JUN 2 5 2015

INTERAGENCY AGREEMENT	1. IAA NO. NRC-HQ-11-14-D-0002/M0003	PAGE 1 OF 2

2. ORDER NO.	3. REQUISITION NO.	4. SOLICITATION NO.

5. EFFECTIVE DATE	6. AWARD DATE	7. PERIOD OF PERFORMANCE
05/28/2015	05/28/2015	09/15/2014 TO 09/30/2019

8. SERVICING AGENCY
ALBUQUERQUESANDIA NATL LAB
ALC:
DUNS: 155505027 +4:
DOENNSASFO
CONTRACTING OFFICER
PO BOX 5400
ALBUQUERQUE NM 87185-5400

POC Mary Cocco - SNL poc @ 505 844 8008
TELEPHONE NO. 505-845-6055 - Dolores Linebach w/ DOE/NNSA

9. DELIVER TO
JAMES VAUGHN
MAIL STOP 3WFN 8-C28
11555 ROCKVILLE PIKE
ROCKVILLE MD 20852

10. REQUESTING AGENCY
ACQUISITION MANAGEMENT DIVISION
ALC: 31000001
DUNS: 040535809 +4:
US NUCLEAR REGULATORY COMMISSION
ONE WHITE FLINT NORTH
11555 ROCKVILLE PIKE
ROCKVILLE MD 20852-2738

POC Jeffrey R. Mitchell
TELEPHONE NO. 301-415-5074

11. INVOICE OFFICE
US NUCLEAR REGULATORY COMMISSION
ONE WHITE FLINT NORTH
11555 ROCKVILLE PIKE
MAILSTOP O3-E17A
ROCKVILLE MD 20852-2738

12. ISSUING OFFICE
US NRC - HQ
ACQUISITION MANAGEMENT DIVISION
MAIL STOP 3WFN-05-C64MP
WASHINGTON DC 20555-0001

13. LEGISLATIVE AUTHORITY
Energy Reorganization Act of 1974

14. PROJECT ID

15. PROJECT TITLE
RULEMAKING & GUIDANCE DEVELOPMENT FOR SECURITY REQ

16. ACCOUNTING DATA
No Funds Obligated (ZEROREQ-NSIR-15-0023)

17. ITEM NO.	18. SUPPLIES/SERVICES	19. QUANTITY	20. UNIT	21. UNIT PRICE	22. AMOUNT
	Project Title: Rulemaking and Guidance Development for Security Requirements Related to Storage of Spent Nuclear Fuel (Wet & Dry Environments) & Decommissioning Nuclear Reactors Master IAA: N/A The purpose of this modification is to add additional within scope tasks as a result the authorized cost ceiling is increased by $39,582.00 from $519,431.00 to $559,013.00. Accordingly the Agreement is modified as follows: Refer to the "Statement of Work" is hereby Continued ...				

23. PAYMENT PROVISIONS	24. TOTAL AMOUNT
	$0.00

25a. SIGNATURE OF GOVERNMENT REPRESENTATIVE (SERVICING)	26a. SIGNATURE OF GOVERNMENT REPRESENTATIVE (REQUESTING)
25b. NAME AND TITLE: Lindsey VanNess, Contracting Officer	25c. DATE: 6.25.15
26b. CONTRACTING OFFICER: JEFFREY R. MITCHELL	26c. DATE: 5/28/2015

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE

JUL 2 1 2015

ADM002

deleted in its entirety and replaced with the following Statement of Work attached to this Modification No. 3 entitled "Statement of Work Rev No. 1."

The new Authorized Cost Ceiling is $559,013.00.

No Funds are obligated on this modification. Cumulative obligations to date are $51,433.00.

Attachment No. 1: Statement of Work Rev No. 1

All other terms and conditions remain unchanged.

This agreement is entered into pursuant to the authority of the Energy Reorganization Act of 1974, as amended (42 U.S.C 5801 et seq.). This work will be performed in accordance with the NRC/DOE Memorandum of Understanding dated November 24, 1998. To the best of our knowledge, the work requested will not place the DOE and its contractor in direct competition with the domestic private sector.

This is non Fee-Recoverable Work

TAS 31x0200.320
DUNS/BPN: 040535809

Attachment 1

Statement of Work Revision No. 1

NRC Agreement Number	NRC Agreement Modification Number	NRC Task Order Number (If Applicable)	NRC Task Order Modification Number (If Applicable)
NRC-HQ-11-14-D-0002	3		

Project Title
Rulemaking and Guidance Development for Security Requirements Related to Storage of Spent Nuclear Fuel (Wet and Dry Environments) and Decommissioning Nuclear Reactors

Job Code Number	B&R Number	DOE Laboratory
1047	R425/251D	Sandia National Laboratory

NRC Requisitioning Office
Nuclear Security Incident Response/Division of Security Policy/Material Waste Security Branch

NRC Form 187, Contract Security and Classification Requirements	
☒ Applicable ☐ Note Applicable	☐ Involves Proprietary Information ☒ Involves Sensitive Unclassified
☒ Non Fee-Recoverable	☐ Fee-Recoverable (If checked, complete all applicable sections below)
Docket Number (If Fee-Recoverable/Applicable)	Inspection Report Number (If Fee Recoverable/Applicable)
Technical Assignment Control Number (If Fee-Recoverable/Applicable)	Technical Assignment Control Number Description (If Fee-Recoverable/Applicable)

1.0 BACKGROUND

Under the *Atomic Energy Act of 1954*, as amended (AEA), the U.S. Nuclear Regulatory Commission (NRC) has the responsibility to establish rules, regulations, orders, and policies to ensure that source material, byproduct material, and special nuclear material are stored in a manner to adequately protect public health and safety, the common defense and security, and the environment. In that regard, the NRC has established regulations under Title 10 of the Code of Federal Regulations, Parts 50, 72, and 73 (10 CFR Parts 50, 72 and 73) regulating the storage of spent nuclear fuel (SNF) in a spent fuel pool (SFP) and the storage of SNF and high-level radioactive waste (HLW) in an Independent Spent Fuel Storage Installation (ISFSI) and/or a Monitored Retrievable Storage Installation (MRS). The NRC's Office of Nuclear Material Safety and Safeguards, Division of Spent Fuel and Secure Transportation (NMSS/SFST) is responsible for the regulations under Part 72 and the NRC's Office of Nuclear Security and Incident Response, Division of Security Policy (NSIR/DSP) is responsible for the regulations under Part 73.

The NRC is updating its security requirements for the storage of spent nuclear fuel in both wet and dry environments. These requirements include changes to 10 CFR 72, 10 CFR 73 and 10 CFR 50. Changes will effect licensing actions and will support future rulemakings and the

associated guidance documents on the storage of spent nuclear fuel and the decommissioning of nuclear reactors. Currently, NSIR is developing a draft regulatory basis for a proposed rulemaking to update the security requirements for facilities storing SNF and HLW at ISFSIs and MRS.

Direction for these rulemakings is contained in Staff Requirements Memorandum (SRM) SRM-SECY-07-0148, and SRM-SECY-10-0114, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning." Specifically:

On December 20, 2007, the Commission, in SRM-SECY-07-0148, directed NSIR staff to undertake a rulemaking to update the security requirements for facilities storing SNF and HLW. The Commission directed that the proposed security rule use a risk-informed and performance-based approach under which licensees would calculate potential releases from their ISFSI or MRS in response to certain NRC-specified security scenarios.

SRM-SECY-07-0148, Issue 4, third paragraph, stipulates: "Because of the complexity of the issues associated with this proposed rulemaking, the staff should develop draft regulatory guidance and other draft licensing guidance for deployment during the proposed rule stage to ensure all parties understand the objective, implementation and scope of the proposed rule."

SRM-SECY-10-0114, third paragraph, stipulates: "The staff should provide the Commission a paper within twelve months providing an analysis of the stakeholder comments, and making any recommendations, if justified, for modifying the direction contained in the SRM on SECY-07-0148, accompanied by a fully developed basis for doing so. The staff should provide the Commission with Draft Guide 5033 with its recommendation on the technical approach for the rule."

The regulatory approach contemplated by the NRC staff under this proposed rulemaking would require licensees to calculate the dose at standard distances from a release of radioactive material from an ISFSI or MRS as a result of specific sabotage events. The licensee would then be required to verify the dose from such releases is below a specific acceptance criterion. If the results of the licensee's calculations do not meet the acceptance criteria, then the licensees could be required to modify their physical protection system, protective strategy, or the design of their facility in order to meet the dose criteria.

The work under this agreement is expected to build upon, and be informed by, the work completed by Sandia National Laboratories (SNL) in previous agreements with NMSS/SFST and NSIR/DSP related to security assessments of spent fuel storage systems. Those agreements include:

- J5463 (previously J5412), "Vulnerability Assessments for Transportation and Storage of Radioactive Materials (NISAC Program)," from March 11, 2002 to September 30, 2004

- W1140, "Development of a Regulatory Guidance Document Supporting the ISFSI and MRS Security Rulemaking – Phase 1,", from April 15, 2011 to August 30th, 2014, and associated sub-contract between SNL and Energetic Materials Research and Test Center

- Some topics which required further examination were identified as part of the work performed under the W1140 agreement. The results of this work performed will be used, in part, to support the potential ISFSI and decommissioning power plants security-

rulemakings. Specifically, under the W1140 agreement, the first Draft Regulatory Guide DG-5033, "Security Performance (Adversary) Characteristics for the Design, Development, and Implementation of a Physical Security Program for Spent Nuclear Fuel and High-Level Radioactive Waste Storage Facilities under 10 CFR Part 73 (U)" [contains Safeguards Information (SGI)] was drafted and comments were submitted for resolution with the draft propose rule for later stakeholder comment.

- The Office of Regulatory Research (RES) is actively engaged in this work and has completed an evaluation of existing experiments and analyses conducted by SNL on the storage of SNF in wet and dry environments. The results of that classified research and its SGI and classified recommendations for additional research will inform the tasks under this agreement. RES has separately contracted with SNL to perform MELCOR analysis on SFP and storage casks. Results from these agreements will also influence this work.

2.0 OBJECTIVE

The objective of the agreement is to obtain continued technical and editorial expertise from SNL to assist NRC staff with spent fuel and HLW storage at ISFSIs and MRS, decommissioning rulemakings and the development or update of several regulatory guides and NUREGs. Depending on Commission direction, this work may include additional research, analysis or proof-of-concept testing.

3.0 SCOPE OF WORK

SNL shall provide all resources necessary to accomplish the tasks and deliverables described in this statement of work (SOW).

SNL shall assist the NRC staff with spent fuel and HLW storage at ISFSIs and MRS, decommissioning rulemakings activities for the technical and editorial development or update and publishing of the following regulatory guides and NUREGs:

(1) Draft Regulatory Guide DG-5033, "Security Performance (Adversary) Characteristics for the Design, Development, and Implementation of a Physical Security Program for Spent Nuclear Fuel and High-Level Radioactive Waste Storage Facilities under 10 CFR Part 73 (U)" [contains SGI]

This guidance contains detailed performance characters that describe the explosives, weaponry, tactics and procedures that individuals and groups with malevolent intent could reasonably be expected to employ in an assault against an ISFSI or MRS. Therefore, issuance of this regulatory guide is necessary to provide ISFSI and MRS licensees, applicants and, certificate holders with the necessary technical content on security performance characteristics needed to design, develop and implement physical protection systems for such facilities under the NRC's regulations in 10 CFR 73, "Physical Protection of Plants and Materials.

(2) A new Regulatory Guide pertaining to security requirements at ISFSI and MRS for dry storage

This regulatory guide will provide direction on compliance with the new regulatory structure (i.e., using pre-defined security scenarios and the quantity of radionuclides released) and direction to compartmentalize the information associated with such radiological releases; and thereby certificate licensees to control such calculations as SGI, rather than as classified national security information. This effort will be performed in collaboration with the staff of RES and NMSS.

(3) A new Regulatory Guide pertaining to security requirements for the storage of SNF in wet environments, and decommissioning of nuclear power plants (NPP)

The specificity of the guidance will be expanded as NRC management and the Commission provides direction and the rulemaking matures.

(4) Update of NUREG-1619, "Standard Review Plan (SRP) for Physical Protection Plans for the ISFSI and High Level Waste"

The updated document will provide NRC staff with a consistent template for performing security-related license application, amendment and certificate reviews.

(5) A new NUREG/CR with a proposed title of "Standard Review Plan for Physical Protection Plans for the Storage of Spent Nuclear Fuel and Decommissioning NPPs"

The NUREG/CR will provide NRC staff with a consistent template for performing security-related licensee, application, and certificate reviews.

(6) Based upon Commission direction throughout the rulemaking activities, SNL shall support the technical planning, coordination, design and implementation of research, analysis or proof-of-concept activities that were previously performed under the J6353 and W1140 agreements. Drawing upon work performed under *Task 3 – "Submission of an Interim Sandia Letter Report to the NRC on the Results of Task 2 and the Proposed Analyses Necessary to Develop a Regulatory Guidance Document,"* JCN W1140, "Development of a Regulatory Guidance Document Supporting the ISFSI and MRS Security Rulemaking – Phase 1," from April 15, 2011 to August 30th, 2014, and ongoing work under the SNL and Office of Research classified contract "MELCOR cask analysis " shall finalize the classified Task 3 interim letter report previously delivered and create a Sandia Report.

4.0 SPECIFIC TASKS

SNL shall perform the following tasks:

Task 1.0 – Knowledge Management

Task 1a. Project Start Up

SNL shall review and become familiar with current status of the rulemakings, previous work performed under Agreements J6353 and W1140, and the reference documents delineated in Section 13.0, "NRC-FURNISHED PROPERTY/MATERIALS," of this SOW.

Within ten working days after award of this agreement, SNL shall provide an email confirmation to the Contracting Officer's Representative (COR) that the SNL Project Manager and assigned SNL staff have completed this task.

Task 1b. Kick-off Meeting

SNL shall participate in a kick-off meeting with the COR and NRC staff to review the SOW, discuss NRC's expectations, project management, and performance requirements of this agreement. The meeting shall be held within fifteen working days after award of this agreement.

SNL shall prepare a written summary of the meeting that includes, at a minimum, the following information: (1) identify meeting participants from the NRC and SNL, (2) convey minutes of the meeting that clearly describe the substance of the meeting, and (3) list and describe decisions related to scheduling and action items.

Within five working days after the kick-off meeting, submit the written meeting summary to the NRC COR.

Task 1c. Security Training

As directed by the COR, complete initial training and security clearance activities that will afford initial access to sensitive, proprietary, Safeguards and classified information. Complete required annual training requirements to maintain continued access. The NRC COR will assist SNL in coordinating with Office of Administration/Division of Facility Security/Personnel Security Branch to transfer the required documentation regarding security clearances to facilitate reciprocity of security clearances. Additional information regarding security requirements and access are found in Section 12 of the DOE Laboratory Standard Terms and Conditions.

Within 30 working days after award of this agreement, SNL shall complete initial security training and provide documentation to Personnel Security Branch for security clearances.

SNL shall complete annual security training courses on a yearly basis.

Task 2.0 – <u>Support Development of Draft Regulatory Guide DG-5033</u>

SNL shall support the technical development, editing and publishing of Revision 1 of Draft Regulatory Guide DG-5033, "Security Performance (Adversary) Characteristics for the Design, Development, and Implementation of a Physical Security Program for Spent Nuclear Fuel and High-Level Radioactive Waste Storage Facilities under 10 CFR Part 73 (U)" [contains SGI]. SNL shall develop the draft regulatory guide 5033 in accordance with the draft proposed rule and the editorial guidance documents delineated in Section 13.0, NRC-FURNISHED PROPERTY/MATERIALS.

Within 75 working days of award of this agreement, SNL shall submit the first draft of Revision 1 to Regulatory Guide DG-5033 to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update the draft revision to Regulatory Guide DG-5033 as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of those comments and revise the draft revision to Regulatory Guide DG-5033.

SNL shall continue to update the draft revision to Regulatory Guide DG-5033 as needed based upon COR technical direction as the rule proceeds through the rulemaking process

Task 3.0 - Support Development of New Regulatory Guide for Dry Storage

SNL shall support the technical development, editing and publishing of a new regulatory guide pertaining to security requirements at ISFSI and MRS for dry storage. This new regulatory guide shall be drafted for submittal with the draft proposed rule for later stakeholder comment. SNL shall develop the draft the New Regulatory Guide for Dry Storage in accordance with the draft proposed rule and the editorial guidance documents delineated in Section 13.0, NRC-FURNISHED PROPERTY/MATERIALS.

Within 45 working days of receipt of technical direction, SNL shall submit the first draft of the Regulatory Guide for Dry Storage to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update the draft Regulatory Guide for Dry Storage, as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of the comments and revise the draft Regulatory Guide for Dry Storage

SNL shall continue to update the Draft Regulatory Guide for Dry Storage as needed, based upon COR technical direction as the rule proceeds through the rulemaking process.

Task 4.0 - Support Development of New Regulatory Guide for Wet Storage

SNL shall support the technical development, editing and publishing of a new regulatory guide pertaining to security requirements at ISFSI and MRS for wet storage. This new regulatory guide shall be drafted for submittal with the draft proposed rule for later stakeholder comment. SNL shall develop the draft New Regulatory Guide for Wet Storage in accordance with the draft proposed rule and the editorial guidance documents delineated in Section 13.0, NRC-FURNISHED PROPERTY/MATERIALS.

Within 45 working days of receipt of technical direction, SNL shall submit the first draft of the Regulatory Guide for Dry Storage to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update the draft Regulatory Guide for Wet Storage, as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of the comments and revise the draft Regulatory Guide for Wet Storage.

SNL shall continue to update the draft Regulatory Guide for Wet Storage as needed, based upon COR technical direction as the rule proceeds through the rulemaking process.

Task 5.0 - Support the Update of NUREG-1619: Standard Review Plan for Spent Fuel Storage

SNL shall support the technical development, editing and publishing of the update of NUREG-1619. The current version of NUERG -1619, "Standard Review Plan (SRP) for Physical Protection Plans for the ISFSI and High Level Waste," will be updated, transmitted for internal and external comment and published as part of the rulemaking effort. SNL shall update NUREG 16-19 and submit drafts consistent with the draft proposed rule and the editorial guidance documents delineated in Section 13.0, NRC-FURNISHED PROPERTY/MATERIALS and Section 15.0, STANDARDS FOR CONTRACTORS WHO PREPARE NUREG-SERIES MANUSCRIPTS.

Within 45 working days of receipt of technical direction, SNL shall submit the first draft of the updated NUREG-1619 to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update NUREG-1619, as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of those comments and revise the draft update to NUREG-1619.

SNL shall update NUREG-1619 as needed, based upon the COR technical direction as the rule proceeds through the rulemaking process.

Task 6.0 - Support Development of New NUREG/CR: Standard Review Plan for Wet Storage

SNL shall support the technical development, editing and publishing of a new NUREG/CR with a proposed title of, "Standard Review Plan for Physical Protection Plans for the Security Requirements and Storage of SNF at Decommissioning NPPs." SNL shall develop the draft document in accordance with the draft proposed rule and the editorial guidance documents delineated in Section, 13.0, NRC-FURNISHED PROPERTY/MATERIALS and Section 15.0, STANDARDS FOR CONTRACTORS WHO PREPARE NUREG-SERIES MANUSCRIPTS.

Within 45 working days of receipt of technical direction, SNL shall submit the first draft of the NUREG/CR to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update the NUREG/CR, as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of those comments and revise the draft NUREG/CR.

SNL shall continue to update the draft NUREG/CR as needed, based upon the COR technical direction and as the rule proceeds through the rulemaking process.

Task 7.0 - Perform Research and Analysis

Based upon the NRC COR's direction throughout the rulemaking activities, SNL shall support the technical planning, design and implementation of research, analysis, product and report updates, or proof-of-concept activities, as performed previously under the J6353 and W1140 agreements. These requirements are not currently known and will be addressed, as needed, in future modifications to this agreement. The activities performed under this task may include the resubmittal of the interim Sandia Letter submitted under W1140 related to propose grouping of SNL facilities/cask designs and applicability of propose security scenarios as a final draft Sandia Report. The NRC staff envisions that such activities will take place during FY 2019. The NRC expects to complete the Research needed to inform the update of the interim Sandia Letter submitted under W1140 in June 2015.

Task 7a. Sandia Report (Classified Version)

SNL shall finalize the classified Task 3 interim letter report previously delivered under JCN W1140 and create a Sandia Report incorporating the results from Office of Research contract NRC-HQ-60-14-D-0019. The Sandia Report shall be delivered via letter as a draft Sandia Report consistent with DOE, Sandia reporting requirements and standards.

The Sandia Report shall contain three components. First, SNL's proposed matrix of attack modalities and cask/facility design features which has been overlaid with adversary characteristics information. Second, SNL's proposed tables of groupings of SNF and HLW cask designs and storage facilities versus applicable security scenarios. In addition to the proposed grouping, the Sandia Report will provide the basis for the proposed groupings of these casks and facilities, including the rationale for instances where groupings are not appropriate. Third, SNL's estimate of the number of additional calculations or new models that will need to be accomplished to provide draft regulatory guidance. The Sandia Report will also contain SNL's recommendations on the use of discrete data points or continuous nomographs in draft regulatory guidance document. The Sandia Report will be classified as National Security Information. However, the forwarding letter should not contain any classified information or Safeguards Information.

Within 90 working days of technical conclusion of NRC-HQ-60-14-D-0019, SNL shall submit the first draft of the Sandia Report to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update the draft Sandia Report, as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of the comments and issue the final Sandia Report.

Task 7b. Sandia Report (Safeguards Version)

SNL shall create a safeguards information version of the interim Sandia Letter submitted under task 7a. above including the applicable results from the Office of Research contract : (MELCOR work) and Office of Research Report and findings on the Review of the Spent Fuel Vulnerability Assessment Report under User Need Letter, NSIR 2012-0001. This version shall be in the form of a draft Sandia Report.

Within 90 working days of the technical conclusion of NRC-HQ-60-14-D-0019, SNL shall submit the first draft of the Sandia Report to the NRC COR for review and comment.

SNL shall assist NRC with tracking and preparing technical responses to all internal and external stakeholders' comments provided by the COR and update the draft Sandia Report, as needed. Resolution of comments provided shall be technically sound and defendable.

Within 9 months of receipt of technical direction from the COR, SNL shall compile the comments received from internal and external stakeholders along with the resolution of the comments and issue the final Sandia Report

5.0 DELIVERABLES AND/OR MILESTONES SCHEDULE

Task/ Subtask	Deliverable/Milestone Description	Due Date
1a.	Email Verification of Task Completion	Within 10 working days of award of this agreement.
1b.	Written summary of the meeting	Within 5 working days upon completion of Knowledge Management
1c.	Completion of initial security training for new staff and provide security documentation to Personnel Security Branch for reciprocity. Completion of annual security training courses	Within 30 working days of award of this agreement. Within 30 working days of the beginning of each subsequent year.
2.0*	First Draft Regulatory Guide DG-5033	Within 75 working days of receipt of technical direction from NRC

	Compilation of comments with resolution	COR Within 9 months of receipt of comments from NRC COR.
3.0*	First Draft Regulatory Guide for Dry Storage Compilation of comments and resolution	Within 45 working days of receipt of technical direction from COR. Within 9 months of receipt of comments from NRC COR
4.0*	First Draft Regulatory Guide for Wet Storage Compilation of comments and resolution	Within 45 working days of receipt of technical direction from COR. Within 9 months of receipt of comments from COR
5.0*	First Draft of Updated NUREG-1619 Compilation of comments and resolution	Within 45 working days of receipt of technical direction from COR. Within 9 months of receipt of comments from COR.
6.0*	First Draft of new NUREG/CR Compilation of comments and resolution	Within 45 working days of receipt of technical direction from COR. Within 9 months of receipt of comments from COR.
7.0	Technical Report or Letter of research, analysis or proof-of-concept findings and analytics.	TBD
7a.	Sandia Report (Classified Version) Draft SAND Report Final SAND Report (Compilation of comments and resolution)	 Within 90 working days of receipt of technical conclusion of NRC-HQ-60-14-D-0019. Within 9 months of receipt of comments

		from COR, but no later than January 31, 2018.
7b.	Sandia Report (Safeguard Version) Draft SAND Report Final SAND Report (Compilation of comments and resolution)	 Within 90 working days of receipt of technical conclusion of NRC-HQ-60-14-D-0019. Within 9 months of receipt of comments

*NOTE: Additional submittals of each draft Regulatory Guide or NUREG and the compilation of comments and resolutions may be required based upon the progression of the rulemaking effort and technical direction provided by the COR. The due date for deliverables may also change based upon the progression of the rulemaking effort and as directed by the COR.

The above deliverables shall be provided electronically and in hard copy (upon request) to the COR.

The COR will review all draft deliverables and provide comments to the laboratory. SNL shall revise the draft deliverables incorporating the comments provided by the COR, and then provide the final version of the deliverable. When mutually agreed upon between SNL and the COR, SNL may submit preliminary or partial drafts to help gauge SNL's understanding of the particular work requirement. The above deliverables will be provided electronically to the COR consistent with the document's level of required protection.

6.0 TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

Specialized experience shall include expertise in the areas described below. The laboratory shall provide individuals who have the required educational background and work experience to meet the objectives of the work specified in this SOW. Specific qualifications for this effort include:

- General knowledge and experience of physical security requirements associated with nuclear facilities.
- Technical knowledge and experience of NRC physical security requirements associated with spent nuclear fuel storage facilities.
- Technical knowledge and experience associated with previous security and vulnerability assessments of spent fuel storage casks or facilities performed under Sandia agreement W1140.
- Technical knowledge and experience of finite element modeling of large, massive objects, such as spent fuel storage casks and spent fuel pools.

- Technical knowledge and experience of finite element modeling of explosive attack methods.

- Technical knowledge and experience of radiation dose modeling and calculations of health physics effects.

- General knowledge of the NRC rulemaking process and regulatory guide development.

- Ability to obtain and maintain an "L" level security clearance.

The laboratory shall provide a project manager to oversee the effort and ensure the timely submittal of quality deliverables so that all information is accurate and complete as defined in this agreement.

The NRC will rely on representations made by the laboratory concerning the qualifications of the personnel assigned to this agreement and specific tasks, including assurance that all information contained in the technical and cost proposals, including resumes, is accurate and truthful. The resume for each professional proposed to work under this agreement (principal investigators, technical staff, employees, consultants, specialists or subcontractors) shall describe the individual's experience in applying his or her area of specialization to work in the proposed area. The use of particular personnel on this agreement is subject to the COR and Contracting Officer (CO) approval. This includes any proposed changes to key personnel during the life of the agreement.

7.0 ESTIMATED LABOR CATEGORIES AND LEVELS OF EFFORT

INTETIONALY LEFT BLANK

8.0 MEETINGS AND TRAVEL

The following travel may be required under this agreement:

FY15: Domestic travel* – 2 trips for 1 traveler (up to 5 days)**
FY16: Domestic travel – 4 trips for 1 traveler (up to 5 days)
FY17: Domestic travel – 4 trips for 1 traveler (up to 5 days)
FY18: Domestic travel – 4 trips for 1 traveler (up to 5 days)
FY19: Domestic travel – 4 trips for 1 traveler (up to 5 days)

All travel requires prior COR written approval.

*Domestic travel is expected to be to NRC Headquarters, Rockville, Maryland.
** The purpose of travel is to meet with NRC staff to discuss the current status of the rulemaking, collaborate on the development of deliverables and support staff with the rulemaking effort.

Following travel, the next monthly letter status report shall also include highlights of activities and work effort performed during the travel. At the discretion of the COR, meetings may be conducted at SNL, or via telephone or video conference.

9.0 REPORTING REQUIREMENTS

The DOE Laboratory is responsible for structuring the deliverable to follow agency standards. The current agency standard is Microsoft Office Suite 2010. The current agency Portable Document Format (PDF) standard is Adobe Acrobat 9 Professional. Deliverables shall be submitted free of spelling and grammatical errors and shall conform to requirements stated in this section.

Monthly Letter Status Reports

In accordance with Management Directive 11.7, NRC Procedures for Placement and Monitoring of Work with the U.S. Department of Energy, the DOE Laboratory shall electronically submit a Monthly Letter Status Report (MLSR) by the 20th day of each month covering the prior month's effort to the COR with copies to the CO, the Office Administration/Acquisition Management Division to ContractsPOT.Resource@nrc.gov, and NSIR to NSIR_Invoices.Resource@nrc.gov. If a project is a task ordering agreement, a separate MLSR shall be submitted for each task order with a summary project MLSR, even if no work has been performed during a reporting period. Once NRC has determined that all work on a task order is completed and that final costs are acceptable, a task order may be omitted from the MLSR.

The MLSR shall include the following: agreement number; task order number, if applicable; job code number; title of the project; project period of performance; task order period of performance, if applicable; COR's name, telephone number, and e-mail address; full name and address of the performing organization; principal investigator's name, telephone number, and e-mail address; and reporting period.

10.0 CONTRACTING OFFICER'S REPRESENTATIVE

The COR monitors all technical aspects of the agreement/task order and assists in its administration. The COR is authorized to perform the following functions: assure that the DOE Laboratory performs the technical requirements of the agreement/task order; perform inspections necessary in connection with agreement/task order performance; maintain written and oral communications with the DOE Laboratory concerning technical aspects of the agreement/task order; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor the DOE Laboratory's performance and notify the DOE Laboratory of any deficiencies; coordinate availability of NRC-furnished material and/or GFP; and provide site entry of DOE Laboratory personnel.

Contracting Officer's Representative

James E. Vaughn
Security Specialist, PM/COR
U.S. Nuclear Regulatory Commission
11601 Landsdown Street
Mail Stop: 3WFN-08C28M
North Bethesda, MD 20852
Office: (301) 287-3586
Mobile: (301) 502-2110
Email: James.Vaughn@nrc.gov
Classified Email: TBD

Alternate Contracting Officer's Representative

TBD

11.0 MATERIALS REQUIRED

N/A

12.0 NRC-FURNISHED PROPERTY/MATERIALS

The COR will provide those NRC documents related to technical efforts by NRC staff. The COR will provide SNL with a copy of the documents listed below. The SNL staff shall identify any additional NRC documentation that is needed and the COR will determine whether these documents will be provided by the NRC or obtained directly by SNL from NUDOCS, ADAMS, NRC public document room, or the NRC website at www.nrc.gov.

- 10 CFR Part 72, LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND REACTOR-RELATED GREATER THAN CLASS C WASTE (http://www.nrc.gov/reading-rm/doc-collections/cfr/part072/)
- Draft NRC Regulatory Guide DG-5033, "Security Performance (Adversary) Characteristics for the Design, Development, and Implementation of a Physical Security Program for Spent Nuclear Fuel and High-Level Radioactive Waste Storage Facilities under 10 CFR Part 73 (U)" [contains SGI].
- DG-SGI-1, "Designation Guide for Safeguards Information," September 2005
- CG-RDD-1, "Joint DOE/DHS/NRC Classification Guide for Radiological Dispersal Devices and Radiation Exposure Devices," September 2009.
- NRC Management Directive 3.7, "NUREG-Series Publications"
- NRC Management Directive 6.6, "Regulatory Guides"
- NRC Management Directive 12.2, "NRC Classified Information Security Program."
- NRC Management Directive 12.7, "NRC Safeguards Information Security Program"
- RES Office Instruction: ADM-004, "Regulatory Guide Development process" (Rev 2A)
- NUREG–1379, "NRC Editorial Style Guide"
- NUREG-0650, "Publishing Documents in the NUREG Series"

13.0 RESEARCH QUALITY

N/A

14.0 STANDARDS FOR CONTRACTORS WHO PREPARE NUREG-SERIES MANUSCRIPTS

The U.S. Nuclear Regulatory Commission (NRC) began to capture most of its official records electronically on January 1, 2000. The NRC will capture each final NUREG-series publication in

its native application. Therefore, the DOE Laboratory shall submit the final manuscript that has been approved by the COR in both electronic and camera-ready copy.
The final manuscript shall be of archival quality and comply with the requirements of NRC Management Directive 3.7 "NUREG-Series Publications." The document shall be technically edited consistent with NUREG–1379, Rev. 2 (May 2009) "NRC Editorial Style Guide." The goals of the "NRC Editorial Style Guide" are readability and consistency for all agency documents.

All format guidance, as specified in NUREG-0650, "Preparing NUREG-Series Publications," Rev. 2 (January 1999), will remain the same with one exception. The DOE Laboratory shall no longer be required to include the NUREG-series designator on the bottom of each page of the manuscript. The NRC will assign this designator when we send the camera-ready copy to the printer and will place the designator on the cover, title page, and spine. The designator for each report will no longer be assigned when the decision to prepare a publication is made. The NRC's Publishing Services Branch will inform the COR for the publication of the assigned designator when the final manuscript is sent to the printer.

For the electronic manuscript, the DOE Laboratory shall prepare the text in Microsoft Word, and use any of the following file types for charts, spreadsheets, and the like.

File Types to be Used for NUREG-Series Publications	
File Type	File Extension
Microsoft®Word®	.doc
Microsoft® PowerPoint®	.ppt
Microsoft®Excel	.xls
Microsoft®Access	.mdb
Portable Document Format	.pdf

This list is subject to change if new software packages come into common use at NRC or by our licensees or other stakeholders that participate in the electronic submission process. If a portion of the manuscript is from another source and the DOE Laboratory cannot obtain an acceptable electronic file type for this portion (e.g., an appendix from an old publication), the NRC can, if necessary, create a tagged image file format (file extension.tif) for that portion of the report. Note that the DOE Laboratory shall continue to submit original photographs, which will be scanned, since digitized photographs do not print well.

If the DOE laboratory chooses to publish a compact disk (CD) of the publication, place on the CD copies of the manuscript in both (1) a portable document format (PDF); (2) a Microsoft Word file format, and (3) an Adobe Acrobat Reader, or, alternatively, print instructions for obtaining a free copy of Adobe Acrobat Reader on the back cover insert of the jewel box.

15.0 OTHER CONSIDERATIONS

Required Systems Access

SNL shall maintain Secret Internet Protocol Router Network (**SIPRNet**) access throughout the period of performance to allow, as needed, classified communication and document transfers between NRC staff and SNL staff.

References

N/A

Access to Non-NRC Facilities/Equipment

N/A

Applicable Publications

See Section 13.0 for applicable publications
Controls over document handling and non-disclosure of materials

See DOE Laboratory Standard Terms and Conditions and the guidance documents identified in Section 13.0 NRC-Furnished Materials, (i.e., MDs 12.2 and 12.7) concerning document handling procedures.

NSIR Project Technical Lead

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16.0 CANCELLATION OR TERMINATION OF SECURITY CLEARANCE ACCESS/REQUEST

Performance under this Interagency Agreement will require access to classified matter or information (National Security Information or Restricted Data) in accordance with the attached NRC Form 187 (See Attachment No. 3). DOE laboratory personnel, subcontractors or others performing work under this Interagency Agreement shall require a "Q" security clearance (allows access to Top Secret, Secret, and Confidential National Security Information and Restricted Data) or an "L" security clearance (allows access to Secret and Confidential National Security Information and/or Confidential Restricted Data).

The Department of Energy Laboratory (DOE lab) must identify all individuals that will work under this Interagency Agreement. The NRC sponsoring office shall review the security clearance granted by DOE Headquarters (DOE) and have final say regarding whether the type of security clearance granted by DOE is acceptable to NRC such that DOE lab employees may have access to NRC classified information.

When a security clearance or access has been suspended, revoked or terminated, the DOE lab shall immediately notify the NRC COR by telephone and confirm via electronic mail (email). The notification shall contain the full name of the individual, the date of the action and the level of clearance involved. The NRC COR will forward the confirmation email to the NRC Division of Facility and Security/Personnel Security Branch (DFS/PSB). Additionally, DFS/PSB must be immediately notified in writing when an individual no longer requires access to Government classified information, including the voluntary or involuntary separation of employment.