

ENCLOSURE 3

Duke Power Company  
Oconee Nuclear Generation Department  
P.O. Box 1479  
Seneca SC 29679

JW HAMPTON  
Vice President  
(803) 885-3199 Office  
(803) 873-5222 Fax



**DUKE POWER**

May 14, 1992

Mr. Stewart D. Ebnetter  
Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
101 Marietta Street, N.W. Suite 2900  
Atlanta, GA 30323

Subject: Oconee Nuclear Site  
Docket Nos. 50-269, 50-279, 50-287, 72-4  
NRC Inspection Report 50-269, -270, -287/92-01  
Systematic Assessment of Licensee Performance (SALP)

Dear Sir:

By letter dated April 6, 1992, you transmitted the initial SALP report for the Oconee facility for the period from August 1, 1990 through February 1, 1992. A verbal presentation of that report was made in a public meeting on April 15, 1992 at the Oconee site.

I would like to comment and provide additional information regarding the Operator Training assessment, as well as the Engineering assessment (Attachments 1 & 2). Both of these areas are a part of the Engineering/Technical Support functional area. I request that these comments be considered for inclusion into the final SALP report and for determination of the final SALP rating in this area.

In addition, I request that the Docket Number assigned to the Independent Spent Fuel Storage Installation be added to the final SALP report.

Please contact me, or members of my staff, if further information is needed.

Very truly yours,

A handwritten signature in cursive script that reads "J. W. Hampton".  
J. W. Hampton

S. D. Ebnetter  
May 14, 1992  
Page Two

cc: U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Mr. L. A. Wiens, Project Manager  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
One White Flint North, Mail Stop 9H3  
Washington, DC 20555

Mr. P. E. Harmon  
Senior Resident Inspector  
Oconee Nuclear Site

FROM NRC OCONEE

ATTACHMENT 1  
OPERATOR TRAINING AREA  
ENGINEERING/TECHNICAL SUPPORT

The draft SALP report did not incorporate positive NRC comments from examinations conducted during this SALP review period. It is requested that the following NRC comments be incorporated into the final SALP report. The comments are within quotations and the source of each comment is provided.

A comment provided by the NRC examiners in the January 1991 Examination Report noted that:

- "Written examinations and operator tests were administered to eight Senior Reactor Operator (SRO) applicants, and eight Reactor Operator (RO) candidates. Eight SROs and seven ROs passed." This was a 94% pass rate.  
Source: Examination Report 50-269/OL-91-01, 3/1/91, Summary Section

A meeting was held May 21, 1991 between Oconee personnel and Tom Peebles, Chuck Casto and David Lange of the NRC in Region II to discuss the possibility of Oconee volunteering to take the Pilot Requalification Examination in July. Oconee did volunteer at that time to undergo the Pilot Examination knowing that all simulator scenarios would have to be revised to meet the Pilot guidelines. Approximately 1260 person hours were expended in developing/ revising simulator scenarios to meet the new Individual Simulator Critical Task (ISCT) criteria. The comments below are in relation to our Pilot Requalification Program Examination.

- "Written and operating examinations were administered to thirteen SROs and eleven ROs. Twelve SROs passed the examinations and all eleven ROs passed. Six of the six crews evaluated passed the examination. Based on these results 23 of 24 licensed operators (96%) passed the examinations."  
Source: ONS Requalification Examination Report No. 50-269/91-301, 8/28/91, Summary Section
- "With the NRC not performing individual evaluations during the simulator portion of the exam it is vital for the facility evaluators to ensure weaknesses are identified. The facility evaluators did a good job of going beyond the crew evaluation and identifying those individuals with performance deficiencies and ensuring proper remediation and retesting."  
Source: ONS Requalification Examination Report No. 50-269/91-301, 8/28/91, Enclosure 2, Item 4 - Evaluation of Facility Evaluators
- "Strengths in the Oconee Requalification Program were noted in the areas of crew teamwork and in evaluator identification of operator weaknesses on the simulator examinations."  
Source: ONS Requalification Examination Report No. 50-269/91-301, 8/28/91, Summary Section

334000 Don Wess

ATTACHMENT 1  
OPERATOR TRAINING AREA  
ENGINEERING/TECHNICAL SUPPORT

- "The crews examined showed good team work in operating as a crew in making decisions."  
Source: ONS Requalification Examination Report No. 50-269/91-301, 8/28/91, Enclosure 2, Item 2 - Operator Performance

Comments provided by the NRC examiners in the January 1992 Examination Report included:

- "Examination administration went very well. All site personnel were pleasant and quite helpful. Use of the simulator job performance measures (JPM) pre-saved initial conditions saved time and allowed the examination process to run smoothly."  
Source: ONS Examination Report No. 50-369/92-300, 3/2/92, Enclosure 1, Item 4a - Exit Meeting
- "Strengths were exhibited in the use of formalized repeat back communications. The candidates functioned well as a team and not as individual operators. It was felt by the examiners that this process greatly benefitted the candidate's performance."  
Source: ONS Examination Report No. 50-369/92-300, 3/2/92, Enclosure 1, Item 4e - Exit Meeting

In addition to the above NRC comments, it is requested that the following comments be considered.

- Since 1989, the pre-exam review of NRC Exams has taken 8 hours for one instructor and one Operations person. These previous exam reviews have resulted in no more than two post exam comments. The January 1992 Initial Exam pre-review required a total of 42 hours of work. Twenty six hours were needed by instructors and sixteen hours were required by an Assistant Shift Supervisor. The pre-exam review resulted in 58 questions being re-written. In addition to the large number of incorrect questions which appeared on the 1992 License Examination, there was a large number of questions (12 on the RO and 16 on the SRO exam) for which Oconee felt appropriate reference material should have been provided during the exam. These comments appeared again in the post-exam review.
- The simulator is certified in accordance with ANSI 3.5. Although the Oconee simulator is not as state-of-the-art as newer simulators in the industry, it is capable of failing most major components. The malfunction index is made available to the exam team.

3 16 55107 36 51 5. 3310000 DAN W035

**ATTACHMENT 2  
ENGINEERING AREA  
ENGINEERING/TECHNICAL SUPPORT**

In the draft SALP report for the Engineering/Technical Support area, the Unit 3 leak was attributed to the fact that "excessive" fittings were used to transition between different pipe sizes.

This characterization is misleading because it does not take into account the circumstances at the time the modification was originally designed and installed. The use of selected fittings and instrument tubing sections was dictated by the availability of transition fittings from the only approved manufacturer at the time of installation. Investigation of this event revealed that the leak occurred because tubing pulled out of the tubing adaptor due to inadequate crimping of the fitting to the tube. Per LER 287/91-08, the initiating cause of this event was improper installation of the fitting. The root cause is attributed to procedure deficiencies.

In response to Violation 287/91-34-02 that was issued as a result of this event, Oconee provided the following specific explanation:

"This violation occurred because installation procedure TN/3/A/32401/AK1 did not contain detailed steps for installation and the installation instructions included in the manufacturer's information were not sufficient to ensure a good joint.

In addition to the inadequate installation procedure, Quality Assurance procedure QAE-2 did not provide the QA inspector with quantitative acceptance criteria to verify acceptable installation of compression fittings."

The draft SALP report makes reference to improper installation and inadequate procedures, as follows:

- "A loss of coolant event due to improperly installed fittings occurred in November, 1991."  
Source: Section IV.C.1, Page 10, Maintenance/Surveillance - Analysis
- "... instances of inadequate procedures were noted. Specifically, procedures involving the installation of compression fittings ..."  
Source: Section IV.F.1, Page 17, Engineering/Technical Support - Analysis

The references made to improper installation and inadequate procedures are in-line with Oconee's findings.

ATTACHMENT 2  
ENGINEERING AREA  
ENGINEERING/TECHNICAL SUPPORT

An example of the inoperability of a startup transformer due to inadequate reading of a manufacturer's relay setting curve and an inadequate post modification test was also used in the draft SALP report.

It should be noted that this relay setting error was identified as a result of the comprehensive relay setting effort that was undertaken during this SALP period. The relay was erroneously set in 1987. The improper setting was identified and promptly corrected in this SALP period.

Oconee's response to NRC Bulletin 88-08, "Thermal Stresses in Piping Connected to the Reactor Coolant System", was mentioned in the SALP report as having only addressed one unit.

The original response on Bulletin 88-08 addressed all three units and provided explanation of how the data collected on one unit was used to evaluate the other two units. The NRC indicated they did not find this response adequate. In reply, Duke provided additional explanation of how the work that was done met the intent of the bulletin. This issue is currently being closed by NRR and it is, therefore, not appropriate to consider the response to Bulletin 88-08 inadequate.

ENCLOSURE 4

REVISION SHEET

SALP BOARD REPORT REVISION SHEET

<u>PAGE</u>	<u>LINE</u>	<u>NOW READS</u>	<u>SHOULD READ</u>
Coversheet	N/A	INITIAL SALP REPORT	FINAL SALP REPORT
	N/A	...50-270/92-01 AND 50-287/92-01	...50-270/92-01, 50-287/92-01 AND 72-4/92-01

Basis: These revisions change the Initial SALP Report to the Final SALP Report and include the docket number for the Independent Spent Fuel Storage Installation.

18	5	For Example ... ...modification test.	Deleted
18	7	Another weakness...	A weakness...

Basis: This review was made since the setting error occurred prior to this SALP cycle. The improper setting was identified and corrected during this SALP cycle.

18	24	N/A	This examination was a requalification pilot that Ocone had volunteered for and strengths were noted as the facility evaluators did a good job of going beyond the crew evaluations and identifying those individuals with performance deficiencies, and in crew teamwork decision making. Six of six crews passed and 96% of 24 operators passed this exam. Initial examinations were given to 24 candidates in January 1991 and January 1992 with a pass rate of 88%.
----	----	-----	---

<u>PAGE</u>	<u>LINE</u>	<u>NOW READS</u>	<u>SHOULD READ</u>
	25	Poor support	Poor operations support
18	28	examination. During simulator...	examination. Strengths during this exam were noted in examination administration and candidate communications. During simulator...
18	30	Simulator exhibited...	Simulator is certified in accordance with ANSI 3.5, but exhibited...
18	31	Component modeling and the inability ...	Component modeling which resulted in training unlike the operation of the plant, and the inability...

Basis: These changes were made to incorporate the positive NRC comments from the NRC examinations conducted during this SALP cycle.

21	9-10	The response	The initial response
21	11	coolant system," only...	coolant system," although intended to address all three units only...

Basis: The change clarifies that the response to NRC Bulletin 88-08 was intended to address all three units but actually only addressed one unit.



SEE REVISION SHEET

ENCLOSURE

INITIAL SALP REPORT

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

INSPECTION REPORT NUMBERS

50-269/92-01, 50-270/92-01 AND 50-287/92-01

DUKE POWER COMPANY

OCONEE UNITS 1, 2 AND 3

AUGUST 1, 1990 - FEBRUARY 1, 1992

ENCLOSURE

FINAL SALP REPORT

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

INSPECTION REPORT NUMBERS

50-269/92-01, 50-270/92-01, 50-287/92-01 AND 72-4/92-01

DUKE POWER COMPANY

OCONEE UNITS 1, 2 AND 3

AUGUST 1, 1990 - FEBRUARY 1, 1992

results were well documented. The use of previous test results in evaluation of inspection findings and conservative decisions relative to inspection findings were noted.

Concerns were identified in the DE and technical support area. For example the inoperability of a startup transformer was due to inadequate reading of a manufacturer's relay setting curve and an inadequate post modification test. Another weakness was identified during the repair of a pipe crack on a Low Pressure Injection (LPI) system dropline. These included failure to detect and resolve LPI pump vibration before the crack developed, failure to adequately review and pre-plan spool piece fabrication to prevent distortion, failure to adequately pre-plan and control purging in the welding process, and inability to readily retrieve replacement component quality records after the repair.

Additional management attention is required in the area of licensed operator training. Sixteen Generic Fundamental Examinations were administered during the assessment period with four failures. Insufficient effort by the Oconee Training Department in support of the requalification program was noted. Some NRC requested changes provided to examinations were omitted, and the simulator scenario bank was developed at the minimum rate. Operational validation of examination material was often lacking and some scenarios were short and simplistic. Poor support was identified during the pre-review of the January 1992 Initial Examination written portion which resulted in post examination comments on a large portion of the examination. During simulator examinations, weaknesses were noted in manual operation of feedwater controls. The plant specific simulator exhibited deficiencies in Engineered Safeguards component modeling and the inability to fail some major components.

Poor planning of post maintenance testing has resulted in the submittal of several relief requests requiring expedited review by the NRC. During the Unit 1 outage in August 1991, work on a RCP required removal of the pressurizer safety valve tailpiece. A request for relief was submitted late in the outage, when the need for the relief should have been determined when planning for the outage. Similar examples occurred during the Unit 2 outage in October 1990, when three relief requests were submitted at the end of the outage related to the testing of repair welds. These relief requests were submitted only a few days before the approval was needed.

results were well documented. The use of previous test results in evaluation of inspection findings and conservative decisions relative to inspection findings were noted.

Concerns were identified in the DE and technical support area. A weakness was identified during the repair of a pipe crack on a Low Pressure Injection (LPI) system dropline. These included failure to detect and resolve LPI pump vibration before the crack developed, failure to adequately review and pre-plan spool piece fabrication to prevent distortion, failure to adequately pre-plan and control purging in the welding process, and inability to readily retrieve replacement component quality records after the repair.

Additional management attention is required in the area of licensed operator training. Sixteen Generic Fundamental Examinations were administered during the assessment period with four failures. Insufficient effort by the Oconee Training Department in support of the requalification program was noted. Some NRC requested changes provided to examinations were omitted, and the simulator scenario bank was developed at the minimum rate. Operational validation of examination material was often lacking and some scenarios were short and simplistic. This examination was a requalification pilot that Oconee had volunteered for and strengths were noted as the facility evaluators did a good job of going beyond the crew evaluations and identifying those individuals with performance deficiencies, and in crew teamwork decision making. Six of six crews passed and 96% of 24 operators passed this exam. Initial examinations were given to 24 candidates in January 1991 and January 1992 with a pass rate of 88%. Poor operations support was identified during the pre-review of the January 1992 Initial Examination written portion which resulted in post examination comments on a large portion of the examination. Strengths during this exam were noted in examination administration and candidate communications. During simulator examinations, weaknesses were noted in manual operation of feedwater controls. The plant specific simulator is certified in accordance with ANSI 3.5, but exhibited deficiencies in Engineered Safeguards component modeling, which resulted in training unlike the operation of the plant, and the inability to fail some major components.

Poor planning of post maintenance testing has resulted in the submittal of several relief requests requiring expedited review by the NRC. During the Unit 1 outage in August 1991, work on a RCP required removal of the pressurizer safety valve tailpiece. A request for relief was submitted late in the outage, when the need for the relief should have been determined when planning for the outage. Similar examples occurred during the Unit 2 outage in October 1990, when three relief requests were submitted at the end of the outage related to the testing of repair welds. These relief requests were submitted only a few days before the approval was needed.

determine what was being requested or the justification for the relief. Examples included a relief request associated with the removal of a temporary expandable plug in a LPSW pipe and a request to modify the inspection schedule of reactor coolant outlet nozzles.

The licensee's response to Generic Letter (GL) 88-20, "Individual Plant Examination," was thorough, well documented, and included an analysis of external events, which was not required to be submitted with the original IPE response. The response to NRC Bulletin 88-08, "Thermal Stresses in Piping Connected to the Reactor Coolant System," only satisfied the Bulletin recommendations for one Oconee unit. The licensee is currently preparing a response to a Request For Additional Information concerning this issue for Units 2 and 3.

The licensee's response to many other issues has been good. After the NRC raised concerns about the time required to activate the Oconee Crisis Management Center, the licensee expeditiously revised the appropriate procedures. After deficiencies were identified in the Oconee Technical Specifications relating to shutdown requirements, the Oconee staff performed a self-evaluation of their Technical Specifications and presented the results of their review to the NRC, including proposed corrective actions. The response was prepared in a very short time period and was thorough.

The licensee submitted three Security, two Contingency, one Training and Qualification, and one Independent Spent Fuel Storage Installation Security (ISFSI) Plan revisions during this period. These revisions were consistent with 10 CFR 50.54(p) and adequately coordinated. The ISFSI revision was forwarded to headquarters for review.

The licensee has developed a program where a Significant Event Investigation Team (SEIT), is dispatched to a site after notification of a significant event. The SEIT assists the station safety review group in determining the cause of the event, safety implications, and necessary corrective actions. These teams evaluated the shutdown events that occurred at Oconee Unit 1 in September 1991 and the instrument line leak that occurred at Unit 3 in November 1991. The teams appeared to be effective and in the case of the shutdown events, had findings similar to the NRC AIT findings.

During this assessment period, several events occurred which reflected management's failure to recognize deficiencies in fundamental watchstanding practices, and command and control of shift operations. These events were the loss of decay heat removal in March and September 1991, and the overpressurization of the LPI system in November 1991.

determine what was being requested or the justification for the relief. Examples included a relief request associated with the removal of a temporary expandable plug in a LPSW pipe and a request to modify the inspection schedule of reactor coolant outlet nozzles.

The licensee's response to Generic Letter (GL) 88-20, "Individual Plant Examination," was thorough, well documented, and included an analysis of external events, which was not required to be submitted with the original IPE response. The initial response to NRC Bulletin 88-08, "Thermal Stresses in Piping Connected to the Reactor Coolant System," although intended to address all three units only satisfied the Bulletin recommendations for one Oconee unit. The licensee is currently preparing a response to a Request For Additional Information concerning this issue for Units 2 and 3.

The licensee's response to many other issues has been good. After the NRC raised concerns about the time required to activate the Oconee Crisis Management Center, the licensee expeditiously revised the appropriate procedures. After deficiencies were identified in the Oconee Technical Specifications relating to shutdown requirements, the Oconee staff performed a self-evaluation of their Technical Specifications and presented the results of their review to the NRC, including proposed corrective actions. The response was prepared in a very short time period and was thorough.

The licensee submitted three Security, two Contingency, one Training and Qualification, and one Independent Spent Fuel Storage Installation Security (ISFSI) Plan revisions during this period. These revisions were consistent with 10 CFR 50.54(p) and adequately coordinated. The ISFSI revision was forwarded to headquarters for review.

The licensee has developed a program where a Significant Event Investigation Team (SEIT) is dispatched to a site after notification of a significant event. The SEIT assists the station safety review group in determining the cause of the event, safety implications, and necessary corrective actions. These teams evaluated the shutdown events that occurred at Oconee Unit 1 in September 1991 and the instrument line leak that occurred at Unit 3 in November 1991. The teams appeared to be effective and in the case of the shutdown events, had findings similar to the NRC AIT findings.

During this assessment period, several events occurred which reflected management's failure to recognize deficiencies in fundamental watchstanding practices, and command and control of shift operations. These events were the loss of decay heat removal in March and September 1991, and the overpressurization of the LPI system in November 1991.