

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-382/88-03

License: NPF-38

Docket: 50-382

Licensee: Louisiana Power & Light Company (LP&L)
142 Delaronde Street
New Orleans, Louisiana 70174

Facility Name: Waterford Steam Electric Station, Unit 3

Inspection At: Taft, Louisiana

Inspection Conducted: January 25-29, 1988

Inspector: William B. Jones 2-5-88
W. B. Jones, Resident Inspector
Project Section C, Division of Reactor Projects Date

Approved: D. D. Chamberlain 2-12-88
D. D. Chamberlain, (Acting) Chief, Section A
Division of Reactor Projects Date

Inspection Summary

Inspection Conducted January 25-29, 1988
(Report 50-382/88-03)

Areas Inspected: Routine, unannounced inspection of licensee action on previous inspection findings, licensed operator training and nonlicensed staff training.

Results: Within the areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

- *S. A. Alleman, Quality Assurance Manager
- *E. E. Baker, Events Analysis, Reporting and Response Manager
- D. Brown, Lead Nuclear Instructor
- D. Clark, Operations Training Supervisor
- R. W. Lailheughe, Nuclear Operations Administration
- M. Langan, Technical Training Supervisor
- B. G. Morrison, Licensing Engineer
- J. O'Hern, Training Superintendent
- *P. V. Prankumar, Assistant Plant Manager
- W. Smith, Simulator Training Supervisor
- *C. J. Toth, Training Manager (Acting)
- *G. E. Wuller, Operational Licensing Supervisor
- *J. J. Zabritski, Operations Quality Assurance Manager

The NRC inspector also interviewed additional licensee personnel during the inspection period.

*Denotes those persons that attended the exit interview conducted on January 29, 1988. The NRC Resident Inspector, T. Staker also attended the exit interview.

2. Licensee Action On Previous Inspection Findings

(Closed) Unresolved Item (382/8625-01): Corrective action to ensure all personnel complete general employee training (GET) requalification within the specified time frame.

The licensee now reviews the GET requalification status for each badged employee on a monthly basis. Individuals whose GET will expire within the next 30 days are identified and a memorandum is sent to their supervisor indicating the date that their GET will expire. Individuals who have been granted extensions are also tracked in the same manner. In the event an individual does not complete the required GET requalification, a notification is made to security to remove the individuals protected area access badge.

This unresolved item is closed.

(Closed) Unresolved Item (382/8625-02): Changes to licensed operator requalification program without prior commission approval.

The licensee has established a licensed operator requalification program based on a systematic approach to training. This program was developed in accordance with the INPO guidelines and was accredited by INPO on

February 25, 1987. The NRC inspector's review of the licensed operator requalification program indicates that the program meets the requirements of 10 CFR Part 55.59 rule change issued in May 1987 in that prior commission approval to the program is not required.

This unresolved item is closed.

(Closed) Unresolved Item (382/8625-03): Maintenance of required documentation to substantiate each licensed operator's participation in a requalification program.

The NRC inspector reviewed the documentation of 16 licensed operators which substantiated that they were participating in the required requalification program. The operations department is also documenting, on a monthly basis, the time each licensed operator is spending on shift to ensure each individual is maintaining their proficiency.

This unresolved item is closed.

3. Licensed Operator Requalification Program

The NRC inspector reviewed the licensed operator requalification program to verify that the program being implemented by the licensee complied with the licensee's NRC approved training program and 10 CFR Part 55. During the performance of this review the NRC inspector verified that the following program elements were implemented by the licensee:

- o Preplanned lectures required by the licensee's NRC approved training program have been given to the operating staff and are scheduled throughout the remainder of a two-year requalification program.
- o Training lectures included review of station systems and technical specifications.
- o All licensed personnel reviewed off-normal and emergency procedures biennially.
- o Documentation was available to indicate that operations and staff supervisors (licensed individuals not assigned to an operations crew) reviewed facility design changes, procedure changes, facility license changes, and off-normal and emergency procedures.
- o The required control manipulations were performed within the required annual and biennial cycle.
- o All licensed individuals who failed the annual requalification examination were placed in an accelerated requalification program.
- o All licensed individuals who scored low in any particular category were required to attend appropriate lectures. (Each licensed individual must attend all lectures. All missed lecture material, including weekly examinations, must be made up.)

- o All licensed individuals received on-the-job training.
- o Each licensed operator completed an annual requalification examination prepared by the licensee.
- o Records were maintained by the training department to document participation by each licensed operator in above activities.

The present licensed operator requalification cycle began in January 1987. The NRC inspector reviewed the lesson plans taught during the first half of the requalification cycle and noted that the lessons taught included the subjects identified in 10 CFR Part 55.59. Special lessons were also given for selected station modifications which were implemented during the requalification cycle. The NRC inspector reviewed lesson plan L588-104-00 which is being developed, in part, as a result of the January 1, 1988, reactor trip. The lesson plan better describes how the core protection calculator (CPC) determines which axial symmetrical index (ASI) is used in the auxiliary trip decision at low power. The licensee had understood that the crossover from the fixed ASI to the real ASI value occurred at approximately seventeen percent reactor power. The licensee has since learned that, depending on plant conditions, the crossover can occur several percent below the seventeen percent guidelines taught in the past. The training to be provided on the reactor trip should be sufficient to prevent reoccurrence. A lesson schedule has been established for the first requalification rotation which began during this inspection period. A tentative lesson schedule has been established for the remainder of the requalification cycle. This lesson schedule will be revised based on any weaknesses in operator understanding determined through evaluation of the annual examination section scores, and special training needs such as the upcoming April refueling outage and the January 1, 1988, reactor trip.

The NRC inspector reviewed the licensee's program for incorporation of Significant Operating Event Reports (SOERs), Licensee Event Reports (LERs), NRC Information Notices, other event-related reports and Station Modification Packages (SMPs) into the training program. This program is established in Nuclear Training Procedure NTP-004, "Nuclear Operations Training Request." This procedure implements the Training Request (TR) program. A TR is assigned to each SOER, LER, Information Notice, other event reports and SMPs for review of applicability to the training program. A TR may also be written by any individual in the plant to request that training in a particular area be revised or developed. Review of the TR log revealed that there are open TRs dating back to late 1985. During the review of fifteen closed TRs, it was noted that several TRs did not reference which lesson plans were affected and one TR had been implemented into the lesson plan before the TR disposition had been approved. These deficiencies were discussed with licensee management. The licensee is presently evaluating the TR program to determine what changes should be made to improve the effectiveness of the program. Changes to improve the TR program is an open item pending additional review by the NRC inspector (382/8803-01).

The licensee's annual requalification examinations were reviewed by the NRC inspector for the type and difficulty of questions given. The accelerated requalification examination was also reviewed for the individual who scored less than seventy percent on one area of the examination with an overall score greater than eighty percent. The questions were found to be consistent with the questions used in NRC administered examinations. Grading practices were also reviewed and found to be consistent throughout the examinations reviewed. The individual who failed the initial requalification examination was removed from licensed activities and placed in an accelerated requalification program. The individual subsequently passed the accelerated requalification examination and was returned to licensed activities. The licensee has established a program for evaluating individual scores and the overall scores of each section of the requalification examinations to determine if there was a deficiency in the operators understanding of the material or if the questions were inappropriate. Material for which the operator's understanding is determined to be deficient will be taught during a subsequent requalification rotation.

The NRC inspector reviewed the control manipulation matrix sheets for 12 licensed operators. Each of the licensed operators had completed the required annual control manipulations that are identified as annual control manipulations in the previous and latest revision of 10 CFR Part 55.59. The licensed operators appear to be making sufficient progress in completing the required biennial control manipulations within the remainder of the January 1987 through December 1988 requalification cycle. The licensee has revised Nuclear Training Procedure NTP-102, "Licensed Reactor Operator Requalification," to reflect the latest annual and biennial control manipulation requirements of 10 CFR Part 55.59. The licensee has also initiated several discrepancy reports against their site-specific simulator to better simulate the loss of instrument air which is now an annual control manipulation requirement. The licensee had been fulfilling this previously biennial requirement utilizing the Calvert Cliffs simulator. The licensee's action to realistically simulate a loss of instrument air on their site-specific simulator during 1988 will be an open item pending additional review by the NRC inspector (382/8803-02).

The licensee began utilizing their site-specific simulator for licensed operator training in June 1987. The training request program is used for reviewing SOERs, LERs, NRC Information Notices, other event reports and SMPs to determine if a simulator software or hardware change is needed. The licensee has developed a discrepancy reporting system to identify unexpected simulator performance to a given transient. This program is identified in Nuclear Training Procedure NTP-0015, "Simulator Discrepancy Reports and Corrections." During this inspection, the licensee is correcting those simulator discrepancy reports (DRs) which identified unrealistic simulator responses and thus prevent use of the affected operating scenario. The licensee expects to complete all the priority 1 DRs prior to completion of the present simulator maintenance outage. Further simulator maintenance is planned during the April 1988 refueling outage. The reactor core performance program for the simulator will then

be updated to reflect the third cycle reactor core. In July 1988, the licensee expects to have updated the simulator modifications to within one year of the actual plant design. The NRC inspector reviewed the implementation of SMPs utilizing the TR program and the simulator modification control program. The training department is receiving SMPs for review prior to their being implemented in the plant. Once work required by the SMP has been completed, the shift supervisor signs off on the SMP accepting the work performed and allows the modification to be utilized during plant operations. The SMP is then reviewed by the engineering department prior to the training department being notified that the modification has been implemented. The training department does not implement the modification into their training programs until they are notified that the modification has been accepted for use in the plant. This delay in notifying the training department from the time the change is implemented can extend to several months. This potential time delay in notifying the training department that a modification has been implemented was discussed with licensee management personnel. Improvements in the TR program to reduce the time delay between the time the shift supervisor accepts the modification and the time the training department is notified will be considered part of open item (382/8803-01), pending additional review by the NRC inspector.

No violations or deviations were identified in this area of the inspection.

4. Nonlicensed Staff Training

The NRC inspector reviewed the nonlicensed staff training program to verify that the program was being implemented in accordance with the licensee's NRC approved training program and to evaluate the effectiveness of the training program.

The licensee has implemented a continuing training program for the non-licensed staff. Review of documentation for several instrumentation and control technicians, chemistry technicians and health physics technicians indicated that the individuals were participating in this program. Material covered in the continuing training lectures included procedure revisions, equipment changes, industry events and plant specific events such as outages. The NRC inspector also reviewed the use of waivers for training requirements when an individual demonstrated proficiency in a subject area. The use of waivers for three individuals was reviewed. In each case, the waiver was granted in accordance with the licensee's approved procedure.

The NRC inspector noted that training instructors and supervisory personnel, with which discussions were held, expressed the desire to provide both operations and the plant staff personnel with the training they needed to perform their jobs in a proficient manner. The licensee's management has provided the training department with a separate training facility for the non-licensed staff. The training facility includes laboratories for electrical, instrumentation and control, mechanical and

health physics personnel. The laboratory equipment was noted to include, process flow instrumentation, pumps, valves and a partial mockup of a steam generator. The lecture materials along with the training facilities appear to identify the training needs of the different plant personnel.

The licensee has received full INPO accreditation for the licensed and non-licensed staff training programs.

No violations or deviations were identified in this area of the inspection.

5. Quality Assurance Audit Review

The NRC inspector reviewed the licensee's quality assurance (QA) audits performed during 1987 for training and qualification of plant staff personnel. The findings identified during the audits have been, or are being addressed. It was noted during the review that an audit of the simulator design control had not been performed. This was discussed with QA management personnel.

No violation or deviations were identified in this area of the inspection.

6. Exit and Inspection Interview

An exit interview was conducted on January 29, 1988, with the licensee's representatives (identified in paragraph 1). During this interview, the NRC inspector reviewed the scope and findings of the inspection.