Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

January 4, 1992

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: LaSalle County Nuclear Power Station Units 1 and 2
Reply to Notice of Violation
Inspection Report Nos. 50-373/92027; 50-374/92027
NRC Docket Nos. 50-373 and 50-374

Reference: E. Greenman letter to Cordell Reed dated December 4, 1992
transmitting NRC Inspection Report 50-373/92027; 50-374/92027

Enclosed is the Commonwealth Edison Company (CECo) response to the Notice of Violation (NOV) which was transmitted with the reference letter and Inspection Report. The violations related to not adhering to procedures (4 examples), a failure of the out-of-service program, and inadequate procedures (3 examples). CECo's response is provided in the attachment.

In early November, LaSalle County Management viewed with concern the number of events occurring which were related to inattention to detail. The events appeared to be focused within the Operations Department which implemented several actions to preclude further events. In November, Senior Operations Management conducted crew briefings, including fuel handlers, on topics of goals, expectations, commitments, and self-checking. Additionally, Shift Engineers conducted one-on-one meetings with crew members to further stress expectations. In December, the Maintenance Department conducted tailgate meetings to stress self-checking and error free operations.

Station Management assigned a cross section of Bargaining Unit individuals to review the events which occurred during the current outage. This review concurred with management's identification of the causes and provided additional suggestions. On December 11, 1992 a station stand down was conducted which consisted of approximately 4 hours of departmental discussions throughout the station. It's purpose was to increase awareness of the problem and receive input from the workers on why the errors were occurring as well as possible solutions. The evaluation of these inputs continues. LaSalle Station Management is committed to safe, reliable operations, and will continue its efforts to reduce personnel errors.

The above actions were discussed with Mr. E. G. Greenman of your staff during a December 21, 1992 Management Meeting. Mr. Greenman acknowledged the Station initiatives as a good step toward effectively dealing with the type of events which led to the violations.

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CECo has reviewed the circumstances surrounding the violation regarding the Out-Of-Service (OOS) Program (50-373/92027-02) and believes that its OOS procedures comply with the cited requirements. Our basis for this is provided in the attached response. For this reason, CECo respectfully requests the NRC to reconsider the violation.

If you have any questions concerning this response, please contact Ms. Sara Reece-Koenig of my staff at 708-663-7250.

Sincerely,

P L Barnes for

T. J. Kovach
Nuclear Licensing Manager

Attachments

cc: A. B. Davis, Regional Administrator - Region III
R. J. Stransky, Project Manager, NRR
D. Hills, Senior Resident Inspector - LaSalle

VIOLATION: 373(374)/92027-01a,b,c,d

1. LaSalle Technical Specification 6.2.A.1 requires, in part, that detailed written procedures covering items in Regulatory Guide 1.33, Appendix A, Revision 2, be prepared, approved, and adhered to. Regulatory Guide 1.33 lists procedures for preparation for refueling and refueling equipment operation, the reactor water cleanup (RWCU) system, and the liquid radioactive waste system.

   Contrary to the above, procedures for preparation for refueling and refueling equipment operation, the RWCU system, and the liquid radioactive waste system were not adhered to in the following examples:

   a. On October 29, 1992, RWCU system downstream resin drain stop valves, 2G33-Z001-43A and 2G33-Z001-42A were not sufficiently closed prior to returning a filter demineralizer to service in accordance with LaSalle Operating Procedure (LOP)-RT-06, "Reactor Water Cleanup System Filter/Demineralizer Precoat," steps F.15.a.2, F.15.a.4, and F.15.b.

   b. On November 21, 1992, a radioactive waste system operator failed to verify proper flow line-up in accordance with LOP-WZ-03, "Chemical Waste Collector Tank Transfer To Chemical Waste Process Tank And Vice Versa", step F.5.

   c. On October 25, 1992, a fuel handler failed to fully raise the grapple, check the digital height indicator, or verify receipt of the "Normal Up Limit" light in accordance with LFP-400-1, "Fuel Movements Within the Reactor and Spent Fuel Storage Pools," step F.1.n.

   d. On October 23, 1992, a licensee contract fuel handler failed to properly verify steps on the Nuclear Component Transfer List in accordance with LaSalle Fuel Procedure (LFP)-100-2, "Administrative Control of Transfer Of Fuel Or Special Nuclear Material Between Or Within the Spent Fuel Pool(s) Or Vaults", step F.3.

   This is part of a Severity Level IV violation (Supplement 1).

REASON FOR THE VIOLATION: (example a)

LaSalle County Station acknowledges the violation. Two experienced operators were assigned the task of precoating and placing on-line the "2A" Reactor Water Cleanup (RT) filter-demineralizer (F/D). Actions had been completed to precoat the F/D, and it was being placed back on-line when the isolation occurred. A Root Cause Investigation was conducted and identified an inadequate valve position verification as the cause.

Operating procedure LOP-RT-06, Step F.15.b states, "Verify (locally) that the following remote manual valves are closed." Included in this list are valves 2G33-Z001-42A and 2G33-Z001-43A which are "2A" RWCU F/D post-strainer backwash drain isolation valves. The operators performed an inadequate verification of the valve position by looking only at the position indication of the handwheels for these remotely-operated valves, rather than performing a hands-on verification of position. Because of the design of the remote operators, the indicator stop positions on these valves cannot always be used to determine valve position.

Although it cannot be positively determined how the 42A and 43A valves were opened, it is apparent that inadequate verification of valve position was performed.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

Upon receipt of the RWCU isolation signal, the isolation was verified to be valid, and the Nuclear Station Operator verified that the isolation occurred properly. Investigation revealed that the 42A and 43A valves were not fully closed, and that no other leakage paths existed. The 42A and 43A valves were properly closed and the RWCU System was subsequently restarted. The proper ENS notifications were made.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

The two individuals involved in this event were counseled by Operating Management on the importance of "hands-on" valve position verification when possible, and their responsibility on performing every step of the procedure.

Tailgates have been given to all Operating Department personnel by the Assistant Superintendent of Operating or his designee to discuss this event and other recent personnel error events. During these tailgates, use of proper self-checking techniques were stressed as a viable barrier to preventing errors.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved when the valves were verified closed and the system restored to proper operation.

REASON FOR THE VIOLATION: (example b)

LaSalle County Station acknowledges the violation. An investigation determined that operator error was the primary cause of the tank overflow.

The liquid radwaste operator involved in this event failed to perform the proper valve lineup to process water to the Chemical Waste Process Tank 2WZ02T per Operating Procedure LOP-WZ-03, Chemical Waste Collector Tank Transfer to the Chemical Waste Process Tank and Vice Versa, Step F.3. Additionally, the operator failed to perform the verification of proper flow from one tank to the other as required by steps F.5.a. and F.5.b. Instead of opening valve 2WZ008, Chemical Waste Collector Pump Discharge Valve, to process the water from the Chemical Waste Collector to the Chemical Waste Process Tank, the operator opened valve 2WZ202 which directed the water from the Chemical Waste Collector Tank to the Waste Sludge Tank. The operator was alerted to the abnormal valve lineup when he received a high level alarm for the Waste/URC Sludge Tank Room Sump, 0TF08.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

Upon receipt of the sump high level alarm, the operator immediately recognized the abnormal valve lineup and secured the transfer in progress, thus stopping the input to the Sludge Tank.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

A meeting was held with the responsible employee and he was counselled on his inappropriate actions.

A formal tailgate was conducted by the Assistant Superintendent of Operating or his designee with Operating Department personnel to discuss this event and other personnel error events that have occurred recently. The principles of self-checking were discussed during these tailgates and its potential in preventing these types of errors.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved when the inappropriate line-up was corrected.

REASON FOR THE VIOLATION: (example c)

LaSalle County Station acknowledges the violation. A Human Performance Enhancement System (HPES) investigation was performed to identify the human performance factors that influenced this event.

The fuel handler involved in this event became momentarily distracted while relaying information to the individual in communication with the control room during fuel movement. The fuel handler heard what he believed to be the audible cue for the refuel grapple being full up and began to move the refuel bridge toward the cattle chute without using redundant indications, such as full up light or visual observation. What he actually heard was the sound of the hoist locking out on hoist jam with the fuel bundle not full up. Unit 1 Refuel Bridge had recently been modified with the new fuel mast design that produces occasional false hoist jam lockouts when lifting a fuel bundle too rapidly through the transition zones of the mast sections. The fuel handler and the fuel handling supervisor both noticed that the grapple was not full up moments before accessing the cattle chute and the fuel handler immediately stopped motion of the refuel bridge.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

Immediately upon noticing that the fuel bundle was not full up, the fuel handler stopped forward motion of the refuel bridge. The Shift Engineer and Assistant Superintendent of Operations were notified and the fuel bundle was subsequently raised full up and placed into the Unit 1 fuel pool.

The fuel bundle involved was inspected visually using underwater cameras and was sipped to check for possible damage. No anomalies were found.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

The Assistant Superintendent of Operating conducted tailgates with all fuel handling personnel to reinforce management expectations regarding self-checking and the need for error-free operation. Emphasis was placed on taking the time to do the job right, recognizing productivity may decline.

The Production Superintendent and Assistant Superintendent of Operating conducted tailgates with all Operating Department personnel, including fuel handling personnel, to discuss the personnel errors that have occurred since July 1, 1992, at LaSalle Station. The need to follow the principles of self-checking and maintaining a questioning attitude were emphasized. This event was included in the list of topics for those tailgates.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved when the bundle was raised full-up, and properly positioned in the storage rack.

REASON FOR THE VIOLATION: (example d)

LaSalle County Station acknowledges the violation. The contractor employee involved in this event used poor technique in performing verification of proper fuel bundle movement. The fuel handlers relied on verbal communication of bundle serial number and failed to perform the required visual verification of bundle identification prior to movement into the Unit 2 fuel pool. This failure resulted in a transpositional error of two fuel bundles.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

The Lead Nuclear Engineer completed an inventory of all new fuel received up to that point and no other bundle location anomalies were found.

The misplaced bundles were placed into their proper locations.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

The Assistant Superintendent of Operating conducted a meeting to discuss this event with the contractor Project Manager, Technical Staff Supervisor and Lead Nuclear Engineer. Several corrective actions were identified and implemented prior to resuming new fuel receipt:

All contractor fuel handlers and inspectors were counselled on the seriousness of the infraction, and instructed that the fuel bundle number must be verified at each applicable step in the transfer list.

The verbal exchange of fuel bundle serial numbers between contractor fuel inspectors and fuel handlers was eliminated. Both the fuel handler and the "spotter" were required to visually verify bundle serial number prior to moving the bundle underwater.

The use of binoculars to verify serial number, location, and orientation of the fuel bundle immediately after placement into the fuel pool was started.

Shiftly verification of proper bundle loading into the fuel pool was accomplished by contractor fuel handling supervisory personnel.

The contractor fuel handling personnel involved in this incident were removed from site.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved when the bundles were properly positioned.

VIOLATION: 373(374)/92027-02

2. 10 CFR 50, Appendix B, Criterion XIV, as implemented by Regulatory Guide 1.33, Revision 2, which endorses ANSI N.18.7-1976 requires prior to granting permission for release of equipment, operating personnel shall verify that the equipment can be released, determine how long it may be out-of-service, and to document such granting of permission.

   Contrary to the above, LaSalle Administrative Procedure (LAP)-900-4, "Equipment Out-Of-Service Procedure," Revision 48, did not require operating personnel to verify that equipment can be released or to document such granting of permission. These actions were not taken for out-of-service 2-2202-92.

   This is a Severity Level IV violation (Supplement 1).

DISCUSSION:

This provides Commonwealth Edison Company's (CECo) response to the Nuclear Regulatory Commission's (NRC) Notice of Violation (NOV) issued to LaSalle County Station (LaSalle) for an alleged violation of 10 C.F.R. Part 50, Appendix B, Criterion XIV. The issue raised in the NOV is the adequacy of LaSalle Administrative Procedure (LAP)-900-4, Rev. 48, "Equipment Out-Of-Service Procedure," as it applies to the hanging of out-of-services (OOS). CECo believes that the ANSI Standard does not place requirements on non-safety-related systems. Since OOS 2-2202-92 dealt with a non-safety-related system, no documentation of the granting of permission was required in this specific case.

This procedure has proved its appropriateness through extensive, successful use. Moreover, LaSalle believes that the procedure does comply with Appendix B for the reasons stated below.

Regulatory Requirements

To understand how LaSalle's OOS procedure complies with Criterion XIV, it is useful to start by reviewing the regulatory requirements. Appendix B to Part 50 establishes quality assurance requirements for the operation of safety-related structures, systems and components. Appendix B can be complied with by implementing the guidance in Regulatory Guide (Reg.Guide) 1.33, Revision 2, which endorses ANSI N.18.7-1976/ANS-3.2 (ANSI Standard). CECo has adopted this ANSI Standard.

For Criterion XIV of Appendix B, Section 5.2.6 of the ANSI Standard, Equipment Control, specifies the actions necessary for compliance. Section 5.2.6 provides that:

Permission to release equipment or systems for maintenance shall be granted by designated operating personnel. Prior to granting permission, such operating personnel shall verify that the equipment or system can be released, and determine how long it may be out of service. Granting of such permission shall be documented. Attention shall be given to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance.

After permission has been granted to remove the equipment from service, it shall be made safe to work on. Measures shall provide for protection of equipment and workers. Equipment and systems in a controlled status shall be clearly identified. Strict control measures for such equipment shall be enforced.

LaSalle's Procedures

LaSalle has implemented these requirements through LAP-900-4. This LAP applies to both safety-related and other work. Not all procedural steps are applicable to all work under the procedure.

LaSalle's procedure works as follows. When any individual, usually in either the operating department (Operating) or the maintenance department (Maintenance) identifies a piece of equipment which needs to be taken out-of-service either to be maintained or repaired, an OOS request is sent to Operating. It is reviewed, and if the work to be done is accepted, the OOS is prepared. Once prepared, the OOS then receives another review by a second qualified individual, usually a licensed Senior Reactor Operator (SRO). For safety and Technical Specification (Tech Spec) related equipment OOSs additional documentation (Attachment F) is included which documents review for requirements in the ANSI Standard. Prior to being issued for "hanging," the OOS is reviewed (a third review) and the Attachment F is signed by the Control Room SRO. This final signature meets the documentation requirement of the ANSI Standard, which requires the "regulatory issues" review.

Even though non-safety-related equipment OOSs do not receive the Attachment F documentation, before authorizing the hanging of all OOSs, the Shift Supervisor reviews the OOS to ensure that the plant configuration permits the safe conduct of the work. LaSalle management expects Shift Supervisors to be alert to any unusual plant conditions which would prevent the work from being performed as originally scheduled.

LAP-1600-2, "Conduct of Operations," steps F.1.n and F.1.z state the following respectively concerning plant configuration awareness. Since it is the standard expectation and policy at LaSalle that Operations be aware of plant status/configuration and to not allow action that may compromise operation or safety, LaSalle does not require personnel to sign for such consideration on every action they may take.

All on-duty licensed and unlicensed operators and operating supervisors are to be aware of and responsible for the status of the plant at all times. All operating supervisors are responsible for all personnel assigned to their particular shift, regardless of specialty, whose actions could affect plant safety.

Operations personnel shall be attentive to the conditions of the plant at all times. They must be alert to ensure that the plant is operating safely and take action to prevent any progress toward a condition that might be unsafe.

NRC Concerns

The NRC is concerned that this process does not require review of the plant's configuration when the OOS is actually implemented. In the NRC's view, it is impossible to anticipate all possible plant configurations when an OOS is written. Therefore, the NRC believes that an additional review of the plant configuration is necessary right before the OOS is implemented in order to establish a last barrier against unintended adverse consequences.

The NRC's Concern was triggered by a scram of Unit 2. That scram occurred after an OOS was hung because the plant's configuration was inconsistent with the OOS. That inconsistency, the NRC believes, would have been discovered had the shift supervisor who authorized the tagout reviewed the plant condition more thoroughly.

The NRC also believes that LaSalle failed to provide the necessary documentation of the grant of permission to release the equipment for work.

LaSalle's Compliance

LaSalle believes that the demonstrated history of the procedure's successful use shows that it does include appropriate reviews of the plant's status before an OOS is hung.

LaSalle also believes that its procedures satisfy Criterion XIV as interpreted in the ANSI Standard. LaSalle considers the permission contemplated by Section 5.2.6 for release of the covered equipment to be granted when Operating signs the Attachment F of the OOS documentation. That authorization is given by operating personnel which LaSalle considers designated to release equipment, qualified to verify releasability of equipment, and knowledgeable about how long the equipment may be out of service.

Furthermore, LaSalle recognizes that the removal of equipment from service by hanging the OOS requires a review of plant status at the time, and does require the operating department to conduct such a status review. However, as LaSalle has interpreted the ANSI Standard, there is no requirement to document the grant of permission to release equipment other than safety-related equipment. Notwithstanding the documentation requirements for safety-related equipment, LaSalle will continue to review every OOS prior to issuance to assure plant configuration is compatible with the OOS.

Conclusion

CECo respectfully requests the NRC to reconsider this violation. For the reasons discussed above, LaSalle believes that its procedures comply with the regulatory requirements and address the need to conduct an appropriate review of current plant status before equipment is removed from service. CECo believes that the reactor scram which occurred on November 16,1992 was the result of a cognitive error by the Shift Supervisor. The individual was aware of his responsibility to consider the impact of his activities on the plant, and was aware of the abnormal line-up in effect when he authorized the equipment to be removed from service. The Shift Supervisor failed to sufficiently review the OOS to ensure that its hanging would be consistent with plant configuration. The lack of a documented review did not cause this event, and the existence of a documented review probably would not have prevented the event.

CECo's corrective actions for this event include counselling for the individual involved, and re-emphasis of management's expectations for attention-to-detail with the other Shift Supervisors. Additionally, LAP-900-4 will be revised to clarify the responsibility of the OOS preparer to include additional information on OOSs which could have unanticipated impacts under different plant conditions.

VIOLATION: 373(374)/92027-03a,b.c

3. 10 CFR 50, Appendix B, Criterion V requires, in part, activities affecting quality be prescribed by documented procedures of a type appropriate to the circumstances.

   Contrary to the above, procedures were inappropriate to the circumstances in the following examples:

   a. LaSalle Electrical Surveillance (LES)-RD-102, "Unit 1 Alternate Rod Insertion Division 1 Logic Functional Test," Revision 1, did not delineate a specific applicable step sequence. This resulted in a reactor scram on October 9, 1992, when the control rod charging water header supply stop valve was improperly closed prior to taking the mode switch to the shutdown position.

   b. LaSalle Technical Surveillance (LTS)-100-11, "Feedwater Outboard Stop and RWCU Return Valves Local Leak Rate Test," Revision 8, failed to take into account that a check valve between the RWCU discharge valve 1G33-F040 and the required vent path would invalidate the results of the test.

   c. LaSalle Limited Procedure (LLP)-92-159, "Alternate Method For Performing Channel Check Of VC Intake Radiation Monitors," Revision 0, failed to specify that a greater than two second delay between returning the monitor switch to the "OPERATE" position and depressing the red trip light would cause the actuation circuitry to seal-in. This resulted in an unplanned control room emergency ventilation actuation on October 16, 1992.

   This is part of a Severity Level IV violation (Supplement 1).

REASON FOR THE VIOLATION: (example a)

LaSalle County Station acknowledges the violation. It occurred because the procedure did not delineate a specific applicable step sequence that would have prevented the scram. The directions involved were contained in a single, descriptive paragraph. Also, the operator did not exhibit sufficient forethought to ensure that the mode switch was in SHUTDOWN prior to closing the charging water valve. During this time, a special procedure was required to place the mode switch into SHUTDOWN, and the performance of this procedure delayed the movement of the mode switch with the resultant effect of the charging water isolation valve being closed too soon.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

The procedure LES-RD-102, "UNIT 1 ALTERNATE ROD INSERTION DIVISION 1 LOGIC FUNCTIONAL TEST", was revised to include the note that the MODE SWITCH must be placed in SHUTDOWN prior to closing the charging water valve.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

The operating department was counseled on the need for self checking on all tasks associated with the operation of the plant. This specific event was used as one of the examples. These sessions were completed by 12/16/92.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved when the procedure was revised.

REASON FOR THE VIOLATION: (example b)

During an inspection conducted by the NRC and Illinois Department of Nuclear Safety (IDNS) on October 14 through November 25, 1992, it was determined that the Local Leak Rate Test (LLRT) performed on 1(2)G33-F040 using procedure LTS-100-11 was technically invalid because the upstream side of the valve was not properly vented. The 1(2)G33-F040 valve was tested in the normal direction, or from the containment side. A vent path was established by opening test tap valves 1(2)G33-F037 and 1(2)G33-F038 upstream of the 1(2)G33-F040 valve, however check valve 1(2)G33-F039 is installed between the 1(2)G33-F040 containment isolation valve and the open vent valves. If check valve 1(2)G33-F039 was leak tight, then any leakage through the 1(2)G33-F040 valve would be undetected. When the procedure was originally written, it was deemed adequate to assume leakage through the non-safety related check valve.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

During the time period that this discrepancy was identified, Unit 1 was in its fifth refuel outage. A special test procedure (LST) was written to perform a valid Local Leak Rate Test on the 1G33-F040 valve by testing the valve in the reverse direction with a proper vent path established through the "B" Feedwater line. The test results indicated zero leakage for the 1G33-F040 valve.

Because Unit 2 was at full power during this time period, a Local Leak Rate Test could not be performed on the 2G33-F040 valve without bringing Unit 2 to a Cold Shutdown condition. LaSalle County Station requested and was granted a Waiver of Compliance from the Office of Nuclear Reactor Regulation (NRR) until an emergency Technical Specification change could be processed to delay the testing of 2G33-F040. LaSalle County Station has committed to performing a satisfactory Local Leak Rate Test on the 2G33-F040 valve at the first available outage of two weeks or greater in cold shutdown, and no later than the next refuel outage L2R05.

LTS-100-11 has been revised to eliminate the possibility of performing an invalid leak rate test.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

A Local Leak Rate Test Program review was conducted to verify and ensure that other discrepancies of this nature do not exist at LaSalle County Station. The review concluded that the discrepancy identified with the Local Leak Rate Test of the 1(2)G33-F040 valve was an isolated case and no other discrepancies were found.

An Updated Final Safety Analysis Report change will be submitted to allow for testing of the 1(2)G33-F040 valve in the reverse direction. This change will occur in accordance with required UFSAR updates.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance will be achieved when a satisfactory Local Leak Rate Test is performed on the 2G33-F040 valve. This will occur at the first available outage in which Unit 2 is in Cold Shutdown for a duration of two weeks or greater and no later than the next refuel outage, L2R05. This item has been added to the Unit 2 forced outage list.

REASON FOR THE VIOLATION: (example c)

LaSalle County Station acknowledges the violation. LLP-92-159 "Alternate Method for Performing Channel Check of Control Room Ventilation Intake Radiation Monitors" is a Limited Duration Procedure which was written in response to ongoing troubleshooting on the Control Room Radiation Monitors. LLP-92-159 was written to give control room personnel an alternate method to perform the CHANNEL CHECK required by Technical Specifications. It did not specify that the radiation monitor on the Control Room Ventilation system would trip if the monitor switch was not taken to the OPERATE position within 2 seconds of performing a source check of the monitor. Adequate steps were not included in the procedure to assure that an actuation of the Control Room Ventilation system would not occur following the source check. This procedure was used as needed for 2 weeks prior to this event without any problems. Upon receipt of the actuations, various resources were used to identify the cause of the problem. Additional extensive research into the vendor documentation of the radiation monitor internal electronic circuitry eventually revealed the 2 second time delay circuitry. Personnel writing and reviewing the procedure did not fully understand the 2 second condition caused by internal detector electronics prior to procedure generation. The procedure which resulted was technically and operationally correct, but did not give sufficient precautions to avoid a start of the Control Room Ventilation Emergency Makeup Unit. This procedure was generated in response to specific plant conditions for use on a limited basis while corrective actions continued to be pursued for previously occurring spurious trips of the radiation detectors.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED:

The affected procedure was revised to give operators additional guidance. The procedure has been in place since this event with no further problems.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS:

Personnel involved in this event were made aware of the procedural discrepancies and that additional research would have been warranted in this case.

This event will be discussed with technical staff system engineers and instrument maintenance management personnel as an example of an event where the vendor manual did not provide adequate written description of circuit operation in the abnormal configuration. When writing procedures to operate it may be necessary to perform a detailed review of the circuit diagrams to ensure all operations are as desired.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED.

Full compliance was achieved upon revising the procedure to reflect the added caution.