

ORDER FOR SUPPLIES OR SERVICES

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

BPA NO.

1. DATE OF ORDER 05-28-2004	2. CONTRACT NO. (if any) GS-23F-0060L	6. SHIP TO:	
3. ORDER NO. DR-03-03-044, Mod. 4	MODIFICATION NO.	4. REQUISITION/REFERENCE NO. NRR-03-044 DTD 4/29	
5. ISSUING OFFICE (Address correspondence to) U.S. Nuclear Regulatory Commission Division of Contracts MailStop: T-7-I-2 Contract Management Center 1 Washington, DC 20555		a. NAME OF CONSIGNEE U.S. Nuclear Regulatory Commission Office of Nuclear Reactor Regulation	
		b. STREET ADDRESS MailStop: O-12E5 Attn: Sally Adams	
		c. CITY Washington	d. STATE DC
		e. ZIP CODE 20555	

7. TO:	f. SHIP VIA N/A
NAME OF CONTRACTOR	
Information Systems Laboratories, Inc. Attn: James F. Meyer 11140 Rockville Pike Suite 500 Rockville MD 20852	
8. TYPE OF ORDER	
<input type="checkbox"/> a. PURCHASE ORDER	<input checked="" type="checkbox"/> b. DELIVERY/TASK ORDER
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/task 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.

9. ACCOUNTING AND APPROPRIATION DATA 420-15-102-130 J3115 252A 31X0200.420 FFS#: NRR03044(I) OBLIGATE: \$350,000.00	10. REQUISITIONING OFFICE NRR Div. of Regulatory Improvement Programs
---	--

11. BUSINESS CLASSIFICATION (Check appropriate box(es))

a. SMALL b. OTHER THAN SMALL c. DISADVANTAGED d. WOMEN-OWNED

12. F.O.B. POINT N/A	14. GOVERNMENT B/L NO. N/A	15. DELIVER TO F.O.B. POINT ON OR BEFORE EFFECTIVE 9/29/03	16. DISCOUNT TERMS N/A
-------------------------	-------------------------------	--	---------------------------

13. PLACE OF		FOR INFORMATION CALL: (No collect calls)	
a. INSPECTION N/A	b. ACCEPTANCE N/A	Mona C. Selden (301) 415-7907	

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)
	<p>Refer to Delivery Order No. DR-03-03-044 and modify the order as follows:</p> <p>Attachment 2, Statement of Work (SOW) is deleted entirely and replaced with the attached SOW. The level of effort is increased by 3,490 hours, from 5,200 hours to 8,690 hours, thereby increasing the delivery order ceiling by \$398,777.44 from \$580,382.45 to \$979,159.89. Incremental funds in the amount of \$350,000.00 are being obligated by this modification, thereby increasing the total funds obligated from \$580,382.45 to \$930,382.45. See Attachment 1 for Schedule of Supplies or Services related to the increased level of effort.</p> <p>Total Delivery Order Ceiling: \$979,159.89 Ceiling of Optional Site (Browns Ferry): Total Obligations: \$930,382.45</p> <p>Incremental funding obligated at this time: \$350,000.00 All other terms and conditions remain the same.</p>					

18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.	\$350,000.00	SUBTOTAL
21. MAIL INVOICE TO:				
a. NAME U.S. Nuclear Regulatory Commission Division of Contracts		17(h) TOTAL (Cont. pages) 17(i) GRAND TOTAL		
b. STREET ADDRESS (or P.O. Box) MailStop: T-7-I-2 Contract Management Center 1				
c. CITY Washington	d. STATE DC			

22. UNITED STATES OF AMERICA BY (Signature) 	23. NAME (Typed) Sharon D. Stewart TITLE: CONTRACTING/ORDERING OFFICER
--	--

**License Renewal Audit Plan, Audit Report, and SER Guidance
(Addendum dated 3/1/04)**

1. All audit activities must be documented in audit report
2. All evaluations must be included in safety evaluation report input
3. Too much emphasis being placed on trying to eliminate duplication.
There can be duplication
4. Audit report will not change after it is issued
5. If there are changes that impact audit results, they can be documented in the safety evaluation report input

2/6/04

**AGING MANAGEMENT PROGRAM (AMP) REVIEW ITEMS
DOCUMENTATION OF FINDINGS**

REVIEW ITEMS	AUDIT REPORT	SAFETY EVALUATION REPORT SECTION
AMPs Consistent with GALL	<ul style="list-style-type: none"> • Identify GALL program • Identify documents reviewed • Evaluate Operating Experience 	<p align="center">SER Section 3.0.3.1</p> <ul style="list-style-type: none"> • Brief reference to the audit report • Evaluate FSAR Supplement
AMPs Consistent with GALL (identified differences)	<ul style="list-style-type: none"> • Identify GALL program • Identify documents reviewed • Justify identified differences with 6 attributes • Evaluate Operating Experience 	<p align="center">SER Section 3.0.3.1</p> <ul style="list-style-type: none"> • Brief reference to the audit report • Evaluate FSAR Supplement
AMPs Consistent with GALL with exceptions	<ul style="list-style-type: none"> • Identify GALL program • Identify documents reviewed • Reference SER for evaluation of exceptions • Justify any identified differences with 6 attributes • Evaluate Operating Experience 	<p align="center">SER Section 3.0.3.2</p> <ul style="list-style-type: none"> • Evaluate exceptions • Evaluate FSAR Supplement
AMPs Consistent with GALL with enhancements	<ul style="list-style-type: none"> • Identify GALL program • Identify documents reviewed • Reference SER for evaluation of enhancements • Justify any identified differences with 6 attributes • Evaluate Operating Experience 	<p align="center">SER Section 3.0.3.2</p> <ul style="list-style-type: none"> • Evaluate enhancements • Evaluate FSAR Supplement
Plant-Specific AMPs	None	<p align="center">SER Section 3.0.3.3</p> <ul style="list-style-type: none"> • Evaluate the 6 attributes • Evaluated FSAR Supplement • Evaluate Operating Experience
Future AMPs	None	<ul style="list-style-type: none"> • Evaluate commitments in FSAR Supplement
Responses to RAI or voluntary submittal	<ul style="list-style-type: none"> • Identify finding • Reference SER for evaluation of the responses 	Evaluation of the responses

**AGING MANAGEMENT REVIEW (AMR) REVIEW ITEMS
DOCUMENTATION OF FINDINGS**

REVIEW ITEMS	AUDIT REPORT	SAFETY EVALUATION REPORT SECTION
AMRs Consistent with GALL Table 2: Notes A-E	<ul style="list-style-type: none"> • Scope identified in audit plan • Document audit of assigned review items 	<p align="center">SER Section 3.x.2.1.1</p> <ul style="list-style-type: none"> • Description of audit methodology • Brief reference to the audit report
AMRs Results for which Further Evaluation is Recommended in Table 1	<ul style="list-style-type: none"> • Scope identified in audit plan • Document audit of assigned review item 	<p align="center">SER Section 3.x.2.1.2</p> <ul style="list-style-type: none"> • Description of audit methodology • Brief reference to the audit report
Staff review of AMRs with past precedents	<ul style="list-style-type: none"> • Scope identified in audit plan 	<p align="center">SER Section 3.x.2.2</p> <ul style="list-style-type: none"> • Provide audit results in SER input.
Responses to RAIs or voluntary submittal	<ul style="list-style-type: none"> • Identify finding • Brief reference to SER for evaluation of the responses 	<ul style="list-style-type: none"> • Evaluate the responses

G:\RLEP\License Renewal Section-A\Dudley\Report vs GALL Tables.wpd
February 6, 2004

**DR-03-03-044
MODIFICATION NO. 4
STATEMENT OF WORK**

**Technical Assistance for Site Audit of License Renewal AMP and
Safety Evaluation Report Preparation**

1. BACKGROUND

The staff has prepared license renewal guidance documents including the Generic Aging Lessons Learned (GALL) report, Standard Review Plan for License Renewal, and Regulatory Guide for License Renewal (endorsing the Nuclear Energy Institute (NEI) Document 95-10, Rev. 3). These documents improve the efficiency of the license renewal process by better focusing the staff review in certain areas that should be further evaluated based on the GALL report. License renewal applicants have stated that they are consistent with the GALL report for specific aging management programs and the documentation of their determinations is maintained at the plant site. The license renewal guidance documents are living documents and the staff plans to update them based on lessons learned to further enhance the efficiency of the license renewal process.

A pilot program, to exercise a revised license renewal application review process, is being developed and will be implemented on the review of license renewal applications (LRAs) of nuclear power plants to be submitted, starting approximately September 15, 2003. The revised process will allow the NRC to pro-actively manage the peak of significant workload, identify items for early on-site discussion, maximize efficiencies of review process, and ensure successful completion of concurrent reviews within the overall schedule of each application.

2. DELIVERY ORDER OBJECTIVES

The objective of this delivery order is to obtain expert technical services to assist the Division of Regulatory Improvement Programs to perform on-site audits of documents to verify that the applicants have made the appropriate determination relating to consistency with the GALL report and previously staff approved positions or past practices as documented in the Safety Evaluation Reports (SERs) for other plants and identified by the applicant. It is also the objective of this delivery order to obtain expert assistance in preparing SERs for specific plants with technical evaluations provided by the NRC Technical Monitor (TM), review other portions of the LRA as identified by the TM, and document the lessons learned from the review of the specific license renewal application (LRA) and preparation of SER .

3. TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

The Contractor shall provide engineers that are experienced in the area of materials, mechanical, electrical, systems and civil/structural engineering. The Contractor shall provide a project manager to oversee the efforts of the Contractor team and ensure the timely submittal of quality deliverables so that all information is accurate and complete. The Contractor shall also

overlapping of audit activities is highly probable. The Contractor shall provide a staffing plan to assure that all audits are adequately supported by appropriate technically qualified resources.

It is the responsibility of the Contractor to assign technical staff, employees, subcontractors, or specialists who have the required educational background, experience, or combination thereof to meet both the technical and regulatory objectives of the work specified in this SOW. The NRC will rely on representations made by the Contractor concerning the qualifications of the personnel assigned to this delivery order including assurance that all information contained in the technical and cost proposal, including resumes, is accurate and truthful.

The use of particular personnel on this project is subject to the NRC Technical Monitor's (TM's) approval. This includes proposed changes to key personnel during the life of the project.

If any work will be subcontracted or performed by consultants, the Contractor shall obtain the NRC TM's written approval of the subcontractor or consultant prior to initiation of the subcontract effort. Conflict of interest considerations shall apply to any subcontracted effort.

4. WORK REQUIREMENTS AND SCHEDULE

The Contractor shall provide, up to three (3) teams with no more than six (6) members per team, to support audit and review activities at up to five (5) nuclear power plants. For purposes of preparing a proposal, the bidder shall assume that the specified work will involve the following plant sites. The actual plant assignments will be made by the TM and may differ from these sites.

Team 1 Plants

Farley
DC Cook

Team 2 Plants

ANO-2
Millstone*

Optional Site Audit

The following site audit is optional. Performance of this audit is subject to NRC exercising the option through written modification to this order. NRC reserves the right not to exercise the option. Exercise of this option is subject to the availability of funds, management approval to proceed, and successful completion of prior audits.

Team 3 Plant

Browns Ferry

The Contractor shall submit a staffing plan that specifically reflects services to be provided by Team/Plant Group. The standard scope of work is described in the following Tasks:

Task 1. Audit Plan Development

For each plant, the Contractor shall review the plant specific LRA with emphasis on aging management programs (AMPs) and aging management reviews (AMRs) described in the license renewal application to develop a plant specific audit plan. The Contractor shall become familiar with the plant through reviewing a previous LRA and/or SER of a similar plant as identified by the TM and shall plan to participate in a project orientation session through a kick-off meeting at the NRC. The audit plan shall identify potential questions to be discussed with the applicant during the audit. The audit plan shall include information required to prepare SER inputs. NRC approved positions from other plants shall be considered and included in the audit plan. The deliverable is a plant specific audit plan addressing the project objective within two (2) weeks from the commencement of work on that plant assignment. NRC review of the audit plan will be completed and provided to the Contractor in five (5) working days. Schedule of completion of Task 1 will be mutually agreed upon prior to, but no later than three (3) weeks, from the commencement of work on that plant assignment .

The audit plan shall conform to, and include, those items identified in the guidance contained in Attachment #1 to this Statement of Work, as directed by the TM for each specific plant.

Task 2. Audit

The Contractor shall provide up to six (6) qualified professionals to participate in up to five (5) 5-day audits, i.e., one (1) audit per plant site, to verify that the applicant has sufficient on-site documentation as indicated in its license renewal application that its AMPs and AMRs are consistent with the GALL report and previous approved staff positions. The Contractor shall discuss other questions as directed by the TM, resolve issues on-site and prepare a draft technical (audit) report documenting the results of the site audit. The Contractor shall revise its audit report based on comments from the NRC TM, to be provided two weeks from receiving the draft audit report, and submit a final audit report. The schedule for completing Task 2 will be mutually agreed upon prior to, but no later than two and a half (2-1/2) months, from the commencement of work on the plant assignment.

The audit report shall conform to, and include, those items identified in the guidance contained in Attachment #1, as directed by the TM for each specific plant.

Task 3 Review

MODIFICATION NO. 04 DELETES TASK 3 IN ITS ENTIRETY. NOTE THAT EFFORT WAS EXPENDED UNDER THIS TASK FOR FARLEY, DC COOK, AND ANO-2, PRIOR TO THE ISSUANCE OF MODIFICATION NO. 04.

The Contractor shall provide up to 300 staff hours of support to perform a limited scope review on portions of the LRA, beyond the AMP and AMR consistency review, as directed by

the TM. On-site discussion with the applicant may require trips to the site in addition to the audit trips. The Contractor shall provide up to 300 staff hours of technical assistance and up to two (2) trips to the plant site, i.e., two (2) trips per plant site. The deliverable is a technical report documenting the scope and results of the review and issues resolved, if any. The schedule for completing Task 3 will be mutually agreed upon prior to, but no later than two and a half (2-1/2) months, from the commencement of work.

Task 4. SER with Exceptions

Through Tasks 1 and 2, the Contractor shall have reviewed the AMPs and AMRs and the prior staff positions described in the plant specific LRA, and resolve any associated questions with the applicant on-site. The Contractor shall provide technical expert and editing services for preparing a SER for the specific plants with technical evaluations provided by the TM. The Contractor's technical and editing staff shall resolve comments from the staff to be provided three (3) weeks following the receipt of the SER. Deliverables under this task include:

- 4a) The Contractor shall provide technical and editing services to prepare an SER, in accordance with the format provided by the TM, which incorporates the results of the audit and the review tasks. Areas for which the Contractor does not have sufficient information to complete the SER should be highlighted and brought to the attention of the TM. Schedule of completion of Task 4a will be mutually agreed upon, prior to, but no later than five (5) months, from the commencement of work.

The Contractor shall track all documents reviewed and generated during the license renewal review process. The Contractor is required to maintain a list of the documents reviewed and generated and to update the list periodically for inclusion in the SER.

- 4b) The Contractor shall provide technical editing services to incorporate additional staff evaluations from AMR and AMP reviews into the SER completed in Task 4a above as directed by the TM. Schedule of completion of Task 4b will be mutually agreed upon prior to, but no later than ten (10) months, from the commencement of work.

Task 5. Lessons Learned from Audit and Review

MODIFICATION NO. 04 DELETES TASK 5 IN ITS ENTIRETY. NOTE THAT NO EFFORT HAD BEEN EXPENDED ON THIS TASK PRIOR TO THE ISSUANCE OF MODIFICATION NO. 04.

Based on lessons learned from the audit and review of the plant specific LRA and the associated SER, the Contractor shall identify information in the application or safety evaluation report that is not in the license renewal guidance documents, but could be included to improve the efficiency of the license renewal process. For example, if the staff has accepted a particular aging management program at the plant which is not in the GALL report, this program could be included in the GALL report as an acceptable program for use by future applicants. The Contractor shall prepare a draft technical report based on a format provided by

the TM to document the results of the lessons learned. The Contractor shall revise its technical report based on comments from the TM and submit a final technical report. The Contractor shall also provide marked up pages of the license renewal guidance documents based on the final technical report, as appropriate. Schedule of completion of Task 4 will be mutually agreed upon prior to commencement of work, but no later than June 30, 2004.

5. MEETINGS AND TRAVEL

The following meeting and travel are anticipated. The travel shown below is an anticipated maximum.

Fifteen (15), 6-person, half-day trips to the NRC Headquarters in Rockville, Maryland.

Three (3), 6-person, 5-day trips to each plant site.

6. NRC FURNISHED MATERIALS

Applicable background information and reference documentation will be provided to the Contractor by the NRC Technical Monitor. The GALL report is available on the NRC web site at:

www.nrc.gov/reactors/operating/licensing/renewal/guidance.html

7. LICENSE FEE

The work for Tasks 1, 2, and 3 is license fee recoverable. The work for Task 4 is not license fee recoverable.

8. DELIVERABLES

The Contractor shall provide the following deliverables in electronic format (WordPerfect 8.0) to the Technical Monitor and the Project Officer with one original hard copy to the Project Officer.

- a. Technical report documenting the audit plan for the Plant (Task 1)
Draft Due: Three (3) weeks from the commencement of work.
Final Due: One (1) month from the commencement of work.
- b. Technical report documenting the audit at the Plant (Task 2)
Draft Due: Two and a half (2-1/2) months from the commencement of work.
Final Due: Five (5) days after receipt of NRC TM comments.
- c. Technical report documenting any review performed at the plant (Task 3)
Draft Due: Two and a half (2-1/2) months from the commencement of work.
Final Due: Five (5) days after receipt of NRC TM comments.

d. Draft SER (Task 4a)

**Draft Due: Five (5) months from the commencement of work.
Final Due: Five (5) days after receipt of NRC TM comments.**

Final SER (Task 4b)

**Draft Due: Ten (10) months from the commencement of work.
Final Due: Five (5) days after receipt of NRC TM comments.**

d. Technical report on guidance document update (Task 5)

Draft Due: June 30, 2004.

Final Due: Five (5) days after receipt of NRC TM comments

Monthly Status Report

The Contractor shall provide a Monthly Status Report to the NRC Project Officer (PO), Technical Monitor (TM) and Contracting Officer (CO) by the 15th of each month. The report should be transmitted electronically to the PO and TM, with a hard copy sent to the CO. The report shall provide the technical and financial status of the effort.

The technical status section of the report shall contain a summary of the work performed under each task/task order during the reporting period, and milestones reached, or if missed, an explanation why; any problems or delays encountered or anticipated with recommendations for resolution; and plans for the next reporting period. The status shall include information on travel during the period to include trip start and end dates, destination, and travelers for each trip.

The financial status section of the report shall include the total contract award amount and funds obligated to date; total costs incurred in the reporting period, broken down by direct and indirect costs, and total cumulative costs incurred to date. The status shall also contain the balance of obligations remaining at the end of the period and balance of funds required to complete the contract/task order. Additionally, if applicable, the report shall address the status of the Contractor Spending Plan (CSP), showing the percentage of project completion and any significant changes in either projected expenditures or percentage of completion. The report should also identify the acquisition cost, description (model number, manufacturer) and acquisition date of any property/equipment acquired for the project during the month with an acquisition cost more than \$500.

If the data in this report indicates a need for additional funding beyond that already obligated, this information may only be used as support to the official request for funding required in accordance with the Limitation of Cost (LOC) Clause (FAR 52.232-20) or the Limitation of Funds (LOF) Clause FAR 52.232-22.

9. PERIOD OF PERFORMANCE

The period of performance is from September 30, 2003, through December 30, 2004.

10. OPTION TO PERFORM WORK AT OPTIONAL SITE

(a) The Government may unilaterally exercise the performance of work at the Optional Site, i.e., Browns Ferry.

(b) If the Government exercises the option, the delivery order will be modified to include the Optional Site.

11. ORDER TERMS, CONDITIONS, AND REQUIREMENTS

A. PROJECT OFFICER

The Contracting Officer's (CO) authorized technical representative hereinafter referred to as the Project Officer for this order is:

Project Officer: Sally Adams, Technical Assistance Project Manager
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
301-415-0209
saa2@nrc.gov

Technical Monitor: Kenneth Chang, Project Manager, NRR/DRIP
License Renewal and Environmental Impacts Program (RLEP)
301-415-1198
kxc2@nrc.gov

- a. Performance of the work under this order is subject to the technical direction of the NRC Project Officer and Technical Monitor. The term "technical direction" is defined to include the following:
1. Technical direction to the Contractor which shifts work emphasis between areas of work or tasks, authorizes travel which was unanticipated in the Schedule (i.e., travel not contemplated in the Statement of Work or changes to specific travel identified in the Statement of Work), fills in details, or otherwise serves to accomplish the contractual statement of work.
 2. Provide advice and guidance to the Contractor in the preparation of drawings, specifications, or technical portions of the work description.
 3. Review and, where required by the order, approval of technical reports, drawings, specifications, and technical information to be delivered by the Contractor to the Government under the order.
- b. Technical direction must be within the general statement of work stated in the order. The Project Officer and Technical Monitor do not have the authority to and may not issue any technical direction which:
1. Constitutes an assignment of work outside the general scope of the order

2. Constitutes a change as defined in the "Changes" clause of the GSA contract.
 3. In any way causes an increase or decrease in the total fixed price or the time required for performance of any orders.
 4. Changes any of the expressed terms, conditions, or specifications of the order.
 5. Terminates the order, settles any claim or dispute arising under the order, or issues any unilateral directive whatever.
- c. All technical directions must be issued in writing by the Technical Monitor or Project Officer or must be confirmed by the Project Officer in writing within ten (10) working days after verbal issuance. A copy of the written direction must be furnished to the CO. A copy of NRC Form 445, Request for Approval of Official Foreign Travel, which has received final approval from the NRC must be furnished to the CO.
- d. The Contractor shall proceed promptly with the performance of technical directions duly issued by the Project Officer in the manner prescribed by this clause and within the Project Officer's authority under the provisions of this clause.
- e. If, in the opinion of the Contractor, any instruction or direction issued by the Project Officer is within one of the categories as defined in paragraph (c) of this section, the Contractor may not proceed but shall notify the CO in writing within five (5) working days after the receipt of any instruction or direction and shall request the CO to modify the order or associated BPA accordingly. Upon receiving the notification from the Contractor, the CO shall issue an appropriate modification or advise the Contractor in writing that, in the CO's opinion, the technical direction is within the scope of this article and does not constitute a change under the "Changes" clause.
- f. Any unauthorized commitment or direction issued by the Project Officer may result in an unnecessary delay in the Contractor's performance and may even result in the Contractor expending funds for unallowable costs under the order or associated BPA.
- g. A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect thereto is subject to 52.233-1 - Disputes.
- h. In addition to providing technical direction as defined in paragraph (b) of the section, the Project Officer shall:
1. Monitor the Contractor's technical progress, including surveillance and assessment of performance, and recommend to the CO changes in requirements.
 2. Assist the Contractor in the resolution of technical problems encountered during performance.

3. Review all costs requested for reimbursement by the Contractor and submit to the CO recommendations for approval, disapproval, or suspension of payment for supplies and services required under orders.
4. Assist the Contractor in obtaining the badges for the Contractor personnel.
5. Immediately notify the Personnel Security Branch, Division of Facilities and Security (PERSEC/DFS) (via e-mail) when a Contractor employee no longer requires access authorization and return the individual's badge to PERSEC/DFS within three days after their termination.

B. KEY PERSONNEL

BEN GITNICK'S NAME HAS BEEN DELETED

(a) The following individuals are considered to be essential to the successful performance of the work hereunder:



The Contractor agrees that personnel may not be removed from the delivery order work or replaced without compliance with paragraphs (b) and (c) of this section.

(b) If one or more of the key personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this delivery order for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the Contractor shall immediately notify the CO and shall, subject to the concurrence of the CO, promptly replace the personnel with personnel of at least substantially equal ability and qualifications.

(c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the CO to evaluate the proposed substitution. The CO and the Project Officer shall evaluate the Contractor's request and the CO shall promptly notify the Contractor of his or her decision in writing.

(d) If the CO determines that suitable and timely replacement of key personnel who have been reassigned, terminated, or have otherwise become unavailable for the delivery order work is not reasonably forthcoming, or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the delivery order or the service order, the delivery order may be terminated by the CO for default or for the convenience of the Government, as appropriate. If the CO finds the Contractor at fault for the condition, the delivery order price or fixed fee may be equitably adjusted downward to compensate the Government for any resultant delay, loss, or damage.

C. BILLING INSTRUCTIONS

General: The Contractor shall prepare vouchers or invoices as prescribed herein. FAILURE TO SUBMIT VOUCHERS/INVOICES IN ACCORDANCE WITH THESE INSTRUCTIONS WILL RESULT IN REJECTION OF THE VOUCHER/INVOICES AS IMPROPER.

Form: Claims shall be submitted on the payee's letterhead, voucher/invoices, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other than Personal," and Standard Form 1035, "Public Voucher for Purchases Other than Personal--Continuation Sheet." These forms are available from the U.S. Government Printing Office, 710 North Capitol Street, Washington, DC 20401.

Number of Copies: An original and three copies shall be submitted. Failure to submit all the required copies will result in rejection of the voucher/invoice as improper.

Designated Agency Billing Office: Vouchers/Invoices shall be submitted to the following address:

U.S. Nuclear Regulatory Commission
Division of Contracts - T-7-I-2
Washington, DC 20555-0001

A copy of any invoice which includes a purchase of property valued at the time of purchase at \$5,000 or more, shall additionally be sent to:

Chief, Property Management Branch
Division of Facilities and Property Management
Mail Stop - T-7-D-27
Washington, DC 20555-0001

HAND-DELIVERY OF VOUCHERS/INVOICES IS DISCOURAGED AND WILL NOT EXPEDITE PROCESSING BY THE NRC. However, should you choose to deliver vouchers/invoices by hand, including delivery by any express mail service or special delivery service which uses a courier or other person to deliver the vouchers/invoices in person to the NRC, such vouchers/invoices must be addressed to the above Designated Agency Billing Office and will only be accepted at the following location:

U.S. Nuclear Regulatory Commission
One White Flint North - Mail Room
11555 Rockville Pike
Rockville, MD 20852

HAND-CARRIED SUBMISSIONS WILL NOT BE ACCEPTED AT OTHER THAN THE ABOVE ADDRESS

Note that the official receipt date for hand-delivered vouchers/invoices will be the date it is received by the official agency billing office in the Division of Contracts.

Agency Payment Office: U.S. Nuclear Regulatory Commission
 Division of Accounting and Finance GOV/COMM
 Mail Stop T-9H4
 Washington, DC 20555

Frequency: The Contractor shall submit a voucher or invoice monthly only after the NRC's acceptance of services rendered or products delivered in performance of the delivery order unless otherwise specified in the delivery order.

Preparation and Itemization of the Voucher/Invoice: To be considered a proper voucher/invoice, all of the following elements must be included:

1. Contract number and delivery order number.
2. Sequential voucher/invoice number.
3. Date of voucher/invoice.
4. Payee's name and address. (Show the name of the Contractor and its correct address. In addition, when an assignment of funds has been made by the Contractor, or a different payee has been designated, include the name and address of the payee). Indicate the name and telephone number of the individual responsible for answering questions which the NRC may have regarding the voucher/invoice.
5. Description of articles or services, quantity, unit price, total amount, and cumulative amount.

For labor-hour delivery orders with a ceiling, provide a breakdown by task of labor hours by labor category, hours, fixed rate, current period dollars, and cumulative hours and dollars billed to date as authorized under the delivery order. For example:

Category	Current Hours	Fixed Rate	Current Billed	Cumulative	
				Hours	Total Billed
Sr. Scientist	██████	██████	\$3,500.00	██████	\$ 17,500.00
Engineer	██████	██████	\$2,500.00	██████	\$ 2,500.00
Totals:			\$6,000.00		\$ 20,000.00

Invoices for the order shall be broken down by task. You must also provide a consolidated summary (cover sheet) of the total amount billed inclusive of all tasks. The summary must contain the cumulative amount invoiced to date.

6. For Contractor acquired property list each item purchased costing \$50,000 or more and having a life expectancy of more than 1 year and provide: (1) an item description, (2) manufacturer, (3) model number, (4) serial number, (5) acquisition cost, (6) date of purchase, and (7) a copy of the purchasing document.
7. Weight and zone of shipment, if shipped by parcel post.
8. Charges for freight or express shipments. Attach prepaid bill if shipped by freight or express.
9. Instructions to consignee to notify the Contracting Officer of receipt of shipment.
10. Travel Reimbursement (if applicable)

The Contractor shall submit claims for travel reimbursement as a separate item on its fixed-price invoice/voucher in accordance with the following:

Travel reimbursement. Total costs associated with each trip must be shown in the following format:

<u>Start Date</u>	<u>Destination</u>	<u>Costs</u>
From:	From:	
To:	To:	\$

Provide supporting documentation (receipts) for travel expenditures in excess of \$75.00 in an attachment to the invoice/voucher.

Billing of Cost After Expiration of Order: If costs are incurred during the delivery order period and claimed after the order has expired, the period during which these costs were incurred must be cited. To be considered a proper expiration voucher/invoice, the Contractor shall clearly mark it "EXPIRATION VOUCHER" or "EXPIRATION INVOICE."

Currency: Billings may be expressed in the currency normally used by the Contractor in maintaining his accounting records and payments will be made in that currency. However, the U.S. dollar equivalent for all vouchers/invoices paid under the order may not exceed the total U.S. dollars authorized under the order.

Supersession: These instructions supersede any previous billing instructions.

D. ELECTRONIC PAYMENT

The Debt Collection Improvement Act of 1996 requires that all payments except IRS tax refunds be made by Electronic Funds Transfer. It is the policy of the Nuclear Regulatory Commission to pay vendors by the Automated Clearing House (ACH) electronic funds transfer payment system. The electronic system is known as Vendor Express. Payment shall be made in accordance with FAR 52.232-33, entitled "Mandatory Information for Electronic Funds Transfer Payment".

To receive payment, the Contractor shall complete the "Company Information" portion of the Standard Form 3881, entitled "ACH Vendor/Miscellaneous Payment Enrollment Form" found as an attachment to this document. The Contractor shall take the form to the ACH Coordinator at the financial institution that maintains its company's bank account. The Contractor shall discuss with the ACH Coordinator how the payment identification information (addendum record) will be passed to them once the payment is received by the financial institution. The ACN Coordinator should fill out the "Financial Institution Information" portion of the form and return it to the Office of the Controller at the following address: Nuclear Regulatory Commission, Division of Accounting and Finance, Financial Operations Section, Mail Stop T-9-H-4, Washington, DC 20555, ATTN: ACH/Vendor Express. It is the responsibility of the Contractor to ensure that the financial institution returns the completed form to the above cited NRC address. If the Contractor can provide the financial information, signature of the financial institutions ACH Coordinator is not required. The NRC is under no obligation to send reminders. Only after the Office of the Controller has processed the Contractor's sign-up form will the Contractor be eligible to receive payments.

Once electronic funds transfer is established for payments authorized by NRC, the Contractor needs to submit an additional SF 3881 only to report changes to the information supplied.

Questions concerning ACH/Vendor Express should be directed to the Financial Operations staff at (301) 415-7520."

E. COMPLIANCE WITH U.S. IMMIGRATION LAWS AND REGULATIONS

NRC Contractors are responsible to ensure that their alien personnel are not in violation of United States Immigration and Naturalization (INS) laws and regulations, including employment authorization documents and visa requirements. Each alien employee of the Contractor must be lawfully admitted for permanent residence as evidenced by Alien Registration Receipt Card Form 1-151 or must present other evidence from the Immigration and Naturalization Services that employment will not affect his/her immigration status. The INS Office of Business Liaison (OBL) provides information to Contractors to help them understand the employment eligibility verification process for non-US citizens. This information can be found on the INS website, <http://www.ins.usdoj.gov/graphics/services/employerinfo/index.htm#obl>.

The NRC reserves the right to deny or withdraw Contractor use or access to NRC facilities or its equipment/services, and/or take any number of contract administrative actions (e.g., disallow costs, terminate for cause) should the Contractor violate the Contractor's responsibility under this clause.

2052.209-72 CONTRACTOR ORGANIZATIONAL CONFLICTS OF INTEREST (JAN 1993)

(a) Purpose. The primary purpose of this clause is to aid in ensuring that the Contractor:

(1) Is not placed in a conflicting role because of current or planned interests (financial, contractual, organizational, or otherwise) which relate to the work under this contract; and

(2) Does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.

(b) Scope. The restrictions described apply to performance or participation by the Contractor, as defined in 48 CFR 2009.570-2 in the activities covered by this clause.

(c) Work for others.

(1) Notwithstanding any other provision of this contract, during the term of this contract, the Contractor agrees to forego entering into consulting or other contractual arrangements with any firm or organization the result of which may give rise to a conflict of interest with respect to the work being performed under this contract. The Contractor shall ensure that all employees under this contract abide by the provision of this clause. If the Contractor has reason to believe, with respect to itself or any employee, that any proposed consultant or other contractual arrangement with any firm or organization may involve a potential conflict of interest, the Contractor shall obtain the written approval of the Contracting Officer before the execution of such contractual arrangement.

(2) The Contractor may not represent, assist, or otherwise support an NRC licensee or applicant undergoing an NRC audit, inspection, or review where the activities that are the subject of the audit, inspection, or review are the same as or substantially similar to the services within the scope of this contract (or task order as appropriate) except where the NRC licensee or applicant requires the Contractor's support to explain or defend the Contractor's prior work for the utility or other entity which NRC questions.

(3) When the Contractor performs work for the NRC under this contract at any NRC licensee or applicant site, the Contractor shall neither solicit nor perform work in the same or similar technical area for that licensee or applicant organization for a period commencing with the award of the task order or beginning of work on the site (if not a task order contract) and ending one year after completion of all work under the associated task order, or last time at the site (if not a task order contract).

(4) When the Contractor performs work for the NRC under this contract at any NRC licensee or applicant site,

(i) The Contractor may not solicit work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate.

(ii) The Contractor may not perform work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate, and for one year thereafter.

(iii) Notwithstanding the foregoing, the Contracting Officer may authorize the Contractor to solicit or perform this type of work (except work in the same or similar technical area) if the Contracting Officer determines that the situation will not pose a potential for technical bias or unfair competitive advantage.

(d) Disclosure after award.

(1) The Contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in this contract, that it does not have any organizational conflicts of interest as defined in 48 CFR 2009.570-2.

(2) The Contractor agrees that if, after award, it discovers organizational conflicts of interest with respect to this contract, it shall make an immediate and full disclosure in writing to the Contracting Officer. This statement must include a description of the action which the Contractor has taken or proposes to take to avoid or mitigate such conflicts. The NRC may, however, terminate the contract if termination is in the best interest of the Government.

(3) It is recognized that the scope of work of a task-order-type contract necessarily encompasses a broad spectrum of activities. Consequently, if this is a task-order-type contract, the Contractor agrees that it will disclose all proposed new work involving NRC licensees or applicants which comes within the scope of work of the underlying contract. Further, if this contract involves work at a licensee or applicant site, the Contractor agrees to exercise diligence to discover and disclose any new work at that licensee or applicant site. This disclosure must be made before the submission of a bid or proposal to the utility or other regulated entity and must be received by the NRC at least 15 days before the proposed award date in any event, unless a written justification demonstrating urgency and due diligence to discover and disclose is provided by the Contractor and approved by the Contracting Officer. The disclosure must include the statement of work, the dollar value of the proposed contract, and any other documents that are needed to fully describe the proposed work for the regulated utility or other regulated entity. NRC may deny approval of the disclosed work only when the NRC has issued a task order which includes the technical area and, if site-specific, the site, or has plans to issue a task order which includes the technical area and, if site-specific, the site, or when the work violates paragraphs (c)(2), (c)(3) or (c)(4) of this section.

(e) Access to and use of information.

(1) If in the performance of this contract, the Contractor obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. Section 552a(1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), the Contractor agrees not to:

(i) Use this information for any private purpose until the information has been released to the public;

(ii) Compete for work for the Commission based on the information for a period of six months after either the completion of this contract or the release of the information to the public, whichever is first;

(iii) Submit an unsolicited proposal to the Government based on the information until one year after the release of the information to the public; or

(iv) Release the information without prior written approval by the Contracting Officer unless the information has previously been released to the public by the NRC.

(2) In addition, the Contractor agrees that, to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974(5 U.S.C. Section 552a (1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), or other confidential or privileged technical, business, or financial information under this contract, the Contractor shall treat the information in accordance with restrictions placed on use of the information.

(3) Subject to patent and security provisions of this contract, the Contractor shall have the right to use technical data it produces under this contract for private purposes provided that all requirements of this contract have been met.

(f) Subcontracts. Except as provided in 48 CFR 2009.570-2, the Contractor shall include this clause, including this paragraph, in subcontracts of any tier. The terms contract, Contractor, and Contracting Officer, must be appropriately modified to preserve the Government's rights.

(g) Remedies. For breach of any of the above restrictions, or for intentional non-disclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations that necessarily imply bad faith, the Government may terminate the contract for default, disqualify the Contractor from subsequent contractual efforts, and pursue other remedies permitted by law or this contract.

(h) Waiver. A request for waiver under this clause must be directed in writing to the Contracting Officer in accordance with the procedures outlined in 48 CFR 2009.570-9.

(i) Follow-on effort. The Contractor shall be ineligible to participate in NRC contracts, subcontracts, or proposals therefor (solicited or unsolicited), which stem directly from the Contractor's performance of work under this contract. Furthermore, unless so directed in writing by the Contracting Officer, the Contractor may not perform any technical consulting or management support services work or evaluation activities under this contract on any of its products or services or the products or services of another firm if the Contractor has been substantially involved in the development or marketing of the products or services.

(1) If the Contractor, under this contract, prepares a complete or essentially complete statement of work or specifications, the Contractor is not eligible to perform or participate in the initial contractual effort which is based on the statement of work or specifications. The Contractor may not incorporate its products or services in the statement of work or specifications unless so directed in writing by the Contracting Officer, in which case the restrictions in this paragraph do not apply.

(2) Nothing in this paragraph precludes the Contractor from offering or selling its standard commercial items to the Government.

SEAT BELTS

Contractors, subcontractors, and grantees, are encouraged to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented, or personally owned vehicles.

FAR 52.232-7, "PAYMENTS UNDER TIME-AND-MATERIAL AND LABOR-HOUR CONTRACTS"

FAR 52.232-7 is applicable and hereby incorporated by reference into this order.

3.1 Aging Management of Reactor Vessel, Internals, and Reactor Coolant System

This section of the SER documents the staff's review of the applicant's AMR results for the reactor vessel, internals, and reactor coolant system components and component groups associated with the following systems:

- reactor vessel
- reactor vessel internals
- reactor coolant system and connected lines
- steam generators

3.1.1 Summary of Technical Information in the Application

In Section 3.1 of the LRA, the applicant provided the results of the aging management review of the reactor vessel, internals, reactor coolant system, and steam generator components and component types listed in Tables 2.3.1.1 through 2.3.1.4 of the LRA. The applicant also listed the materials, environments, aging effects requiring management, and aging management programs associated with each system.

In Table 3.1.1, "Summary of the Aging Management Evaluations for Reactor Vessel, Internals, and Reactor Coolant System in Chapter IV of NUREG-1801," of the LRA, the applicant provided a summary comparison of its AMRs with the AMRs evaluated in the GALL report for the reactor vessel, internals, reactor coolant, and steam generator systems components and component types. In Section 3.1.2.2 of the LRA, the applicant provided information concerning Table 3.1.1 components for which further evaluation is recommended by the GALL report.

In section 3.1.1.1 of the LRA, the applicant stated that it reviewed the following NRC approved Westinghouse Owners Group (WOG) as a source of input information for developing its AMRs:

- WCAP 14574-A, License Renewal Evaluation: Aging Management Evaluation for Pressurizers, December 2000.
- WCAP 14575-A, License Renewal Evaluation: Aging Management Evaluation for Class 1 Piping and Associated Pressure Boundary
- WCAP 14577-A Revision 1, License Renewal Evaluation: Aging Management for Reactor Internals, October 2000.

The applicant stated that it did not incorporate these approved generic tropical report into the LRA and that the WCAP Applicant Action Items were not explicitly addressed in this application. However, the applicant stated that the items applicable to Farley were considered in the AMRs.

3.1.2 Staff Evaluation

The staff reviewed Section 3.1 of the LRA to understand the applicant's review process and to determine whether the applicant provided sufficient information to demonstrate that the effects of aging for the reactor vessel, internals, reactor coolant system, and steam generator components that are within the scope of license renewal and subject to an AMR will be adequately managed so that the intended functions will be maintained consistent with the CLB for the period of extended operation, as required by 10 CFR 54.21(a)(3).

The staff performed an audit to confirm the applicant's claim that certain identified AMRs are consistent with the staff approved AMRs in the GALL report. The staff did not repeat its review of the matters described in the GALL report. However, the staff did verify that the material presented in the LRA was applicable and that the applicant had identified the appropriate GALL AMRs. The staff's audit findings are summarized in Section 3.1.2.1.1 of this SER.

The staff also audited those AMRs that were consistent with the GALL report and for which further evaluation is recommended. The staff verified that the applicant's further evaluations were consistent with the acceptance criteria in Section 3.1.3.2 of NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants." The staff's audit findings are summarized in Section 3.1.2.1.2 of this SER.

The staff conducted a technical review of the remaining AMRs that were not consistent with the GALL report. The review included evaluating whether all plausible aging effects were identified and whether the aging effects listed were appropriate for the combination of materials and environments specified. The staff's review findings are documented in the Section 3.1.2.2 of this SER.

3.1.2.1 Staff Audit Results

3.1.2.1.1 Audit of AMRs Consistent with the GALL Report

In Section 3.1.2.1 of the LRA, the applicant identified the materials, environments, and aging effects requiring management. The applicant identified the following programs that manage the aging effects related to the reactor vessel, internals, reactor coolant system, and steam generator components.

- Water Chemistry Control Program
- Inservice Inspection Program
- Reactor Vessel Surveillance Program
- NiCuFe Component Assessment Program
- Borated Water Leakage Assessment and Evaluation Program
- Flux Detector Thimble Inspection Program
- On-Time Inspection Program
- Steam Generator Program

In Tables 3.1.2-1 thru 3.1.2-4 of the LRA, the applicant provided a summary of AMRs for the reactor vessel, internals, reactor coolant system, and steam generators, and identified which AMRs it considered to be consistent with the GALL report. The applicant provided a note for

each AMR line item. The notes described how the information in the Tables align with the information in the GALL report. The staff audited those AMRs with notes A through E, which indicated the AMR was consistent with the GALL report.

Note A indicated that the AMR line item is consistent with the GALL report for component, material, environment, and aging effect. In addition, the AMP is consistent with the AMP identified in the GALL report. The staff audited these line items to verify consistency with the GALL report and the validity of the AMR for the site-specific conditions.

Note B indicated that the AMR line item is consistent with the GALL report for component, material, environment, and aging effect. In addition, the AMP takes some exceptions to the AMP identified in the GALL report. The staff audited these line items to verify consistency with the GALL report. The staff verified that the identified exceptions to the GALL AMPs had been reviewed and accepted by the staff. The staff also determined whether the AMP identified by the applicant was consistent with the AMP identified in the GALL report and whether the AMR was valid for the site-specific conditions.

Note C indicated that the component for the AMR line item is different, but consistent with the GALL report for material, environment, and aging effect. In addition, the AMP is consistent with the AMP identified by the GALL report. This note indicates that the applicant was unable to find a listing of some system components in the GALL report. However, the applicant identified a different component in the GALL report that had the same material, environment, aging effect, and AMP as the component that was under review. The staff audited these line items to verify consistency with the GALL report. The staff also determined whether the AMR line item of the different component was applicable to the component under review and whether the AMR was valid for the site-specific conditions.

Note D indicated that the component for the AMR line item is different, but consistent with the GALL report for material, environment, and aging effect. In addition, the AMP takes some exceptions to the AMP identified in the GALL report. The staff audited these line items to verify consistency with the GALL report. The staff verified whether the AMR line item of the different component was applicable to the component under review. The staff verified whether the identified exceptions to the GALL AMPs had been reviewed and accepted by the staff. The staff also determined whether the AMP identified by the applicant was consistent with the AMP identified in the GALL report and whether the AMR was valid for the site-specific conditions.

Note E indicated that the AMR line item is consistent with the GALL report for material, environment, and aging effect, but a different aging management program is credited. The staff audited these line items to verify consistency with the GALL report. The staff also determined whether the identified AMP would manage the aging effect consistent with the AMP identified by the GALL report and whether the was valid for the site-specific conditions .

The staff conducted an audit of the information provided in the LRA and program bases documents, which are available at the applicant's engineering office. On the basis of its audit, the staff finds that for the AMRs audited the applicable aging effects were identified, the appropriate combination of materials and environments were listed, and acceptable aging management programs were specified. Details of the audit are contained in the audit report that was issued on DATE.

RLEP-B provides staff evaluation of audit items resulting in new commitments or supplements to the LRA.

On the basis of its audit, the staff concludes that the applicant has demonstrated that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation, as required by 10 CFR 54.21(a)(3).

3.1.2.1.2 Audit of AMR Results for which Further Evaluation is Recommended

In Section 3.1.2.2 of the LRA, the applicant provides further evaluation of aging management as recommended by the GALL report for reactor coolant systems. The applicant provided information concerning how it will manage the following aging effects:

- Cumulative Fatigue Damage
- Loss of Material due to General Corrosion
- Loss of Fracture Toughness due to Neutron Irradiation Embrittlement
- Crack Initiation and Growth due to Thermal and Mechanical Loading or Stress Corrosion Cracking
- Crack Growth due to Cyclic Loading
- Changes in Dimension due to Void Swelling
- Crack Initiation and Growth due to Stress Corrosion Cracking or Primary Water Stress Corrosion Cracking
- Crack Initiation and Growth due to Stress Corrosion Cracking or Irradiation Assisted Stress Corrosion Cracking
- Loss of Preload due to Stress Relaxation
- Loss of Section Thickness due to Erosion
- Cracking Initiation and Growth due to PWSCC, ODSCC, or Intergranular Attack or Loss of Material due to Wastage and Pitting Corrosion or Loss of Section Thickness due to Fretting and Wear or Denting due to Corrosion of Carbon Steel Tube Support Plate
- Loss of Section Thickness due to Flow Accelerated Corrosion
- Ligament Cracking due to Corrosion
- Loss of Material due to Flow-accelerated Corrosion (PWR)

The staff audited the applicant's further evaluations against the criteria contained in Section 3.1.3.2 of the Standard Review Plan for License Renewal. Details of the staff's audit are documented in the audit report issued DATE.

DE provides staff evaluation of items resulting in new commitments or supplements to the LRA.

On the basis of its audit, the staff finds that the applicant's further evaluation conducted in accordance with the GALL report are consistent with the acceptance criteria in Section 3.1.3.2 of Standard Review Plan for Review of License.

3.1.2.2 Staff Review Results

DRAFT
February 5, 2004

5. AUDIT AND SAFETY REVIEW DOCUMENTATION

a. Scope of Documentation

- i. Based on the results of the AMP and AMR audits and safety reviews performed per Section 4, the project team is to write the:**
 - (1) Audit report**
 - (2) Safety evaluation report (SER) input**
- ii. The audit report and completed project team SER input will be provided to the NRC project manager (PM). The transmittal to the PM will be docketed.**

b. Documentation Overview

- i. Tables 5-1 and 5-2 show where information is to be documented. AMPs and AMRs identified by the applicant as being consistent with the GALL report are documented in audit report and have SEs prepared for inclusion in the SER. Plant-specific AMP and AMR reviews performed based on NRC approved precedents have only SEs prepared for inclusion in the SER and are not documented in the audit report.**
- ii. The project team prepares an audit report which is described in Section 5.c.**
- iii. The project team prepares the SER input of the safety reviews as discussed in Section 5.d. The PM has the responsibility to integrate the project team's SE/SER input into the final SER.**

c. Audit Report

- i. The audit report should include the following sections:**
 - (1) Scope of the audit**
 - (2) Summary of audit activities**
 - (3) Methodology of the audit (reference to the audit plan)**
 - (a) List of open items with RAIs issued**
 - (b) Audit documents reviewed**
 - (4) Audit results**
 - (a) AMPs consistent with GALL report**
 - (b) AMRs consistent with GALL report**
 - (5) Attachments**
- ii. The following paragraphs define the type of information and level of detail necessary for each of the audit report sections. An example of the type of information that should be included in the audit report is provided in Attachment L [later].**
 - (1) Scope of audit: This section should include a statement of the purpose of the audit and that it is being performed to fulfill the**

DRAFT

February 5, 2004

criteria of 10 CFR 54.21(b). This section also identifies the breath of the audit performed, noting that the audit was limited to these AMPs and AMRs assigned to the project team to review. Include in this section a description of the nominal rules used to make the work assignments, noting that other criteria could have been used by the NRC PM to assign AMP or AMR reviews to the project team or other section of the NRC. This section should note that only seven of the ten AMP attributes were audited by the project team and that the other three attributes were reviewed by other sections of the NRC staff as assigned by the NRC PM. State that the AMP's audited are identified below and the AMR's audited are identified in the audit plan.

- (2) **Summary of audit activities:** List of key activities including trips organizations assigned to support the audit.
- (3) **Methodology of the audit:** This section should state that the audit was performed in accordance with the processes defined in [later].
 - (a) **List of open items with RAIs issued:** Only audit questions that were not resolved during performance of the audit should be listed in this section. All unresolved questions are to have draft RAIs prepared. These draft RAIs are to be discussed in this section. Resolved audit questions are not to be discussed in this section. RAIs should also be prepared of any commitments made by the applicant needed to resolve the audit issues that have not been docketed by the applicant.
 - (b) **Audit documents reviewed:** List of documents reviewed to support AMP audit results. A table documenting for each AMP those documents reviewed by the project team in performance of the audit. The table may include docket documents and other documents that may only be available at the applicant's offices or plant site. See Attachment M.
- (4) **Audit Results:**
 - (a) **AMPs consistent with GALL report:** Each AMP reviewed by the project team that the applicant identified as being consistent with the GALL report is to be documented in this section. Each AMP is to have an individual writeup that documents to following:
 - (i) The LRA AMP name, LRA section number, title and a description of the LRA AMP scope. A listing of the GALL AMP(s) to which the LRA AMP is being compared
 - (ii) A technical basis explaining why any exceptions, enhancements, or difference to the GALL AMP(s) is acceptable.
 - (iii) A review of operating experience used to justify acceptance of the AMP. (Needs clarification on the

DRAFT
February 5, 2004

- type of documentation is needed for this paragraph. [later])
- (iv) A discussion concerning the adequacy of the LRA Appendix A commitment to revise the plants Updated Final Safety Analysis Report (UFSAR). This discussion is to be based on the audit performed in Section 4.
 - (v) A paragraph that provides the basis for concluding that the LRA AMP is consistent with the GALL AMP(s).
 - (vi) If there is an open question, the RAI that documents the concern is to be identified and briefly discussed.
- (b) AMRs consistent with GALL: The audit worksheet, discussed in Section 4, documents the basis for accepting these AMRs. A consistent with the GALL AMR audit report example is provided in Attachment L [later]. If there is an open question, the RAI that documents the concern is to be identified and briefly discussed.
- iii. The audit report and the SER will be docketed when complete.
- d. SER Preparation
- i. The project team is to prepare a SER input that incorporates the staff evaluations (SE) developed in conjunction with the project team's audit and safety evaluations (see 5.d.iii).
 - ii. The SER input is to have the following sections. Attachment [later] provides an example of a project team AMP/AMR SER input.
- 3. Aging Management Review Results
 - 3.0 Introduction
 - 3.0.1 Formats of the LRA
 - 3.0.2 Staff's Review Process
 - 3.0.2.1 Review of AMPs
 - 3.0.2.2 Review of AMR Results
 - 3.0.3 Aging Management Programs
 - 3.0.3.1 AMPs that are Consistent with GALL Report
 - 3.0.3.1.1 Staff Evaluations
 - 3.0.3.1.2 FSAR Supplement
 - 3.0.3.1.3 Conclusions
 - 3.0.3.2 AMPs that are Consistent with GALL Report with Exceptions
 - 3.0.3.3 AMPs that are Plant-Specific
 - 3.0.4 Quality Assurance Program Attributes Integral to Aging Management

DRAFT

February 5, 2004

- 3.X¹ Aging Management of _____
- 3.X.1 Summary of Technical Information in the Application
- 3.X.2 Staff Evaluation
 - 3.X.2.1 Staff Audit Results
 - 3.X.2.1.1 Audit of AMRs Consistent with the GALL Report
 - 3.X.2.1.2 Audit of AMR Results for which Further Evaluation is Required Recommended
 - 3.X.2.2 Staff Review Results

iii. Staff evaluation preparation

- (1) Staff evaluations (SE) are to be prepared for:
 - (a) Each AMP that was determined to be consistent with the GALL Report, which has no exceptions.
 - (b) Each AMP that was determined to be consistent with the GALL Report, which has exception(s).
 - (c) Each plant-specific AMP
 - (d) AMRs that are consistent with the GALL report
 - (e) AMRs that were reviewed based on NRC approved precedent
- (2) The following guidance is provided to assist in preparing SEs.
 - (a) AMPs determined to be consistent with the GALL report, with no exceptions: The SER input for these AMPs is the listing of the AMP title, LRA AMP paragraph number and a discussion of the basis for concluding that the LRA Appendix A, UFSAR update is acceptable. This SE documents that the AMP is consistent with the GALL Report. An example of this SE is provided in Attachment [later].
 - (b) AMPs determined to be consistent with the GALL Report, with exceptions: The SE for these AMPs will include a statement that staffs audit found the AMP consistent with GALL and that the applicant identified exception to the GALL report was found technically acceptable to manage the aging effect during the period of extended operation. The SE will identify the exception(s) and provide the basis for acceptance. The SE will also assess the LRA Appendix A, UFSAR Supplement, and document the basis for concluding that the UFSAR supplement is sufficient. An example of this SE is provided in Attachment [later].
 - (c) AMPs that are plant-specific: The SE is to document the basis for accepting each of the seven attributes reviewed by the project team. These SE will reflect the review

¹ The LRA is broken down into six systems in what are commonly called the Table 2s. These Table 2s address the following systems: (1) reactor vessel, internals and reactor coolant system, (2) engineering safety features systems, (3) auxiliary systems, (4) steam power and conversion systems, (5) structures and component supports, (6) electrical and instrumentation and controls.

DRAFT

February 5, 2004

performed in accordance with Section 4. A plant-specific AMP SE example is provided in Attachment L. [later]

- (i) The SE is to include a discussion concerning the adequacy of the LRA Appendix A commitment to revise the plants UFSAR. This discussion is to be based on the review performed in Section 4.
 - (ii) The SE is to include a discussion of operating experience.
 - (iii) If there is an open question, the RAI that documents the concern is to be identified and briefly discussed.
- (d) AMRs performed based on NRC approved precedents:
The audit worksheet is discussed in Section 4.d documents the basis for accepting these AMRs. The audit report is to contain a statement that these AMRs were found acceptable based on the audit. [Audit report writing style is still being developed] An audit report example is provided in Attachment L [later]. If there is an open question, the RAI that documents the concern is to be identified and briefly discussed.

DRAFT
February 5, 2004

Table 5-2
AMR REVIEW ITEMS
DOCUMENTATION SCOPE AND LOCATION

[Use Noel's final tables]



Overview of Audit and Safety Review Documentation

Kurt Cozens
NRC
February 6, 2004



Scope of Documentation

- ▶ Prepare
 - ▶ Audit report
 - ▶ Safety evaluation report (SER) input

 - ▶ Based on AMP and AMR
 - ▶ Audits
 - ▶ Safety reviews
-



Audit Report

- ▶ Include:
 - ▶ Scope of the audit
 - ▶ Summary of audit activities
 - ▶ Methodology of the audit (reference to the audit plan)
 - ▶ List of open items with RAIs issued
 - ▶ Audit documents reviewed
 - ▶ Audit results
 - ▶ AMPs consistent with GALL report
 - ▶ AMRs consistent with GALL report
 - ▶ Attachments



SER Preparation

- ▶ Prepare a SER input
 - ▶ Incorporates the staff evaluations (SE)
 - ▶ Developed in conjunction with the project team's audit and safety evaluations



SER Sections

3. Aging Management Review Results

3.0 Introduction

3.0.1 Formats of the LRA

3.0.2 Staff's Review Process

3.0.2.1 Review of AMPs

3.0.2.2 Review of AMR Results

3.0.3 Aging Management Programs

3.0.3.1 AMPs that are Consistent with GALL Report

3.0.3.1.1 Staff Evaluations

3.0.3.1.2 FSAR Supplement

3.0.3.1.3 Conclusions

3.0.3.2 AMPs that are Consistent with GALL Report with Exceptions

3.0.3.3 AMPs that are Plant-Specific

~~3.0.4 Quality Assurance Program Attributes Integral to Aging Management~~



SER Sections (continued)

3.X¹ Aging Management of _____

3.X.1 Summary of Technical Information in the Application

3.X.2 Staff Evaluation

3.X.2.1 Staff Audit Results

3.X.2.1.1 Audit of AMRs Consistent with the GALL Report

3.X.2.1.2 Audit of AMR Results for which Further Evaluation
is Required Recommended

3.X.2.2 Staff Review Results

3.X.3 *Conclusions*

1. The LRA is broken down into six systems in what are commonly called the Table 2s. These Table 2s address the following systems: (1) reactor vessel, internals and reactor coolant system, (2) engineering safety features systems, (3) auxiliary systems, (4) steam power and conversion systems, (5) structures and component supports, (6) electrical and instrumentation and controls.
