Mr. Guy G. Campbell
Vice President - Nuclear
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE INSPECTION REPORT 50-346/99016(DRP)

Dear Mr. Campbell:

On February 4, 2000, the NRC completed an inspection at your Davis-Besse site. The enclosed report presents the results of that inspection.

The inspection was an examination of activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

Plant operations were conducted conservatively with a continuing focus on safety. Operators reacted well to frazil ice conditions which developed on several occasions during the inspection period. In addition, a thorough contingency plan was developed to address future frazil ice conditions. However, both your staff and the inspectors identified operator human performance issues and communication breakdowns during certain work activities. While no violations of NRC requirements occurred as a result of these issues, your expectations for the conduct of operations were not met on these occasions.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

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Sincerely,

/s/ T. Kozak
Thomas J. Kozak, Chief
Reactor Projects Branch 4

Docket No. 50-346
License No. NPF-3

Enclosure: Inspection Report 50-346/99016(DRP)

See Attached Distribution

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February 10, 2000

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Vice President - Nuclear
FirstEnergy Nuclear Operating Company
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Oak Harbor, OH 43449-9760

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Sincerely,

Thomas J. Kozak, Chief
Reactor Projects Branch 4

Docket No. 50-346
License No. NPF-3

Enclosure: Inspection Report 50-346/99016(DRP)

See Attached Distribution

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-346
License No:	NPF-3
Report No:	50-346/99016(DRP)
Licensee:	Toledo Edison Company
Facility:	Davis-Besse Nuclear Power Station
Location:	5501 N. State Route 2 Oak Harbor, OH 43449-9760
Dates:	December 7, 1999 - February 4, 2000
Inspectors:	K. Zellers, Senior Resident Inspector K. Walton, Resident Inspector, Quad Cities J. House, RIII, DRS Inspector
Approved by:	Thomas J. Kozak, Chief Reactor Projects Branch 4 Division of Reactor Projects

EXECUTIVE SUMMARY

Davis-Besse Nuclear Power Station
NRC Inspection Report 50-346/99016(DRP)

This inspection included aspects of licensee operations, maintenance, engineering, and plant support.

Operations

- Management attention was provided to plant issues commensurate with their safety significance. Operators were cognizant of the status of and maintained control over plant equipment. The inspectors concluded that plant operations were conservative with a continuing focus on safety (Section O1.1).

- Plant operators' inattention-to-detail led to several conditions that did not meet plant management's expectations for operator performance. For example, operators did not promptly recognize that a plant computer display had stopped updating, did not recognize that limiting conditions for operation were not met on two occasions, and did not identify during routine rounds that a boric acid addition tank room heater had failed. In addition, an operator opened the wrong feedwater system valve when restoring the system from a troubleshooting activity and personnel left open a door which was important to plant safety (Sections O1.2, O1.3, O1.4, and O1.5).

- Lower than normal lake levels combined with winter weather conditions led to the formation of frazil ice at the lake water intake crib and the lowering of the ultimate heat sink (UHS) level in the intake canal. Operators effectively managed this condition and prevented the UHS water level from exceeding the technical specification (TS) limit. Station management implemented a thorough contingency plan to mitigate the effects of future frazil ice events. In addition, a temporary ditch pump with a capacity of about 10,000 g.p.m., was installed to provide bypass flow around the intake crib and ensure the UHS level would remain within TS limits during future frazil ice conditions (Section O2.1).

Maintenance

- Station personnel responded to a failure of Reactor Protection System Channel 1 in a measured, risk-informed manner (Section M1.1).

Plant Support

- Communications between chemistry and operations personnel were generally good (Section R1.1).

Report Details

Summary of Plant Status

The plant was operated at about 100 percent power, except for the following periods of time:

- December 12: power was decreased to about 96 percent for a Technical Specification (TS) required determination of the moderator temperature coefficient.
- December 19: power was decreased to about 95 percent for routine turbine testing.
- December 31 - January 2: power was decreased to about 85 percent as part of FirstEnergy Y2K contingency actions.
- January 16: power was decreased to about 92 percent for routine turbine testing and TS required control rod exercising.
- January 21: power was decreased to 98 percent during a failure of one of the four channels of the reactor protection system.

I. Operations

O1 Conduct of Operations

O1.1 General Observations (71707)

The inspectors reviewed the conduct of plant operations on a daily basis. This included attending management information meetings, attending shift briefs, and observing operations personnel performance. Plant status reports, unit logs, condition reports, and other administrative programs were reviewed. The inspectors determined that the information was accurate and that management attention was provided to plant issues and problems commensurate with their safety significance. Operations personnel were cognizant of and had control over evolutions in progress and ensured that systems had the required post maintenance testing conducted before declaring them operable or acceptable for service. The inspectors concluded that plant operations were conservative with a continuing focus on safety.

O1.2 Operator Monitoring of Plant Indications

a. Inspection Scope (71707)

The inspectors reviewed the circumstances surrounding control room operators not noting that the plant computer display for important plant parameters (Group 38) had not updated for a 2-hour and 20-minute period on December 19, 1999.

b. Observations and Findings

The inspectors observed that operators were normally attentive to plant parameters and indications. Group 38 is the designation given to a group of plant parameters that is displayed on a control room monitor for control room operators. The Group 38 display is generated by the plant computer. The parameters include: core thermal power by secondary heat balance, core power by excore neutron detectors, quadrant power tilt and limits, axial imbalance and limits, and rod index and rod insertion limits. Normally, at steady state power, the parameters do not change very much within a several-hour time frame. On occasion, due to material problems of various kinds, the Group 38 display stops updating. Due to previous equipment problems, operators know to frequently check that Group 38 data is current by checking that the sample time displayed on the monitor is consistent with real time. Without doing this, it would not be obvious to control room personnel if Group 38 stopped updating. On December 19 at 1:52 p.m., the primary reactor operator identified that Group 38 had stopped updating at 11:32 a.m. (a 2-hour and 20-minute period). Operators reviewed the pertinent plant parameters for the time frame and determined that no operating or TS parameters had been exceeded.

Plant management stated that it was their expectation that the reactor operators identify a condition such as this more promptly. To address the human factors involved with the Group 38 display, licensee management stated that they were evaluating the feasibility of implementing a display program modification which would provide a cue to operators when Group 38 was not updating.

O1.3 Operators Missed Recognizing Entry into TS Action Statement Requirements

a. Inspection Scope (71707)

The inspectors reviewed the circumstances pertaining to two occasions where operators failed to recognize that TS action statements were in effect.

b. Observations and Findings

Technical Specification 3.9.12 requires that two independent emergency ventilation systems servicing the storage pool area be operable whenever irradiated fuel is in the storage pool. On January 19, operators did not recognize that this limiting condition for operation (LCO) was not met when one train of emergency ventilation was made inoperable for maintenance. No violations of TSs occurred in this instance because the TS-required actions were met. Several opportunities existed for the operations crew to have identified that the TS LCO was not met. For instance, the work package specified that the TS 3.9.12 LCO would not be met; however, the shift supervisor did not thoroughly review the work package and the shift manager did not verify that the correct TS entries had been made. Further, plant operators stated that it was common knowledge that when a train of emergency ventilation is inoperable, both the TS 3.6.5.1 (the emergency ventilation system TS which was recognized and entered) and TS 3.9.12 LCOs apply. Therefore, it appears that the operators did not thoroughly evaluate the maintenance activity prior to beginning it.

Technical Specification 3.8.1.1.a LCO requires that two qualified circuits between the offsite transmission network and the onsite Class 1E A.C. electrical power distribution system be operable. On January 17, operators did not recognize that the TS 3.8.1.1.a LCO was not met when switchyard breaker ACB 34563 was opened for maintenance. When ACB 34563 was open, a postulated fault would result in a loss of all offsite AC sources; therefore, two offsite AC sources were not available and TS 3.8.1.1.a should have been entered. No violations of TSs occurred on this occasion because the licensee completed the required actions associated with this LCO.

O1.4 Operator Manipulates Wrong Feedwater System Valve

a. Inspection Scope (71707)

The inspectors reviewed the circumstances surrounding an event where an equipment operator operated the wrong feedwater valve on January 11.

b. Observations and Findings

Main feedwater pump #2 minimum recirculation control valve (FW-438) had been isolated with outlet isolation valve FW-35 for troubleshooting. On January 11, after troubleshooting was complete, a senior reactor operator verbally instructed an equipment operator (EO) to open FW-35 to unisolate FW-438. However, the EO thought that he was supposed to open FW-37, which is the bypass around FW-438. Before he operated FW-37, he notified the control room that he was to open FW-37, but control room operators did not hear the valve number, and assumed that the EO was going to operate the correct valve. Additionally, no on-scene independent verification was done to ensure that he was operating the correct valve. Also, the operator was confused because FW-37 was listed in a description on his turnover sheet. As the EO opened FW-37, control room operators, who were observing the feedwater system for proper response to the evolution, noted abnormal feedwater response and directed that the operator close the valve.

O1.5 System Walkdowns

a. Inspection Scope (71707)

The inspectors walked down the accessible portions of the following engineered safety features (ESF) and important-to-safety systems during the inspection period:

- decay heat removal
- containment spray
- high pressure injection
- auxiliary feedwater
- motor driven feed pump
- emergency diesel generators
- service water
- boric acid addition tank room

b. Observations and Findings

No substantive concerns were identified as a result of the walkdowns. System lineups and major flow-paths were verified to be consistent with plant procedures/drawings and the Updated Safety Analysis Report. Pump/motor fluid levels were within their normal bands. However, the inspectors identified two conditions that went unnoticed by plant personnel.

Boric Acid Addition Tank Room Heater Failure

The BAAT room contains the two TS-required boric acid addition tanks. The TSs require that the tanks' contents remain above 105 degrees Fahrenheit (°F) to prevent the high concentration of boric acid from precipitating out which would preclude transfer of the tanks' contents to the reactor coolant system. Primary and backup room heaters and their associated temperature controllers are installed to ensure that the room temperature is maintained above the 105 °F TS limit. Normally, with the heaters working properly, the room temperature is about 125-130 °F.

The inspectors noted that the BAAT room temperature was 118 °F as indicated on temporary instrumentation. This was brought to the attention of operations shift management who then determined that the primary room heater circuit breaker had tripped open. A subsequent investigation revealed that one of the heater phases was faulty which was then isolated. The other two phases were then re-energized to restore room temperature to normal.

The inspectors reviewed the temperature trend of the BAAT room which was recorded by equipment operators during their rounds. This review indicated that the room temperature had been at about 119 °F for several weeks which indicated that the material problem probably existed for an extended period of time without identification by equipment operators. A human factor associated with this issue was that the equipment operators recorded the instrument temperature on a data input device that did not indicate what the low temperature value (120 °F) was.

Plant Safety Door Found Open

Door 308 serves multiple purposes. It constitutes part of the shield building boundary and is designed to protect plant components in the event of a high energy line break and to prevent the spread of a fire. The inspectors noted that the door was open about 2-4 inches during a plant tour and immediately shut the door to restore its functions. Operations management was notified and CR 2000-0057 was generated. Subsequently, security personnel determined that the door had been open for about 13 minutes and were able to identify the last people through the door. These people went through the door as a group, but no one took individual responsibility for ensuring the door was shut. Although the TS LCO for shield building integrity was inadvertently entered, no TS violations occurred because of the short duration of the condition.

Problems with door control have been recently identified in other docketed information (Inspection Report 1999-010, LER 1999-002). As a result of this event, the CR was

given an important designation, the station event free clock was reset, and another information memorandum was sent to site personnel that described the event, re-emphasized the importance of plant doors, and re-iterated management expectations concerning door control.

c. Conclusions on the Conduct of Operations

The inspectors concluded that plant operations were conservative with a continuing focus on safety. However, operators' inattention-to-detail led to several conditions that did not meet plant management's expectations for operator performance. For example, operators did not promptly recognize that a plant computer display had stopped updating, did not recognize that limiting conditions for operation were not met on two occasions, and did not identify during routine rounds that a boric acid addition tank room heater had failed. In addition, an operator opened the wrong feedwater system valve when restoring the system from troubleshooting and personnel left open a door which was important to plant safety.

O2 Operational Status of Facilities and Equipment

O2.1 Frazil Ice and Ultimate Heat Sink (UHS) Water Level

a. Inspection Scope (71707, 37551)

The inspectors monitored the licensee's efforts to resolve lowering UHS water levels that occurred on December 25, 26, and 29, 1999.

b. Observations and Findings

Background

The lake water intake crib is located about 0.6 miles from the Lake Erie shoreline and is constructed primarily of wood. Its function is to prevent large objects from damaging or obstructing the intake pipe. The intake pipe delivers water to the intake canal to make up for plant water usage. The water in the intake canal is also used by emergency core cooling support systems and is therefore designated as the UHS. Technical Specifications require that the UHS level be maintained above 562 feet International Great Lakes Datum so that enough water remains available for a safe shutdown of the plant during a design basis accident. Otherwise operators must shut the unit down to mode 3 within 2.5 hours of reaching the 562 feet limit.

Frazil ice conditions occur when small ice crystals agglomerate on the intake crib and cause blockage of water flow. Conditions that are favorable for frazil ice are sub-freezing temperatures, relatively high winds, no ice sheet over the intake structure, no solar heating of the lake (nighttime), and low lake levels. The blockage of the intake crib results in the lowering of UHS levels due to a mismatch between UHS water usage and makeup. As the UHS level drops and lake level remains constant, a pressure differential is applied to the intake crib. This pressure combined with solar heating of the lake during daylight hours, weakens the ice blockage until it breaks away.

UHS levels then rapidly return to expected values. This phenomenon was not a significant concern in the past because the UHS levels did not get close to the TS limit of 562 feet.

Sequence of Events

On December 25, cold temperatures and high winds created a frazil ice condition at the intake crib, which caused the UHS level to lower to about 565 feet. The lake level was about 570 feet at this time. The UHS level then increased and approached lake levels, indicating that the ice blockage was removed.

On December 26, the same phenomenon occurred; however, sustained winds over the night had also lowered the lake level by about 3 feet. The UHS level lowered to the point where the UHS low level annunciator alarmed (564 feet). In response to this condition, operators minimized the amount of UHS water usage by stopping the blowdown of the circulating water system and securing a dilution pump. The UHS level reached 562.88 feet before it increased rapidly due to a breakup of the frazil ice formation at the intake crib. After this occasion, CR 1999-2282 was generated to document the condition.

On December 29, frazil ice conditions again occurred. Operators again reduced the water usage. The UHS level lowered to about 563.7 feet before the level rapidly recovered during daylight hours. Plant management generated an action plan that included the following directions: 1) commence a plant shutdown at a UHS level that would ensure the plant was shutdown before the TS limit was reached, 2) draft an enforcement discretion request as a contingency in the event 562 feet was reached, 3) trend UHS and lake levels, 4) install and test a temporary pump to bypass the intake crib and provide about 10,0000 g.p.m. of water makeup to the intake canal, 5) inspect the intake crib, and 6) generate an action plan to investigate long term solutions to the problem.

After this occasion, and after analyzing the occurrences of frazil ice, station management stated that the reason for the increased frequency and consequence of the frazil ice events this year were caused by lower than normal lake levels. Consequently, the lessons-learned from the three events were translated into an operations standing order. The standing order directed operators to take specific actions when conditions favorable for the formation of frazil ice conditions existed. For example, if frazil ice conditions were anticipated, then UHS water usage would be minimized during night-time hours. Additionally, the ditch pump (with a pumping capacity that would maintain UHS level) remained setup and available. The standing order also provided operators guidance that would ensure the plant would be shutdown prior to TS limits for UHS level being exceeded.

c. Conclusions

Lower than normal lake levels combined with winter weather conditions led to the formation of frazil ice at the lake water intake crib and the lowering of the ultimate heat

remained setup and available. The standing order also provided operators guidance that would ensure the plant would be shutdown prior to TS limits for UHS level being exceeded.

c. Conclusions

Lower than normal lake levels combined with winter weather conditions led to the formation of frazil ice at the lake water intake crib and the lowering of the ultimate heat sink (UHS) level in the intake canal. Operators effectively managed this condition and prevented the UHS water level from exceeding the technical specification (TS) limit. Station management implemented a thorough contingency plan to mitigate the effects of future frazil ice events. In addition, a temporary ditch pump with a capacity of about 10,000 g.p.m., was installed to provide bypass flow around the intake crib and ensure the UHS level would remain within TS limits during future frazil ice conditions.

O2.2 Onsite Inspector Activities for Year 2000 Rollover

The inspector followed the guidance of IP 71707 and CPIP 500 in reviewing onsite activities during the Year 2000 rollover. As specified in CPIP 500, one inspector was on site from 10 p.m. on December 31, 1999, until 6 a.m. on January 1, 2000. The inspector was in the control room continuously from 11:00 a.m. until 1:00 a.m. and at other times throughout the shift. The inspector observed that the control room staff was attentive to electrical grid voltage and frequency indications and prepared for the potential that the plant could scram if a grid disturbance occurred. There were no grid disturbances, no plant transients, and no equipment challenges during the shift.

O7 Quality Assurance in Operations

O7.1 Station Assessment of Performance (71707)

The inspectors observed portions of the offsite review committee meeting and reviewed the station quality organization assessment report. The assessments appeared to utilize subjective and objective data in meaningful ways to determine trends in individual program areas. No significant negative trends were noted during the review.

II. Maintenance

M1 Conduct of Maintenance

M1.1 Double Failure of Reactor Protection System (RPS) Channel 1

a. Inspection Scope (71707, 62707, 37551)

The inspectors reviewed the circumstances surrounding a double failure of RPS Channel 1 that occurred on January 20, 2000.

Channel 1 reactor trip module (RTM) was not sending a trip signal to RPS Channel 3. Other voltage checks were conducted and it was identified that RTM Channel 1 had failed and it was declared inoperable; therefore, CRD breaker B had to be opened to comply with TSs. When a CRD breaker is open, there is a higher possibility of dropping a control rod when control rods are moved. Therefore, prior to CRD breaker B being opened, the integrated control system (ICS) was placed in manual and operators were instructed to use the feedwater flow provision of the ICS rather than to move control rods to control plant power levels. Because of multiple failures on RPS Channel 1, station management required that a troubleshooting action plan be generated and submitted to management for review. This troubleshooting plan was completed at 3:00 p.m. The RPS Channel 1 RTM and contact monitor modules were replaced, tested, and declared operable by 1:54 a.m. the next morning and the ICS was then returned to automatic control. The effect of feedwater control of the plant with no control rod motion resulted in a reactor power decrease to about 98 percent. Reactor power was then increased to 100 percent after repairs were complete.

The inspectors reviewed the sequence of events and determined that station personnel complied with the appropriate TSs based on the information available. When new information was obtained, the situation was reviewed and actions were taken that were consistent with TSs and safe and reliable plant operation. Management involvement, by requiring the use of the troubleshooting guideline, was prudent, given multiple failures in a given channel. The root causes of the failures of the RTM and the reactor coolant pump contact monitor were unknown as of the end of the inspection period.

c. Conclusions

Station personnel responded to a failure of RPS Channel 1 in a measured, risk-informed manner.

M1.2 Maintenance and Surveillance Activities (61726, 62707)

The following maintenance and surveillance testing activities were observed/reviewed during the inspection period:

- BWST Performance Test, DB-OP-06015, Rev 3
- Decay Heat Pump #1 Quarterly Pump and Valve Test, DB-SP-03136
- ECCS Valves Train 1 Quarterly Test, DB-PF-03205
- EDG #1 Monthly Test, DB-SC-03070
- Sampling System Nuclear Area, DB-CH-06002
- EDG #2 Monthly Test, DB-SC-03071

Activities were scheduled and performed accounting for overall plant risk. Management oversight was present for more complex activities. Operations personnel tracked and were cognizant of maintenance activities in progress. Activities were performed in accordance with station procedures. Command and control of test activities was consistent with management expectations. Equipment performed in accordance with USAR requirements; no abnormal trends with respect to vibration, oil leaks, system leaks, or system performance was noted.

M8 Miscellaneous Maintenance Issues (92902, 92700)

M8.1 (Closed) Violation 50-346/98006-01: Lack of identification and evaluation of a deviation/nonconformance. This violation pertained to licensee personnel not promptly identifying and correcting a failure of a wire brush during steam generator primary manhole cleaning, which eventually caused the introduction of wire bristles into a steam generator. The inspectors reviewed the licensee's response and determined that the root causes of the event were corrected in order to prevent recurrence. This item is closed.

M8.2 (Closed) Licensee Event Report 50-346/97-008-14: Inadequate testing of safety-related logic. This was a change to the LER which was administrative and was related to changes to the description of the root cause of the events and actions taken to prevent recurrence. This item is closed.

III. Engineering

E8 Miscellaneous Engineering Issues (92903)

E8.1 (Closed) Inspection Follow-up Item 50-346/97201-10: High containment pressure actuation setpoint. This item pertained to the lack of supporting documentation for establishing a margin of 1 psia to account for instrument loop inaccuracies for the high containment pressure actuation setpoint. The licensee was in the process of changing methodologies for determining instrument errors which, for this setpoint, would improve the operational margin before the safety features actuation system signal would activate. The licensee committed to complete the calculation and submit an license amendment request (LAR) by June 30, 1999. This item was to remain open until the licensee completed the calculation for instrument loop inaccuracies and submitted the LAR. Subsequently the licensee changed the commitment to submit the LAR to September 30, 1999, due to competing internal priorities. The license amendment request to revise the setpoint, LAR 98-005, was submitted on September 7, 1999. The license amendment noted that the new setpoints were less restrictive than the current TS values. This item is closed

IV. Plant Support

R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 RP&C Personnel Communication and Control Practices (71707, 71750)

The inspectors observed chemistry personnel conduct related functions in the plant, attended information meetings, and reviewed chemistry related procedures. Communications with control room personnel during evolutions followed procedural requirements. Radiation protection practices were good. No problems were noted with procedures and data reviewed (DB-CH-03008, Station Vent Release and DB-OP-03011, Liquid Radwaste Procedure). Communications between chemistry, operations, and

radiation protection during operations and chemistry turnover meetings were effective. The inspectors concluded that communications between chemistry and operations personnel were generally good.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management on January 25, 2000. The licensee acknowledged the findings presented. No new issues were identified between January 25 and the end of the inspection, February 4. 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

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NRC

K. S. Zellers, Senior Resident Inspector, Davis-Besse
D. S. Simpkins, Resident Inspector, Davis-Besse

INSPECTION PROCEDURES USED

IP 37551:	Onsite Engineering
IP 61726:	Surveillance Observations
IP 62707:	Maintenance Observation
IP 71707:	Plant Operations
IP 71750:	Plant Support Activities
IP 92700:	Onsite Follow-up of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92902:	Followup - Maintenance
IP 92903:	Followup - Engineering

ITEMS OPEN, CLOSED, AND DISCUSSED

Opened

None

Closed

50-346/98006-01	VIO	Lack of identification and evaluation of a deviation/nonconformance
50-346/97-008-14	LER	Inadequate testing of safety-related logic
50-346/97201-10	IFI	High containment pressure actuation setpoint

Discussed

None

LIST OF ACRONYMS AND INITIALISMS USED

AC	Alternating Current
ACB	Air Circuit Breaker
BAAT	Boric Acid Addition Tank
CFR	Code of Federal Regulations
CR	Condition Report
EO	Equipment Operator
ESF	Engineered Safety Feature
EVS	Emergency Ventilation System
I&C	Instrumentation and Controls
IFI	Inspection Followup Item
IGLD	International Great Lakes Datum
IP	Inspection Procedure
IR	Inspection Report
LAR	License Amendment Request
LER	Licensee Event Report
MWO	Maintenance Work Order
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PCAQR	Potential Condition Adverse to Quality Report
PDR	Public Document Room
RPS	Reactor Protection System
RTM	Reactor Trip Module
SRO	Senior Reactor Operator
TS	Technical Specification
UHS	Ultimate Heat Sink
USAR	Updated Safety Analysis Report
VIO	Violation
Y2K	Year 2000