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U-602843
4F.190

September 30, 1997

Docket No. 50-461

Document Control Desk
Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Revision to Reply to a Notice of Violation
Contained in Inspection Report 50-461/97006 (DRP)

Dear Madam or Sir:

This letter is being submitted to revise Illinois Power's (IP) response to Notice of Violation contained (provided) in IP letter U-602760, dated June 16, 1997. A commitment in response to violation 97006-05 is being revised to more accurately describe IP's corrective action. Specifically, all freeze seals at Clinton Power Station (CPS) will be performed by freeze seal specialty companies until site personnel are properly trained.

Attachment A of this letter contains the revised response to violation 97006-05 concerning the use of an inadequate procedure for freeze seals. Revision to this response is indicated by either bracketed wording or revision bars in the right-hand margin of this letter.

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This letter contains the following commitments:

- Training on freeze seals will be revised to include practical and classroom training. The training will include information on industry events, including the event at CPS discussed in this response. Site personnel performing freeze seal activities will be required to receive this training prior to beginning such work.

- Until a revised freeze seal training plan is developed and site personnel are qualified to the revised lesson plan, IP will rely on freeze seal specialty companies to perform freeze seals at CPS in accordance with approved CPS procedures.

Sincerely yours,

Wayne D. Romberg
Assistant Vice President

JRF/krk

Attachments

cc: NRC Clinton Project Manager
Branch Chief, Region III, USNRC
NRC Resident Office, V-690
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety

Revised Response to Notice of Violation 50-461/97006-05

The Notice of Violation states in part:

> "10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances.
>
> Contrary to the above, on November 11, 1996 freeze seals were installed on a portion of the reactor coolant system boundary, an activity affecting quality, using CPS Procedure 8208.01, "Freeze Seals," revision 9, a procedure which was not appropriate to the circumstances."

Background and Reason for the Violation

Maintenance Work Request (MWR) D60031 was initiated on April 20, 1995, to resolve seat leakage on valves 1B33F051A and 1B33F052A on the B Reactor Recirculation (RR) loop drain line. The resolution for the leaking valves was replacement. A freeze seal was required to isolate these valves on the drain line in order to remove them. The process for the freeze seal task was provided in the MWR and maintenance procedure CPS 8208.01, "Freeze Seals." Prior to installation of the freeze seal, an engineering analysis and a 10CFR50.59 safety evaluation screening was completed as required by the MWR, and a pre-job brief was held with the Radiation Protection Shift Supervisor, Shift Resource Manager, Operations Shift Supervisor, repairmen and the drywell coordinator to discuss the specifics of the job and a contingency plan if the seal failed.

The initial freeze plug did not completely form in the pipe due to the elevated temperature of the RR drain line and did not stop flow through the line. After discussion with the Group Leader, Mechanical Maintenance repairmen decided to install a second freeze seal jacket next to the first jacket to help achieve the seal. The MWR identified only one freeze seal to be installed. The second freeze seal completely froze the water in the line allowing the valves to be replaced.

When the decision was made to apply a second freeze seal jacket, engineering was not contacted to evaluate the use of a second freeze seal; the engineering analysis and safety evaluation screening had evaluated installation of a single freeze plug. Mechanical Maintenance did initiate a second checklist, CPS 8208.01C001, "Freeze Seal Checklist," for the second freeze seal jacket. The first freeze seal checklist was referenced on the second freeze seal checklist. Maintenance procedure CPS 8208.01 [does] did not address the use of a second freeze seal jacket in this situation, but does identify the minimum distance from a closed valve or blinded pipe section and does identify that multiple freeze seals may be applied at different areas to isolate the component.

On February 24, 1997, a copy of a Licensee Event Report (LER) was received on the Nuclear Network describing an event of pipe deformation that occurred during a freeze seal application at the Diablo Canyon Power Plant. The LER identified that bulging of the pipe resulted from three freeze seal jackets being applied next to each other on the pipe. The bulging occurred at the spaces between the freeze seal jackets due to water being trapped there as the ice plugs formed. This information prompted Mechanical Maintenance to initiate a condition report and an inspection of the piping on the "B" RR loop drain line where the two freeze seals had been located.

The inspection identified that applying the two freeze seal jackets resulted in piping deformation (bulging) of approximately 0.040 inch where the freeze seal was applied. The deformation was not noticed at the time of the freeze seal work.

The cause of this violation is attributed to a lack of procedure guidance and inadequate training on freeze seal application. Maintenance procedure CPS 8208.01 [does] did not address the use of multiple freeze seals in a series.

Personnel applying the freeze seal felt that the application of two freeze seal jackets constituted one seal. They felt that this application would create a single ice plug. Maintenance procedure CPS 8208.01 [does] did not restrict the application of more than one freeze seal jacket.

Corrective Steps Taken and Results Achieved

The deformed piping on the "B" RR loop drain line was replaced.

A review was performed to determine if similar freeze seal incidents had taken place in the past. The review did not identify any other instances where two freeze seal jackets were attached adjacent to each other to form a freeze seal.

Since this incident, all personnel previously qualified to perform freeze seals at Clinton Power Station have been removed from the Task Certification Matrix. The freeze seal activity is currently contracted to a freeze seal vendor with Mechanical Maintenance assisting the activity.

Corrective Steps to Avoid Further Violations

Maintenance procedure CPS 8208.01 was reviewed against industry guidelines for freeze seals and revised to include guidance and limitations on use of more than one freeze seal plug in a line.

Training on freeze seals will be revised to include practical and classroom training. The training will include information on industry events, including the event at CPS discussed above. Site personnel performing freeze seal activities will be required to receive this training prior to beginning such work.

Until the freeze seal training plan is revised and site personnel are qualified to perform freeze seals, IP will rely on freeze seal specialty companies to perform seals at CPS in accordance with the vendor controls specified in CPS procedures.

Date When Full Compliance Will Be Achieved

CPS is in compliance with 10CFR50, Appendix B, Criterion V with regard to this issue.