



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 E. LAMAR BLVD
ARLINGTON, TX 76011-4511

March 1, 2016

Mr. M. E. Reddemann
Chief Executive Officer
Energy Northwest
P.O. Box 968, Mail Drop 1023
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION – NOTIFICATION OF NRC DESIGN BASES INSPECTION (05000397/2016007) AND INITIAL REQUEST FOR INFORMATION

Dear Mr. Reddemann:

On June 6, 2016, the U.S. Nuclear Regulatory Commission (NRC) will begin a triennial baseline Design Bases Inspection at the Columbia Generating Station. A 7-person team will perform this inspection using the NRC Inspection Procedure 71111, Attachment 21M “Design Bases Inspection.”

The inspection focuses on components and operator actions that have high risk and low design margins. The samples reviewed during this inspection will be identified during an information gathering visit and during the subsequent in-office preparation week. In addition, a number of operating experience issues will also be selected for review.

The inspection will include an information gathering site visit by the team leader and a senior reactor analyst, and two weeks of onsite inspection by the team. The inspection will consist of five NRC inspectors and two contractors, of which six will focus on engineering and one on operations. The current inspection schedule is as follows:

Onsite Information Gathering Visit: March 28-31, 2016

In-Office Preparation Week: May 23-27, 2016

Onsite Weeks: June 6-10, 2016, and June 20-24, 2016

The purpose of the information gathering visit is to meet with members of your staff to identify potential risk-significant components and operator actions. The lead inspector will also request a tour of the plant with members of your operations staff and probabilistic safety assessment staff. During the onsite weeks, several days will be needed on the plant-referenced simulator in order to facilitate the development of operator action-based scenarios. Additional information and documentation needed to support the inspection will be identified during interviews with engineering managers, engineers, and probabilistic safety assessment staff throughout the inspection

Our experience with these inspections has shown that they are extremely resource intensive, both for the NRC inspectors and the licensee staff. In order to minimize the inspection impact on the site and to ensure a productive inspection, we have enclosed a request for information needed for the inspection. The request has been divided into three groups. The first group lists information necessary for the information gathering visit and for general preparation. This information should be available to the regional office no later than April 27, 2016. Insofar as possible, this information should be provided electronically to the lead inspector. Since the inspection will be concentrated on high risk/low margin components, calculations associated with your list of high risk components should be available to review during the information gathering visit to assist in our selection of components based on available design margin.

The second group of documents requested is those items that the team will need access to during the preparation week in order to finalize the samples to be inspected. The third group lists information necessary to aid the inspection team in tracking issues identified as a result of the inspection. It is requested that this information be provided to the lead inspector as the information is generated during the inspection. Additional requests by inspectors will be made throughout both onsite weeks for specific documents needed to complete the review of the components selected. It is important that all of these documents are up to date and complete in order to minimize the number of additional documents requested during the preparation and/or the onsite portions of the inspection. In order to facilitate the inspection, we request that a contact individual be assigned to each inspector to ensure information requests, questions, and concerns are addressed in a timely manner.

The lead inspector for this inspection is Mr. Ronald A. Kopriva. We understand that our licensing engineer contact for this inspection is Ms. Tracey Parmelee. If there are any questions about the inspection or the requested materials, please contact the lead inspector by telephone at 817-200-1104 or by e-mail at Ron.Kopriva@nrc.gov.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150 0011. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

M.E. Reddmann

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Thomas R. Farnholtz,
Chief Engineering Branch 1
Division of Reactor Safety

Docket: 50-397
License: NPF-21

Enclosure:
Design Bases Inspection Request for Information

Electronic Distribution for Columbia Generating Station

**Initial Request for Information for Information
Component Design Bases Inspection
Columbia Generating Station**

Inspection Report: 05000397/2016007

Information Gathering Dates: Mach 28-31, 2016

Inspection Dates: June 6-10, 2016, and June 20-24, 2016

Inspection Procedure: IP 71111, Attachment 21M, "Design Bases Inspection"

Lead Inspector: Ronald A. Kopriva, Senior Reactor Inspector

I. Information Requested Prior *to* Information Gathering Visit (March 28, 2016)

The following information (Section 1 of this enclosure) should be sent to the Region IV office in hard copy or electronic format (Certrec IMS preferred), to the attention of Ronald A. Kopriva by March 28, 2016, to facilitate the reduction in the items to be selected for a final list during the preparation week of May 2, 2016. The inspection team will finalize the selected list during the prep week using the additional documents requested in Section II of this enclosure. The specific items selected from the lists shall be available and ready for review on the day indicated in this request. *Please provide requested documentation electronically in .pdf files, Excel, or other searchable formats if possible. The information should contain descriptive names, and be indexed and hyperlinked to facilitate ease of use. Information in "lists" should contain enough information to be easily understood by someone who has knowledge of boiling water reactor technology. If requested documents are large and only hard copy formats are available, please inform the inspector(s), and provide subject documentation during the first day of the onsite inspection.

1. An Excel spreadsheet of equipment basic events (with definitions) including importance measures sorted by risk achievement worth (RAW) and Fussell-Vesely (FV) from your internal events probabilistic risk assessment (PRA). Include basic events with RAW value of 1.3 or greater.
2. Provide a list of the top 500 cut-sets from your PRA.
3. Copies of PRA "system notebooks," and the latest PRA summary document.
4. An excel spreadsheet of PRA human action basic events or risk ranking of operator actions from your site specific PSA sorted by RAW and FV. Provide copies of your human reliability worksheets for these items.
5. If you have an external events or fire PSA model, provide the information requested in items 1-4 for external events and fire.
6. Any pre-existing evaluation or list of components and associated calculations with low design margins, (i.e., pumps closest to the design limit for flow or pressure, diesel

generator close to design required output, heat exchangers close to rated design heat removal, etc.).

7. List of high risk maintenance rule systems/components and functions; based on engineering or expert panel judgment. Include a list of structures, systems, and components in the Maintenance Rule (a)(1) category.
8. Site top 10 issues list.
9. List of any common-cause failures of components in the last 3 years.
10. A list of operating experience evaluations for the last 2 years.
11. A list of all time-critical operator actions in procedures.
12. List of current operator workarounds/burdens and plans for resolution.
13. List of root cause evaluations associated with component failures or design issues initiated/completed in the last 5 years.
14. List of motor-operated valves (MOVs) in the program, design margin and risk ranking.
15. List of air-operated valves (AOVs) in the valve program, design and risk ranking.
16. Current management and engineering organizational charts.
17. Columbia Generating Station, IPEEE's, if available electronically.
18. Mechanical piping drawings for:
 - Engineered safety features
 - Emergency core cooling systems
 - Emergency diesel generators
19. Electrical one-line drawings for:
 - Offsite power/switchyard supplies
 - Normal AC power systems
 - Emergency AC/DC power systems (including 120VAC power and 125VDC/24VDC safety class systems)
20. An electronic copy of the Design Bases Documents or System Design Criteria documents.
21. An electronic copy of the System Health Notebooks.
22. Electronic copies of the Technical Specifications and the Updated Final Safety Analysis Report.

**II. Information Requested to be Available on First Day of Preparation Week
(May 23-27, 2016)**

1. List of condition reports (corrective action documents) associated with each of the selected components for the last 5 years.
2. The corrective maintenance history associated with each of the selected components for the last 2 years.
3. A list of permanent and temporary modifications associated with each of the selected components for the last 3 years.
4. Copies of calculations associated with each of the selected components (if not previously provided), excluding data files. Please review the calculations and also provide copies of reference material (such as drawings, engineering requests, and vendor letters).
5. Copies of operability evaluations associated with each of the selected components and plans for restoring operability, if applicable.
6. Trend data on the selected electrical/mechanical components' performance for last 3 years (for example, pumps' performance including in-service testing, other vibration monitoring, oil sample results, etc., as applicable).
7. A copy of any internal/external self-assessments and associated corrective action documents generated in preparation for the inspection.
8. A copy of engineering/operations related audits completed in the last 2 years.
9. Procedures used to accomplish operator actions associated with the basic events in your PRA.
10. List of licensee contacts for the inspection team with pager or phone numbers.

III. Information Requested to be provided throughout the inspection.

1. Copies of any corrective action documents generated as a result of the team's questions or queries during this inspection.
2. Copies of the list of questions submitted by the team members and the status/resolution of the information requested (provide daily during the inspection to each team member).
3. Reference materials (available electronically and as needed during all onsite weeks):
 - General set of plant drawings
 - IPE/PRA report
 - Procurement documents for components selected
 - Plant procedures (normal, abnormal, emergency, surveillance, etc.)
 - Technical Specifications
 - Updated Final Safety Analysis Report
 - Vendor manuals

Inspector Contact Information:

Ronald A. Kopriva
Senior Reactor Inspector
817-200-1104
Ron.Kopriva@nrc.gov

Mailing Address:

U.S. NRC, Region IV
Attn: Ron Kopriva
1600 East Lamar Blvd.
Arlington, TX 76011-4511

M.E. Reddmann

- 3 -

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Electronic Distribution for Columbia Generating Station

Distribution
See next page

ADAMS ACCESSION NUMBER: ML16061A554

<input checked="" type="checkbox"/> SUNSI Review By: RAK	ADAMS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Sensitive <input checked="" type="checkbox"/> Non-Sensitive	<input type="checkbox"/> Non-Publicly Available <input checked="" type="checkbox"/> Publicly Available	Keyword NRC-002
OFFICE	DRS/EB1/SRI:			EB1/C:
NAME	RKopriva			TFarnholtz
SIGNATURE	/RA/			/RA/
DATE	3/1/16			3/1/16

OFFICIAL RECORD COPY

Letter to Mark E. Reddemann from Thomas R. Farnholtz dated March 1, 2016

SUBJECT: COLUMBIA GENERATING STATION – NOTIFICATION OF NRC DESIGN BASES INSPECTION (05000397/2016007) AND INITIAL REQUEST FOR INFORMATION

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