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SUBJECT: Responds to NRC 880211 ltr re violations noted in Insp Rept
 50-263/87-13.

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March 14, 1988

Mr J J Harrison, Chief
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MONTICELLO NUCLEAR GENERATING PLANT
DOCKET NO. 50-263 LICENSE NO. DPR-22

Response to Inspection Report No. 50-263/87013(DRS)

The purpose of this letter is to provide our response to the individual items listed in the Notice of Violations forwarded to us with NRC Inspection report 50-263/85013(DRS) dated February 11, 1988.

VIOLATION

10 CFR 50.49 Paragraphs (f) and (g) require equipment important to safety to be qualified by testing and analysis prior to the EQ deadline of November 30, 1985.

Contrary to the above, the following equipment was not qualified by test and/or analysis for their installed conditions. In addition, appropriate maintenance activities were not specified in the licensee's qualification files as necessary to maintain the environmental qualification (EQ) of the equipment, and the licensee could not provide any evidence of having performed these activities.

- a. EQ report 0910-111-FR-14 for Limitorque operators states that the aging of lubricants is not a concern if regular inspection and replacement of lubricants is performed. Limitorque procedure LC8 indicates that the lubricant in the Limitorque main gear case and the limit switch compartment should be inspected and changed, if necessary, at 18 month intervals and 36 month intervals respectively. This procedure allows for extending these intervals if previous inspections have not identified any degradation of the lubricant. The inspectors observed that the lubricant in Limitorque Motor Operators 2012 and 2373 had not been inspected since 1984, and that the licensee could not provide evidence that prior inspections had been performed to identify any degradation of the lubricant. (50-263/87013-01(a)(DRS))

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- b. EQ report 0910-111-FR-33 page 21 of 42, paragraph 4.2.3, for Reliance Motors, requires lubricants to be examined on a periodic basis to identify any degradation and requires periodic maintenance procedures to include activities for surveillance and replacement of lubricants. The inspectors observed that this requirement was not identified in the licensee's EQ maintenance or preventative maintenance programs, and that there was no evidence that the licensee had performed such surveillance inspections. (50-263/87013-01(b)(DRS))
- c. During examination of RHR Pump Motor P-202B the inspectors observed that the installed motor lead junction box contained water and sludge, and that the cable and cable splices in the box were wet due to condensation in the conduit and drainage into the motor lead junction box. This condition was contrary to the tested conditions and installation requirements. (50-263/87013-01(c)(DRS))
- d. Mobilux EPO is used to lubricate the main gear case of Limitorque Operators at Monticello. The inspectors observed that the Limitorque EQ report 0910-111-FR-14 did not contain adequate test data to qualify the lubricant for radiation doses postulated during an accident at Monticello. The licensee's EQ documentation referenced certain industry tests but these tests were not contained in the file. (50-263/87013-01(d))

RESPONSE TO VIOLATION

Environmental qualification of safety related equipment is documented in Equipment Qualification Calculation Files. These files contain all equipment qualification maintenance requirements. These requirements are implemented by Preventative Maintenance procedures, work requests and special procedures.

During the NRC Inspection, several discrepancies were identified in the Equipment Qualification Calculation Files and the implementation of the maintenance required by these files, as discussed below (paragraph "a" refers to paragraph "a" in the violation, "b" to "b", etc.):

- a. Prior inspections of MO-2012 and MO-2373 had been performed at intervals (1981, 1984 and 1987) determined by plant experience. However, it is acknowledged that a documented analysis of the results of these inspections had not been done to justify the extension of inspection intervals beyond vendor recommendations.
- b. In general, the environmental qualification program identified environmental qualification maintenance requirements and not normal maintenance requirements. The periodic review of lubricants to identify degradation was considered normal preventative maintenance.

Normal preventative maintenance added lubricants to the Reliance Motors as necessary but did not specifically examine and document the condition of the lubricant.

- c. During examination of RHR Pump Motor P-202B water was found in the motor junction box. There was no water found in any of the other RHR or Core Spray motor junction boxes. The cables and splices were wet due to condensation but were not in contact or submerged in the water.

The cables and splices are qualified for much harsher environments than those found in the junction box of RHR Pump Motor P-202B. Both the 5KV HTK Kerite cable and the DT-8050 Kerite termination were qualified by Wyle report 45453-1 Rev. A, dated 5/20/81. During testing the cable and splice specimens were aged, irradiated, and then submerged and energized prior to LOCA simulation. During the LOCA simulation testing, the specimen temperature reached temperatures in excess of 420 °F and was subjected to 100% humidity and chemical spray. These testing conditions are more severe than the conditions projected to occur at Monticello (accident profile for this location is a peak temperature of 175.3 °F, 100% humidity and no chemical spray).

However, the water in the junction box is contrary to the tested conditions and installation requirements. This condition has been evaluated and it has been concluded that long term continuous exposure to 100% relative humidity or submerged conditions at ambient temperatures will have no significant degradation or aging effects on the cable or terminations.

Based on the above, it is believed that the cable and splices would have functioned as required.

- d. Mobilux EPO is used to lubricate the main gear case of Limitorque motor operators at Monticello. The qualification of Mobilux EPO was addressed in Environmental Qualification Calculation File 0910-111-FR-14. This Environmental Qualification Calculation File referred to results from industry testing to demonstrate qualification. The referenced industry testing documentation should have been included in the file.

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

- a. The lubricants in all safety related Limitorque motor operators were inspected and replaced as required during the fall 1987 refueling outage. The environmental qualification maintenance schedule for these motor operators has been changed in accordance with the manufacturer's recommendations.

- b. Lubricants were changed in all safety related Reliance motors scheduled for maintenance during the 1987 refueling outage. Vendor recommended maintenance was not due on the remaining two Reliance motors.

All environmental qualification test reports were reviewed during the fall 1987 refueling outage to determine if any vendor required maintenance activities were overlooked. No failures to perform maintenance within the intervals specified were identified.

- c. Weep holes were drilled in the junction boxes of all RHR and Core Spray motors. This will prevent accumulation of water in these junction boxes.
- d. The industry testing referenced in Environmental Qualification Calculation File 0910-111-FR-14 has been added to the Environmental Qualification Calculation File for Mobilux EPO.

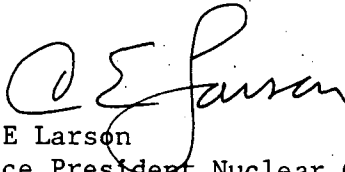
CORRECTIVE ACTION TO BE TAKEN TO AVOID FURTHER VIOLATIONS

- a. No further action is required.
- b. Additional reviews of the Environmental Qualification Calculation Files will be performed to identify inconsistencies. This review is targeted for completion by July 29, 1988. Inconsistencies (e.g., periodic examination of lubricants in Reliance motors) will be resolved by November 30, 1988.
- c. No further action is required.
- d. No further action is required.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

It is believed that the corrective actions already taken, assure the current environmental qualification of the equipment identified in the violation. Full compliance has been achieved.

Please contact us if you have any questions related to our response to the Notice of Violations.


C E Larson
Vice President Nuclear Generation

- c: Administrator, Region III, NRC
Sr Resident Inspector, NRC
Sr NRR Project Manager, NRC
G Charnoff