ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.:	50-498; 50-499
License Nos.:	NPF-76; NPF-80
Report No.:	50-498/97-23; 50-499/97-23
Licensee:	Houston Lighting & Power Company
Facility:	South Texas Project Electric Generating Station, Units 1 and 2
Location:	FM 521 - 8 miles west of Wadsworth Wadsworth, Texas
Dates:	August 11-15 and 25-29, and September 3-4, 1997
Inspectors:	M. Runyan, Senior Reactor Inspector, Engineering Branch P. Goldberg, Reactor Inspector, Engineering Branch D. Pereira, Reactor Inspector, Engineering Branch
Approved By:	T. Stetka, Acting Chief, Engineering Branch Division of Reactor Safety

ATTACHMENT Supplemental Information

TABLE OF CONTENTS

EXECUTIVE SUMMARY

South Texas Project
NRC Inspection Report 50-498/97-23; 50-499/97-23

This inspection reviewed the licensee's corrective action processes to determine whether problems affecting plant safety were being identified and resolved in a manner that would prevent recurrence. The inspection revealed that the South Texas corrective action processes were functioning satisfactorily.

Operations

- Operator work-arounds were being controlled effectively. They were low in number and, collectively, did not represent a significant burden on operator effectiveness (Section O2.1).

- All condition reports assigned to operations, which were reviewed, had comprehensive root causes and corrective actions (Section O2.2).

- The licensee's trend analysis program was working effectively, despite a large number of event codes. The licensee was in the process of reducing the number of event codes (Section O2.2).

- The inspectors concluded that operators were knowledgeable of the corrective action program, including the initiation, approval, and implementation of condition reports. In addition, the inspectors concluded that a strong teamwork approach was evident (Section O4.1).

- The inspectors concluded that the material condition and housekeeping of the rooms inspected were excellent. The spaces were being maintained orderly in spite of work in progress for the upcoming outage. The inspectors noted no safety significant concerns (Section O4.2).

- The Nuclear Safety Review Board and the Plant Operations Review Committee were very aggressive in their approach to overseeing nuclear safety (Section O7.1).

Maintenance

- The condition reports completed by maintenance were, for the most part, good efforts to resolve the identified deficiencies. However, the inspectors made three observations that may warrant additional management attention: the general lack of detail making the reports unable to be a stand-alone document, the tendency to overlook human factors in conditions adverse to quality, and the lack of a procedural prohibition for the personal storage of expendable materials (Section M2.1).

Engineering

- Operating experience information was being disseminated appropriately. Evaluation reviews and corrective actions for operating experience reports were being satisfactorily controlled. Several problems related to information processing and communications in this area had been identified by licensee personnel. Proposed improvements in the program were being implemented (Section E2.1).

- In general, the engineering department reviews of condition reports were very good. However, in one case an essential technical evaluation of the potential for damage resulting from an unexpectedly high component cooling water flow rate to the reactor coolant pump motor upper bearing oil cooler was not performed (Section E2.2).

- Engineering provided satisfactory support to operations and other plant groups through the disposition of condition report engineering evaluations, although, in some cases, documentation detail was lacking (Section E2.3).

- Engineering satisfactorily assessed the operability implications of degraded plant conditions (Section E2.4).

- Following discovery of an insulation discrepancy related to a power operated relief valve loop seal, the licensee checked the other power operated valve loop seals for the presence of insulation, but they did not extend the review to include other piping systems, consistent with their cause determination (Section E2.4).

- The 10 CFR 50.59 review guide appeared to incorrectly define the term "trivial changes," by allowing changes that affected plant drawings in the Final Safety Analysis Report to be classified as trivial and to not constitute a change to the facility and as a result, not require an unreviewed safety question evaluation. This issue was referred to the NRC program office for review and evaluation (Section E2.5).

- The licensee's temporary modification program was well implemented (Section E2.6).

- Engineers were knowledgeable of the corrective action program and confident in its use (Section E4.1).

- The lack of controlled switchyard drawings at the site was considered a weakness in the configuration management system (Section E7.1).

- Engineering performed a satisfactory review of condition reports to ascertain the root or apparent cause of the condition (Section E7.2).

Report Details

Inspection Objectives (40500)

The objective of this inspection was to evaluate the effectiveness of the South Texas Project controls in identifying, resolving, and preventing problems that degrade plant safety. This review was focused on the following areas:

- Safety review committee activities
- Root-cause analysis
- Corrective action
- Self assessment
- Operating experience feedback

The inspection consisted of an extensive review of plant documents, employee interviews, and meetings with licensee personnel to discuss technical or administrative questions.

I. Operations

O2 Operational Status of Facilities and Equipment

O2.1 Operator Work-Arounds

a. Inspection Scope (40500)

The inspectors reviewed the licensee's controls for ensuring timely corrective action of operator work-arounds. The inspectors reviewed Operations Department Procedure OPGP03-ZA-0090, "Work Process Program," Revision 18, attended several daily communication and teamwork meetings, more commonly termed "plan-of-the-day," and conducted interviews with several operators.

b. Observations and Findings

An operator work-around was defined by the licensee as a deficiency other than main control board or inoperable automatic function that had an associated compensatory or contingency action assigned to the operating watchstation. The NRC is concerned that work-arounds are controlled, because they can complicate operator responses to emergencies or transient conditions.

Procedure OPGP03-ZA-0090 described the process for controlling total impact assessments. A total impact assessment item was defined as a equipment deficiency that places demands on the operating crew's time to perform their duties

and affects the crew's ability to monitor and control plant parameters. The inspectors noted that total impact assessment items normally had an assigned compensatory or contingency action and were subcategorized as main control board items, inoperable automatic functions, operator work-arounds, and chemical process monitors.

The inspectors determined that the licensee maintained a high priority on total impact assessments, as well as, the subclassification of operator work arounds and conducted a weekly and a quarterly review of these items. The inspectors determined that the August 26, 1997, work-around list for Unit 1 had three nonoutage items and five outage items listed. Similarly, the inspectors noted that for Unit 2, the August 26, 1997, work-around list had four nonoutage items and one outage item listed.

During interviews, all operators stated that they had no operational concerns with the listed operator work-arounds. In addition, the operators stated that plant management was quick to resolve or repair operator work-arounds.

Every Wednesday, the total impact assessment items were discussed. These discussions included a description of the deficiency and an estimated resolution date. This exhibited good administrative control of operator work-arounds.

c. Conclusions

The inspectors determined that the existing operator work-arounds were low in number and, collectively, did not represent a burden on operator effectiveness. The inspectors concluded that the operator work-arounds were receiving appropriate management attention. The inspectors concluded that resolution and closure of operator work-arounds was scheduled in a timely manner consistent with necessary priorities.

O2.2 Operations Support of Condition Reports

a. Inspection Scope (40500)

The inspectors reviewed nine condition reports that were assigned to operations for resolution and disposition. These reports are listed in the attachment to this inspection report.

b. Observations and Findings

The inspectors determined that the corrective actions assigned to the condition reports were comprehensive and correlated well to the root causes of the condition or problem.

While reviewing condition reports, the inspectors noted that a large number of event codes were being used to classify conditions adverse to quality. The inspectors questioned operations management to determine if such a large number of event codes could lead to inefficiencies or mask repetitive problems. The licensee agreed that too many event codes existed and stated that efforts were in progress to significantly reduce the number of codes. In response to the inspectors' observations, the licensee stated that, even though there was a large number of event codes, all problems were being reported and properly trended, even to the extent that adverse trends were being identified prior to attainment of the assigned threshold value. The inspectors determined that the licensees' trend analysis program was working effectively despite the presence of a large number of event codes.

c. Conclusions

The inspectors concluded that the condition reports assigned to operations had comprehensive root causes and corresponding corrective actions.

The inspectors concluded that, while the condition report system had a large number of event codes, the licensee was in the process of reducing the number of event codes and that this did not affect the trend analysis program.

O4 Operator Knowledge and Performance

O4.1 Interview of Operations Personnel

a. Inspection Scope (40500)

The inspectors interviewed 10 operations personnel to determine their knowledge of, involvement in, and perceptions of the corrective action process.

b. Observations and Findings

The operators showed complete knowledge of the initiation, approval, and implementation of condition reports and felt that these functions were working satisfactorily. The operators stated that problems were being corrected in an effective manner and that the closure mechanism for operations-initiated condition reports was good. Furthermore, the operators stated that the computer-based tracking of the condition reports was an excellent tool.

During the interviews, the inspectors observed that the operators had a strong teamwork attitude. The operators stated they were always looking for better ways to perform activities, and that there was good cooperation with other organizations. The inspectors noted that the teamwork concept was readily apparent throughout the site.

c. Conclusions

The inspectors concluded that operators were knowledgeable of the corrective action program, including the initiation, approval, and implementation of condition reports. In addition, the inspectors concluded that a strong teamwork approach was evident.

O4.2 System Walkdowns

a. Inspection scope (40500)

The inspectors performed visual inspections of the Unit 1 essential safety features switchgear Train B and C rooms, the essential cooling water system rooms, the Channel III and IV battery rooms, and the Emergency Diesel Generator 13 room.

b. Observations and Findings

The inspectors noted that housekeeping was being well maintained. The Unit 1 refueling outage was imminent and various scaffolding was in place with appropriate tags indicating the seismic qualifications of the scaffolding. In general, all areas were very well maintained. Furthermore, the inspectors did not identify any examples of poor material condition.

c. Conclusions

The inspectors concluded that the material condition and housekeeping of the rooms inspected were excellent. The spaces were being maintained orderly in spite of work in progress for the upcoming outage. The inspectors noted no safety significant concerns.

O7 Quality Assurance in Operations

O7.1 Safety Review Committee Activities

a. Inspection Scope (40500)

The inspectors evaluated the effectiveness of the Plant Operations Review Committee (the onsite review committee) and the Nuclear Safety Review Board (the offsite review committee) by attending meetings and reviewing committee minutes and audits.

b. Observations and Findings

The inspectors determined that the Plant Operations Review Committee made recent progress in ensuring that corrective actions match the root causes of problems. At the August 13, 1997, Plant Operation Review Committee meeting, the inspectors noted that issues were discussed at some length, and out of the five issues on the agenda, two were passed, one was disapproved, and two issues were rescheduled for later in the day. The inspectors found these actions to be appropriate.

During attendance at the Nuclear Safety Review Board meeting held on August 26, 1997, the inspectors determined that this body demonstrated an excellent questioning attitude concerning the corrective actions and root causes of plant problems.

c. Conclusions

The inspectors concluded that the Plant Operations Review Committee provided highly effective reviews and recommendations for item approval or disapproval to plant management. The inspectors concluded that the Nuclear Safety Review Board was aggressive in pursuing resolution to plant problems.

II. Maintenance

M2 Maintenance and Material Condition of Facilities and Equipment

M2.1 Maintenance Support of Condition Reports

a. Inspection Scope (40500)

The inspectors reviewed 17 condition reports that were assigned to maintenance for resolution. These reports are listed in the attachment to this inspection report.

b. Observations and Findings

The condition reports completed by maintenance were, for the most part, good efforts to resolve the identified deficiencies. However, the inspectors made three observations that may warrant additional management attention: the general lack of detail making the reports unable to be a stand-alone document, the tendency to overlook human factors in conditions adverse to quality, and the lack of a procedural prohibition for the personal storage of expendable materials.

Lack of Stand-Alone Quality

Condition Report 97-10591 identified that the steam generator feedwater preheater bypass valve failed to close. The licensee later discovered that the valve had actually closed and that the problem was only an indication discrepancy. The condition report contained no information to this effect and was not updated to correct the problem statement. The licensee stated that their standard practice was to leave problem statements as originally drafted.

The inspectors were concerned that inconsistencies of this type could adversely affect trending of plant problems. The licensee explained that the work control process, which worked alongside the condition report system, contained the missing information and that the trending program was designed to receive information from both the condition report and work control processes. In other words, for this condition report, the trending program would have an indication rather than a valve problem entered. The inspectors were satisfied that trending was not affected by this discrepancy.

Although no specific examples were identified, the inspectors observed that the presence of inaccurate information in a vaulted condition report could result in a future quality concern when this material is accessed on an informational basis.

The inspectors also noted that most of the condition reports assigned to maintenance contained detail that was limited and required significant followup to fully understand the issues and corresponding resolutions.

Tendency of CAQ-D Condition Reports to Overlook Human Factors

Within Condition Report 97-9004, the quality assurance organization identified that two condition reports assigned to maintenance had been closed without proper attention to human errors that had contributed to the conditions. For example, the licensee determined the condition was caused by human error, but corrective actions did not include training or counseling the individuals involved. Quality assurance personnel recognized that this problem was repetitive of findings from an audit in 1995.

The inspectors note that all of these discrepancies were limited to conditions adverse to quality-department level (CAQ-D). This level of condition report is limited to a single department from generation through closeout. The licensee did not specifically identify a concern, which could be generic to other departments. The inspectors observed there could be a link between the reduced scrutiny and the tendency to overlook human factors issues within condition reports that are categorized as conditions adverse to quality-department level.

Personal Storage of Expendable Materials

Within Condition Reports 96-4581 and 96-6245, the licensee identified a repetitive problem with maintenance technicians using expendable materials that had passed their expiration dates. A large part of this problem was caused by technicians storing expendable materials in personal storage areas and using these materials without properly ensuring that the materials had not exceeded their expiration dates. In response, maintenance management communicated to the maintenance technicians the expectation that expendable materials should be returned to the general storage areas after each use, so that expired materials could be removed as a centrally-controlled process. However, the inspectors noted that plant procedures had not been revised to prohibit the personal storage of expendable materials. Considering the repetitive history of the problem, this appeared to be a marginal disposition.

c. Conclusions

Although no specific safety concerns were identified as a result of the review of maintenance condition reports, the inspectors observed the following: the lack of a stand-alone quality among certain condition reports, the tendency to overlook human factors in condition adverse to quality for department level condition reports, and the lack of a procedural prohibition of personal storage of expendable materials.

M2.2 Corrective Maintenance Condition Records

a. Inspection Scope (40500)

The inspectors reviewed six corrective maintenance condition records to determine if repetitive problems existed and to determine if condition records were being used to improperly modify the plant design. In addition, the inspectors reviewed corrective maintenance condition records to determine if identified problems were being properly documented on condition report forms. The inspectors discussed several of the corrective maintenance condition reports with applicable licensee personnel.

b. Observations and Findings

The inspectors found that corrective maintenance condition records were used appropriately for repair and replacement of plant equipment. The inspectors found no examples where corrective maintenance condition records were improperly used to modify the plant design. In addition, the inspectors did not find any examples of repeat maintenance had not been identified by the licensee. The inspectors determined that the licensee had performed appropriate corrective actions for the corrective maintenance condition records.

c. Conclusions

The inspectors concluded that the corrective maintenance condition records were appropriately used for repair and replacement of plant equipment.

M2.3 Repeat Maintenance Condition Reports

a. Inspection Scope (40500)

The inspectors reviewed 12 repeat maintenance condition reports and their associated work orders to determine if the corrective actions were adequate to preclude recurrence of the problem. In addition, the inspectors reviewed the licensee's "Repeat Maintenance Review Committee Guideline," dated December 13, 1994.

b. Observations and Findings

The inspectors noted that the licensee's guideline required planners to examine the condition reports for repeat maintenance and to review the database for repetitive maintenance performed during the previous 18 months. A reliability engineer was responsible for performing a history screening and for trending the repeat maintenance. The inspectors found the corrective actions for repeat maintenance to be adequate to preclude recurrence of problems.

c. Conclusions

The inspectors concluded that the corrective actions for the repeat maintenance identified by the licensee were adequate to preclude recurrence of the problems.

III. Engineering

E2 Engineering Support of Facilities and Equipment

E2.1 Engineering Support of Operating Experience

a. Inspection Scope (40500)

The inspectors reviewed the operational experience feedback program to determine its effectiveness in assessing, documenting, and informing appropriate plant personnel of significant plant events to prevent their occurrence at the South Texas Project. The team reviewed Procedure OPGP03-ZX-0013, "Industry Events Analysis," Revision 3.

The inspectors reviewed 31 NRC information notices, five Institute of Nuclear Power Operation significant event reports, and one Institute of Nuclear Power Operation significant operating experience report, which are identified in the supplemental information attachment to this inspection report.

The inspectors attended three morning meetings, during which the operating experience group presented recent operating events at other nuclear plants.

b. Observations and Findings

The inspectors found that Procedure OPGP03-ZX-0013 established a uniform method of screening, assessing, and responding to industry operating experience information, as well as, delineating the responsibilities for performing evaluations of industry operating experience events, implementing corrective actions, issuing periodic status reports, and conducting periodic program effectiveness reviews.

The inspectors determined that the operating experience feedback program procedure provided controls for forwarding information regarding events to the appropriate review personnel. The inspectors also determined that corrective actions resulting from the review of information for operational events were planned, implemented, and tracked to completion via the condition report process.

The operating experience group held morning meetings to evaluate the previous day's condition reports for correlation with operating events. The inspectors observed effective communications between the participants at these meetings.

The licensee commenced an operating experience program effectiveness review in March 1997 and completed the review on July 31, 1997. The inspectors found the review to be thorough. The inspectors noted that several problems related to information processing and communications were identified and that corrective actions had been specified.

The inspectors confirmed that the corrective actions described in the review were in the process of being implemented and that they appeared to be appropriate for the identified problems.

c. Conclusions

The inspectors concluded that operating experience information was being appropriately disseminated and that evaluation reviews and corrective actions for operating experience reports were being satisfactorily controlled. The problems identified by the licensee related to information processing and communications during an effectiveness review were being properly addressed.

E2.2 Engineering Support of Condition Reports

a. Inspection Scope (40500)

The inspectors reviewed 19 condition reports that were assigned to engineering for resolution. These are listed in the attachment to this inspection report. The inspectors reviewed the reports and arranged meetings with engineers to discuss questions that arose during the reviews.

b. Observations and Findings

The inspectors considered the condition reports processed by design engineering to be very good. Each of these reports included detailed documentation supporting every technical judgement made in the analysis. Root and probable cause determinations were well supported. It was clear that a conscientious effort was made to fully develop the issue and to apply corrective actions that would completely address the problems and reduce the probability of recurrence.

The inspectors considered the condition reports performed by system engineers to have similar qualities; however, the level of documentation was not as extensive. Through interviews with system engineers, the inspectors received additional information necessary to conclude, in each case, that a satisfactory disposition had been achieved

The inspectors identified one issue related to Condition Report 96-6757-2, dated June 4, 1996, which identified that the component cooling water return line for the Unit 1 reactor coolant pump motor (RCP 1A) upper lube oil cooler had an indicated flow rate that was greater than 300 gpm (off-scale high on the local gage). The licensee determined that the throttled position of the outlet valve was four turns open, which was consistent with the position determined during startup testing and the position listed for the valve in the licensee's component cooling water system operating procedure (OPOP02-CC-0003). After determining that the gage was reading high off-scale, the licensee verified the flow rate by using another gage and ultrasonic flow measurements. The licensee determined that the flow rate was approximately 330 gpm. For corrective actions, the throttle position of the valve was revised to reduce the flow rate to the required 190 gpm, and the component cooling water system procedure was revised to incorporate the new throttle valve position.

The inspectors noted that the licensee did not assess the potential for tube erosion and fretting from the increased component cooling water flow (330 versus 190 gpm) in the reactor coolant pump motor lube oil cooler. This was of concern because the licensee could not bound the period of time that this condition existed. In response to the inspectors' concern, the licensee investigated the effect the high flow had on the lube oil cooler. The licensee determined that the maximum flow for the lube oil cooler was listed as 200 gpm in the vendor manual. The licensee contacted the vendor and found that the limiting flow for the lube oil cooler was

based on a nozzle flow velocity of 10 feet per second, which correlated to a flow rate of approximately 220 gpm. This limiting velocity was chosen to ensure long-term integrity by avoiding erosion of the inlet and outlet nozzles and the divider plate. The licensee also determined, based on the vendor information, that the flow rate threshold for heat exchanger tubing erosion and vibration concerns was greater than 300 gpm.

The licensee contacted an Electric Power Research Institute representative, who then performed an evaluation of the effects of operation with a flow rate of 330 gpm in this system. The Electric Power Research Institute representative determined that this flow rate was not high enough to produce erosion-corrosion and vibration damage of carbon steel piping. The licensee concluded that no appreciable damage had occurred to the upper bearing oil cooler.

The inspectors determined that the licensee's original corrective actions for this condition were weak.

c. Conclusions

In general, the licensee's engineering department personnel performed very good condition report evaluations. However, in one case personnel did not evaluate the potential for damage resulting from an unexpectedly high component cooling water flow rate to the reactor coolant pump motor upper bearing oil cooler.

E2.3 Engineering Support for Condition Report Engineering Evaluation

a. Inspection Scope (40500)

The inspectors reviewed nine condition report engineering evaluations and discussed these issues with licensee personnel.

b. Observations and Findings

The licensee issued a condition report engineering evaluation as a means to identify potential problems and improvements requiring engineering evaluation. The inspectors were able to resolve all questions resulting from the review of the listed condition report engineering evaluations. In some cases, particularly with system engineers, the inspectors required additional information through interviews with the responsible engineer. The only detrimental aspect of the reports, noted by the inspectors, was a lack of detail provided in the documentation.

c. Conclusions

Engineering provided satisfactory support to operations and other plant groups through the disposition of condition report engineering evaluations, though in some cases, documentation detail was lacking.

E2.4 Engineering Support of Operability Determinations

a. Inspection Scope (40500)

The inspectors reviewed eight operability determinations performed by engineering to support plant operations. The inspectors interviewed licensee engineers for clarification on some items.

b. Observations and Findings

In each case, the inspectors determined that engineering had satisfactorily assessed the operability implications of the identified discrepant condition.

During review of the operability determination associated with Condition Report 97-2173, the inspectors identified a problem with the manner in which the licensee had handled the discovery of a nonconforming condition. The operability question centered on the Unit 1 Pressurizer Power-Operated Relief Valve 2RCPCV0655A that had a stroke time that was in excess of the specified stroke time during a surveillance test. During the investigation, the licensee discovered that the loop seal to the power-operated relief valve was insulated, which was thought to have contributed to the stroke time problem. The placement of insulation on the loop seals was identified by the licensee to be contrary to Westinghouse installation requirements for the pressurizer power-operated relief valves. The licensee issued Condition Report 97-2766 to initiate a work order to remove the insulation from the power-operated relief valve loop seals. However, neither in this condition report nor Condition Report 97-2173, did the licensee identify the discrepant insulation configuration as a separate condition. As a result they did not perform a review for probable causes or a walkdown to determine whether other similar insulation discrepancies existed. While the licensee did check all power-operated relief valve loop seals for the presence of insulation, the team determined that the corrective actions were weak because they did not extend the review to include other piping systems. The basis for this concern was that the cause of the insulation discrepancy appeared to be a generic original construction deficiency, which would not be restricted to the power-operated relief valve loop seals.

c. Conclusions

Engineering performed satisfactory assessments of the operability implications of degraded plant conditions. An operability determination concerning the pressurizer power-operated relief valve was satisfactory, but the corrective actions for a related insulation discrepancy were weak because they did not include the evaluation of other systems for similar insulation discrepancies.

E2.5 Minor Design Changes

a. Inspection Scope (40500)

The inspectors selected and reviewed a sample of minor design changes that were assigned to engineering, as listed in the attachment to this inspection report. The inspectors arranged meetings with licensee personnel to discuss questions that arose during the reviews. The inspectors also reviewed Procedure OPGP05-ZA-0002, "10 CFR 50.59 Evaluations," Revision 6.

b. Observations and Findings

Procedure OPGP05-ZA-0002 provided the method and criteria for determining if the change was a trivial change not requiring a 10 CFR 50.59 safety evaluation. If a change met the definition of "trivial," it did not (according to the procedure) constitute a change to the facility, even though it may affect plant drawings or text within the Final Safety Analysis Report. The procedure stated that a change was considered trivial if it met the following criteria:

- Was not safety-related
- Was not important to safety
- Did not affect the safety of operations or the safe shutdown of the plant
- Was not the basis for the NRC safety review as documented in the safety evaluation report and was not required by the standard review plan

Changes meeting this criteria were processed as minor design changes, which did not require a 10 CFR 50.59 safety evaluation.

The licensee believed their position was consistent with the NRC definition of "trivial changes" [as discussed, in part, in NRC Inspection Manual Chapter, Part 9900, 10 CFR Guidance, "10 CFR 50.59 Changes to Facilities, Procedures and Test (or Experiments)," Section D.7.d, dated January 1, 1984], which includes the following:

> "It should be noted that the SARs for a number of older facilities contain floor plans of onsite buildings that may include trivial detail such as the locating of dividing walls between various offices. From a rigid reading of 10 CFR 50.59, it is possible to infer that the removal of a dividing wall between two offices constitutes a change from the facility described in the SAR, and therefore requires a safety evaluation. However, the intent of 10 CFR 50.59 is to limit the requirement for written safety evaluations to facility changes, tests, and experiments which could impact the safety of operations."

However, based on preliminary conversations with the NRC program office staff and more recent guidance, the inspectors believed a trivial change was intended to include editorial, organizational, typographical and physical changes totally divorced from the plant, but was not intended to extend to changes involving physical changes to the plant configuration that resulted in a revision to plant drawings or text included in the Final Safety Analysis Report.

During a review of a sample of minor design changes and trivial change 10 CFR 50.59 screenings, the inspectors identified 19 examples where the licensee had made a trivial change. Each of the 19 minor changes involved a revision to drawings in the Final Safety Analysis Report, but did not include an unreviewed safety question evaluation. This evaluation is required by 10 CFR 50.59 when a change is made that results in a change to the facility as described in the Final Safety Analysis Report. The inspectors considered the drawing changes to constitute changes to the facility.

The 19 examples identified by the inspectors are listed below.

- Minor Design Change Package 95-8913-18, Revision 0, removed the internals of the fuel oil collection tank vent return check valve of Emergency Diesel Generator 12. The licensee's justification for the change was that it was necessary to eliminate the redundant check valve and reduce the number of components that were tested as part of the ASME Section XI inservice testing program. This change involved a revision to Drawing 5Q159F00045#1, which was included in the Final Safety Analysis Report. In addition, this change was made to a safety-related system which was not consistent with the licensee's 10 CFR 50.59 safety evaluation procedure. As noted above, this procedure states that a trivial change cannot be safety related. In this case, the licensee determined that, although the change affected a safety-related system, the change itself was not safety related. However, the licensee representatives stated that it was their expectation that any change affecting a safety-related system should not be handled as a trivial change. As such, the use of the trivial change in this instance did not meet the licensee's expectations. Consequently, the licensee issued a condition report for this matter.

- Minor Design Change Package 95-110661-2, Revision 0, installed a drain valve to the closed loop auxiliary cooling water line upstream of Instrument Air Compressor 11. This change involved a revision to a drawing which was included in the Final Safety Analysis Report.

- Minor Design Change Package 95-9125-1, Revision 0, involved adding a new valve to the seal water flush line on Spent Resin Transfer Pump 2A. This change involved a revision to a figure which was included in the Final Safety Analysis Report.

- Minor Design Change Package 95-753-10, Revision 0, involved relocating the sensing line to the inlet line of a discharge valve on the main turbine lift oil pump where it would be exposed to lift oil pump discharge pressure. This change involved a revision to a drawing included within the Final Safety Analysis Report.

- Minor Design Change Package 95-2757-2, Revision 0, involved replacing two obsolete chart recorders with one which monitored parameters associated with the condensate polishing system mixed bed regeneration process. It also included installing a voltage divider resistor network. This change involved a revision to Drawing 9S219F20014#2, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 96-917-1, Revision 0, replaced the reverse osmosis product tank level transmitter with a level transmitter that had a built-in display. The change also abandoned in place the reverse osmosis product tank indicator. This change involved a change to Drawing 6Q210F00068, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 96-5288-15, Revision 0, revised airflows in Rooms 313/314 and 316 to satisfy noise concerns and assure air flow into Room 316 was maintained in accordance with system design flow rate. This change involved a change to Drawing 9V25002, which documented individual room airflows and was included in the Final Safety Analysis Report.

- Minor Design Change Package 96-3733-3, Supplement 0, changed the connection of the degasifier transfer header dissolved oxygen analyzer so that the sample was taken from the bottom of the piping instead of the top of the piping. The modification also replaced the flow indicator control valve after the analyzer element. This change resulted in a revision to Figure 9.2.3-4, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 96-8766-1, Revision 0, installed a 1-inch drain valve for the moisture separator drip tank pumps. This change revised Drawing 8S171MPA006-9, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 96-2460-3, Supplement 0, revised the chemical and volume control drawing to reflect that Valve CV0197 was normally closed. This change revised Drawing 9F5007#1/2, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 95-7420-2, Revision 0, relocated a number of lube oil cooler outlet local indications and the associated test wells since the existing lube oil cooler outlet temperature indicators did not provide an accurate indication of temperatures. This change revised the temperature indicator locations in Figure 9.5.7-1, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 95-479-13, Revision 0, added a sodium analyzer, associated tubing, and isolation valves to the condensate polishing demineralizer regeneration system. This change revised Drawings 9Z329Z00042#2 and 95Z219F20014#2, which were included in the Final Safety Analysis Report.

- Minor Design Change Package 96-7923-2, Supplement 0, modified the reactor head vent manifold to remove the interference with the reactor stud tensioners and allow the reactor stud installation and removal while the vent manifold was in place. The change was listed as quality related, a classification defined by the licensee as not safety related, but of a nature that is considered important to safety. The preliminary screening indicated that this change was identical to and addressed by an existing approved 10 CFR 50.59 screening and unreviewed safety question evaluation. The licensee supplied Plant Change Form 178696A, dated March 3, 1993, which added a manifold to the flange connection of Valve 1-RC-132 to facilitate vessel venting. The screening for this modification stated that this was a trivial change since only the nonsafety-related portion of the reactor coolant piping was affected. These changes revised Drawing 5R149F05001#1, which was included in the Final Safety Analysis Report. In addition, the changes were made to a quality-related part of the system.

- Minor Design Change Package 95-478-3, Revision 0, replaced a number of instruments in the secondary sampling system and authorized rerouting process tubing and reworking panels. This change affected Figures 9.3.2-1 through 9.3.2-8, which were included in the Final Safety Analysis Report.

- Minor Design Change Package 95-5647-6, Supplement 0, installed an isolation valve in the instrument air system to allow maintenance to secure instrument air to the operator for nonreturn Valve ES0031 without securing a major part of the instrument air system. This change revised Drawings 6S139F20009#2 and 7T089F10001#2, which were included in the Final Safety Analysis Report.

- Minor Design Change Package 95-14448-6, Supplement 0, installed an instrument air isolation valve. This change revised Drawings 6S139F20009#1 and 7T089F10001#2, which were included in the Final Safety Analysis Report.

- Minor Design Change Package 96-9001-1, Supplement 0, added interconnecting piping and an isolation valve to allow pumping of fuel oil from the diesel generator fuel oil storage tank back to the auxiliary fuel oil storage tank in the yard to allow 10-year surveillance inspections of the standby diesel generator fuel oil storage tank. This change was listed as quality related. This change revised Drawings 5Q159F00045 #2 and 6Q170F00011, which were included in the Final Safety Analysis Report.

- Plant Change Form 179400A, dated July 7, 1994, deleted the electric hoist from the monorail located in the Chemical and Volume Control Charging Pump 1B room, disabled and abandoned power to the hoist, and modified a support. This change affected Figure 1.2.26, which was included in the Final Safety Analysis Report.

- Minor Design Change Package 94-2665-4, Supplement 0, dated August 6, 1996, removed the electric hoist and two wheel trolley from the Chemical and Volume Control System Charging Pump 1A room. A 10 CFR 50.59 screening was not performed because the licensee identified that a 10 CFR 50.59 screening for an identical change had addressed this change in its entirety. The original change was Plant Change Form 179400A. The change affected Figure 1.2.26, which was included in the Final Safety Analysis Report.

The licensee considered each of the 19 examples to meet the definition of a "trivial change" (i.e., minor changes which had no potential safety impact). The licensee subsequently determined that one of the changes did not meet the licensee's expectations. In each case, the 10 CFR 50.59 screening question asking whether the change resulted in a change to the facility as described in the Final Safety Analysis Report was marked "No." The inspectors concluded that the 19 examples did not represent trivial plant configuration changes because they involved revisions to plant drawings in the Final Safety Analysis Report. Because the modifications had changed the facility as described in the Final Safety Analysis Report, an evaluation was required by 10 CFR 50.59 to determine whether an unreviewed safety question existed.

The need to perform and document a safety evaluation for 19 design change notices was identified as an unresolved item (50-498;-499/9723-02). This issue was forwarded to the NRC program office for further review to determine if the changes required 10 CFR 50.59 safety evaluations.

c. Conclusions

The inspectors found that the licensee's 10 CFR 50.59 Review Guide appeared to define "trivial changes" more broadly than intended. The inspectors identified 19 examples wherein safety evaluations potentially required by 10 CFR 50.59 were not performed.

E2.6 Temporary Modifications

a. Inspection Scope

The inspectors reviewed five temporary modifications to determine if the modifications were being used as long-term solutions in lieu of component repairs or permanent modifications. The inspectors reviewed the age and number of temporary modifications for each unit. The inspectors conducted walkdowns of two of the five temporary modifications and interviewed licensee personnel to obtain additional information.

b. Observations and Findings

Four temporary modifications were installed on Unit 2 and nine temporary modifications were installed on Unit 1. The inspectors noted that the oldest temporary modification on Unit 2 was installed on March 26, 1997, and the oldest on Unit 1 was installed on May 23, 1996. None of the temporary modifications on either unit were safety related. However, some of the modifications were installed on nonsafety-related aspects of safety-related systems.

c. Conclusions

The inspectors concluded that the modifications had been installed in accordance with the modification package. Overall, the inspectors concluded that the licensee's temporary modification program was well implemented.

E4 Engineering Staff Knowledge and Performance

E4.1 Interview of Engineering Personnel

a. Inspection Scope (40500)

The inspectors interviewed two system engineers and two design engineers to determine their knowledge of and interaction with the corrective action program.

b. Observations and Findings

The individuals interviewed all had satisfactory knowledge of the corrective action program and all expressed confidence in the capability of the program to meet its objectives.

c. Conclusions

The sample of engineers interviewed were knowledgeable of, and confident in, the corrective action program.

E7 Quality Assurance in Engineering Activities

E7.1 Quality Assurance Audits and Self Assessments

a. Inspection Scope

To evaluate the effectiveness of the controls for identifying and resolving plant problems, the inspectors selected and reviewed the corrective actions for three observations from the quarterly monitoring reports. In addition, the inspectors reviewed the procedures for quality assurance monitoring of engineering to determine the frequency of audits, reporting requirements, and followup of findings.

b. Observations and Findings

The inspectors determined that the licensee provided good oversight of engineering activities. The licensee had an oversight planning and scheduling review team that met quarterly to review the current and next two quarters of the oversight plan. The team reviewed areas that might need assessment prior to the scheduled activity and issued a quarterly report. The inspectors reviewed the review team's third quarter 1997 oversight planning and scheduling meeting minutes and updated oversight plan. The inspectors determined that the quarterly report thoroughly evaluated the assessment areas and revised the schedule accordingly.

The inspectors reviewed three quarterly monitoring reports of engineering activities and found that, for two of the reports, the corrective actions resulting from the reports were appropriate.

However, the inspectors identified that corrective actions associated with Quarterly Monitoring Report MN-96-0-0892, dated November 13, 1996 were not effective. The purpose of this monitoring activity was to assess the switchyard to determine if the drawings in the Final Safety Analysis Report were current with the switchyard drawings, verify that the switchyard drawings were in the records management system, and verify that the switchyard drawings in the switchyard and the records management system were current. The licensee determined from this monitoring activity that the switchyard drawings in the Final Safety Analysis Report, including one-line drawings, were current, but that the drawings located in the records management system were out of date by up to seven revisions. The licensee also found that, out of a sample of six drawings found in use in the switchyard, there was a conflict in the revision level of one of the six drawings, whereas the other five drawings could not be located in the records management system.

The licensee initiated Condition Report 96-14319, dated November 18, 1996, to identify this problem. However, as of the date of the inspection, the one-line drawings were still out-of-date. The licensee stated that the switchyard drawings, which were not safety related, were archived early in the plant's life and were not updated because the switchyard design was not owned, operated, or maintained by onsite groups. The licensee's corporate office was responsible for all of these

activities. The licensee stated that controlled switchyard drawings were maintained at the corporate headquarters in Houston. The inspectors interviewed a system engineer who had used the out-of-date drawings during switchyard walkdowns and found out that the engineer did not realize that they were not current. The inspectors considered that effective corrective action for Condition Report 96-14319 should have resulted in copies of the controlled drawings maintained in the Houston office being distributed to the site records management system. As a minimum, current one-line drawings should be available to operations and engineering staff.

Although no specific regulatory requirement existed, the inspectors concluded that not having controlled switchyard drawings on site was a weakness in the licensee's configuration control program and corrective actions for Condition Report 96-14319.

c. Conclusions

The inspectors concluded that, in general, the licensee provided good oversight of engineering activities. However, in one case, corrective action for an identified finding was not effective. The lack of controlled switchyard drawings at the site was considered a weakness in the licensee's configuration control program.

E7.2 Root-Cause Analysis

a. Inspection Scope (40500)

As part of the review of condition reports, the inspectors evaluated licensee personnel performance in assessing the root cause or probable cause of the identified condition.

b. Observations and Findings

The inspectors did not identify any instances where the root or apparent cause of a condition appeared to be unsupported or superficial. In all cases, the root causes were appropriate for the identified condition.

c. Conclusions

The licensee performed credible reviews of condition reports to ascertain the root or apparent cause of the conditions.

E8 Miscellaneous Engineering Issues

E8.1 (Closed) Licensee Event Report 50-499/94-02: Standby Diesel Generator 22 Piston Failure

a. Background (92903)

During a March 2, 1994, refueling outage surveillance performed on Standby Diesel Generator 22, Piston 4R, was discovered to be cracked on the lower piston skirt and also between the number 6 and 7 oil rings. An extensive examination of the remaining cylinders of the standby diesel generator and a review of inspection videotapes of the other standby diesel generators led the licensee to conclude that no other portion of Standby Diesel Generator 22 or any of the other five standby diesel generators was affected by this problem. The licensee was unable to definitively determine the cause of this failure, but postulated that foreign material had been introduced into the cylinder, resulting in an eventual loss of lubrication and high stresses. The licensee's corrective actions for this event included the following:

- Piston and cylinder liner for Cylinder 4R were replaced
- All cylinders in Standby Diesel Generator 22 were examined and some other parts were replaced to preclude a possible forced outage
- All lower oil rings and piston end caps on Standby Diesel Generator 22 were removed based on the manufacturers' recommendation
- Standby Diesel Generator 22 was tested extensively, including a 168-hour run
- Additional lower end inspections of Standby Diesel Generator 22 were scheduled to be performed every 6 months during the next fuel cycle
- Other plants using the same diesel engines were informed by the licensee
- Previous Unit 1 and 2 boroscopic inspection videotapes were reviewed to determine if other engines were similarly affected

b. Inspector Followup

The inspectors reviewed documentation covering the corrective actions described above and discussed the details with licensee engineers. The inspectors determined that the licensee completed the corrective actions. However, the inspectors noted that the licensee had not addressed the issue of foreign material introduction into the subject cylinder within the scope of the investigation, such as reviewing foreign material exclusion procedures. The inspectors reviewed Station Problem Report 94-0551, which investigated this issue, and noted that the probable root

cause was stated to be the trapping of tin and other metallic grit. The report did not specifically address a foreign material issue. On further discussion, the inspectors learned that the licensee engineers felt that an intrinsic particle rather than a foreign particle was responsible for the event. The licensee also stated that oil analyses, internal inspections, and a review of maintenance packages were conducted to identify the potential for foreign material, but that no evidence of this condition was found.

c. Conclusion

The inspectors concluded that the licensee's actions were satisfactory to resolve the piston failure occurrence.

VI. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management by telephone at the conclusion of the inspection on September 4, 1997. The licensee representative acknowledged the findings presented.

The inspectors asked the licensee representative whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Brown, Senior Reactor Operator, Shift Supervisor
T. Cloninger, Vice President, Nuclear Engineering
J. Cook, NSSS Supervisor
W. Cottle, Executive Vice President
H. Danhardt, Supervisor, Operating Experience Group
M. Forsyth, Manager, Operating Experience Group
T. Frawley, Senior Reactor Operator, Shift Supervisor
M. Hill, Plant Operator
T. Jordan, Manager, Systems Engineering
M. Kanavos, Manager, Mechanical/Civil Engineering
A. Kent, Manager, Electrical and Instrumentation and Control Systems
T. Koser, Licensing Engineer
D. Leazar, Manager, Nuclear Fuel and Analysis
L. Martin, General Manager
R. Masse, Plant Manager, Unit 2
M. McBurnett, Licensing Manager
B. Mookhoek, Licensing Engineer
G. Parkey, Plant Manager, Unit 1
R. Pell, Shift Technical Advisor/Supervisor
S. Phillips, Vendor Technical Information Program Coordinator
P. Pieknik, Design Engineer
S. Saylors, Plant Operator
R. Scarborough, Shift Technical Advisor
V. Starks, Design Engineer
S. Thomas, Manager, Design Engineering Department
D. Valley, Staff Quality Assurance Specialist

NRC

D. Loveless, Senior Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-499/94-02	LER	Standby Diesel Generator 22 Piston Failure

LIST OF DOCUMENTS REVIEWED

Condition Reports

Maintenance Condition Reports

96-4406 RHR pump failed surveillance test for differential pressure
96-4581 Expendable materials, shelf life
96-5148 RHR Miniflow valve failed to open
96-6245 Use of outdated neolube
96-6492 AFW valve failed to open
96-7069 Condition report closed without apparent cause or corrective actions
96-8334 Steam generator PORV failed to stroke closed
96-8653 Open loop pump motor smoked
96-8858 Interference between damper and support
96-10771 Essential chiller hot gas bypass valve failed to close
96-13647 HVAC damper would not open
97-1193 Steam generator PORV stroke time excessive
97-3156 Repeat instances of failing to write condition reports
97-5818 Repeat material control and traceability problems
97-8384 Missed EDG surveillance
97-9004 Condition reports did not address all corrective actions needed
97-10591 Steam generator feedwater preheater bypass valve failed to close

Engineering Condition Reports

Design Engineering Condition Reports

96-3547 Decrease in motor-operated valve stoke time
96-4624 Design change implementation deficiencies
96-10432 Design change did not consider all design inputs
96-13058 MOV motor changed without equivalency documentation
96-13101 Lack of procedures for vendor documents
97-1613 EOP value for AFW flow
97-2815 Two pipe supports not installed

System Engineering Conditicn Reports

96-5157 Failure to evaluate pump operability
96-6659 EDG 11 Standby Lube Oil Pump High D/P
96-7764 Three repetitive failures on steam dump valves
96-8171 Pressurizer safety valve outside tolerance
96-9187 diaphragm valve failure trend
96-13073 Only a 50.59 screening was provided
96-14615 Pump d/p too high
97-4056 Main steam safety valve set pressure low

97-8198 Excessive number of maintenance preventable functional failures
96-4024 Loose exhaust expansion joint bolts on EDG #13
96-4861 EDG #22 high thrust bearing clearance
96-4862 High Rate of Oil Consumption on DG #12
96-6757-2 High CCW Flow Rate to RCP Lube Oil Coolers

Operations Condition Reports

97-505 Lube oil cooler 3-way inlet/outlet valve was mispositioned.
97-976 Valve for ECO 75059 found out of position.
97-1992 Few training/line management observation of OJT/OJE activities.
97-3679 Valve EH-0103 found in incorrect closed position.
97-4759 Radwaste operator hung danger tag on wrong handswitch.
97-5146 ECO provided inadequate protection for work.
97-6118 NRC inspector found valve MS-0214 in incorrect closed position.
97-7415 Three air volume dampers were found in wrong positions.
97-10274 Spent Fuel Pool Level dropped 2 inches.

Condition Report Engineering Evaluations

95-11853 Vent line bent 20 degrees from vertical
95-13270 Use of uncalibrated strain gages
96-3734 Blister on Unit 1 personnel airlock
96-6102 EDG #12 exhaust valve timing dimensions
97-2173 Pressurizer PORV open time out of specification
97-3286 Unauthorized lead shielding
97-5785 Replace ball throttle valves with globe valves
97-753 Incorrect locked rotor amps
97-2358 Yoke blemishes containment isolation valve

Operability and Reportability Review

CR 96-5472 Surveillance test discrepancy
CR 96-13095 Leak rate test discrepancy
CR 96-16035 Feedwater isolation wrong valve hydraulic modulator oil used
CR 97-0587 Inadequate surveillance testing
CR 97-2173 Pressurizer PORV loop seals insulated, contrary to vender recommendations
CR 97-4758 No hydrostatic test of weld
CR 97-8252 Motor-operated valve overthrust
CR 97-11724 Testing of interlock function of FWIV circuit

Corrective Maintenance Condition Records

97-1317 Remove insulation and furmanite leaks in steam generator
97-1308 Remove insulation and furmanite leaks in steam generator
97-6994 Perform engineering evaluation to determine corrective actions for leakby
96-15990 Unit heater in C train of ECW will not run

97-2173 Pressurizer PORV exceeded allowed stroke time
97-9296 Steam generator PORV hydraulic pump breaker starter contactor is chattering

Repeat Maintenance Condition Records

96-14460 EDG has 2 slip ring brushes not making contact with the slip rings

95-7748 BOP auto started at greater than allowed acceptance criteria

96-299 Valve will not open automatically or manually

97-5761 Outlet temperature indicator of essential chiller is out of calibration low

96-11609 CCP has various lube oil piping leaks

96-14224 MSIB will not open due to failure of the solenoid to pass air to the operator

96-14475 MSIBs have experienced problems with the actuator pneumatic control system

96-8334 SG PORV failed to stroke closed

95-10256 MS PORV high and low pressure switches failed on several occasions

96-4056 Mixed bed caustic supply valve diaphragm leaked

96-438 CW pump traveling screens run constantly in auto and stop

97-1933 Valve failed inservice test

Repeat Maintenance Work Orders

97422 Repair EDG slip ring brushes
95018903 Correct BOP auto start problem
73983 Correct valve which would not open
79992 Inspect, test, calibrate, and rework essential chiller
87499 Repair SG PORV
81568 Repair mixed bed caustic supply valve diaphragm

Minor Design Changes

95-12056 Interference with the heat exchanger flange stud
96-5563 Add a threaded connection at the end of vent configuration
95-13533 Double gasket for installation of Kinney valve on SBDG
96-7960 Replacement of PASS liquid control switch
95-12061 Add spacer between stem adapter and the top of the stem
96-2460 Change P&ID to show valve normally shut

95-8552	Remove the essential chiller motor bearing accelerometers
95-3349	Install a 3 inch pipe in the CP sump discharge line
95-8913	Removal of valve internals from check valve DO-0169

Minor Design Change 50.59 Evaluations

95-11061	Install drain valve to closed loop ACW line
95-9125	Add new valve to the seal water flush line
95-753	Correct pressure switch location on the P&ID
95-2757	Install voltage divider resistor network
96-917	Replace reverse osmosis product tank level transmitter
95-5288	Adjustment of airflow in EAB rooms
96-3733	Change connection of the degasifier transfer header dissolved oxygen analyzer
96-8766	Install 1 inch drain valve for moisture separator drip tank pumps
96-2460	Revise P&ID for CVCS to reflect correct position of valve
97-7695	Install drain down valve to the water separator
96-12682	Rework of valve u-joint angle
95-1284	Evaluation of the capability of 2 breathing air stations
95-13394	Reactor vessel stud hole cover seals modification
96-14199	Installation of an instrument air isolation valve
96-9790	Replacement of impeller, shaft and packing to Mechanical Seals 95-6172 Installation of drain lines and valves to the OC strainer
96-9916	Add tubing from valves which will make instrumentation function properly
95-14254	Raise high alarm setpoint of the fresh water system chlorine analyzer
95-11340	Remove ORP analyzer from the control circuit of the stroke controllers
96-8813	Add isolation valves to the sapling system

96-11980	Remove abandoned hose connection piping had heat tracing from the fresh water settling basin
95-14448	Add isolation valve to the instrument air system
97-8304	Add auto vent valve to the FWIV filter skid
95-7445	Remove abandoned equipment at the hypochlorite pot skid
95-7420	Relocate thermometer/thermowells in EDG lube oil system
95-479	Add orion low level sodium analyzer
94-2665	Remove electric hoist and trolley from the CVCS charging pump room
96-7923	Modify the reactor head vent manifold
95-478	Replace secondary sample system instrumentation
179400A	Remove electric hoist
96-5647	Install an instrument air isolation valve
95-14448	Add instrument air valve to isolate valve
96-9001	Add 3" line with isolation valve to allow drainage of EDG fuel oil storage tanks

Temporary Modifications

T2-97-8313	Replace ECW Pump 2B seal water flow indicator
T2-97-5710	Replace ECW Pump C seal water flow indicator
T2-97-6255	Disable alarm for RCP 2B standpipe fill valve level high annunciator window
To-97-8139	Open M.C. breakers to 4 RCP space heaters
To-96-1922	Secure air supply to mast doors of refueling machine mast due to leak

Plant Procedures

Procedure Number	Revision	Title
OPGP03-ZX-0013	3	"Industry Events Analysis"
OPQP01-ZA-0001	1	"Plant Audits"
OPQP01-ZA-0002	1	"Site Quality Surveillances"
OPQP02-ZA-0003	4	"Quality Monitoring Program"
OPQP01-ZA-0006	1	"Independent Plant Assessments"
OPQP01-ZA-0015	4	"Oversight Planning and Scheduling Process"
OPGP05-ZA-0002	6	"10 CFR 50.59 Evaluations"

Miscellaneous Documents

Operating Experience Review

Information Notice 96-14, "Degradation of Radwaste Facility Equipment at Millstone Nuclear Power Station, Unit 1"

Information Notice 96-17, "Reactor Operation Inconsistent with Updated Final Safety Analysis Reports"

Information Notice 95-03, Supplement #1, "Loss of Reactor Coolant Inventory and Potential Loss of Emergency Mitigation Functions While in a Shutdown Condition"

Information Notice 96-22, "Improper Equipment Settings Due to the Use of Non-Temperature-Compensated Test Equipment"

Information Notice 96-23, "Fires in EDGs Exciters During Operation Following Undetected Fuse Blowing"

Information Notice 97-49, "B&W once through steam generator tube inspection findings"

Information Notice 97-29, "Containment Inspection Rule"

Information Notice 97-27, "Effect of Incorrect Strainer Pressure Drop on Available Net Positive Suction Head"

Information Notice 97-26, "Degradation in Small-Radius U-Bend Regions of Steam Generator Tubes"

Information Notice 97-21, "Availability of Alternate AC Power Source Designed for Station Blackout Event"

Information Notice 96-15, " Unexpected Plant Performance"

Significant Event Report 96-14, "Operation with Reversed NI indicators"

Significant Event Report 96-15, "Inappropriate Operator Actions During Low-Power Operations"

Significant Event Report 96-16, "Multiple Personnel Injuries caused by High-energy Reheater Drain Pipe Failure"

Significant Event Report 97-01, "Nonconservative operations during isolation of a Reactor Recirculation pump seal leak"

Significant Event Report 97-04, "Incorrect use of EOPs during a potential ATWS"

Significant Operating Experience Report 96-01, "Control Room Supervision, Operational Decision-making, and Teamwork"