PART I – SECTION C

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

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Part I – Section C

Descriptions/Specifications/Statement of Work

C.1 Introduction

The Contractor is responsible for managing and operating the Idaho National Laboratory (INL). The INL is a multi-program Department of Energy (DOE) Federally Funded Research and Development Center (FFRDC), as defined in FAR 35.017, whose primary focus is to function as the lead nuclear energy research and development laboratory providing and directing resources and capabilities to support the nuclear energy, national security, and other applied energy missions of the INL.

This contract is designed to enable the Contractor to achieve highly effective and efficient management of the Laboratory, resulting in:

(a) A safe and secure operating environment;

(b) Outstanding science, engineering, and technology results;

(c) Cost effective and efficient operations; and

(d) Enhanced accountability.

This contract reflects the application of performance-based contracting approaches and techniques that emphasize results/outcomes and minimize unilateral “how to” performance descriptions, except in instances where required by law, regulation, or DOE requirements. The Contractor is responsible for performance under the contract, including determining the specific methods for accomplishing the work and performance quality assurance. This contract provides flexibility, within the terms and conditions of the contract, to the Contractor in managing and operating the Laboratory.

The Contractor is responsible for developing and implementing innovative approaches and adopting practices that foster continuous improvement in accomplishing the mission of the Laboratory. The Contractor shall produce and maintain effective and efficient management structures, systems, and operations that achieve high levels of quality and safety in accomplishing the work, and to the extent practicable and appropriate, rely on national, commercial, and industrial standards that can be verified and certified by independent, nationally recognized experts and other independent reviewers. The Contractor shall conduct work in a manner that optimizes productivity, minimizes waste, and fully complies with applicable laws, regulations, and terms and conditions of the contract.

C.2 Performance Expectations and Objectives

In addition to the broad objective described here, the Contractor shall receive from DOE specific performance and management objectives, and performance measures. DOE shall provide these in program guidance, financial planning documents, and in other written direction in accordance with other provisions of the contract.

The Contractor shall:

(a) Advance the INL's stature as an internationally recognized laboratory in nuclear energy technologies.

(b) Advance the INL's leadership in industrial control systems cybersecurity and critical infrastructure protection research and development.

(c) Advance the INL's role in applied energy, including research, development, and demonstrations of integrated energy systems.

(d) Initiate innovative concepts and research proposals that are aligned with and drive DOE missions, and are well matched with Laboratory capabilities.

(e) Strive to meet the highest standards of scientific quality and productivity, "ontime, on budget, as promised" delivery of program deliverables, and first-rate service to the research community through user facility operations.

(f) Demonstrate benefit to the nation from research and development investments by transferring technology to the private sector, by effectively managing scientific and technical information, and supporting excellence in science and engineering education to the extent such activities are consistent with achieving DOE's core missions.

(g) Consistent with its missions, make the INL's unique scientific and technical capabilities available to DOE, other federal agencies, state and local governments, universities, and the private sector.

(h) Establish and implement an effective Contractor Assurance System.

(i) Conduct activities and work in a manner that instills public confidence in the INL; conduct public outreach in a manner that sufficiently informs the public about, and actively generates, support for the INL and the DOE Office of Nuclear Energy (NE) programs.

C.3 Laboratory Stewardship

The Contractor shall actively partner with DOE to assure that the Laboratory is continually renewed and enhanced to meet future mission needs. Within the constraints of available resources and other contract requirements, the Contractor, in partnerships with DOE, shall:

(a) Maintain an understanding of the DOE's evolving Laboratory vision and long-term strategic plan; anticipate Laboratory capabilities required to meet evolving DOE mission needs, including maintaining a system for understanding the utilization and capability of the Laboratory (e.g., facilities, equipment, and staff).

(b) Attract, develop, and retain an outstanding workforce, with skills and capabilities to meet DOE's evolving mission needs; actively promote a diverse and inclusive workplace.

(c) Renew and enhance research facilities and equipment so that the Laboratory remains a state-of-the-art facility and is well positioned to meet future DOE needs.

(d) Build and maintain a financially viable portfolio of research programs to renew and enhance Laboratory research capabilities over time.

(e) Maintain a positive relationship with the broader research community, to enhance the intellectual vitality and research relevance of the Laboratory, and to bring the best possible capabilities to bear on DOE mission needs through partnerships.

(f) Build a positive and supportive relationship founded on openness and trust with DOE, the local community, and the region in which the Laboratory is located.

C.4 Laboratory Missions

In support of major DOE/National Nuclear Security Administration (NNSA) and/or other work sponsors, the Contractor shall serve as a national resource in science, technology and engineering focused on energy, national security, and the environment with special responsibility for nuclear energy research and development. The Contractor shall use multidisciplinary capabilities and apply expertise to conduct research within the capabilities and approved operational analyses for the Laboratory. The Contractor shall provide the intellectual leadership and management expertise necessary and appropriate to manage, operate, and staff the Laboratory; and to perform the work described in this Statement of Work (SOW). The DOE research areas are identified through strategic planning, program coordination, and cooperation between the Laboratory and DOE.

The research activities of the Laboratory are dynamic; this SOW is not intended to be all-inclusive or restrictive, but is intended to provide a broad framework and general scope of work to be performed at the Laboratory during the term of the contract. This SOW

does not represent a commitment to, or imply funding for, specific projects or programs. DOE and/or other work sponsors in accordance with the provisions of this contract will authorize projects and programs.

Work under this contract shall be conducted in a manner that will protect the environment and ensure the safety and health of employees and the public. The Contractor shall implement an Integrated Safety Management System with an Integrated Environmental Management System. The Contractor shall implement appropriate program and project management systems to track progress and pursue cost effectiveness in work activities; develop integrated plans and schedules to achieve program objectives, incorporate input from DOE and stakeholders; maintain technical expertise to manage activities and projects throughout the life of a program; maintain Laboratory facilities and infrastructure to accomplish assigned missions and support long-term goals; and utilize technologies and management systems to improve cost efficiency and performance.

C.4.1 Nuclear Energy

(a) The Contractor shall provide technical expertise to support DOE's efforts to revive, revitalize, and expand the use of nuclear energy to ensure the reliability and resiliency of baseload power in meeting the nation's energy needs.

(b) The Contractor shall manage the INL as the lead laboratory for NE to develop nuclear technologies and advanced fuel cycles, and sustain research to support NE priorities for the existing nuclear power fleet, the advanced reactor pipeline, fuel cycle infrastructure, and mission support and enablement.

(c) The Contractor shall assume a major role in revitalizing the nuclear engineering and science workforce in the U.S.

(d) The Contractor shall also lead the Nuclear Sciences User Facilities Program, effectively and efficiently providing world-class user facilities in support of NE programs.

(e) The Contractor shall meet National Aeronautics Space Administration (NASA) cost, scope, production schedules, and quality requirements for radioisotope power systems, Pu-238, and any other assigned mission/requirement activities in support of NE on behalf of NASA.

(f) The Contractor shall meet Naval Reactors (NR) cost, scope, production schedules, and quality requirements for Advanced Test Reactor (ATR) testing, post-irradiation examinations, and any other assigned mission/requirement activities in support of NE on behalf of NR and the Naval Nuclear Propulsion Program.

C.4.2 National Security

(a) The Contractor shall engage in research, development, testing, and deployment of systems and technologies to protect the U.S. security interests.

(b) The Contractor will further the INL's role as the leading research and development center for industrial control systems cybersecurity and develop engineering- and science-based technical solutions to protect the nation's critical infrastructure.

(c) The Contractor shall sustain the INL as a lead science and technology provider in nuclear nonproliferation and counter-proliferation.

(d) The Contractor shall meet the Department of Army cost, production schedules, and quality requirements for the Specific Manufacturing Capability (SMC), and ensure the INL is a leading provider of applied solutions to satisfy mission requirements for Defense and Intelligence Community clients.

C.4.3 Science and Technology Supporting the Principal Missions

(a) The Contractor shall conduct research in the areas of Materials Sciences, Chemistry and Geosciences, providing knowledge essential to defense, energy innovation, industrial competitiveness, engineering sciences, nuclear physics, computational sciences, biological sciences, nano-science, and other areas of national interest.

(b) The Contractor shall research, develop, and deploy technologies that improve the efficiency, cost effectiveness, and environmental impacts of systems that generate, transmit, distribute, and store electricity and fuels (including fossil and alternative).

(c) The Contractor shall also manage and operate the Biomass Feedstock National User Facility in support of the Office of Critical Minerals and Energy Innovation.

C.4.4 Other Programs

Utilizing the Laboratory's competencies, capabilities, and expertise, the Contractor shall perform the following activities, as directed by DOE, in support of DOE mission objectives:

(a) **Science and Engineering Education Programs, Cooperation with Colleges, Universities, and Other Research Institutions.** The Contractor shall develop partnerships with colleges and universities, including

minority-serving institutions, and manage programs to enhance science, engineering, and technology education at all levels.

(b) **Mission Related Partnerships**. The Contractor shall contribute to U.S. technological competitiveness through research and development partnerships with industry that capitalize on the Laboratory's expertise and facilities.

(c) **User Facility Operations**. The Contractor shall manage and operate the Laboratory in accordance with DOE guidance for User Facilities and in accordance with DOE directives incorporated in this contract. Although some of the research activities at the Laboratory are designed and conducted by users outside the Laboratory, the Contractor is responsible for managing the facilities and ensuring that provisions are in place to perform the activities safely and effectively.

(d) **International Collaboration.** In accordance with DOE policies, and in consultation with DOE, the Contractor shall maintain a broad program of international collaboration (i.e., participation in programs involving visits, assignments, or exchange of staff/students in areas of research interest to the Laboratory and DOE).

(e) **Other Activities.** The Contractor is responsible for the conduct of such other programs and activities as the Contracting Officer may direct, including:

(1) Conduct research and development work for non-DOE sponsors, which is consistent with, and complementary to the DOE and Laboratory's mission under the contract, and does not adversely impact or interfere with execution of DOE-assigned programs, does not place the facilities or Laboratory in direct competition with the private sector, and for which the personnel or facilities of the Laboratory are particularly well adapted and available, as may be authorized, in writing, by the Contracting Officer.

(2) Dissemination and publication of unclassified scientific and technical data and operating experience developed in the course of the work.

(3) Furnishing of such technical and scientific assistance (including training and other services, material, and equipment), which are consistent with and complementary to the DOE's and the INL's mission under this contract, both within and outside the U.S., to DOE and its installations, contractors, and interested organizations and individuals.

C.5 Facility Management

The Contractor shall:

(a) Provide for the safe and efficient operation of all INL facilities.

(b) Systematically evaluate and optimize the cost of infrastructure by re-utilizing existing facilities, decommissioning aging facilities, and developing new infrastructure for overall footprint optimization.

(c) Aggressively streamline, upgrade, and plan for new infrastructure at the INL using the goals and milestones contained in the INL Annual Laboratory Plan.

(d) Manage special nuclear material, waste, Voluntary Consent Order items, and environmental liabilities in accordance with this contract and other binding agreements.

C.6 General Management Requirements

The Contractor's general management responsibilities include budget and financial management, infrastructure management, property management, project management, construction management, legal services, labor relations, procurement, information resources, records management, public information and external communications, regulatory compliance, integrated safety management, emergency preparedness, transportation services, cafeteria services, counterintelligence, and safeguards and security.

C.6.1 Human Resources

The Contractor shall establish a Human Capital Management Program that assures successful accomplishment of all contract activities.

C.6.2 Small Business

The Contractor shall provide maximum practicable opportunities in its acquisition for all small-business categories listed in FAR 19.201(a) and consistent with the Government's interest, to meet or exceed the small-business goals contained in the Contractor's Small-Business Subcontracting Plan.

C.6.3 Collaboration

The Contractor shall establish and maintain flexible and responsive collaborative relationships as required to perform the Statement of Work

C.6.4 Technology Transfer and Commercialization

The Contractor shall maintain an active Technology Transfer and Commercialization Program using the flexibilities provided by this contract.

C.6.5 Relationships with Existing and Future Site Tenants, the Idaho Cleanup Project (ICP) Contractor, and Government Authorized Developers:

The Contractor shall:

(a) Assume or support, as applicable, all existing Memorandums of Understanding (MOUs) and other site contracts for service and support to INL tenants described in Section J, Attachment J-F, "Tenant Agreements." The Contractor may suggest changes to those agreements if necessary.

(b) Conduct an in-depth review and issue a report of potential subcontracting opportunities of site services by June 30, 2018. Identify areas where cost savings or other efficiencies in site services may be achieved by outsourcing. Define the set of INL-provided services that are needed to support mission work and stewardship of the site in a safe and high-quality manner. Where a transition to subcontracted services is pursued, propose a timeline and transition plan that causes minimal impact to the Laboratory, its personnel, site tenants, and NE. A review of site services shall be routinely completed, but no less frequent than every three (3) years.

(c) Maintain an Interface Agreement with the ICP Contractor that describes how the Contractor and the ICP Contractor will interface on cross-cutting issues such as security, facility and program transfers, regulatory compliance, assignment of subcontractors, and other commercial obligations, consistently presenting information to the public and other arrangements of mutual benefit.

(d) Support new nuclear projects, as appropriate, both on and off the INL site, whether as a result of Executive Order 14301, Reforming Nuclear Reactor Testing at the Department of Energy, or otherwise, in which a developer will be responsible for a project through an agreement with DOE's Office of Nuclear Energy or Idaho Operations Office, such as a lease or Other Transaction Authority agreement. Additionally, as appropriate, Contractor shall maintain an Interface Agreement or similar arrangement with each developer pursuing a project on the INL Site to address how the Contractor and the developer will interface on cross-cutting issues such as those in paragraph (c). All work and activities performed by the Contractor in connection with these projects, including any work or activities memorialized in separate appropriate agreements or related documents, shall be governed by and subject to the terms and protections of this Contract between Contractor and DOE. Further, notwithstanding any other statements in this contract between Contractor and DOE, the Contractor is not responsible for 1) the activities of the developer on land or in facilities leased or otherwise designated for the developer's use by DOE, including any adverse impact of developer activities on future INL programs or facilities, 2) the developer's acquisition, use, operation, maintenance or disposition of equipment, facilities, land or other property, or 3)

the acts or omissions of the developer, its funders, its affiliates, its sub-tier contractors/suppliers and their respective officers, directors, employees, agents or representatives. Finally, to the extent that Contractor's activities related to developer projects involve a risk of public liability as defined in the Atomic Energy Act of 1954, as amended, the provisions of Section I.60 of this contract will apply to the Contractor.

C.6.6 Security of Nuclear Materials

The Contractor shall effectively and appropriately protect Government and Contractor nuclear materials in accordance with this contract and any other applicable laws and regulations.

C.7 Environmental, Safety and Health

C.7.1 Environmental Requirements

The Contractor shall maintain an effective Environmental Management System that includes a compliant Environmental Protection Program addressing permitting and disposal activities, and safely managing waste, including storage, treatment, and disposal of hazardous, mixed, and radioactive waste. The Contractor shall maintain permits or parts/volumes to permits and compliance documentation for INL facilities; coordinate with the ICP Contractor for site-wide Resource Conservation and Recovery Act (RCRA) compliance and permitting, and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) agreement; integrate permitting, monitoring, and reporting Emergency Planning and Community Right to Know Act (EPCRA) data from INL tenants for tenant facilities and operations where site-wide permits or reporting are required; and integrate required site-wide environmental surveillances or studies not covered under CERCLA or RCRA where the ICP Contractor has the lead. The Contractor shall perform all WAG 9 (ANL-W) CERCLA work scope. All other CERCLA work scope is the responsibility of the ICP Contractor.

C.7.2 Safety Requirements

The Contractor shall maintain an effective Integrated Safety Management System and effectively engage employees in achieving safety excellence.

C.8 Deliverables

Contract deliverables are defined in Section J, Attachment I, "Contract Data Requirements List" (CDRL). DOE, through written direction from the Contracting Officer, may require additional reports, analysis, or other information relevant to contract performance.