

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report No. 50-382/92-09

Operating License No. NPF-38

Licensee: Entergy Operations, Inc. (EOI)

Facility Name: Waterford Steam Electric Station, Unit 3 (Waterford 3)

Inspection At: Waterford 3, Taft, Louisiana

Inspector: L. Ellershaw, Reactor Inspector, Materials and Quality Programs
Section, Division of Reactor Safety

Approved: I. Barnes 5-4-92
I. Barnes, Chief, Materials and Quality Programs Section, Division of Reactor Safety Date

Inspection Summary

Inspection Conducted April 13-17, 1992 (Report 50-382/92-09)

Areas Inspected: Routine, unannounced inspection of the program for feedback of operating experience information and followup on a previously identified inspection finding.

Results: No violations or deviations were identified during this inspection. The program for handling and feedback of operating experience information was exceptionally well defined, effectively being implemented, and contained features that were considered superior by the inspector. There were no instances identified in which information, considered to be important for the safe operation of Waterford 3, was not provided in a timely fashion to the operating staff. A minor weakness was identified in which certain vendor information was incorrectly categorized. In addition, it was noted that approximately 76 NRC Information Notices were open. In what appeared to be administrative in nature, closure memos to file were not being generated, primarily because of the low priorities assigned to that activity. The inspector did verify that evaluations and implementation of identified actions were being accomplished in a timely fashion.

DETAILS

1. PERSONS CONTACTED

LICENSEE PERSONNEL

- *R. Barkhurst, Vice President, Operations
- *D. Baker, Director, Operations Support & Assessments
- *G. Boerschig, Supervisor (Acting), Events Analysis & Reporting
- *R. Burski, Director, Nuclear Safety
- G. Davie, Manager, Operations Assessment & Information Dissemination
- *G. Davis, Manager, Events Analysis Reporting & Response
- *F. Drummond, Director, Site Support
- *J. Houghtaling, Director, Modifications & Construction
- *M. Langan, Technical Training Supervisor
- *L. Laughlin, Manager, Licensing
- *T. Leonard, Manager, Technical Services
- *B. Loetzerich, Licensing Engineer
- *D. Packer, General Manager, Plant Operations
- *J. Ridgel, Radiation Protection Superintendent
- *L. Simon, Lead Supervisor, Radiation Waste
- *R. Starkey, Manager, Operations & Maintenance
- *C. Thomas, Licensing Engineer
- *J. Zabritski, Manager (Acting), Quality Assurance

NRC

- *L. Ricketson, Senior Radiation Specialist
- *W. Smith, Senior Resident Inspector

The inspector also interviewed other licensee personnel during the inspection.

*Denotes those attending the exit meeting on April 17, 1992.

2. FOLLOWUP ON PREVIOUS INSPECTION FINDINGS (92701)

(Closed) Open Item (382/9106-01): This item dealt with the completion of an evaluation in order to resolve a question regarding the need for venting control element drive mechanism (CEDM) housings.

The nuclear steam supply system manufacturer (ABB Combustion Engineering [CE]) had notified the licensee by means of Information Bulletin 91-02, dated February 6, 1991, of the discovery of CEDM pressure housing cracks at the Fort Calhoun Station, which resulted in a primary coolant leak. The cause was determined to be transgranular stress corrosion cracking resulting from long periods of exposure to high stresses in an oxygenated high-temperature water environment. CE recommended that all CE nuclear steam supply system utilities review their procedures and practices for venting CEDM housings, and to assess whether additional evaluations or examinations were warranted for any unvented

CEDM housings. The applicable CE Technical Manual for magnetic jack-type CEDMs stated that the mechanisms should be vented to preclude oxygen entrapment prior to their operation after each refilling or depressurization of the main-coolant system. Since the inspectors had determined that venting was not being performed at Waterford 3 and a resolution had not been achieved from the evaluation that was in-process, the inspectors documented this condition as an open item.

During this inspection, the inspector was informed that the issue was resolved by deciding to vent the CEDM housings. Design Engineering, after reviewing the design and discussing the venting issue with CE engineering, recommended, per Memorandum W3C5-91-0198 dated December 27, 1991, that the CEDM housings be vented. The Operations Department concurred with this recommendation as shown on Operations Support and Assessments (OSA) evaluation and technical review sheet dated February 27, 1992. The OSA summary sheet summarized the actions to be taken and was signed/approved by the General Manager Plant Operations on April 7, 1992. The status showed that preliminary work regarding the installation of a CE VERSA-VENT system would be accomplished during Refuel 5 (approximately October 1992) and that the actual installation and initial venting would be performed during Refuel 6 (approximately mid-year 1994). System Engineering had submitted a Station Modification Request to accomplish these actions.

The inspector considered these actions to be appropriate; therefore, this item is considered closed.

3. FEEDBACK OF OPERATIONAL EXPERIENCE INFORMATION (90700)

The purpose of this inspection was to determine the effectiveness of EOI's program to assess and disseminate operational experience information pertinent to plant safety, which originated outside the organization.

3.1 Program Verification

The program and associated responsibilities were controlled and described in the following procedures.

Licensing Instruction LI-105, "Handling and Responding to NRC Information Notices," Revision 0, provided specific details regarding the receipt, prioritization, tracking, and closure of Information Notices including the subsequent preparation and approval of a memorandum to file documenting the actions taken to address the issues described in the Information Notice. Administrative Procedure UNT-006-015, "Identification, Evaluation and Reporting of Defects and Noncompliances Under 10CFR21," Revision 4, provided instructions for the identification, review, and evaluation of potential defects or noncompliance which could result in a substantial safety hazard. It also addressed the review and evaluation of 10 CFR Part 21 reports received from external sources for applicability to Waterford 3, and the reporting of defects and noncompliance pursuant to 10 CFR Part 21. Administrative Procedure UNT-006-014, "Significant Occurrence Report," Revision 4, provided

instructions for identifying deficiencies, determining root cause(s) and corrective actions, and tracking and closing corrective actions for events that are not reportable to the NRC, but could have resulted in a significant degradation of personnel safety, equipment protection, or plant operability had the condition not been corrected. Procedure OSAP-103, "Operations Assessment and Information Assessment Group," Revision 8, provided instructions for evaluating industry and in-house events or regulatory reports, and dissemination of acquired information to nuclear operations personnel. It also provided for review of in-house operating experience reports and nonconforming condition identifications for similarity to previously reported industry events, and to determine if any Operations Assessment and Information Dissemination (OA&ID) group's recommendations made previous to the event could have prevented its occurrence. If similarity is identified or if previous recommendations could have prevented the occurrence, then the OA&ID manager must evaluate to determine if a breakdown in the operating experience review program contributed to the occurrence of the event. The methodology specified for performing evaluations, making recommendations, obtaining technical review and approval, and verifying that recommended actions have been completed, was well planned. The procedure also included an escalation policy which should preclude potential neglect of any operating experience information received by OA&ID.

These procedures, particularly OSAP-103, are well written and clearly articulated responsibilities and required actions.

3.2 Program Implementation

During review of Procedure UNT-006-015, the inspector noted that Revision 4 dated October 29, 1991, incorporated the 60-day regulatory limit from the time of discovery to the time a 10 CFR Part 21 evaluation must be completed.

The inspector reviewed the Event Analysis & Reporting group's 10 CFR Part 21 Evaluation Log and elected eight documentation packages that had been, or were being, evaluated to determine applicability and/or reportability pursuant to 10 CFR Part 21. Four of the packages (CFR 90-014, CFR 91-010, CFR 91-021, and CFR 91-023) were considered to have been handled properly. Three other packages (CFR 91-016, CFR 91-019, and CFR 91-020), which had been initiated during August 1991, were open and contained only the original external notification that a potential 10 CFR Part 21 condition existed. These packages did not comply with the current revision to the procedure; however, they had been initiated prior to Revision 4. The inspector discussed this policy with licensee management personnel. The inspector was informed that while formal documentation did not exist within the packages, evaluations had been initiated. Package CFR 92-001 dated January 9, 1992, was similar in that no documentation existed other than the original external information. Closer review of the external information by the inspector revealed that it was not a 10 CFR Part 21 notification, and that it should have been treated in some other fashion (e.g., vendor information notice). The information dealt with the potential for site maintenance or instrumentation and control personnel to incorrectly assemble bezel gaskets under the glass faces of dial indicators

which could cause the glass face to interfere with the indicator needle movement. The inspector commented that correct classification of information was important because of the different regulatory requirements and the licensee's own procedural commitments regarding the different types of information.

Licensing provided, upon request, a report showing the status of open NRC Information Notices. The report, "NRC Information Notice Status List," dated April 14, 1992, showed a chronological listing of open NRC Information Notices dating back to 1985. Licensing personnel explained that the older Information Notices had originally been closed out; however, the NRC had recently issued Supplements which caused the reopening of the original package. The inspector verified that this was correct. The last page of the report consisted of a status summary, which showed that there were a total of 76 open Information Notices. The inspector selected nine Information Notice packages that were dated 1990 and 1991 (90-054, 90-057, 90-068, 91-007, 91-015, 91-042, 91-045, 91-046, and 91-062). All of the packages, except for 91-062, revealed that the required evaluations had been performed and, where applicable, identified actions had been taken. The reason that the packages remained open was because of the low priority assigned to administratively close the packages out. Closing actions required a final licensing review and a formal closure letter generated to file. Licensing management recognized that a potential existed for Information Notices remaining open for other than administrative reasons; therefore, a "Backlog NRC Information Notices" report was initiated which identified each open Information Notice, the subject matter, priority status, and the cognizant licensing engineer. In addition, a management goal was established regarding reduction of open Information Notices. It was graphically shown to the inspector that between May and December 1991, a significant reduction had been made in the number of open Information Notices. However, since December 1991, the number of NRC Information Notices issued has exceeded the number that the licensee has been able to close, even though the licensee has continued to close at an increasing pace. Package 91-062, dealing with diesel generators, contained no information other than the Information Notice itself. Discussion with the licensing engineer revealed that he had several packages in that condition, all relating to diesel generators. It was determined that each package had been initiated and assigned to a licensing engineer who left in January 1992. The currently assigned licensing engineer inherited these packages, and while no documentation (other than the Information Notice) was contained in the packages, he had contacted the diesel generator system engineer to assure that information had been provided and that evaluations were under way. The inspector verified, through discussion with the system engineer and the engineering supervisor, that they were aware of the items and that evaluations were in process. There were no instances identified in which NRC Information Notices were being neglected (i.e., evaluations had not been initiated or performed).

The inspector requested status reports from the OA&ID group regarding industry and in-house operating events. The industry event reports consisted of the Institute of Nuclear Power Operations (INPO) significant operating experience

reports (SOERs), significant event reports (SERs), and operations and maintenance reminders (O&MRs). In-house operating experience reports consisted of potentially reportable events (PREs), significant occurrence reports (SORs), nonconforming condition identifications, and licensee event reports (LERs). This information had been entered and was being tracked in the Operations Support and Assessment's Technical Review Data Base program. The inspector was provided a copy of the monthly Action Item Listing dated April 7, 1992, which showed the status of industry event reports and is distributed to all department heads. There were a total of 15 SERs and 8 SOERs shown as being open. Of these, there were two SERs for which responses had not been received from the designated responsible personnel. Each of these was less than 30 days overdue. The OA&ID senior engineering analyst had initiated the escalation policy specified in Procedure OSAP-103 by notifying the responsible department head of the overdue response. The other SERs and SOERs remained open because the implementation of actions, or implementation verification had not yet been performed. OSAP-103 required OA&ID to verify the completion and adequacy of all approved actions. The verification is required to be documented and filed with the applicable package. The inspector selected four SER packages (90-04, 90-12, 91-2, and 91-12) that had been closed out and confirmed that the required verification had been performed.

The inspector reviewed the Operating Experience Log Book (1990-1992) which listed in-house operating experiences. OA&ID's effort in this area is of an overview nature in that actions have been completed by the time OA&ID receives the final package. It is OA&ID's responsibility to review these packages for similarity to previously reported industry events and to determine if previous OA&ID recommendations could have prevented its occurrence.

In accordance with Procedure OSAP-103, OA&ID is responsible for compiling all pertinent information derived during the course of their reviews and preparing lesson plans for Industry Operating Experience Seminars. The seminars are provided to affected departments on an unspecified frequency; however, the inspector noted that thus far during 1992, four seminars have been presented to maintenance, technical staff and managers, health physics, chemistry radiation waste, and operations departments. The format of the seminars included information from the Nuclear Plant Reliability Data System, a sampling of NRC violations, case studies of significant industry events, and identified problems resulting from infrequently performed tests or evolutions conducted without adequate controls. The items were all analyzed to show root causes and a comparison was made with existing programs and systems at Waterford 3. The inspector considered this approach to be very beneficial and meaningful to the recipients.

Procedure OSAP-103 required the OA&ID manager to request, at approximately 18-month intervals, a program effectiveness review. The inspector reviewed the last program effectiveness assessment which was performed February 18-22, 1991. The assessment team consisted of personnel from EOI headquarter's Planning and Assurance staff, Grand Gulf Nuclear Station's Operational Analysis group, and Arkansas Nuclear One's Industry Events Analysis group.

The assessment was very comprehensive and provided considerable insight to identified weaknesses. The inspector noted that the weaknesses were, in general, programmatic in nature. OA&ID reviewed each of the items and developed meaningful actions to strengthen the overall process. Where strengthening involved procedural changes, the inspector verified that the procedures had been revised.

Based on discussions with quality assurance personnel, the inspector determined that internal audits have not been specifically designated for the area of operating experience information feedback. The quality assurance department is on standard distribution for operating experience information. The information is categorized and filed in "tickler" files that are associated with specific internal audits. During the preparation of an audit plan for a given area, the associated "tickler" file is reviewed to see if there is any operating experience information which would be useful during the performance of the audit. In this manner, elements of the operating experience information feedback program are audited in terms of the program area that was specifically or generally affected by the information. While the inspector did not verify that information contained in "tickler" files had been incorporated into the applicable internal audit plans, the methodology appeared to be reasonable.

The inspector's overall assessment of this area is that while there were minor administrative type weaknesses identified, the program in general is exceptionally well defined and was being effectively implemented.

No violations or deviations were identified.

4. Exit Interview

An exit interview was conducted on April 17, 1992, with the personnel denoted in paragraph 1. At the exit interview, the inspection findings were summarized. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspector during this inspection.