



Carolina Power & Light Company

Brunswick Nuclear Project
P. O. Box 10429
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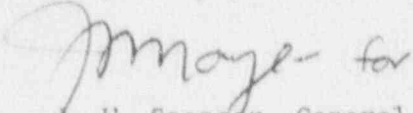
BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
REPLY TO A NOTICE OF VIOLATION

Gentlemen:

The Brunswick Steam Electric Plant (BSEP) has received NRC Inspection Report 50-325/91-02 and 50-324/91-02 and finds that it does not contain information of a proprietary nature. This report included a Notice Of Violation.

Enclosed is Carolina Power & Light Company's response to that Notice Of Violation.

Very truly yours,


J. W. Spender, General Manager
Brunswick Nuclear Project

WRT/

Enclosure

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BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324
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REPLY TO A NOTICE OF VIOLATION

VIOLATION A

Technical Specification 6.8.1.a requires that written procedures be established, implemented and maintained for applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November 1972.

Section I.1 of Regulatory Guide 1.33 requires that maintenance, which can affect the performance of safety-related equipment, should be performed in accordance with written procedures appropriate to the circumstances.

Valcor Operation and Maintenance Manual No. 148170002, for model V526-5891-30, FP-81909, Revision B, page 71, Section I.a, specifies that Dow Corning (DC-55M) not be used on silicone O-rings.

Contrary to the above:

OCM-SV001, Valcor Direct Operating Solenoid Valves, V526-5683 and V526-5891 Series, Corrective Maintenance Instruction, Revision 4, was inadequate in that it allowed the use of DC-55M, a silicone grease, on silicone O-rings, in safety-related Valcor solenoid valves.

This is a Severity Level IV violation.

Reference: Report nos. 50-325/91-02 and 50-324/91-02.

RESPONSE

Admission of the Violation

Carolina Power and Light (CP&L) admits that Violation A occurred as stated above.

Reason for the Violation

The reason for the violation was failure to incorporate vendor changes into the maintenance procedure(s) in a timely manner. Revision "A" to the Technical Manual recommended use of Dow Corning (DC-55M) on O-rings (none specific). Revision "B", received April 11, 1989, modified this recommendation to specify use of other lubricants on O-rings. The Maintenance Procedure group is responsible for reviewing "change" documents and assuring the changes are included in procedures as applicable. Some of these are; Plant Modifications, Direct Replacements, FSAR revisions, Equipment Decommissioning Packages, Technical Manual changes, etc. Experience has shown that Plant Modifications, Direct Replacements, FSAR revisions and Equipment Decommissioning Packages have a significant impact on existing procedures. This same historical

perspective has shown that approximately 91% of the Technical Manual changes, received to date, have had no impact on existing maintenance procedures. In an attempt to effectively utilize personnel resources, Technical Manual change reviews had been given a lower priority.

Corrective Actions Which Have Been Taken

The following Corrective Maintenance Instructions, that had erroneous O-ring lubrication information, have been revised to provide updated guidelines for lubrication of O-ring seals in accordance with Valcor recommendations:

1. OCM-SV001, Valcor Direct Operating Solenoid Valves, V526-5683 and V526-5891 Series.
2. OCM-SV002, Valcor Modulating Solenoid Valves, Models V526-6540-1, V526-6540-2, and V526-6500-3.
3. OCM-SV501A, Valcor Series V526-5683 Normally Closed Solenoid Valves.
4. OCM-SV502, CM For Valcor Series V526-6500 and V526-6540 Modulating Solenoid Valves.

In addition to the above changes, Technical Manual reviews have been placed on a higher priority in order to incorporate vendor changes in a more timely manner.

Also, O-rings have been replaced, and valves cleaned, on the Unit 1 valves that had the incorrect lubricant applied.

A Technical Support Memorandum (TSM-91-096), dated February 13, 1991, provided a preliminary assessment and determination that no operability concern existed. This assessment concluded that any detrimental effect would be insignificant.

Corrective Action To Be Taken

O-rings will be replaced, and valves cleaned, on the Unit 2 valves that may have had the incorrect lubricant applied. This will occur during the upcoming Refueling Outage scheduled to commence on September 7, 1991. It is expected the O-rings will be replaced by December 1, 1991.

An Engineering Evaluation Report (EER 91-0112) is being written to incorporate additional laboratory testing data and to formalize the operability assessment that was performed on February 13, 1991. EER 91-0112 is expected to be completed by May 10, 1991.

Date Of Full Compliance

CP&L considers the revision to OCM-SV001 to include the

updated guidelines for lubrication of O-ring seals in accordance with Valcor recommendations ensures full compliance with Technical Specification 6.8.1.a and Valcor Operation And Maintenance Manual No. 148170002, for model V526-5891-30, FP-81909, Revision B. In addition, Corrective Maintenance Instructions OCM-SV002, OCM-SV501A and OCM-SV502 have been revised to provide updated guidelines for lubrication of O-ring seals in accordance with Valcor recommendations.

VIOLATION B.1

10CFR50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above:

Activities affecting quality were not properly prescribed by documented instructions, in that instructions to install valve stem packing were not included in Direct Replacements 87-0196, 88-0340, and 88-0341 for replacement of valves 1-E11-V96, 1-E11-V90, and 1-E11-V89, respectively. For 1-E11-V89, this led to radioactive contamination of a maintenance technician's clothing when the valve was opened on January 22, 1991.

This is a Severity Level IV Violation.

Reference: Report nos. 50-325/91-02 and 50-324/91-02.

RESPONSE

ADMISSION OF THE VIOLATION

CP&L admits that Violation B.1 occurred as stated above.

REASON FOR THE VIOLATION

Several years ago maintenance management decided that it would be a good practice to install new packing, of known and preferred design, in new valves prior to plant installation. Recognizing this philosophy, many new valves were purchased without stem packing, for economic reasons. This practice of repacking (or packing) new valves was not proceduralized. Therefore, it was left up to individual Planner/Analysts to determine whether to include packing instructions when planning replacements with new valves.

The three Conval globe drain valves (1-E11-V96, 1-E11-V90, 1-E11-V89) being installed and left unpacked stemmed from this

unwritten repack policy. Since this "repack prior to installation" policy was not proceduralized, nor well-enough promulgated, and the need to pack a valve because of the way it was purchased is not always evident during the planning process, it was not a routine function for all Planner/Analysts to include repack (or packing) instructions on valve replacement Work Request/Job Orders (WR/JOs).

CORRECTIVE ACTIONS WHICH HAVE BEEN TAKEN

Drain valves 1-E11-V89 and 1-E11-V90 were packed under WR/JOs 91-ABKB1 and 91-ABPT1 respectively, on January 26, 1991. Drain valve 1-E11-V96 was packed under WR/JO 91-ADDA1 on February 17, 1991.

On January 28, 1991, an Adverse Condition Report (ACR B91-051) was generated by maintenance personnel to identify the cause of the incident and establish appropriate corrective actions. Early in the investigation, it also became apparent that Post Maintenance Testing Requirements (PMTR) for 1-E11-V89 & 90 had not adequately been met following installation (see Violation B.2). Included in the scope of the ACR investigation was a review of valves replaced by Direct Replacements WR/JOs over the past two refueling outages on both Units 1 and 2. One additional valve (1-E11-V96) was found without packing installed. Since the unpacked valves resulted from Direct Replacements, the implementation of Direct Replacements was suspect. Field inspections of those valves determined to be suspect, as a result of the WR/JO reviews, were then performed. Suspect valves were examined by a qualified mechanic to determine, by visual observation and feel of the packing follower (where possible), if stem packing was installed. No additional valves were found without stem packing.

CORRECTIVE ACTION TO BE TAKEN

ACR B91-051 will be reviewed in Mechanical Maintenance Continuing Training. This training is expected to be completed by July 30, 1991.

Maintenance Management Manual, titled, "Corrective Maintenance (Automated Maintenance Management System)", OMMM-003, will be revised to specify required instructions on valve replacement WR/JOs during the planning process. This revision is expected to be completed by July 30, 1991.

DATE OF FULL COMPLIANCE

CP&L expects that by July 30, 1991, the revision to OMMM-003 will ensure full compliance with 10CFR50, Appendix B, Criterion V.

Violation B.2

10CFR50 Appendix B, Criterion V, Instructions, Procedures, and Drawings, requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above:

Instructions for determining that important activities have been satisfactorily completed did not include appropriate quantitative or qualitative acceptance criteria in that post maintenance testing requirements for the Direct Replacements of valves 1-E11-90 and 1-E11-V89 did not provide sufficient detail for the individuals accomplishing the tests. This resulted in the attachment welds downstream of 1-E11-V89 not being properly tested on March 22, 1989.

This is a Severity Level IV Violation.

Reference: Report nos. 50-325/91-02 and 50-324/91-02.

RESPONSEADMISSION OF THE VIOLATION

CP&E admits that violation B.2 occurred as stated above.

REASON FOR THE VIOLATION

The reason for the violation was that appropriate controls to ensure adequate leak testing were not established. Specifically, there was a lack of awareness regarding the actual testing requirements (particularly ANSI B31.1) and what plant system configuration was needed to support the prescribed Post Maintenance Testing Requirements (PMTR).

CORRECTIVE ACTIONS WHICH HAVE BEEN TAKEN

Special Processes Procedure, OSPP-HYDRO501, titled, "ANSI B31.1 Initial Service Test For Welded And Mechanical Joints" has been implemented. This procedure delineates the specific testing and system configuration necessary to satisfy ANSI B31.1 PMTRs.

Retesting of Direct Replacement Valves 1-E11-V89 and 1-E11-V90 was performed, in accordance with OSPP-HYDRO501, on April 9, 1991.

As identified within the response to ACR B91-051, OSPP-HYDRO501 Data Sheets were attached to the 1990-91, Unit 1,

Refueling Outage Direct Replacement WR/JOs that were pending (open PMTRs) testing at the time the new procedure was implemented. A review of the closed out PMTRs from the Unit 1, 1990-91, Refueling Outage identified four valves (1-E11-V61, V62, V63, V64) as needing retest. OSPP-HYDRO501 was performed on these valves thus satisfying the outstanding ANSI B31.1 leak test concerns for the 1990-91, Unit 1, Refueling Outage Direct Replacements.

Engineering Evaluation Reports (EERs) have been written to evaluate the potential inadequate leak testing of vent and drain valve replacements as a result of the attachment welds downstream of 1-E11-V89 not being properly tested. EERs 91-0059 and 91-0060 for Units 1 and 2, respectively, addressed the Reactor Coolant Pressure Boundary (RCPB). The evaluations concluded that the integrity of the RCPB has not been compromised. A similar evaluation for inadequate testing of components outside of the RCPB was addressed by EER 91-0062.

CORRECTIVE ACTION TO BE TAKEN

Improved guidance with respect to determination and conduct of PMTRs will be developed by August 19, 1991.

Further ANSI B31.1 required leak testing of potentially untested valve replacements (1988-90) that have been identified will be performed on Unit 2 during the upcoming Refueling Outage scheduled to commence on September 7, 1991. It is expected the PMTRs for the Unit 2 valves will be completed by December 1, 1991. Required leak testing of potentially untested valve replacements (1988-89) on Unit 1 will be performed during the next Refueling Outage scheduled to commence on April 4, 1992. It is expected the PMTRs for the Unit 1 valves will be completed by July 1, 1992.

DATE OF FULL COMPLIANCE

CP&L considers the implementation of OSPP-HYDRO501 on February 15, 1991, ensures full compliance with 10CFR50, Appendix B, Criterion V, by providing clear acceptance criteria and a means for specifying system testing configuration.