System (PIDS)	NLT 15 November Annually	Confirmation memo/email	A,B
Input data in GSA system relating to Exchange Sales and Non- federal recipients	NLT 31 October Annually	Confirmation memo/email	A,B
Final property inventory	60 days prior to contract completion or within 30 days following contract termination	1	A,B
DOE-H-2045 Contractor Community Commitment (OCT 2014)	Semi-Annually (due 6 months after award)	1	A,B

DOE-H-2046	Within 30 calendar days after	1	A,B	
DIVERSITY	the effective date of the			
PROGRAM (OCT 2014)	contract.			

This is a **non-inclusive** list and other reporting requirements under this contract are as specified in applicable clauses.

Note: When two or more copies are required, include one original.

All reports required under this contract shall be sent to the following:

A: Jacob Lingard, Contracting Specialist Contract Management Division U.S. Department of Energy Idaho Operations Office1955 Fremont Avenue Idaho Falls, ID 83401-1221 <u>lingarjn@id.doe.gov</u>

B: Scott Harlow, Contracting Officer's Representative U.S. Department of Energy 19901 Germantown Road Germantown, MD 20874 scott.harlow@nuclear.energy.gov

The Contractor shall be responsible for following established DOE-Idaho Operations Office procedures for clearances on all oral, written and audio/visual informational material prepared for public use.

ATTACHMENT J-B Government Property 11/16/2022

The following items will be provided to the contractor at no expense for the period of performance of the contract:

Item	Quantity	U of M	Description	Value
1	n/a	n/a	Exhibit A - GCEP LEASED PREMISES (Offerors will need to meet security requirements to gain access to this CUI)	
2	n/a	n/a	Exhibit B - GCEP LEASED PERSONALTY (offerors will need to meet security requirements to gain access to this CUI)	
3	85	Ea.	5B cylinders (expected JAN 2023*)	

*Beginning staggered shipping schedule as batches are completed.

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ATTACHMENT J-C Applicable DOE Directives 11/16/2022

The following DOE directives contain requirements relevant to the scope of work described in Section C of this RFP. In most cases, the requirements applicable to the Contractor are contained in a Contractor Requirements Document (CRD) attached to the DOE directive.

DOE Directive No.	Directive Title
DOE O 470.4B	Safeguards and Security Program*
DOE O 471.7	Control of Unclassified Information
DOE O 475-1	Counterintelligence
DOE O 475.2B	Identifying Classified Information
DOE O 206.2	Identify, Credential, and Access Management

*The Safeguard and Security Program will be implemented and regulated by the Nuclear Regulatory Commission according to the NRC Fuel Cycle License issued to the Contractor.

ATTACHMENT J-D

DOE Direct Contract Environment Checklist

U.S. DEPARTMENT OF ENERGY IDAHO OPERATIONS OFFICE DOE DIRECT CONTRACT ENVIRONMENTAL CHECKLIST

Page 1 of 2

DIRECTIONS: Follow instructions at the beginning of each Section and submit completed Form with project proposal

ID F 450.01 (04/2020) Replaces 450.01 IDF (4/11/2012)

SECTION A. D	escriptive Info	ormation: Provide project title, offerer, and contact information	
P	Project Title:	Click or tap here to enter text.	
	Offerer:	Click or tap here to enter text.	
Name of Offe	rer Contact:	Click or tap here to enter text.	
Telephone Num	ber & Email:	Click or tap here to enter text.	

	Environmental Aspects Table			
ENVIRONMENTAL ASPECT	APPLICABILITY STATEMENT	YES	NO	
1. Air Emissions	Air emissions applies to operations or activities that have the potential to generate air pollutants including but not limited to radionuclides, chemical and combustion emissions, fugitive dust, and ozone-depleting substances. Includes activities that may break up, dislodge, disturb or block access to regulated asbestos-containing material (RACM), handle asbestos-containing material, manage asbestos waste, or conduct demolition of load bearing structural members (including trailers).			
2. Discharging to Surface-, Storm-, or Ground Water	Surface water or storm water contamination applies to activities that have the potential to contaminate Waters of the U.S., wetlands, ground water, or storm water that could reach Waters of the U.S.			
3. Disturbing Cultural / Biological Resources	Cultural resource disturbance applies to activities that have the potential to impact cultural resources, such as disturbing soils by grading, excavating, sampling, off-road vehicle use, or removing vegetation, as well as to personnel working in areas where cultural resources are located. It also applies to modifications or demolition of historical buildings or structures, or activities that could result in loss or damage to these resources. Examples of culture resources include buildings, structures or objects or 50 years old or those identified as historic due to special significance, archaeological resources, historic home sites, trails, and canals, and places or items of significance to Native Americans and/or others. In addition, activities that have potential to interact, disturb or affect wildlife or their habitat (e.g., soil disturbance) or activities involving revegetation or weed control.			
4. Generating and Managing Waste	Regulated, hazardous, or radioactive material and waste packaging and transportation applies activities that generate, store, treat, or dispose of hazardous, radioactive, mixed, industrial, or nanoparticle waste.			
5. Releasing Contaminants	Releasing contaminants applies to activities that may release potentially hazardous contaminants into air, water, soil, or other non-contaminated or previously contaminated locations. These activities may include, but are not limited to, the use of industrial and laboratory chemicals; the use of radionuclides; hazardous, radioactive, and mixed waste treatment and decontamination operations; and contaminated soils disturbance. This aspect also applies to asbestos containing material (ACM) remediation; repair, replacement, and/or disposal of contaminated tanks and associated piping; and the handling and disposal of PCB-contaminated equipment and waste.			
6. Using, Reusing, and Conserving Natural Resources	Use, reuse and recycling of resources applies to activities that use resources such as water, energy, fuels, minerals, borrow material, wood or paper products, and other materials derived from natural resources. It applies to activities that currently require use, reuse, and recycling as integral to the project such as the construction and operation of a LEED certified building. This applies to waste disposition activities including building demolition. This also applies to any activity that requires the use of natural resources such that use, reuse, or recycling should be incorporated into its implementation			

ID F 450.01 (04/2020)

Page 2 of 2

SECTION C. Description of Environmental Aspects: For each environmental aspect checked "YES," provide specific information such as types and amounts of chemical, waste, effluent, or emissions; size of modification, soil disturbance; or type of tank, equipment, or process and pollution prevention measures for each item checked. Briefly discuss the potential environmental impacts that could occur from project activities.

DESCRIPTION OF ENVIRONMENTAL ASPECTS:

Click or tap here to enter text.

SECTION D. CERTIFICATION – To the best of the Offerer's knowledge at the time of this signing, the responses given above are complete and accurate. Should new issues or concerns arise, or changes occur anytime after award and/or during the course of performance, the Offerer will alert DOE immediately.

OFFERER NAME AND TITLE

Click or tap here to enter text.

Signature:

Date: Click or tap here to enter text.

	FOR	DOE USE ONLY				
NEPA Document #: Click or tap here to enter text.	NEPA CX Applied enter text.	: Click or tap here to	solicitation #: Click or tap here to entext.			
Contract Specialist: Click or tap here to (enter text.	Approved:				
Project Manager: Click or tap here to en	ter text.	Signature: Date: Click or	Date: Click or tap here to enter text.			

ATTACHMENT J-E

DOL Wage Rates

Wage rates change frequently, therefore please refer to SAM.gov for the most recent wage rates for the Piketon, OH locality which is WD number: 2015-4771.

https://sam.gov/content/wage-determinations

ATTACHMENT J-F

PERFORMANCE GUARANTEE AGREEMENT



Volume I - Offer and Other Documents

6.0 Performance Guarantee Agreement (Attachment J-F)

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract [Contract Number to be specified in Block 2 of the SF33 for Solicitation Number 89243222RNE000026] for the HALEU Demonstration Cascade Completion and HALEU Production (Contract) dated, [Award Date to be specified in Block 28 of the SF33 for Solicitation Number 89243222RNE000026], by and between the Government and American Centrifuge Operating LLC ("Contractor"), the undersigned, Centrus Energy Corp. ("Guarantor"), a corporation incorporated in the State of Delaware with its principal place of business at 6901 Rockledge Dr. Suite 800, Bethesda, Maryland 21075, hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and (c) Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contract or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform

HALEU Demonstration Cascade Completion and HALEU Production • Solicitation No. 89243222RNE000026 Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

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all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation, or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on August 19, 2022.

Centrus Energy Corp

Bv

Daniel B. Poneman

President and Chief Executive Officer

I hereby certify that I am the duly elected and qualified Secretary of Centrus Energy Corp. ("Guarantor") that entered into the foregoing Performance Guarantee Agreement (the "Guarantee") with the United States ("Government"); that the officer who executed the Guarantee on behalf of the Guarantor has been duly elected and qualified as such officer; that the signature above is the genuine signature of such officer; that the Guarantee was duly executed and delivered by Guarantor; that its execution and delivery were properly authorized by the Board of Directors of Guarantor; and that the Guarantee represents a valid and binding obligation of Guarantor.



Dennis J. Scott

Secretary

HALEU Demonstration Cascade Completion and HALEU Production • Solicitation No. 89243222RNE000026 Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

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ATTACHMENT J-G

Small Business Subcontracting Plan

ATTACHMENT J-H Centrus Corporate Board of Directors

Centrus Corporate Board of Directors

Name: Daniel B. Poneman

Position: Director, President, Chief Executive Officer

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817



Name: Mikel H. Williams

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817

Name: Kirkland H. Donald

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817



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Centrus Corporate Board of Directors

Name: Tetsuo Iguchi

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817

Name: W. Thomas Jagodinski

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817



Name: Tina W. Jonas

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817



Centrus Corporate Board of Directors

Name: William J. Madia

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817

Name: Bradley J. Sawatzke

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817

Name: Neil S. Subin

Position: Director

Company Org: Centrus Energy Corp.

Address: 6901 Rockledge Drive, Suite 800; Bethesda, MD 20817

END OF ATTACHMENT J-H

Page 146

ATTACHMENT J-I 52.216-10 (e)(1) Fee Payable Minimum/Maximum fee:

52.216-10 Incentive fee

(e)(1) Fee Payable

Minimum/Maximum Fee:

		Phas	2 CLIN 00002	Phase	3 CLIN 00003	Phase	3 CLIN 00004	Phase	3 CLIN 00005		Total Price
Production	Target Cost:	\$	83,201,070	\$	270,293,748	\$	270,208,570	\$	294,511,106	5	918,214,495
900kgUF6	Target Fee:	5	7,488,096	\$	24,326,437	S	24,318,771	\$	26,506,000	s	\$2,639,305
1331kgUF6	Maximum Fee:	\$	8,005,296	\$	24,843,637	S	24,835,971	\$	27,023,200	5	84,708,105
400kgUF6	Minimum Fee:	\$	6,888,096	\$	23,726,437	S	23,718,771	\$	25,906,000	\$	80,239,305
1331kgUF6	Maximum Fee %		9.62%		9.19%		9.19%		9.18%		9.13%
400kgUF6	Minimum Fee: %		8 28%		8 78%		8.78%		8,80%		8.74%

Page 147

Amendment 3 To the Appendix 1 Lease Agreement Between The U.S. Department of Energy and United States Enrichment Corporation For the Gas Centrifuge Enrichment Plant

WHEREAS, The U.S. Department of Energy ("DOE" or the "Department")) and United States Enrichment Corporation ("Corporation" or "Lessee") (collectively the "Parties") entered into a lease for the Gas Centrifuge Enrichment Plant located in Piketon Ohio (the "GCEP Lease") effective December 7, 2006;

WHEREAS, the Corporation has sub-leased the GCEP Lease to its affiliate, American Centrifuge Operating, LLC ("ACO" or "Sublessee") and ACO currently has an NRC license for a demonstration facility on the leased premises (for purposes of this Amendment and the GCEP Lease, the terms "Corporation" or "Lessee" shall also include "ACO");

WHEREAS, by virtue of Amendment 1 to the GCEP Lease executed on May 31, 2019, the term of the GCEP Lease was extended to May 31, 2022, among other changes to certain provisions of the GCEP Lease;

WHEREAS, by virtue of Amendment 2 to the GCEP Lease executed on September 9, 2021, the term of the GCEP Lease was extended to December 31, 2025, and set certain requirements for the assumption of decontamination and decommission liabilities subsequent to the termination or expiration of the Demonstration Contract;

WHEREAS, the Demonstration Contract expires on November 30, 2022, under which DOE assumed all liabilities for decontaminating and decommissioning of facilities and equipment installed and any work performed under the Demonstration Contract including any materials or environmental hazards on the site; and

WHEREAS, on November 14, 2022, DOE awarded a follow-on contract No. 89243223CNE000030 to ACO pursuant to Solicitation Number 89243222RNE000026 (HALEU Demonstration Cascade Completion and HALEU Production) for the operation of the 16-machine cascade built under the Demonstration Contract on the leased premises ("HALEU Ops Contract"); and

WHEREAS, DOE desires to explicitly assume liabilities for decontaminating and decommissioning of the facilities and equipment installed and any work performed under the HALEU Ops Contract including any materials or environmental hazards on the site.

NOW THEREFORE, under authority of the Atomic Energy Act of 1954, as amended (the "Act"), and other law, and with the express consent of Sublessee, DOE and the Corporation hereby agree to amend the GCEP Lease as follows:

- The Department hereby assumes all liabilities for the decontamination and decommissioning of the facilities and equipment installed and any work performed, under the HALEU Ops Contract with the Department including any materials or environmental hazards on the site.
- No financial assurance for any liability or lease turnover conditions shall be required from the Corporation or Sublessee.
- 3. Notwithstanding anything in the GCEP Lease, as amended, to the contrary, including but not limited to Articles III, IV, V, and VI, the Parties agree that any work performed under the HALEU Ops Contract on the leased premises shall be considered a permitted use; any alternations or changes to the premises pursuant to the HALEU Ops Contract with the Department shall be permitted change to the premises; and any liabilities of the Corporation or Sublessee arising from or incident to the performance of the work under the HALEU Ops Contract with the Department shall be permitted to the Corporation or Sublessee arising form or incident to the performance of the work under the HALEU Ops Contract with the Department shall be governed solely by such contract and any financial protection afforded to the Corporation or sublessee as a person indemnified under the Act.
- 4. Except as set forth above, all other terms of the GCEP Lease as amended by Amendment 1 and 2 remain unchanged and this Amendment 3 does not modify the rights, obligations or liabilities of the Department and the Corporation under the GCEP Lease, as amended by Amendment 1 and 2, or the rights, obligations, or liabilities of the Department and ACO under the HALEU Demonstration Contract as amended or the HALEU Ops Contract.
- 5. If the Department exercises its option(s) to extend the term of the HALEU Ops Contract beyond the completion of Phase 2 of the HALEU Ops Contract, the expiration of the GCEP Lease term shall extend to one calendar year beyond the last day of the applicable HALEU Ops Contract option period.

Next page is the signature page

IN WITNESS WHEREOF, the Parties have caused this Amendment 3 to the GCEP Lease to be executed on their behalf by their duly authorized representatives as of the date of the last signature below.

United	States E	nrichm	ent Co	prporatio	on
(Lessee	n	1	\sim	~	
By:	191	Ŵ	1	/	-0
Name:	lon	cy !	3°C	UTLI	2
Title:	Jur,	FIEL	00	PERAI	דאק
Date: _	11-3.	1.20	22	/	-

U.S. Department of Energy

Scott E. Harlow	Digitally signed by Scott E. Harlow Date: 2022.11.30 16:14:34 -05'00'
-----------------	--

Name: _____

Title: Lease Administrator

Date: _____

American Centrifuge Operating, LLC (Sublessee)

By: Name: <u>LARAY B CUTLIP</u> Title: <u>Presio 2NT, ACO</u> Date: <u>11-30-2022</u>

VOTING AND NOMINATION AGREEMENT

This Voting and Nomination Agreement, effective as of December 29, 2022 (this "Agreement"), is by and among the persons and entities listed on Schedule A hereto (collectively, the "MB Group", and individually a "member" of the MB Group) and Centrus Energy Corp. (the "Company"). In consideration of and reliance upon the mutual covenants and agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. <u>Warrant Extension</u>. The Company agrees to amend and restate that certain Amended and Restated Warrant to Purchase Common Stock of Centrus Energy Corp., dated October 17, 2022 (the "Warrant"), to extend the term of the Warrant to February 5, 2024, subject to the other terms of the Warrant (as so amended and restated, the "New Warrant").

2. <u>Agreements of MB Group</u>. Each member of the MB Group and each Permitted Transferee shall, at the Company's 2023 and 2024 annual meetings of stockholders and at any other vote by the holders of Common Stock (as defined below) (collectively, the "Annual and Other Meetings"), (i) cause, in the case of all Common Stock owned of record, and (ii) instruct and cause the record owner, in the case of all shares of Common Stock of which MB Group is a Beneficial Owner (as defined below), but not owned of record, directly or indirectly, by it, or by any MB Affiliate (as defined below), as of the applicable record date, in each case entitled to (i) be present for quorum purposes, and (ii) vote, as follows:

- (a) for all directors nominated by the Board for election,
- (b) for all other proposals, in accordance with the recommendation of the
- (c) for any Company proposed adjournments thereof.

Board, and

3. <u>Permitted Transfers</u>. During the term of this Agreement, each member of the MB Group agrees that it shall not directly or indirectly gift, sell, dispose or otherwise transfer any shares of Common Stock held or owned by such person as of the date hereof unless such MB Group member ensures that any transferee will follow the voting agreements contemplated by Section 2 hereof with respect to the shares of Common Stock acquired by such transferee from the MB Group member and such transferee enters into an agreement with the Company to such effect (each such transferee, a "Permitted Transferee"); *provided* that the foregoing shall not apply to (i) any sale or disposition of Common Stock on a national securities exchange or (ii) any sale or disposition of Common Stock on a national securities exchange or (ii) any sale or disposition of common Stock on a national securities exchange or (ii) any sale or disposition of common Stock on a national securities exchange or (ii) any sale or disposition of common Stock on a national securities exchange or (ii) any sale or disposition of common Stock on a national securities exchange or (ii) any sale or disposition of common Stock underlying the New Warrant to any person that is not affiliated, associated or otherwise related to any member of the MB Group.

4. <u>Public Announcements</u>. No earlier than 8:30 a.m., New York City time, on the [first] trading day after the date hereof, the Company shall announce this Agreement and the material terms hereof by means of a press release reasonably satisfactory to the parties (in the form so released, the "Press Release") and file the Press Release with the Securities and Exchange Commission as an exhibit to a Current Report on Form 8-K. Neither the Company nor the MB Group shall make any public announcement or statement that is inconsistent with or contrary to the statements made in the Press Release and Form 8-K, except as required by law or the rules of

any stock exchange or with the prior written consent of the other party. The Company acknowledges that the MB Group will comply with its obligations under Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules thereunder, and intends to file this Agreement as an exhibit to its Schedule 13D.

5. <u>Representations and Warranties of All Parties</u>. Each of the parties represents and warrants to the other party that:

(a) Such party has all requisite company power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and

(b) This Agreement has been duly and validly authorized, executed and delivered by it and is a valid and binding obligation of such party, enforceable against such party in accordance with its terms; and this Agreement will not result in a violation of any terms or conditions of any agreements to which such person is a party or by which such party may otherwise be bound or of any law, rule, license, regulation, judgment, order or decree governing or affecting such party.

6. <u>Representations and Warranties of MB Group</u>. Each member of the MB Group jointly represents and warrants that, as of the date of this Agreement, (i) they are collectively the Beneficial Owners of an aggregate of 1,672,776 shares of Common Stock (as defined below) and (ii) except for such ownership, no member of the MB Group, individually or in the aggregate with all other members of the MB Group and all controlled affiliates of the members of the MB Group (such controlled affiliates, collectively and individually, the "MB Affiliates"), is the Beneficial Owner of, and/or has economic exposure to, Class A common stock, par value \$0.10 per share, of the Company (the "Common Stock"). For purposes of this Agreement, "Beneficial Owner" shall have the meaning ascribed to it in Rule 13d-3 under the Exchange Act.

Miscellaneous. The parties hereto recognize and agree that if for any reason any of 7. the provisions of this Agreement are not performed in accordance with their specific terms or are otherwise breached, immediate and irreparable harm or injury would be caused for which money damages would not be an adequate remedy. Accordingly, each party agrees that in addition to other remedies the other party shall be entitled to at law or equity, the other party shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement exclusively in the Court of Chancery or other federal or state courts of the State of Delaware. In the event that any action shall be brought in equity to enforce the provisions of this Agreement, no party shall allege, and each party hereby waives the defense, that there is an adequate remedy at law. Furthermore, each of the parties hereto (a) consents to submit itself to the personal jurisdiction of the Court of Chancery or other federal or state courts of the State of Delaware in the event any dispute arises out of this Agreement or the transactions contemplated by this Agreement, (b) agrees that it shall not attempt to deny or defeat such personal jurisdiction by motion or other request for leave from any such court, (c) agrees that it shall not bring any action relating to this Agreement or the transactions contemplated by this Agreement in any court other than the Court of Chancery or other federal or state courts of the State of Delaware, and each of the parties irrevocably waives the right to trial by jury, (d) agrees to waive any bonding requirement under any applicable law, in the case any other party seeks to enforce the terms by way of equitable relief and (e) irrevocably consents to service of process by

a reputable overnight mail delivery service, signature requested, to the address of such party's principal place of business or as othetwise provided by applicable law. This agreement shall be governed in all respects, including without limitation validity, interpretation and effect, by the laws of the state of Delaware applicable to contracts executed and to be performed wholly within such state without giving effect to the choice of law principles of such state.

8. <u>No Waiver</u>. Any waiver by any party of a breach of any provision of this Agreement shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Agreement. The failure of a party to insist upon strict adherence to any term of this Agreement on one or more occasions shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

9. <u>Entire Agreement</u>. This Agreement contains the entire understanding of the parties with respect to the subject matter hereof and may be amended only by an agreement in writing executed by the parties hereto.

10. <u>Severability</u>. If at any time subsequent to the date hereof, any provision of this Agreement shall be held by any court of competent jurisdiction to be illegal, void or unenforceable, such provision shall be of no force and effect, but the illegality or unenforceability of such provision shall have no effect upon the legality or enforceability of any other provision of this Agreement.

11. <u>Counterparts</u>. This Agreement may be executed in two or more counterparts which together shall constitute a single agreement.

12. <u>Successors and Assigns</u>. This Agreement shall not be assignable by any of the parties to this Agreement. This Agreement, however, shall be binding on successors of the parties hereto.

13. <u>No Third Party Beneficiaries</u>. This Agreement is solely for the benefit of the parties hereto and is not enforceable by any other persons.

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the parties hereto has executed this Agreement, or caused the same to be executed by its duly authorized representative as of the date first above written.

CENTRUS ENERGY CORP.

By: Philip Strawbridge Title: Senior Vice President, Chief Financial Officer, Chief Administrative Officer, and Treasurer

[Signature Page to Voting Agreement]

MORRIS BAWABEH

KULAYBA LLC uhl

By: Morris Bawabeh Title: Sole Member

M&D BAWABEH FOUNDATION, INC.

0 By: Morris Bawabeh Title: President

[Signature Page to Voting Agreement]

Schedule A

MORRIS BAWABEH KULAYBA LLC M&D BAWABEH FOUNDATION, INC.

AMENDMENT OF SOLICITATION/MODIFIC	ONTRACT	1. CONTRACT ID CODE PAGE OF PAGES				
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE	DATE	4 PEO	UISITION/PURCHASE REQ. NO.	E DDO	1 2 JECT NO. (If applicable)
				000079	5. FRO	JECT NO. (II applicable)
P00028 6. ISSUED BY CODE	See Bloc 892432	JK IOC		MINISTERED BY (If other than Item 6)	CODE	00701
U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415	002102		Idal 195	. Department of Energy no Operations Office 5 Fremont Avenue no Falls ID 83415		00701
8. NAME AND ADDRESS OF CONTRACTOR (No., street	county. State and	ZIP Code)	, 9A.	AMENDMENT OF SOLICITATION NO.		
American Centrifuge Operatin Attn: Charles Kerner 6901 Rockledge Dr Ste 800 Bethesda MD 208171867	CA National Anna	<u>[</u>	9B. x 104 8 9	DATED (SEE ITEM 11) A. MODIFICATION OF CONTRACT/ORDER N 3303519CNE000005 3. DATED (SEE ITEM 13)	0.	
CODE L8VHV5CNBV97	FACILITY CODI	E	0	5/31/2019		
LOVIN JCNBV 97	11 THIS ITE			IENTS OF SOLICITATIONS		
CHECK ONE A. THIS CHANGE ORDER IS ISSUED F ORDER NO. IN ITEM 10A.	nce to the solicita uired) ODIFICATION OF PURSUANT TO:	tion and this amendment, Net F CONTRACTS/ORDERS (Specify authority) THE (i, and is Inc S. IT MC CHANG	received prior to the opening hour and date sp rease: \$4 DDIFIES THE CONTRACT/ORDER NO. AS DE EES SET FORTH IN ITEM 14 ARE MADE IN T	SCRIBED	, 400.00 D IN ITEM 14. TRACT
C. THIS SUPPLEMENTAL AGREEMEN	T IS ENTERED I			MINISTRATIVE CHANGES (such as changes) OF FAR 43.103(b). TY OF:	in paying	unce,
D. OTHER (Specify type of modification						
-	ation o		A-179-0010			
E. IMPORTANT: Contractor Is is not 14. DESCRIPTION OF AMENDMENT/MODIFICATION UEI: L8VHV5CNBV97 The purpose of this incremen will increase the contract v \$168,743,109.97. The total increased by +\$4,459,400.00 of services through the end contractor for services perf 2022, and for closeout activ the period of performance. Oak Ridge. The All other te effect. Continued Except as provided herein, all terms and conditions of th 15A. NAME AND TITLE OF SIGNER (Type or print)	(Organized by Ut tal fund: alue of s contract to a new of the co ormed du itiesis a The issu: rms and o	ing modificat \$164,283,709. value is her total of \$16 ontract. The ring the peri and do not in ing office is conditions re	uding s ion (97) ceby 58,74 e ob iod (aclud s al: (, as her 16A,1	olicitation/contract subject matter where feasib is to obligate +\$4,459 by +\$4,459,400.00 to a increased from \$164,28 43,109.97 to allow for ligation funding is to of performance that exp de activities past the so modified to reflect n unchanged and are in	,400. new t 3,709 the c reimk ired state DOE-J full	total of 0.97 continuation ourse the 30 November ed end of ID replacing force and
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	_	UNITED STATES OF AMERICA		16C. DATE SIGNED
(Signature of person authorized to sign)			_	(Signature of Contracting Officer)		V1/60/6063

STANDARD FORM 30 (REV. 11/2016) Prescribed by GSA FAR (48 CFR) 53.243

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CONT		TION	SHEE
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REFERENCE NO. OF DOCUMENT BEING CONTINUED ET 89303519CNE000005/P00028

PAGE OF 2

2

NAME OF OFFEROR OR CONTRACTOR

American Centrifuge Operating, LLC

M NO.	SUPPLIES/SERVICES	QUANTITY		UNIT PRICE	AMOUNT
A)	(B)	(C)	(D)	(E)	(F)
	Period of Performance: 05/31/2019 to 11/30/2022				

Sponsored by GSA FAR (48 CFR) 53.110

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PA	PAGE OF PAGES		
	v			1	1 2		
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE		QUISITION/PURCHASE REQ. NO.	5. PROJ	ECT NO. (If applicable)		
P00001 6. ISSUED BY CODE	See Block 16C 892432		MINISTERED BY (If other than Item 6)	CODE	00701		
U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415	092432	U.S Ida 195	. Department of Energy ho Operations Office 5 Fremont Avenue ho Falls ID 83415		00701		
8. NAME AND ADDRESS OF CONTRACTOR (No., street	t, county, State and ZIP Code)	(x) 9A	AMENDMENT OF SOLICITATION NO.				
American Centrifuge Operatin Attn: Charles Kerner 5901 Rockledge Dr Ste 800 Bethesda MD 208171867	g, LLC	9B x 10,	DATED (SEE ITEM 11) A. MODIFICATION OF CONTRACT/ORDER N 9243223CNE000030	10.			
00DF		_	B. DATED (SEE ITEM 13)				
CODE L8VHV5CNBV97	FACILITY CODE		1/30/2022				
CHECK ONE A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A.	ODIFICATION OF CONTRACTS/OF PURSUANT TO: (Specify authority) CT/ORDER IS MODIFIED TO REFL H IN ITEM 14, PURSUANT TO THE	THE CHANC ECT THE AD AUTHORITY	DDIFIES THE CONTRACT/ORDER NO. AS DE GES SET FORTH IN ITEM 14 ARE MADE IN T MINISTRATIVE CHANGES (such as changes OF FAR 43.103(b).	SCRIBED	RACT		
D. OTHER (Specify type of modification	and authority)						
X Incremental Funding;	FAR 52.232-22 Lin	mitatic	n of Funds				
E. IMPORTANT: Contractor I is not	is required to sign this docume	ent and return	copies to the issuin	g office.			
14. DESCRIPTION OF AMENDMENT/MODIFICATION JEI: L8VHV5CNBV97 This modification makes the 1. Obligate \$2,796,121 to CL Payment: DR for Idaho https://vipers.doe.gov Any questions, please contac oy call/email 855-384-7377 o VipersSupport@hq.doe.gov Continued	following changes: IN 0001, bringing t	:			ž		
Except as provided herein, all terms and conditions of the 15A. NAME AND TITLE OF SIGNER (Type or print)	e document referenced in Item 9 A		retofore changed, remains unchanged and in NAME AND TITLE OF CONTRACTING OFFI				
		Jef	frey C. Fogg				
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNE	ED 16B.	UNITED STATES OF AMERICA		16C. DATE SIGNED		
(Signature of person authorized to sign)			(Signature of Contracting Officer)		01/19/2023		

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016) Prescribed by GSA FAR (48 CFR) 53.243

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED 89243223CNE000030/P00001 PAGE OF

NAME OF OFFEROR OR CONTRACTOR

American Centrifuge Operating, LLC

TEM NO.	SUPPLIES/SERVICES	QUANTITY		UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	Change Item 00001 to read as follows (amount shown is the total amount):				
	is the total amount).				
0001	Completion of Cascade, Initial Cascade Operation,				29,418,741.
	and Production of 20 kilograms (kg) of HALEU				
	(Phase 1)				
	Line item value is: \$29,418,741.50 Incrementally Funded Amount: \$5,000,000.00				
	incrementarry Funded Amount: \$5,000,000.00				

Sponsored by GSA FAR (48 CFR) 53.110

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES			
				1 1			
2. AMENDME	NT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)			
P00029		See Block 16C	23NE000112				
6. ISSUED BY	Y CODE	892432	7. ADMINISTERED BY (If other than Item 6)	CODE 00701			
U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415			U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415				
8. NAME AND	ADDRESS OF CONTRACTOR (No., street	, county, State and ZIP Code)	(X) 9A. AMENDMENT OF SOLICITATION NO.				
American	n Centrifuge Operatin	g, LLC					
	harles Kerner		9B. DATED (SEE ITEM 11)				
	ckledge Dr Ste 800						
Bethesda	a MD 208171867		x 10A. MODIFICATION OF CONTRACT/ORD	ER NO.			
			100 DATED (055 (TEM 10)				
0005		EACH ITY CODE	10B. DATED (SEE ITEM 13)				
CODE 18	3VHV5CNBV97	FACILITY CODE	05/31/2019				
		11. THIS ITEM ONLY APPLIES	TO AMENDMENTS OF SOLICITATIONS				
Offers mus Items 8 and separate le RECEIVED OFFER. If each letter	d 15, and returning co tter or electronic communication which incl AT THE PLACE DESIGNATED FOR THE by virtue of this amendment you desire to or electronic communication makes referen TING AND APPROPRIATION DATA (<i>If req</i>	rior to the hour and date specified pies of the amendment; (b) By ackrudes a reference to the solicitation RECEIPT OF OFFERS PRIOR TC change an offer already submitted , nee to the solicitation and this amer	in the solicitation or as amended , by one of the followin nowledging receipt of this amendment on each copy of t and amendment numbers. FAILURE OF YOUR ACKN 0 THE HOUR AND DATE SPECIFIED MAY RESULT IN such change may be made by letter or electronic comm adment, and is received prior to the opening hour and da	he offer submitted ; or (c) By IOWLEDGEMENT TO BE REJECTION OF YOUR nunication, provided			
	13. THIS ITEM ONLY APPLIES TO M	ODIFICATION OF CONTRACTS/O	RDERS. IT MODIFIES THE CONTRACT/ORDER NO. A	S DESCRIBED IN ITEM 14.			
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED I ORDER NO. IN ITEM 10A.	PURSUANT TO: (Specify authority)	THE CHANGES SET FORTH IN ITEM 14 ARE MADE	IN THE CONTRACT			
	B. THE ABOVE NUMBERED CONTRAC appropriation data, etc.) SET FORTH	CT/ORDER IS MODIFIED TO REFL 1 IN ITEM 14, PURSUANT TO THE	ECT THE ADMINISTRATIVE CHANGES (such as char AUTHORITY OF FAR 43.103(b).	nges in paying office,			
	C. THIS SUPPLEMENTAL AGREEMEN	T IS ENTERED INTO PURSUANT	TO AUTHORITY OF:				
	D. OTHER (Specify type of modification	and authority)					
		50					
x	52.232-22 Limit	ation of Funds					
		ation of Funds	ent and return copies to the is	reuina office			

UEI: L8VHV5CNBV97

The purpose of this incremental funding modification is to obligate from fund 07900 in the amount of +\$5,790,921.34 and deobligate -\$5,790,921.34 from fund 05350 for a no cost change to the contract. The contract value of \$168,743,109.97 remains unchanged. The All other terms and conditions remain unchanged and are in full force and effect. Period of Performance: 05/31/2019 to 11/30/2022

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A,	as heretofore changed, remains unchanged and in full force and effect.
15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

132					
		Jeffrey C. Fogg			
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED		
(Signature of person authorized to sign)		(Signature of Contracting Officer)	02/14/2023		
Previous edition unusable		STAN	DARD FORM 30 (REV. 11/2016)		
		Presc	ribed by GSA FAR (48 CFR) 53.243		

SIDIARIES OF CENTRUS ENERGY CORP.

Name of Subsidiary

United States Enrichment Corporation American Centrifuge Operating LLC

State of Incorporation

Delaware Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-239242) and Form S-8 (Nos. 333-257628, 333-218536, 333-200439) of Centrus Energy Corp. of our report dated February 22, 2023 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP Baltimore, Maryland February 22, 2023

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Daniel B. Poneman, certify that:

- 1. I have reviewed this annual report on Form 10-K of Centrus Energy Corp.;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee
 of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 22, 2023

/s/ Daniel B. Poneman Daniel B. Poneman President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Philip O. Strawbridge, certify that:

- 1. I have reviewed this annual report on Form 10-K of Centrus Energy Corp.;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 22, 2023

/s/ Philip O. Strawbridge Philip O. Strawbridge

Senior Vice President, Chief Financial Officer, Chief Administrative Officer and Treasurer

CERTIFICATION OF CEO AND CFO PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report on Form 10-K of Centrus Energy Corp. for the period ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), pursuant to 18 U.S.C. § 1350, Daniel B. Poneman, President and Chief Executive Officer, and Philip O. Strawbridge, Senior Vice President, Chief Financial Officer, Chief Administrative Officer and Treasurer, each hereby certifies, that, to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Centrus Energy Corp.

February 22, 2023

/s/ Daniel B. Poneman Daniel B. Poneman

President and Chief Executive Officer

February 22, 2023

/s/ Philip O. Strawbridge Philip O. Strawbridge

Senior Vice President, Chief Financial Officer, Chief Administrative Officer and Treasurer