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ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

DPH-0490-89
August 8, 1989

Docket No. 50-461

Mr. James Lieberman, Director
Office of Enforcement
ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Response to Notice of Violation and Proposed
Imposition of Civil Penalties Dated July 20, 1989,
Docket No. 50-461, EA 89-59

Dear Mr. Lieberman:

On July 20, 1989, the Nuclear Regulatory Commission (NRC) issued a Notice of Violation and Proposed Imposition of Civil Penalties, EA 8959, to Illinois Power Company (IP). The Notice was based upon the results of NRC inspections conducted during the period February 6 through March 3 and March 16 through May 30, 1989 at the Clinton Power Station (CPS) and based on items described in NRC Inspection Report Nos. 50-461/89006 and 50-461/89014. The Notice proposes to impose civil penalties upon IP in the amount of \$75,000.

Attachment A to this letter provides IP's reply to the items listed in the Notice of Violation and Proposed Imposition of Civil Penalties. Attachment A also describes the actions IP has taken to correct the noted items, to address any generic implications of those items, and to prevent their recurrence.

IP admits that the violations occurred. IP has taken appropriate corrective actions with respect to all of the items discussed in the Notice of Violation, including extensive reviews and reinspections to identify any similarly deficient items. As a result of its reviews and reinspections, IP determined that most of these components were properly qualified. For those items that were identified to be deficient, IP has modified the items to ensure their qualification.

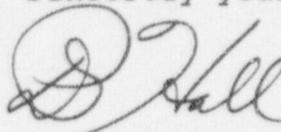
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IP has also conducted an analysis of the root causes and generic implications of these issues. As discussed in Attachment B to IP letter U-601477, dated June 30, 1989, the equipment qualification (EQ) issues generally involved different causes and different organizations, and the EQ deficiencies were scattered and isolated. Therefore, IP has concluded that, on the whole, its EQ program is adequate and has been properly implemented. However, the existence of these issues indicates that improvements can be made, particularly with respect to engineering activities related to EQ. As discussed in Attachment A to letter U-601477, IP has initiated a long-term program to upgrade its EQ program in this area.

IP is not contesting the proposed civil penalty. Please find enclosed a check for \$75,000 in payment of the proposed civil penalty. Should you have any questions regarding this response, please call me or Dale Holtzscher, Acting Manager - Licensing and Safety.

Sincerely yours,



D. P. Hall
Senior Vice President

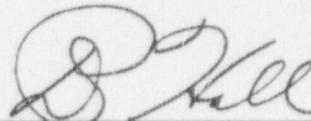
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Attachments

cc: Regional Administrator Region III, USNRC
NRC Clinton Licensing Project Manager
NRC Resident Inspector
Illinois Department of Nuclear Safety

STATE OF ILLINOIS
COUNTY OF DEWITT

DONALD P. HALL, being first duly sworn, deposes and says: I am Senior Vice President of Illinois Power Company. The foregoing Response to Notice of Violation and Proposed Imposition of Civil Penalties (Letter No. U-601504), dated August 8, 1989, and the attached Reply to Notice of Violation and Answer to Proposed Imposition of Civil Penalties (Attachment A to Letter No. U-601504), were prepared under my supervision and direction. I know the contents thereof, and to the best of my knowledge and belief the facts contained therein are true and correct.



Donald P. Hall

Dated: August 8, 1989

Subscribed and sworn to
before me this 8 day
of August, 1989


Notary Public

My Commission Expires:

"OFFICIAL SEAL"
Debra L. Bean
Notary Public, State of Illinois
My Commission Expires 10/1/90

ATTACHMENT A

Illinois Power Company's Reply to Notice of Violation
and Proposed Imposition of Civil Penalties (EA 89-59)

The Notice of Violation and Proposed Imposition of Civil Penalties (Notice of Violation) identifies two alleged violations. First, it describes two alleged examples of violations of 10 CFR Part 50, Appendix B, Criterion XVI. These examples concern: (1) Kynar electrical butt splices; and (2) electrical junction boxes. Second, the Notice of Violation describes five alleged examples of violations of 10 CFR 50.49(f). These examples concern: (1) hydrogen igniters; (2) instrument racks; (3) safety relief valve solenoids; (4) a standby gas treatment damper assembly; and (5) Conax electrical penetration enclosures. Illinois Power Company's (IP) reply pursuant to 10 CFR 2.201 is organized into seven sections, each corresponding to one of the cited examples. Within each of these sections, the specific issues required to be addressed by 10 CFR 2.201, the Notice of Violation, and the accompanying cover letter are addressed.

I. Kynar Electrical Butt Splices

The Notice of Violation states in part:

"Contrary to [10 CFR Part 50, Appendix B, Criterion XVI], the licensee failed to assure that conditions adverse to quality, including nonconformances, were promptly identified and corrected after an NRC inspection identified significant environmental qualification (EQ) deficiencies Specifically, an NRC inspection conducted on February 6 through March 3, 1989, determined that the licensee's corrective action program had failed to identify six additional unqualified Kynar butt splices."

This item was discussed in NRC Inspection Report No. 50-461/89006 (DRS).

A. Admission or Denial of the Violation

IP admits that this item occurred as stated in the Notice of Violation.

B. Reason for the Violation

The six unqualified Kynar butt splices were not identified due to personnel error during a walkdown/rework program conducted in 1987. Since the walkdown/reinspection program encompassed 435 components, the six unqualified butt splices represents an error rate of approximately 1%, indicating that the walkdown/rework program was, in general, properly implemented. In five of the six cases, the component in question had been subject to walkdowns for unqualified butt splices, but the splices were not detected by the Nuclear Station Engineering Department (NSED) personnel and maintenance electricians who performed the walkdowns. In the remaining case, a maintenance service contractor supervisor and a quality control (QC) inspector indicated that rework was completed for a component containing an unqualified butt splice; however the rework had not been completed.

A contributing factor to these errors was the assignment of personnel from the then-recently reorganized NSED to head a walkdown/rework program that crossed many organizational boundaries. Additionally, in retrospect, training of personnel should have been more specific and documentation should have been more detailed to reflect the actual conditions that would be encountered in the field.

C. Steps Taken to Correct the Problem and Results Achieved

Following IP's identification of unqualified butt splices in December 1988, IP conducted reinspections from December 1988 to March 1989 of the 435 components within the 1987 walkdown/rework program, plus an additional 220 components to ensure that the scope of the 1987 program was conservative. The total of 655 components encompassed the components that engineering determined could contain a butt splice based upon a review of specifications. The six unqualified butt splices identified following these reinspections were repaired using Raychem heat shrink tubing or Okonite tape, resulting in a configuration that is qualified. Additionally, as is discussed in Attachment D (Subjects 11, 12, and 14) to IP letter U-601477 to NRC, dated June 30, 1989, IP performed additional reviews and inspections in April and May 1989 of devices required to operate in a 100% Relative Humidity (RH) environment. As a result of these reviews

and inspections, additional unqualified butt splices were identified. Most of the unqualified butt splices identified were not within the scope of reinspections performed in January through March 1989. IP performed the necessary reviews to identify similar unqualified butt splices, and these devices have been reworked with Raychem heat shrink tubing or Okonite tape, resulting in a configuration that is qualified.

D. Corrective Steps to Avoid Further Violation

To ensure proper documentation of the completion of activities, appropriate QC, maintenance, and NSED personnel have received training on the need for attention to detail and the need to ensure timely and accurate completion of documentation. Additionally, NSED has been reorganized in order to enhance its expertise and ability to head projects such as the 1987 walkdown/rework program. In particular, a separate design division has been established and personnel have received training in their new responsibilities. Supervisors have also received training in identifying root cause of concerns, and an increased emphasis has been placed on critiques of concerns. Finally, a corrective action board (composed of the managers of Plant Staff, NSED, Licensing and Safety, Quality Assurance, and Nuclear Planning and Support) has also been established which reviews corrective action plans for significant issues. Other relevant actions are discussed in Attachment A to IP letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

II. Electrical Junction Boxes

The Notice of Violation states in part:

"Contrary to [10 CFR Part 50, Appendix B, Criterion XVI] the licensee failed to assure that conditions adverse to quality, including nonconformances, were promptly identified and corrected after an NRC inspection identified significant environmental qualification (EQ) deficiencies Specifically, an NRC inspection conducted on February 6 through March 3, 1989, determined that the licensee's corrective action program had failed to identify . . . 15 junction boxes inside containment that were not provided with required weep holes."

This item was discussed in NRC Inspection Report No. 50-461/89006 (DRS).

A. Admission or Denial of the Violation

IP denies this violation.

During an inspection in August 1987, the NRC identified a violation at the Clinton Power Station (CPS) involving a junction box that did not contain a weep hole. The junction box in question contained a terminal block that had been demonstrated to be qualified in junction boxes with weep holes but not in junction boxes without weep holes. The absence of the weep hole in the junction box at CPS was attributable to the constructor, who had failed to install the required weep hole due to unclear installation specifications.

The absence of the weep hole in the junction box was designated as a violation of 10 CFR 50.49. This violation was documented in the NRC Inspection Report 50-461/87026 and was subsequently the subject of NRC Enforcement Action (EA) 88-90.

In response to this violation, IP conducted a walkdown to identify all junction boxes with terminal blocks that lacked required weep holes. A total of 156 such boxes were identified, and a weep hole was drilled in each box. This work was completed by November 12, 1987.

In February 1989, the NRC conducted a followup inspection (50-461/89006) to close the violation involving the weep holes. During this inspection, the NRC identified several junction boxes in high energy line break areas that did not have weep holes. These junction boxes were not encompassed within the scope of the walkdown and repairs completed in November 1987 because they did not contain terminal blocks. Due to the absence of weep holes in these junction boxes, the NRC questioned whether Okonite cable, Okonite tape splices, and Kapton leads contained in the boxes were qualified under a postulated condition of submergence.

IP believes that the junction boxes that do not contain terminal blocks do not require weep holes to provide protection against submergence. The junction boxes are above the flood level resulting from a design basis accident. Therefore, in accordance with the provisions of 10 CFR 50.49 and

NRC guidance, this equipment is not required to be qualified for submergence. Specifically:

- ° 10 CFR 50.49 states that the qualification of electrical equipment shall be qualified for "Submergence (if subject to being submerged)."
- ° NUREG-C588, Rev. 1, "Interim Staff Position on Environmental Qualification of Safety Related Electrical Equipment (July 1981) states that "Equipment should be located above flood level or protected against submergence by locating the equipment in qualified watertight enclosures. . . . Where equipment could be submerged, it should be identified and demonstrated to be qualified by test for the duration required."
- ° IE Bulletin No. 79-01B, "Environmental Qualification of Class IE Equipment" (January 14, 1980) required licensees to provide information demonstrating the qualification of electrical equipment for accident conditions, including submergence. In this regard, IE Bulletin 79-01B only required licensees to "Identify the maximum flood level inside the primary containment resulting from postulated accidents," and to identify the qualification method for equipment below flood level.
- ° The DOR Guidelines, "Guidelines for Evaluating Qualification of Class IE Electrical Equipment in Operating Reactors (Nov. 13, 1979), states that "The preferred method of protection against the effects of submergence is to locate equipment above the water flooding level."

Despite these provisions, NRC Inspection Report No. 50461/89006 postulates that water could accumulate and submerge the Okonite cable splices, Okonite tape, and Kapton leads in the junction boxes as a result of: 1) the introduction of steam through the unsealed boxes and the condensation of this steam, and 2) the introduction of spray into the boxes (either through the conduit or the unsealed covers). Submergence from such sources is unrealistic for the following reasons:

- ° The junction boxes are not watertight; however, the internals of the junction boxes are not directly open to the environment. Therefore, the amount of spray that could enter the junction boxes would be minimal. Similarly, the amount of steam that would condense in the junction boxes prior to the time the junction boxes reach the saturation temperature of the steam would be insignificant. Consequently, while the contents of the junction box may be wetted, the amount of water that could accumulate in the junction boxes would be insufficient to submerge the contents of the junction boxes.
- ° Even if a significant amount of water were assumed to be introduced into a junction box, submergence of the contents of the junction box would not necessarily result. Because the junction boxes are not watertight, any accumulated water would tend to leak out of the box, resulting at most in only a brief period of wetting of the contents of the junction box.

Thus, it is unrealistic to assume either that significant amounts of water would enter a junction box as a result of a design basis accident or that such water would result in submergence of the contents of the junction box for any significant period of time. Therefore, in accordance with NRC practice and guidance and standard industry practice, this equipment need not be qualified for submergence. Nevertheless, the Okonite cable, Okonite tape splices, and Kapton leads in the junction boxes at CPS are qualified for submergence as discussed in detail in IP letter U-601416 to NRC, dated April 1, 1989. In summary, these items have been subjected to qualification tests conducted in accordance with IEEE 323-1974. These tests have demonstrated the qualification of these types of items for the types of conditions to which they may be exposed as a result of a Loss of Coolant Accident (LOCA). Furthermore, long-term submergence tests on Okonite Tefzel cable and a cable with the same class of insulation as Okonite EPR cable have demonstrated the qualification of Okonite cable for submergence. Finally, qualification tests for Kapton leads, Okonite tape splices, and the types of cable commonly used in the industry demonstrate that temperature (not submergence) is the critical variable in determining the performance of the items. Thus, test data demonstrate that conditions involving submergence are bounded by

the more severe LOCA conditions for which these items have been qualified. Therefore, these items are qualified for both submergence and LOCA conditions.

Because items located above flood level are not required by 10 CFR 50.49 or NRC guidance to be qualified for submergence, and because Okonite cable and tape splices and Kapton leads have been demonstrated by IP to be qualified for submergence, IP does not consider the absence of weep holes in the 15 junction boxes to be a violation.

B. Reason for the Condition Described

IP did not believe that these junction boxes required weep holes because they did not contain terminal blocks and were above the flood level resulting from a design basis accident.

C. Steps Taken to Correct the Problem and Results Achieved

Weep holes have been drilled into the electrical junction boxes identified in NRC Inspection Report 50-461/89006.

D. Corrective Steps to Avoid Further Violation

As discussed in Attachment D (Subjects 7, 8, 9, and 14) to IP letter U-601477 to NRC, dated June 30, 1989 and IP letter U-601422 to NRC, dated April 14, 1989, IP has performed reviews for devices required to operate in 100% RH environments that could contain Okonite tape splices and for EQ end-use devices required to operate in harsh environments to ensure their qualification for submergence. As necessary, IP has taken action either to protect these devices against water intrusion, drill weep holes in these devices, or replace Okonite tape splices with qualified Raychem heat shrink tubing. Additionally, IP has taken action to strictly control the use of Okonite tape splices in maintenance activities or design modifications, and has developed standard inspection criteria and provided training to ensure that personnel are alert to any devices with Okonite tape splices or junction boxes without weep holes. Other relevant actions are discussed in Attachment A to IP letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

III. Hydrogen Igniters

The Notice of Violation states in part:

"Contrary to [10 CFR 50.49(f)], as of April 20, 1989, the following equipment important to safety was not qualified in that:

1. The field connections for 95 of the 116 hydrogen igniters had unqualified taped splices."

This item was discussed in NRC Inspection Report No. 50-461/89014 (DRP).

A. Admission of Denial of the Violation

IP admits that this item occurred as stated in the Notice of Violation.

B. Reasons for the Condition Described

The EQ package for the hydrogen igniters required the use of Raychem heat shrink tubing for hydrogen igniter terminations. However, in response to a Nonconforming Material Report (NCMR) in January 1986, the reviewing engineer inappropriately permitted the use of Okonite tape for the hydrogen igniter terminations, and this decision was incorrectly accepted by reviewers. This disposition of the NCMR was inappropriately based upon a Field Change Request (FCR) that permitted the use of Okonite tape splices for certain components, not including the hydrogen igniters (which utilize wire with insulation that is incompatible with Okonite tape).

C. Steps Taken to Correct the Problem and Results Achieved

IP reviewed the hydrogen igniter construction installation and inspection documents (travellers) to identify any hydrogen igniter terminations insulated with Okonite tape, and then replaced the Okonite tape with Raychem heat shrink tubing. Additionally, for those travellers that indicated that Raychem heat shrink tubing had been installed on hydrogen igniter terminations during construction, IP reviewed maintenance-related

documents to verify that Okonite tape was not used during subsequent maintenance of the hydrogen igniter terminations.

There are 115 hydrogen igniters (plus one spare) at CPS. IP's review of travellers and maintenance-related documents identified 96 hydrogen igniters with terminations which could not be verified as containing Raychem heat shrink tubing. Ninety-five of these hydrogen igniters were reworked with Raychem heat shrink tubing. With respect to the remaining hydrogen igniter, a Baldwin Associates (BA) QC inspector had incorrectly documented the use of Okonite tape in a hydrogen igniter which in fact contained Raychem heat shrink tubing.

D. Corrective Steps to Avoid Further Violation

IP reviewed EQ packages to identify other components that were environmentally qualified with Raychem heat shrink tubing. IP also reviewed a sample of work documents and/or inspected a sample of the components identified to verify that Raychem heat shrink tubing was used as required by the EQ packages. As a result of this review, IP did not identify any other devices that did not contain Raychem heat shrink tubing as required, except for the solenoid valves discussed in Section V. below.

IP also reviewed environmentally qualified vendor-supplied end use devices with cable pigtailed in a 100% RH environment to verify that the cable pigtail insulation is compatible with the insulation material of the splice installed during construction. As a result of this review, it was determined that the insulation of the pigtailed was compatible with the insulating material of the splices. Other relevant actions are discussed in Attachment A to IP letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

IV. General Electric Instrument Racks

The Notice of Violation states in part:

"Contrary to [10 CFR 50.49(f)], as of April 20, 1989, the following equipment important to safety was not qualified in that:

2. Numerous instrument circuits affecting multiple safety systems landed on terminal blocks on General Electric instrument racks inside of containment were not analyzed for leakage current."

This item was discussed in NRC Inspection Report No. 50-401/89014 (DRP).

A. Admission or Denial of the Violation

IP admits that the General Electric instrument racks were not adequately qualified. Qualification tests (including analysis for leakage current) were performed for the General Electric instrument racks; however, as discussed below, the humidity and temperature conditions during these tests did not bound the temperatures and humidity conditions postulated for CPS under design basis accident conditions.

B. Reasons for the Condition Described

The test conditions specified in the EQ test reports for terminal strips which connect H22 instrument circuits in junction boxes on panels supplied by General Electric (GE) did not bound the environmental conditions to which the terminal strips may be subjected during design basis accident conditions in their installed location at CPS. In particular, the test reports did not provide conclusive evidence demonstrating that the terminal strips were covered with moisture during the test because the test was conducted at 97% RH. Additionally, the test temperatures for high humidity conditions did not bound the temperatures at high humidities postulated for CPS. As a result, the leakage current test data did not exist for terminal strips covered with moisture at the postulated temperatures for CPS. Initial review of the qualification test did not identify this condition.

C. Steps Taken to Correct the Problem and Results Achieved

IP replaced the terminal strips in the junction boxes containing EQ circuits on the GE panels in question with spliced connections insulated with Raychem heat shrink tubing.

D. Corrective Steps to Avoid Further Violation

IP reviewed EQ instrumentation circuits to identify locations where terminal strips are utilized to connect instrumentation cables in 100% RH environments, and IP verified the acceptability of the associated EQ packages for these applications. IP completed this review and did not identify any additional unqualified terminal strips for instrument cables required to operate in 100% RH environments (other than terminal strips in electrical penetrations, which are discussed in Section VII below). Other relevant actions are discussed in Attachment A to IP letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

V. Safety Relief Valve Solenoids

The Notice of Violation states in part:

"Contrary to [10 CFR 50.49(f)], as of April 20, 1989, the following equipment important to safety was not qualified in that:

3. The ASCO solenoid valves associated with 16 main steam safety relief valves had unqualified connectors."

This item was discussed in NRC Inspection Report No. 50-461/89014 (DRP).

A. Admission or Denial of the Violation

IP admits that this item occurred as stated in the Notice of Violation.

B. Reasons for the Condition Described

Cannon plug connectors utilized on the terminations of the Eugen Seitz solenoid operated air pilot valves for the main steam safety relief valves (SRVs) were not covered with Raychem heat shrink tubing as indicated in the SRV environmental qualification package. The vendor (NUTECH) performed the environmental qualification of the SRV with a Raychem heat shrink sleeve but did not identify that the Raychem heat shrink sleeve was a design requirement needed to meet environmental qualification of the SRV. Because NUTECH failed to identify this design requirement,

the Raychem heat shrink sleeve was not installed at CPS. (Note: this was the only EQ service provided by NUTECH for CPS.)

C. Steps Taken to Correct the Problem and Results Achieved

IP installed Raychem heat shrink tubing on the Cannon plug connectors utilized on the SRV solenoid terminations. IP also revised the vendor manual for the SRVs to require the installation of Raychem heat shrink tubing over the Cannon plug connectors.

D. Corrective Steps to Avoid Further Violation

Sargent and Lundy Engineers (S&L) reviewed EQ packages for components with a connector-type assembly. As a result of this review, S&L identified four types of components (including the Eugen Seitz solenoid valves) for which the EQ packages required installation of Raychem heat shrink tubing over the connectors in the components. With the exception of the solenoid valves, design documents for these components required the installation of Raychem heat shrink tubing for the connectors in these components, and inspections or document reviews verified that Raychem heat shrink tubing was installed on these components. Other relevant actions are discussed in Attachment A to IP Letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

VI. Standby Gas Treatment Damper Assembly

The Notice of Violation states in part:

"Contrary to [10 CFR 50.49(f)] as of April 20, 1989, the following equipment important to safety was not qualified in that:

4. One standby gas treatment system train A reactor water cleanup pump room damper assembly was not qualified for the postulated humidity condition."

This item was discussed in NRC Inspection Report No. 50-461/89014 (DRP).

A. Admission or Denial of the Violation

IP admits that this item occurred as stated in the notice of violation.

B. Reasons for the Condition Described

Limit switches on the actuator for a damper assembly located in a harsh environment were qualified for high radiation environments but not for 100% RH. The limit switches were not environmentally qualified for 100% RH because the engineer who initially designated the EQ classification for the damper assembly relied on an incorrect drawing to identify the boundary between adjoining EQ zones.

C. Steps Taken to Correct the Problem and Results Achieved

IP installed an Electrical Conduit Seal Assembly (ECSA) on the limit switches for the actuator damper in order to qualify them for 100% RH environment.

D. Corrective Steps to Avoid Further Violation

S&L reviewed the environmental zone maps in the CPS Updated Safety Analysis Report (USAR), Figures 3.11-1 through 3.11-15 and 3.11-25. Deficiencies were identified in three zone boundaries in these maps. However, these deficiencies in the zone boundaries adversely affected the qualification of only one EQ component, which is the damper assembly. Corrected USAR environmental zone maps will be submitted to the NRC in connection with the next USAR revision. Other relevant actions are discussed in Attachment A to IP letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

VII. Conax Electrical Penetration Enclosures

The Notice of Violation states in part:

"Contrary to [10 CFR 50.49(f)], as of April 20, 1989, the following equipment important to safety was not qualified in that:

5. Some Conax electrical penetration enclosures were installed in an unqualified condition that would allow containment spray to impinge

on terminal blocks having instrument and control circuits."

This item is discussed in NRC Inspection Report No. 50-461/89014 (DRP).

A. Admission or Denial of the Violation

IP admits that this item occurred as stated in the Notice of Violation.

B. Reason for the Violation

Personnel reviewing the EQ package for the terminal strips incorrectly determined that the saturated steam test performed for the terminal strips bounded conditions involving spray. Therefore, the electrical penetration enclosures were not designed to provide protection against containment spray.

C. Steps Taken to Correct the Problem and Results Achieved

IP has replaced the terminations in the top entry penetration for Division III instrumentation with Raychem-insulated splices, has sealed the cable entry and caulked the penetration enclosure for the top-entry penetration for Division I instrumentation, and has caulked the penetration enclosures for the remaining instrumentation penetrations. Therefore, the electrical penetrations for instrumentation have been modified in order to protect them against or qualify them for spray.

D. Corrective Steps to Avoid Further Violation

S&L reviewed Class 1E equipment potentially subject to spray. As a result of this review, S&L determined that equipment that is potentially subject to spray and that is required to perform a safety function in a spray environment has been tested for spray, except for electrical penetrations for control and instrumentation circuits, and the terminal strips for the GE H22 panels. As discussed in item IV above, the terminal strips in the H22 instrumentation panels have been replaced with spliced connections insulated with Raychem heat shrink tubing and therefore are qualified for spray. Additionally, the electrical penetrations for control circuits have been modified to protect them against spray. Other relevant actions are discussed in Attachment A to IP letter U-601477, dated June 30, 1989.

E. Date When Full Compliance Will Be Achieved

IP is currently in compliance.

Additionally, IP has committed to replacing the terminal blocks in the remaining instrumentation circuits of electrical penetrations with qualified splices prior to startup from the second (next) refueling outage at CPS.