



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

July 28, 2014

Mr. Michael R. Chisum, Site Vice President  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70057-0751

**SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NOTIFICATION OF NRC  
COMPONENT DESIGN BASES INSPECTION 05000382/2014007 AND INITIAL  
REQUEST FOR INFORMATION**

Dear Mr. Chisum:

On October 6, 2014, the NRC will begin a triennial baseline component design bases inspection at the Waterford Steam Electric Station, Unit 3. A seven person team will perform this inspection using NRC Inspection Procedure 71111.21, "Component 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 three weeks of onsite inspection by the team. The inspection team will consist of seven members; a team leader, four NRC inspectors, and two contractors. Five of the members will focus on engineering and one on operations. The current inspection schedule is as follows:

- Onsite Information Gathering Visit: September 18, 2014
- Preparation Week: September 29, 2014
- Onsite Weeks: October 6-10, 2014; October 20-24, 2014; and November 3-7, 2014

The purpose of the information gathering visit is to meet with members of your staff to identify potential risk-significant systems, components, and operator actions. The team leader 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 of time 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 the inspection, including interviews with engineering managers, engineers, and probabilistic safety assessment staff.

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 September 8, 2014. Insofar as possible, this information should be provided electronically to the team leader. 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 are 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 all three onsite weeks for specific documents needed to complete the review of that component/selection. 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 Gerond A. George. We understand that our licensing engineer contact for this inspection is Leia Milster. If there are any questions about the inspection or the requested materials, please contact the lead inspector by telephone at 817-200-1562 or by e-mail at Gerond.George@nrc.gov.

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: 50-382  
License: NPF-38

Enclosure: Component Design Bases Inspection  
Request for Information

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/RA/

Thomas R. Farnholtz, Chief  
Engineering Branch 1  
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Enclosure: Component Design Bases  
Inspection Request for Information

**DISTRIBUTION:** See next page

ADAMS ACCESSION NUMBER: ML14209B072

<input checked="" type="checkbox"/> SUNSI Review		ADAMS		<input checked="" type="checkbox"/> Publicly Available		<input checked="" type="checkbox"/> Non-Sensitive	
By: GGeorge		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Non-Publicly Available		<input type="checkbox"/> Sensitive	
OFFICE	RIV/DRS	RIV/DRS					
NAME	GGeorge/dll	TFarnholtz					
SIGNATURE	/RA/	/RA/					
DATE	7/28/14	7/28/14					

Letter to M. Chisum from T. Farnoltz, dated July 28, 2014

**SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NOTIFICATION OF NRC COMPONENT DESIGN BASES INSPECTION (05000382/2014007) AND INITIAL REQUEST FOR INFORMATION**

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**Initial Request for Information  
Component Design Bases Inspection  
Waterford Steam Electric Station, Unit 3**

Inspection Report: 05000382/2014007

Information Gathering Dates: July 8, 2014

Inspection Dates: October 6-10, 2014; October 20-24, 2014; and  
November 3-7, 2014

Inspection Procedure: IP 71111.21, "Component Design Bases Inspection"

Lead Inspector: Gerond A. George, Senior Reactor Inspector

***I. Information Requested Prior to Information Gathering Visit (September 18, 2014)***

The following information (Section I of this enclosure) should be sent to the Region IV office in hard copy or electronic format (compact disc or Certrec IMS preferred), to the attention of Gerond A. George, by September 8, 2014, to facilitate the reduction in the items to be selected for a final list following the information gathering visit. 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 pressurized 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. List of procedures used to accomplish operator actions associated with the basic events in your PRA.
6. A list of all time-critical operator actions in procedures.
7. If you have an external events or fire PSA model, provide the information requested in items 1-4 for external events and fire.

8. 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.).
9. List of high risk maintenance rule systems/components and functions; based on engineering or expert panel judgment.
10. Structure, system, and components in the Maintenance Rule (a)(1) category.
11. Site top 10 issues list.
12. A list of operating experience evaluations for the last 3 years.
13. List of any common-cause failure evaluation of components in the last 5 years.
14. List of root cause evaluations associated with component failures or design issues initiated/completed in the last 3 years.
15. A list of permanent and temporary modifications for the previous 3 years.
16. List of current "operator work arounds/burdens."
17. A copy of any internal/external self-assessments and associated corrective action documents generated in preparation for the inspection.
18. A copy of engineering/operations related audits completed in the last 2 years.
19. Current management and engineering organizational charts.
20. List of licensee contacts for the inspection team with pager or phone numbers.

**II. Information Requested to be Available on First Day of Preparation Week (September 29, 2014)**

1. An electronic copy of the Design Bases Documents for the selected components.
2. An electronic copy of the System Health notebooks for the selected components.
3. List of condition reports (corrective action documents) associated with each of the selected components for the last 5 years.
4. The corrective maintenance history associated with each of the selected components for the last 5 years.
5. 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).
6. Copies of operability evaluations associated with each of the selected components and plans for restoring operability, if applicable.

7. Copies of selected operator work-around evaluations associated with each of the selected components and plans for resolution, if applicable.
8. Lists of any open temporary modifications associated with each of the selected components, if applicable.
9. 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).
10. List of motor operated valves (MOVs) in the program, design margin and risk ranking.
11. List of air operated valves (AOVs) in the valve program, design and risk ranking.
12. Mechanical piping drawings for:
  - Engineered safety features
  - Emergency core cooling systems
  - Emergency diesel generators
13. 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

***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/IPEEE/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:

Gerond A. George  
Senior Reactor Inspector  
(817)200-1562  
Gerond.George@nrc.gov

Mailing Address:

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Arlington, TX 76011-4511