

# ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1 3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

BPA NO.

1. DATE OF ORDER <b>APR 9 2010</b>		2. CONTRACT NO. (if any) NRC-04-07-113		6. SHIP TO:	
3. ORDER NO. NRC-T025		MODIFICATION NO.		a. NAME OF CONSIGNEE U.S. Nuclear Regulatory Commission	
4. REQUISITION/REFERENCE NO. RES-C10-475 RES-C10-495		b. STREET ADDRESS		c. CITY Washington	
5. ISSUING OFFICE (Address correspondence to) U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Sharon M. Lim Mail Stop: TWB-01-B10M Washington, DC 20555		7. TO:		d. STATE DC	
a. NAME OF CONTRACTOR INFORMATION SYSTEMS LABORATORIES		b. COMPANY NAME		e. ZIP CODE 20555	
c. STREET ADDRESS 11140 ROCKVILLE PIKE STE 500		d. CITY ROCKVILLE		f. STATE MD	
e. STATE MD		f. ZIP CODE 208523106		8. TYPE OF ORDER	
9. ACCOUNTING AND APPROPRIATION DATA (SEE BLOCK 17(B) BELOW FOR ACCOUNTING AND APPROPRIATION DATA) DUNS: 150135445		10. REQUISITIONING OFFICE RES		<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated. Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
11. BUSINESS CLASSIFICATION (Check appropriate box(es))		12. F.O.B. POINT Destination			
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. EMERGING SMALL BUSINESS <input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED		13. PLACE OF		14. GOVERNMENT B/L NO. N/A	
a. INSPECTION Destination		b. ACCEPTANCE Destination		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 11/8/2011	
				16. DISCOUNT TERMS Net 30	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Task Order #25 for "Developing the Technical Basis for Revising Regulatory Guide 5.8, Design Considerations for Minimizing Residual Holdup of Special Nuclear Material" in accordance with the attached Statement of Work.  Period of Performance: 4/9/10 - 11/8/11 Estimated Reimbursable Cost: \$121,633.86 Fixed Fee: \$6,103.13 Total Estimated Cost plus Fixed Fee: \$127,736.99  ACCOUNTING AND APPROPRIATION DATA: B&R: 060-15-171-277, Job Code: N6538, BOC: 252A, Appropriation No: 31X0200.060, Obligate: \$14,744.00 FFS: RES-C10-475  B&R: 060-15-171-277, Job Code: N6538, BOC: 252A, Appropriation No: 31X0200.060, Obligate: \$79,055.00 FFS: RES-C10-495					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.	
21. MAIL INVOICE TO:					
a. NAME Department of Interior / NBC NRCPayments@nbc.gov		b. STREET ADDRESS (or P.O. Box) Attn: Fiscal Services Branch - D2770 7301 W. Mansfield Avenue		c. CITY Denver	
d. STATE CO		e. ZIP CODE 80235-2230		17(h) TOTAL (Cont. pages)  17(i) GRAND TOTAL \$127,736.99	

22. UNITED STATES OF AMERICA  
BY (Signature)

Sharon M. Lim

23. NAME (Typed)  
Sharon M. Lim  
Contracting Officer  
TITLE: CONTRACTING/ORDERING OFFICER

1. In accordance with contract **Clause G.4 2052.216-72 TASK ORDER PROCEDURES (OCT 1999)** Task Order NRC-T025 is hereby definitized. This effort shall be performed in accordance with the attached Statement of Work (Attachment One).
2. Task Order NRC-T025 shall be in effect from April 9, 2010 through November 8, 2011.
3. The cost ceiling for this order shall be \$127,736.99 of which \$121,633.86 represents estimated reimbursable costs and the amount of \$6,103.13 represents the fixed fee.
4. This task order is being incrementally funded. The current obligation for this order is \$93,799.00. Any work undertaken by the Contractor in excess of this obligation is done at the Contractor's risk.
4. The following individuals are considered key personnel and as such are essential to the successful performance of the work under Task Order NRC-T025:



Key personnel shall not be removed from the effort under this task order without compliance with contract **Clause H.2 KEY PERSONNEL (JAN 1993)**.

5. Contacts for this task order:

Technical Monitor: Thomas Pham  
(301) 492-3125

Project Officer: Robert Carpenter  
(301) 251-7483

Alternate Project Officer: John Ridgely  
(301) 251-7458

Contracting Officer: Sharon M. Lim  
(301) 492-3624

6. The contractor shall provide a current Contractor Spending Plan to be submitted with the Technical Progress Report and the Financial Status Report each month, initially based on the Contractor Spending Plan submitted on April 9, 2010 in the amount of \$127,736.99.

Contract No.: NRC-04-07-113  
Task Order No.: NRC-T025  
Page 3 of 3

7. The issuance of Task Order NRC-T025 does not amend any of the terms and conditions of Contract No.: NRC-04-07-113.

ACCEPTANCE:

  
\_\_\_\_\_  
Signature

Senior V.P.

\_\_\_\_\_  
Title

4/9/10  
\_\_\_\_\_  
Date

## STATEMENT OF WORK

### NRC Regulatory Guide Revision Contracts

#### Task Order No. 25

#### **Developing the Technical Basis for Revising Regulatory Guide 5.8, “Design Considerations for Minimizing Residual Holdup of Special Nuclear Material”**

### **BACKGROUND**

Regulatory Guide 5.8 shall be revised with the new title, “Design Considerations for Minimizing Residual Holdup of Special Nuclear Material.” This revised guide will replace the current version of Regulatory Guide 5.8, “Design Considerations for Minimizing Residual Holdup of Special Nuclear Material in Drying and Fluidized Bed Operations,” issued in May 1974; Regulatory Guide 5.25, “Design Considerations for Minimizing Residual Holdup of Special Nuclear Material in Equipment for Wet Process Operations,” issued in June 1974; and Regulatory Guide 5.42, “Design Considerations for Minimizing Residual Holdup of Special Nuclear Material in Equipment for Dry Process Operations,” issued in January 1975. These Regulatory Guides supported the requirements in Title 10 of the *Code of Federal Regulations* (CFR) Part 70, “Domestic Licensing of Special Nuclear Material,” and specifically 10 CFR 70.22 “Contents of Applications” and 10 CFR 70.51, “Material Balance, Inventory, and Records Requirements.” Section 70.22 required, in part, that each application for a license to possess at any one time more than one effective kilogram of special nuclear material (SNM) contains a full description of the applicant’s procedures for control of and accounting for SNM which will be in his possession under license, including procedures for controlling SNM during its processing or use in the facility. Furthermore, Section 70.51 required, in part, that certain licensees conduct at specified intervals physical inventories of the SNM in their possession under license. The control of and accounting for SNM can be made more effective by minimizing the residual holdup after shutdown, after draindown, and after cleanout of the equipment used to process SNM, thereby reducing the component of uncertainty contributed by residual holdup to a physical inventory and lessening the severity of problems associated with determination of residual holdup.

These three Regulatory Guides described acceptable design features and characteristics for minimizing the residual holdup of SNM in operations after shutdown, draindown, or cleanout in order to facilitate material control and accountability procedures.

Since the 1970s, the significant material control and accounting (MC&A) advances have occurred with respect to technology, equipment, and measurement control procedures (e.g., radio frequency identification, sensors, measurement, and monitoring systems). Title 10 CFR Part 74, “Material Control and Accounting of Special Nuclear Material,” was created in 1985 specifically for SNM MC&A requirements to decouple them from other safety requirements in the regulations. However, while most of the MC&A requirements have been moved to Part 74,

RFP TO#25

“Material Control and Accounting of Special Nuclear Material,” there may still be requirements in Parts 70 and 73, “Physical Protection of Plants and Materials,” that have retained MC&A requirements.

The purpose of this task order is to develop the technical basis for revising Regulatory Guide 5.8, to incorporate Regulatory Guides 5.25 and 5.42, to reflect the new requirements in the regulations, to enhance or enlarge the scope (as appropriate), and to identify and propose updates to references within the Regulatory Guides.

## **WORK SCOPE**

Under this task order the contractor shall develop the technical basis for revising Regulatory Guides 5.8, 5.25, and 5.42. The contractor shall review and assess the regulatory positions in the aforementioned Regulatory Guides, including documents referenced within these guides (e.g., relevant technical standards, papers, and NRC regulations). To do this properly requires effectively updating each of the current Regulatory Guides and combining the results into a revised Regulatory Guide 5.8. Throughout the revision process the contractor shall support presentations [e.g., prepare presentations and attend public meetings and the Advisory Committee on Reactor Safeguards (ACRS) meetings], respond to comments (from the public, staff, and ACRS), and provide additional support suitable for the Regulatory Guide development, as needed. The contractor shall propose suitable text for the preparation of the Regulatory Guide. References to guidance and other relevant documents shall be updated to reflect the most current and applicable versions.

### **Task 1 – Kickoff for Revising Regulatory Guide 5.8**

Upon award of this task order, the NRC Project Officer (PO) and the contractor shall agree on the earliest mutually agreeable date and time for the kickoff meeting. The contractor’s project manager and technical lead shall attend the kickoff meeting at NRC Headquarters in Rockville, Maryland. The contractor shall review and evaluate relevant information and be prepared to discuss it at the kickoff meeting with the NRC. Seven business days prior to the kickoff meeting, the contractor shall provide to the NRC PO a pre-kick-off meeting summary of its reviews in the context of development of a Regulatory Guide. The summary should be a list, in tabular format, of all regulatory positions, performance objectives, provisions, methodologies (statistical or otherwise), organizational structure, definitions, and references and an assessment as to their continued validity, proposed revisions, and basis for those proposed revisions. At the kickoff, the NRC technical lead will describe the important issues related to developing the NUREG/CR report to support development of the Regulatory Guide.

Within five working days of the kickoff meeting the contractor shall provide a kick-off meeting summary to the Project Officer that summarizes the outcomes of the kickoff meeting, including clarification of the contractor’s understanding of the work to be

performed. The NRC staff will provide timely review, comment, and approval of this summary.

Task 2 – Technical Bases for Revising Regulatory Guide 5.8

Combining the three Regulatory Guides into a revised Regulatory Guide 5.8 will provide a single location for useful information in the design of facilities and equipment for minimizing residual holdup of SNM. The Regulatory Guides are over 33 years old and since then, advances in equipment, technology and inventory measurement techniques have occurred to account for SNM at a fuel cycle facility. Also, the regulatory bases for these Regulatory Guides have changed with the issuance of 10 CFR Part 74. Therefore, these Regulatory Guides need to be combined and updated to reflect these regulatory changes.

To achieve these goals, the contractor shall perform a comprehensive review of existing Regulatory Guides 5.8, 5.25, and 5.42 and evaluate what changes are appropriate based on advances in equipment, technology and inventory measurement techniques. The evaluation shall include a review of the acceptable American National Standards Institute (ANSI), American Standards for Testing Materials (ASTM), and other nationally or internationally recognized standards on this subject.

At the conclusion of this review, the contractor shall identify the need for: (a) new guidance in the Regulatory Guide, (b) deletion of existing guidance, (c) revision of existing guidance, (d) proposed new references for application of acceptable methods, (e) modifications and enhancements to the guidance, and (f) best practices on a performance basis that should be incorporated in the new Regulatory Guide (with supporting documentation).

Specifically, the Regulatory Guide update shall be consistent with the state of the art (as appropriate), shall consider the following areas, and shall propose changes, as necessary.

1. Are the current references applicable? Do the Regulatory Guides accurately and appropriately reflect the current requirements in the regulations? Are there other codes or standards, e.g., IAEA, which should be referenced? Have any of the references been revised, replaced, withdrawn, or otherwise superseded? If a reference has been superseded, is there a reference that reflects current best practices?
2. Do the methods and techniques discussed in the Regulatory Guides reflect the current best practices?
3. Are additional reporting requirements necessary?
4. Have there been any additional regulatory experiences and/or changes in the regulatory position that should be included in the new Regulatory Guide?

5. Is any information contained in similar Regulatory Guides appropriate for inclusion in this Regulatory Guide?

For each document (reference, guidance document (except other Regulatory Guides), code, and standard) that is proposed to be replaced with an updated version, the contractor shall prepare a table comparing all of the items (tables, charts, features, requirements, criteria, guidance, etc.) in the original document and the proposed updated document. The contractor shall provide a discussion for each item as to its applicability and acceptability. The discussion on acceptability shall include, but is not limited to, an assessment of the effect of adding or reducing conservatism, or increasing or decreasing safety or safety margin.

After NRC concurrence, the contractor shall draft the technical basis for the revision of the Regulatory Guide in a technical basis report as a NUREG/CR (in the NUREG report format) for the development of the revised Regulatory Guide. This report shall include a discussion of the work performed, proposed regulatory positions, a regulatory analysis, the rationale for all positions, modifications, and additions proposed, and all supporting tables, lists, figures, and appendices. The report shall be sufficiently complete that someone not familiar with the work can follow the discussion, understand the basis and rationale, and reach the same conclusions. The regulatory analysis shall conform to the guidance specified in NUREG/BR-0058, Revision 4, "Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission."

The contractor shall prepare the technical basis report (in the NUREG report format) in accordance with the Presidential memorandum on plain language (63 FR 31883, June 10, 1998). Preparation of the technical basis shall include a "Level 2" technical edit to correct the following problems:

- Misspelled words
- Subject/verb disagreement
- Incomplete sentences
- Punctuation errors
- Typographical errors
- Poor word choices or usage
- Poor syntax
- Overuse of the passive voice
- Faulty parallelisms
- Misplaced modifiers
- Incomplete comparisons
- Inconsistent/incorrect use of symbols, terms, acronyms, and/or abbreviations
- Wordiness
- Overly complex sentences
- Errors in figures and tables, including inconsistencies with the text

- Use of references not available in the public domain

The contractor shall submit the draft report for review by the NRC staff. The staff review is expected to typically take three weeks. Upon receipt of NRC comments, the contractor shall revise the draft report and resubmit the draft report within 30 days.

Task 3 –Support for Revising Regulatory Guide 5.8

The contractor shall prepare slides or other briefing material and attend advisory committee or public meetings, as requested. The contractor shall respond to comments from advisory committees and public meetings, as requested. The contractor shall revise the technical basis as a result of advisory committee or public comments, as requested.

Using comments from the public, staff, and ACRS obtained for the draft NUREG/CR, the contractor shall finalize the document, as directed by the staff, and provide the final NUREG/CR to the NRC.

The activities in Task 3 will typically be performed after Task 2 is completed.

**DELIVERABLES**

The contractor shall be required to comply with the delivery schedule stated below. All deliverables shall be formatted and prepared using Microsoft Word for documentation and reports, Microsoft PowerPoint for briefings, and Microsoft Project for schedules. Contractors are encouraged to submit deliverables as soon as they are completed, which may be prior to the due dates listed below.

The contractor shall provide the following deliverables:

Deliverable	Due Date
Technical Progress Report	Monthly by the 15 <sup>th</sup> day of the following month
Financial Status Report	Monthly by the 15 <sup>th</sup> day of the following month
Pre-Kick-Off Meeting Summary	7 working days prior to kick-off meeting
Kick-Off Meeting Summary and Action Items	Within 5 working days of the kick-off meeting
Initial Technical Basis Report (Task 2)	Within 6 months of the kick-off meeting
Revised Technical Basis Report (Task 2)	Within 30 days of receipt of comments
Final Technical Basis Report (Task 3)	• Within 30 days of notification from the Project Officer – if only editorial comments • Within 3 months of notification from the Project Officer – if technical comments

Technical Progress Report – shall meet the requirements of Clause F.3 - 2052.211-71 Technical Progress Reports:(JAN 1993) of the base contract.

Financial Status Report – shall meet the requirements of Clause F.4 – 2052.211-72 Financial Status Report (OCT 1999) of the base contract.

Kick-Off Meeting Summary and Action Items – shall also reflect the contractor's understanding of the issues and the contractor's approach for development of a new Regulatory Guide.

Revised Technical Basis Report – shall be submitted 30 days after receipt of comments on the Initial Technical Basis Report.

Final Technical Basis Report – shall be submitted by the above due date after the completion of Task 2, after receipt of comments and instructions from the Project Officer (about 18 months after the kick-off meeting).

All of the above deliverables shall be submitted in accordance with Clause F.6 Place of Delivery – Reports (JUN 1988) of the base contract.

Any deliverables rejected by the Project Officer shall be revised and resubmitted within 10 working days of notification from the Project Officer that the deliverable was rejected.

### **REQUIRED EXPERTISE**

Technical staff proposed for this project shall have recognized knowledge of and experience with the current requirements in 10 CFR 74. The contractor shall also have working knowledge of the requirements of 10 CFR Parts 70 and 73. The proposed staff shall have experience in the practice and procedures used in MC&A activities. In this regard, the contractor shall have working knowledge of statistics, equipment, and measurement methods for sub-sampling chemical, isotopic, and impurity analysis which an applicant may specify as part of its procedures for accounting of SNM. One method to demonstrate experience or familiarity with MC&A activities is through publications of topics in these fields and /or advanced formal education directly related to the subject matter above.

### **MATERIALS PROVIDED**

The Regulatory Guides are available on the NRC's public web site at:

<http://www.nrc.gov/reading-rm/doc-collections/reg-guides/environmental-siting/active/>.

Other references mentioned above are publically available in NRC's Code of Federal Regulations, Title 10, on NRC's public web site, or available from the specific standards organizations.

### **TRAVEL REQUIREMENTS**

## RFP TO#25

Travel is required to NRC headquarters to attend the kickoff meeting, ACRS meetings, public meetings, and to discuss the contractor's work with the staff. It is anticipated that two people will attend the kickoff meeting and one person will attend each of the other three one-day meetings for a total of five person-meetings.

**TASK MANAGER**

The Task Manager for this Task Order is Thomas Pham (301) 492-3125.

### Table 3 Contractor Spending Plan

(to be completed as a part of the Offeror's Cost Proposal for each cost reimbursement contract or individual task order or for any contract or task order modification which exceeds \$100,000 and has a performance period exceeding 6 months)

Solicitation No.		Performance Period:	FY 10: 4/9/010 - 9/30/10
Contract No.	NRC-04-07-112/113	Total Estimated Costs (including fixed fee, if any) of the Proposed Contract/Task Order/Modification (to a contract or task order) at the time of proposal submission.	
Task Order No.	25	Does not include options.	\$42,930
Modification No.			
Offeror/Contractor Name:	ISL, Inc.		

Provide cost details by month for the total contract/task order/or task order modification.

Cost Elements	1st Month	2nd Month	3rd Month	4th Month	5th Month	6th Month
Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0
Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Estimated	\$0	\$0	\$0	\$0	\$0	\$0
Costs including fixed fee if any						
Project Completion	0%	0%	0%	0%	0%	0%
Cost Elements	7th Month	8th Month	9th Month	10th Month	11th Month	12th Month
Direct Costs	\$0	\$0	\$9,637	\$9,637	\$9,637	\$9,637
Indirect Costs	\$0	\$0	\$1,096	\$1,096	\$1,096	\$1,096
Total Estimated	\$0	\$0	\$10,733	\$10,733	\$10,733	\$10,733
Costs including fixed fee if any						
Project Completion	0%	0%	25%	50%	75%	100%

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**Table 3 Contractor Spending Plan (continued)**

(to be completed as a part of the Offeror's Cost Proposal for each cost reimbursement contract or individual task order or for any contract or task order modification which exceeds \$100,000 and has a performance period exceeding 6 months)

Solicitation No.		Performance Period:	FY11: 10/1/10 - 11/8/11
Contract No.	NRC-04-07-112/113	Total Estimated Costs (including fixed fee, if any) of the Proposed Contract/Task Order/Modification (to a contract or task order) at the time of proposal submission.	
Task Order No.	25	Does not include options.	\$84,696
Modification No.			
Offeror/Contractor Name:	ISL, Inc.		

Provide cost details by month for the total contract/task order/or task order modification.

Cost Elements	1st Month	2nd Month	3rd Month	4th Month	5th Month	6th Month
Direct Costs	\$6,404	\$6,404	\$6,404	\$6,404	\$6,404	\$6,404
Indirect Costs	\$606	\$606	\$606	\$606	\$606	\$606
Total Estimated Costs including fixed fee if any	\$7,010	\$7,010	\$7,010	\$7,010	\$7,010	\$7,010
Project Completion	8%	17%	25%	33%	41%	50%
Cost Elements	7th Month	8th Month	9th Month	10th Month	11th Month	12th Month
Direct Costs	\$6,490	\$6,490	\$6,490	\$6,490	\$6,490	\$6,490
Indirect Costs	\$617	\$617	\$617	\$617	\$617	\$617
Total Estimated Costs including fixed fee if any	\$7,106	\$7,106	\$7,106	\$7,106	\$7,106	\$7,106
Project Completion	58%	66%	75%	83%	92%	100%

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