

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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License No:	DPR-49
Report No.	50-331/97009
Licensee:	IES Utilities Inc. 200 First Street S.E. P. O. Box 351 Cedar Rapids, IA 52406-0351
Facility:	Duane Arnold Energy Center
Dates:	April 26 - May 29, 1997
Inspectors:	K. Riemer, Senior Resident Inspector C. Lipa, Senior Resident Inspector M. Kurth, Reactor Engineer
Approved by:	M. Jordan, Chief Reactor Projects Branch 5

EXECUTIVE SUMMARY

Duane Arnold Energy Center
NRC Inspection Report 50-331/97009

This inspection report included resident inspectors' evaluation of aspects of licensee operations, engineering, maintenance, and plant support.

The inspectors and licensee identified several concerns. This included tagout errors, inattention to detail by plant operators and procedure violations.

Operations

- The inspectors concluded that shutdown and startup activities were well controlled and conducted in a slow and conservative manner. (Section O1.2).
- The inspectors identified incorrect labelling on handswitch tags on the control panels and concluded that the operators demonstrated poor attention to detail. This was an example of a violation. (Section O1.3).
- The inspectors identified that the automatic start selector switch for river water supply pump "A" was in the wrong position. Similar to the tagout issue discussed above, the inspectors were concerned with the multiple opportunities that were missed to identify the switch out of position. The inspectors concluded that the operators demonstrated poor attention to detail. Also, Operations failed to recognize the significance of the issue until further questioning and research by the inspectors. This was an example of a violation. (Section O1.4).

Maintenance

- The inspectors noted several examples where the operators or technicians reviewed procedures ahead of time to identify discrepancies, which were then resolved prior to beginning the test. However, as discussed below, in two cases, procedure discrepancies were not identified until after the activity was completed. (Section M1.1).
- The licensee identified inadequate work instructions during maintenance; however, this was not identified until after the step was completed. This was a non-cited violation. (Section M1.2).
- The inspectors identified that the work document for river water supply motor replacement did not include post maintenance testing on ventilation dampers removed to allow access for work on the river water supply pump. This was an example of a violation. (Section M1.2).
- The licensee identified that there were steps missing from a diesel generator surveillance due to loss of control of a procedure change. (Section M3.1).

Engineering

- Engineering effectively resolved the identified materiel condition issues and provided support to operations to continue turbine valve testing in the three steam line configuration. (Section E1).

Plant Support

- The inspectors identified that the licensee failed to post notices to workers as required by 10 CFR 19.11. This was a violation. (Section R1.1).

Report Details

Summary of Plant Status

The plant began this inspection period at 100 percent power. On May 18, 1997, power was reduced to approximately 65 percent for main steam isolation valve (MSIV) testing and a control rod sequence exchange. During testing, the "C" inboard MSIV failed to indicate fully closed. The "C" outboard MSIV was closed and deenergized to comply with Technical Specifications for containment isolation. With one steam line isolated, power was limited administratively to approximately 80 percent until a shutdown was commenced on May 23 to repair the "C" inboard MSIV limit switch. The plant was brought to a cold shutdown condition to perform other repairs. A reactor startup was commenced on May 26, however, a packing leak on steam line drain valve V03-10 was identified during the 400 psig inspection. The plant was brought to a subcritical condition on May 27 to repair V03-10. Startup was recommenced on May 28 and the plant was at full power on May 31.

I. Operations

01 Conduct of Operations

01.1 General Comments (71707)

The inspectors conducted frequent reviews of plant operations. This included observing routine control room activities, attending shift turnovers and crew briefings, and performing panel walkdowns. In general, conduct of operations during shutdown and start-up activities were well controlled, with good coordination with deliberate and conservative decision making. However, concerns were identified with tagouts and operators' attention to detail.

01.2 Shutdown and Startup Activities to Support MSIV Limit Switch Repair

a. Inspection Scope

During testing on May 18, 1997, the "C" inboard MSIV failed to indicate fully closed, therefore plans were made to bring the plant to a shutdown condition and perform repairs. The inspectors observed portions of shutdown activities and startup activities, mostly from the control room. The inspectors performed the inspections on all three shifts.

b. Observations and Findings

The inspectors observed effective oversight and coordination of activities, formal communications between operators, and strict procedural compliance. Reactivity changes were performed in a deliberate and conservative manner. The inspectors also observed excellent management briefings and reactor engineering briefings, that included lessons learned from industry operating experience.

c. Conclusions

The inspectors concluded that shutdown and startup activities were well controlled and conducted in a slow and conservative manner.

01.3 Incomplete Warning Tags on Containment Spray Switches

b. Observations and Findings

On May 27, 1997, during the conduct of routine control room panel walkdowns, the inspectors identified that operators had established an incomplete tagout to support a drywell entry associated with the maintenance outage. Integrated Plant Operating Instruction (IPOI) 7 required that warning tags be placed on the drywell and torus spray valve hand switches stating "Do not spray Drywell/Torus without verifying all personnel are clear of the Drywell/Torus". Operators prepared and placed the warning tags on the referenced hand switches; however the inspectors identified that the tags were blank (i.e., the warning was not stated on the tags as required). The tags had been established and placed on the hand switches May 24, 1997 as part of tagout SD2960. The licensee initiated Action Request (AR) 97-1526 to document the event and assign corrective actions.

c. Conclusions

The inspectors verified that operators were aware of drywell maintenance activities and the need to clear people from the drywell prior to initiating drywell spray. While the safety consequences of the incomplete tagout were minor, the inspectors were concerned with the multiple opportunities (tagout hanger, checker, crew turnovers) that were missed to identify the tagout deficiency. The inspectors concluded that the operators demonstrated poor attention to detail and that this item was similar to the panel awareness issue discussed in Section 01.4 of this report. Part 50 of 10 CFR, Appendix B, Criterion V, required in part that procedures affecting quality shall be accomplished in accordance with instructions and procedures. The operators' failure to establish a tagout in accordance with the IPOI 7 requirements is an example of a violation of 10 CFR 50, Appendix B, Criterion V (50-331/97009-01).

01.4 River Water Supply (RWS) Pump Selector Switch Found in Wrong Position

a. Inspection Scope

While reviewing tagouts and walking down the control room panels, the inspectors identified that the selector switch for the RWS pump was in the wrong position. The inspectors followed up to determine the cause and extent of the licensee's corrective actions.

b. Observations and Findings

On May 12, 1997, at 7:00 a.m. the inspectors reviewed the control room panel for the RWS system where the "C" pump had been deenergized for maintenance since 4:28 a.m. per tagout number 970550. Operations considered the "A" pump in the same train operable and there was no Limiting Condition for Operation (LCO) entered. However, the inspectors identified that the selector switch for the RWS pump auto start was selected to the "C" pump. With the switch selected to "C", the "A" pump would not auto start if needed and the train was thus rendered inoperable.

When questioned, the licensed operator at 7:15 a.m. promptly repositioned the switch to select the "A" pump for auto start. The shift supervisor also reviewed the tagout to determine whether there was a requirement to tag the selector switch and found that there was not. A revision to the tagout was made and a tag was hung on the selector switch specifying to select pump "A".

The inspectors were concerned that the incorrect position of the switch was not identified by the operator who hung the tagout, the operator who checked the tagout, or by the crew of operators and shift supervisors who walked down the panels as part of the shift turnover at 6:30 a.m.

Later in the day, the inspector questioned the shift supervisor whether an AR had been written and he indicated that no AR was written and the train was considered operable even with the selector switch in the incorrect position because the pump could be manually started. The inspectors were concerned with this answer because UFSAR Section 9.2.2.3 discussed the response of the system to a loss of offsite power or loss of coolant accident and took credit for automatic start of the selected pump. A Design Change Package Safety Evaluation (DCP 1496) dated December 7, 1990, indicates that the system could survive a complete loss of RWS for at least 6.2 minutes. Therefore, on an assumed loss of offsite power with failure of the "B" emergency diesel generator, depending on the configuration, operators may only have up to 6.2 minutes to take manual action to start the "A" pump to provide cooling water for the "A" emergency diesel generator.

Following further discussions with Plant Management, an AR was written documenting the condition and the fact that the "A" train was in an unrecognized 7-day LCO from 4:28 a.m. until 7:15 a.m. on May 12, 1997.

c. Conclusions

Similar to the tagout issue discussed in Section O1.3, above, the inspectors were concerned with the multiple opportunities that were missed to identify the switch out of position. The inspectors concluded that the operators demonstrated poor attention to detail. Also, Operations failed to recognize the significance of the issue until further questioning and research by the inspectors.

10 CFR 50, Appendix B, Criterion V required that procedures be appropriate to the circumstances. The inadequate tagout 970550 was an example of a violation (50-331/97009-02).

07 Quality Assurance in Operations

07.1 Licensee Self-Assessment Activities (71707)

During the inspection period, the inspectors reviewed multiple licensee self-assessment activities, including:

- Safety Committee
- Action Request Screening Meetings
- Operations Committee

The inspectors observed active management participation at the meetings. Identified deficiencies were being tracked by the licensee's AR process. The inspectors were concerned however, with the number of human performance issues that occurred during the inspection period. Most of these issues were NRC identified and occurred during the performance of routine, fundamental tasks.

08 Miscellaneous Operations Issues (92700)

- 08.1 (Closed) Unresolved Item 50-331/95009-01: Extraction Steam Valves Found Out of Normal Position. As discussed in Inspection Report 95009, the licensee discovered that five extraction steam valves were out of their required closed position. The inspectors reviewed the licensee's immediate corrective actions and formal root cause evaluation and had no subsequent concerns with either. The extraction steam valves were non-safety related and their as-found positions had no effect on plant operations. The inspectors concluded that no procedural violations existed. This item is closed.
- 08.2 (Closed) IFI 50-331/96005-02: HPES Conclusions and Corrective Actions on Technical Support Center (TSC) Diesel Failure to Start. Inspection Report 96005 documented operator difficulties in transferring the TSC heating, ventilation, and air condition (HVAC) power supply to the TSC diesel. The inspectors verified that a Training Management Action Request (TMAR) was generated and introduced into the operator training program. The inspectors also verified that the applicable operating instruction (OI) had been revised to clarify operation of the TSC diesel. This item is closed.
- 08.3 (Closed) IFI 50-331/96007-02: Configuration Control Issues. Inspection Report No. 96-007 documented inspector observations with respect to an increasing trend in balance-of-plant, non-safety configuration control issues. The licensee performed complete valve lineups on all systems prior to the startup following the refueling outage. The licensee performed a successful startup with no configuration control issues identified. This item is closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments

a. Inspection Scope (52707) (61726)

The inspectors observed or reviewed all or portions of the following work activities:

- Residual heat removal service water (RHRSW) auto vent repair
- RHRSW valve repack
- Standby diesel generator semiannual surveillance
- Standby transformer preventive maintenance
- Turbine valve testing
- River water supply pump motor replacement
- Main steam isolation valve (MSIV) testing
- MSIV temporary modification
- Hydrogen-oxygen analyzer troubleshooting

b. Observations and Findings

As discussed in Inspection Reports 50-331/97004 and 97007, the inspectors identified several examples where procedures were inadequate and this was not always identified by plant staff prior to or during testing. While observing activities discussed above, the inspectors noted improvement in the licensee's use of procedures. The inspectors noted several examples where the operators or technicians reviewed procedures ahead of time to identify discrepancies, which were then resolved prior to beginning the test. However, as discussed below, in two cases, procedure discrepancies were not identified until after the procedure was completed.

c. Conclusions

The inspectors concluded that improvements have been made in establishing an awareness of the importance of procedure adherence and in identifying and correcting procedure discrepancies during testing. However, as discussed below, there were cases where this was not fully effective in ensuring that procedure discrepancies were identified ahead of time.

M1.2 "C" River Water Supply (RWS) Pump Motor Replacement

a. Inspection Scope (62707)

The inspectors observed the replacement of the RWS motor according to corrective maintenance action request (CMAR) A22898 in detail. This included determination, removal, reinstallation, and retermination of the "C" RWS motor on May 12 and 13,

1997. The inspectors identified concerns with the accuracy of work instructions and the specified post-maintenance testing.

b. Observations and Findings

On May 12, the inspector observed the removal of interference items, such as intake structure roof hatch and ventilation damper that were necessary to support the removal of the old RWS motor. The inspector had three concerns with the work activity:

- The Maintenance Instruction Form (MIF) specified to "Remove DO7713A as required." This was the incorrect damper and should have read to remove DO7716A (damper operator) and 1VAD58-M (ventilation damper). Both items were clearly labelled in the intake structure, therefore the planning could easily have specified the correct items to remove.
- The mechanical maintenance technicians removed the correct ventilation damper for the job, however, they did not realize until afterwards that this was not the damper listed on the MIF provided as part of the CMAR. The inspectors were concerned that the mechanics assumed that they knew what to do rather than carefully reviewing the MIF and identifying the error before the damper was removed. When the mechanic identified the discrepancy on the MIF, they contacted the planner who made the appropriate corrections. The licensee also initiated AR 971625 to document the issue. The licensee identified and corrected the deficiency. This violation is being treated as a non-cited violation consistent with Section VII of the NRC Enforcement Policy. (50-331/97009-03)
- The inspectors identified that the CMAR did not specify any post maintenance testing following reinstallation of the safety related ventilation dampers. Maintenance Directive MD-24, "Post Maintenance Testing Program," Revision 12 specified that one of the purposes of post maintenance testing is to ensure that no new problems or deficiencies have been created. The removal and reinstallation of the dampers could have affected the function of the safety related ventilation for the RWS system. The failure of the CMAR to specify post maintenance testing for this activity according to MD-24 is an example of a violation of 10 CFR 50 Appendix B, Criterion V, which requires that activities affecting quality shall be accomplished according to procedures. (50-331/97009-04)

In response to the inspectors' concern, the licensee documented the condition on AR 971626 and revised the CMAR to include the post maintenance testing.

c. Conclusions

The inspectors were concerned that the licensee failed to recognize the procedure deficiency until after the work was completed. Also, the post maintenance testing in this case was inadequate until identified by the inspectors.

M2.1 Plant Materiel Condition

a. Inspection Scope

The inspectors noted that there were several materiel condition issues and self-revealing equipment failures during the report period. The inspectors reviewed the issues to determine if there was any affect on equipment operability or plant safety. In each case, the inspectors observed appropriate licensee response to repair or schedule maintenance and to determine root cause. The examples are listed below:

- On May 18, 1997, the "C" inboard MSIV failed to indicate fully closed. Because of this item, the plant was shutdown on May 23 and the closed limit switch was replaced. (AR 971289)
- On May 24, 1997, with the plant in a hot shutdown condition at 400 psi reactor pressure, the licensee identified a steam leak on a reactor recirculation discharge decontamination flange. The plant was brought to a cold shutdown condition and repairs were made according to CMAR A35988. This included replacement of the gasket and fasteners. Other recirculation decontamination flanges were evaluated prior to startup. (AR 971507)
- On May 24, 1997, one of the "H" torus vacuum breaker closed indication lights failed to indicate fully closed when the vacuum breaker was cycled. Repair was made prior to plant startup.
- On May 27, 1997, during a routine start of the "C" RWS pump, the motor did not start because the breaker failed to close. The licensee initiated AR 971513 to determine the cause and replaced the breaker with a spare. The licensee classified this as a "maintenance rule failure to operate," which required a cause determination.

M3 Maintenance Procedures and Documentation

M3.1 Missing Steps From Standby Diesel Generator Surveillance

a. Inspection Scope (61726)

The inspectors observed portions of the Surveillance Test Procedure STP 48A001-SA, "Standby Diesel Generators Semi-Annual Operability Test,"

Revision 24 on May 1, 1997. Following the test, the system engineer realized that the test did not include additional steps intended due to earlier resolution of an issue. Action Request (AR) 960495 had been closed on May 30, 1996, with the intention of adding steps to test the diesel fuel oil transfer pump control switches; however, the change had not yet been made to the STP. Following identification of the issue on May 1, 1997, AR 970857 was written to document the issue and require a root cause. Also, the procedure was revised and the testing was accomplished as intended. The inspectors reviewed the licensee's cause determination and corrective action plans.

b. Observations and Findings

When AR 960495 was closed on May 30, 1996, the intention was to update STP 48A001-SA to include additional steps to test the diesel fuel oil transfer pump control switches. The AR was originally written to review whether this test was required due to discussion in the TS bases that the control switches would be checked at the end of the monthly test during refill of the day tank. The TS requirements only required that operation of the fuel oil transfer pumps would be demonstrated during the monthly tests. The STP at the time met the TS requirements but not the intent of the TS bases.

The AR was closed to a Procedure Work Request (PWR) , which provided the details to make the changes, but did not immediately implement the changes. If the engineer had used a Document Change Form instead of a PWR, the change would have been immediate and would likely not have been missed. The inspectors were concerned that a PWR was used to close out an AR since that did not ensure the condition was corrected prior to closure of the AR.

At the time the PWR was initiated, it was assigned a due date of October 1, 1996, that would have ensured revision of the procedure prior to the next scheduled test. The inspectors were also concerned that the PWR due date was not adhered to or noticed when it was passed.

Also, the inspectors were concerned that the procedure problem was not identified until after the test was completed. This is similar to problems with procedures discussed in recent inspection reports 50-331/97004 and 97007.

c. Conclusions

The inspectors concluded that there was a weakness in both the control of procedure changes and in the AR process that allowed an AR to be closed prior to positive corrective actions being accomplished. This did not constitute a violation because the test met the TS requirements as written. The intended additional steps would have been an enhancement to the procedure.

M8 Miscellaneous Maintenance Issues (92902)

- M8.1** (Closed) IFI 50-331/95011-02: Loose Piping Supports Identified. Inspection Report No. 95011 discussed inspector identified concerns with questionable or damaged piping supports associated with the RHR system. Further plant walkdowns and discussions with the system engineer revealed that the piping in question was actually not RHR system piping (i.e., radwaste lines and chemical waste tank overflow lines). The inspectors reviewed the licensee's closure of the associated Action Request and had no substantive concerns. This item is closed.

III Engineering

E1 Conduct of Engineering

a. Inspection Scope (37551)

The inspectors evaluated engineering involvement in resolution of emergent material condition problems and other routine activities. The inspectors reviewed areas such as operability evaluations, root cause analyses, safety committees, and self assessments. The effectiveness of the licensee's controls for the identification, resolution, and prevention of problems was also examined.

b. Observations and Findings

The inspectors reviewed engineering evaluations of issues such as MSIV limit switch failure, torus vacuum breaker limit switch failure, and increasing oxygen levels in the drywell. In each case, engineering promptly addressed and resolved the issues.

Following the suspended turbine valve testing on May 18, 1997 (see Inspection Report No. 50-331/97011), engineering located an evaluation dated May 1, 1990, that provided engineering considerations associated with three steam line operation. By May 23, 1997, engineering conducted a line by line review of the 1990 evaluation to determine if the constraints and considerations used at the time were still valid. The review included all plant mods performed since May 1990. Following this review, engineering provided limitations to allow Operations to conduct the turbine valve testing in the three steam line configuration. (AR 971290)

c. Conclusions

The inspectors concluded that engineering effectively resolved the identified material condition issues and provided support to operations to enable turbine valve testing in the three steam line configuration.

IV Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 Inadequate Posting of Notices to Workers

a. Inspection Scope (71750)

The inspectors reviewed the adequacy of radiological controls using Inspection Procedure 71750. This included observing radiological work practices, checking radiological postings and locked doors, and reviewing adequacy of posting of notices to workers.

b. Observations and Findings

The inspectors identified that the licensee failed to post a notice of violation (NOV) involving radiological work practices as required by 10 CFR 19.11. NRC Inspection Report 50-331/97002, dated March 6, 1997, contained a NOV involving radiological work practices. Additionally, the licensee's response, dated April 4, 1997, was not posted as required by 10 CFR 19.11. The licensee's Administrative Control Procedure ACP 114.6 "10 CFR 19.11 & 21.6 Posting Requirements," Revision 0 correctly specified the requirements regarding posting of notices to workers; however, this ACP was not followed, as discussed above.

In response to the inspectors' concerns, the licensee initiated AR 971014 and promptly posted the required documents.

c. Conclusions

The inspectors were concerned that the licensee failed to recognize the requirements to post the NOV when the report was received on March 6, 1997. Failure to post the NOV and the response was a violation of 10 CFR 19.11 (50-331/97009-05).

R1.2 High Radiation Area Door Found Unlocked

a. Inspection Scope (71750)

The licensee informed the inspectors on May 4, 1997, that AR 971209 was written to document the fact that during routine high radiation area (HRA) door checks, a locked HRA (LHRA) door was found to be unlatched.

b. Observations and Findings

On Sunday, May 4, 1997, during a routine high radiation area door check, a health physics technician (HPT) discovered an LHRA door to be unlatched. The HPT checked the door (door #103) between the turbine building and condenser bay, located on the north end of the basement. The door opened when the HPT gave it

a strong pull. The door lock was actually locked, however, a metal strip had been placed over the strike plate, and the door was not appropriately latched. The licensee indicated that this door may have been unlatched since the last forced outage in March 1997 when the room was downgraded to a radiation area. Subsequent to the March outage, HPTs had not discovered that the door was unlatched, since the door was difficult to open (the ventilation flow path made the door difficult to open). The condenser bay is entered weekly by operations staff, however, these individuals enter through a south end door.

Upon discovering the door open, the HPT contacted the control room and initiated AR 971209. The metal strip covering the strike plate was removed, and the door was locked. The licensee performed door checks on all of the LHRA doors, and determined they were appropriately locked. Licensing personnel planned to perform interviews with various personnel to determine who placed the metal over the strike plate.

Areas accessible through door #103 include the condenser bay and heater bay. Within these areas, dose rates greater than 1000 mrem/hr have been documented during surveys. Technical Specification 6.9.3 required that areas accessible to personnel with radiation levels greater than 1000 mrem/hr shall be provided with locked doors, and doors shall remain locked except during periods of access by personnel under an approved radiation work permit. This constitutes a violation of TS 6.9.3, however, this licensee identified and corrected violation is being treated as a non-cited violation, consistent with Section VII of the NRC Enforcement Policy (50-331/97009-06).

c. Conclusions

The licensee identified that the door was unlocked and appeared to be taking appropriate corrective action.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on May 29, 1997. The licensee acknowledged the findings presented.

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

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Franz, Vice President Nuclear
G. Van Middlesworth, Plant Manager
J. Bjorseth, Maintenance Superintendent
D. Curtland, Operations Manager
R. Hite, Manager, Radiation Protection
M. McDermott, Manager, Engineering
K. Peveler, Manager, Regulatory Performance

INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering
IP 40500: Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems
IP 61726: Surveillance Observation
IP 62707: Maintenance Observation
IP 71707: Plant Operations
IP 71750: Plant Support
IP 92700: Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92901: Followup - Operations
IP 92902: Followup - Engineering
IP 92903: Followup - Maintenance

ITEMS OPENED AND CLOSED

Opened

50-331/97009-01	NOV	Inadequate drywell spray tagout
50-331/97009-02	NOV	Inadequate river water supply tagout
50-331/97009-03	NCV	Inadequate maintenance instruction form
50-331/97009-04	NOV	Failure to specify post-maintenance testing for ventilation dampers
50-331/97009-05	NOV	Failure to post notices to workers
50-331/97009-06	NCV	Locked high radiation door unlatched

Closed

50-331/95009-01	URI	Extraction steam valves found out of normal position
50-331/95011-02	IFI	Loose piping supports identified
50-331/96005-02	IFI	HPES conclusions and corrective actions on TSC diesel failure to start
50-331/96007-02	IFI	Configuration control issues

LIST OF ACRONYMS USED

ACP	Administrative Control Procedure
AR	Action Request
CFR	Code of Federal Regulations
CMAR	Corrective Maintenance Action Request
DAEC	Duane Arnold Energy Center
DCP	Design Change Package
HPT	Health Physics Technician
HRA	High Radiation Area
IFI	Inspection Followup Item
IPOI	Integrated Plant Operating Instruction
IR	Inspection Report
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LHRA	Locked High Radiation Area
MD	Maintenance Directive
NCV	Non-cited Violation
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
OI	Operating Instruction
OSS	Operations Shift Supervisor
QA	Quality Assurance
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RWS	River Water Supply
SBDG	Standby Diesel Generator
SBGT	Standby Gas Treatment System
STP	Surveillance Test Procedure
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item