

October 19, 1998

EA 98-477

Duke Energy Corporation
ATTN: Mr. G. R. Peterson
Site Vice President
Catawba Nuclear Station
4800 Concord Road
York, SC 29745

SUBJECT: NRC INSPECTION REPORT NO. 50-413/98-13 AND 50-414/98-13

Dear Mr. Peterson:

This refers to a special ice condenser inspection conducted by the NRC August 7 through September 15, 1998, to review NRC licensed activities at your Catawba nuclear reactor facility. The purpose of the inspection was to review the identification and correction of Unit 1 ice condenser related problems which led to a forced unit shutdown. The inspection also reviewed your program for selected maintenance, surveillance and engineering activities in both Units 1 and 2.

Your actions were adequate to resolve the identified problems to support restart of Unit 1; however, the enclosed report documents deficiencies in the program which has oversight of the material condition and surveillance implementation of the Unit 1 ice condenser system. Subsequent to the Unit 1 forced outage, problems similar to those which existed on Unit 1 were identified during a Unit 2 refueling outage, which commenced on September 5, 1998. NRC inspection results regarding Unit 2 outage activities will be documented in NRC Inspection Report 50-413, 414/98-10.

Based on the inspection results, a number of apparent violations were identified and are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG 1600. The apparent violations involve: Failure to promptly identify and correct ice condenser flow channel blockage and damaged ice baskets in accordance with 10 CFR Part 50, Appendix B, Criterion XVI; Failure to adequately perform Technical Specification Surveillance Requirements involving containment debris inspections; Failure to install ice condenser components in accordance with applicable drawings as required by 10 CFR Part 50 Appendix B, Criterion V; and Failure to ensure that design control measures were followed as required by 10 CFR Part 50, Appendix B, Criterion III.

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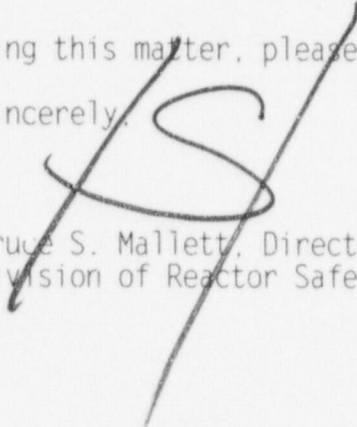
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The apparent violations remain under NRC review. After completion of this review, the NRC will contact you to schedule an open predecisional enforcement conference. Accordingly, no Notice of Violation is presently being issued for these inspection findings. In addition, please be advised that the number and characterization of the apparent violations described in the enclosed inspection report may change as a result of further NRC review. No response regarding the apparent violations is required at this time.

In accordance with 10 CFR 2.790(a) of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room (PDR).

Should you have any questions concerning this matter, please contact us.

Sincerely,



Bruce S. Mallett, Director
Division of Reactor Safety

Docket Nos.: 50-413 and 50-414
License Nos.: NPF-35 and NPF-52

Enclosure: NRC Inspection Report

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EXECUTIVE SUMMARY

Catawba Nuclear Station
NRC Inspection Report 50-413/98-13 and 50-414/98-13

This special report discusses aspects of the licensee's maintenance and engineering support programs. The report reviewed a number of significant problems involving the Unit 1 ice condenser system during a unit forced shutdown for the ice condenser system and the licensee's corrective actions associated with the identified issues on both units, when applicable.

Maintenance

- An overall weakness was identified with initial scoping of problems and thoroughness of licensee inspections completed during the outage for flow channel degradation, foreign material intrusion, and material condition of ice condenser baskets. Licensee management's failure to confirm the thoroughness of contractor personnel to provide a proper scoping of problems contributed to this weakness. After problems were identified by the NRC in each of these areas, licensee response to the problems was considered adequate. (Section M1.1)
- An apparent violation of 10 CFR Part 50, Appendix B, Criterion XVI was identified for failure to identify and correct significant ice condenser flow blockage. (Section M1.2.b.1)
- Immediate licensee corrective actions for the flow channel blockage problem, including a forced unit shutdown and extensive cleaning of the affected area, were considered adequate to support restart of the unit. (Section M1.2.b.5)
- An unresolved item was identified concerning past ice condenser flow blockage operability. (Section M1.2.b.5)
- Licensee evaluations regarding potential adverse impact of the leaking block-ice machine on critical minimum ice mass requirements were adequate. The identification of a high number of stuck baskets in Bay 5 and the mass increase of other baskets during the 1997 Unit 1 refueling outage were additional opportunities to identify and correct the significant condition adverse to quality. (Section M1.2.b.6)
- Based on the receipt of new design basis information, previous licensee interpretations regarding ice condenser flow passage areas were determined to be non-conservative. (Section M1.2.b.7)

- An apparent violation of technical specification 4.5.2.c was identified for failure to conduct adequate visual debris inspections in the Unit 1 containment. (Section M1.3)
- An unresolved item was identified concerning foreign material effects on the Unit 1 containment emergency core cooling system sump. (Section M1.3)
- The licensee's efforts to exclude foreign material from the ice condenser during previous outages had not been adequate as evidenced by the amount of debris found during a Unit 1 forced outage. At the end of the inspection, licensee sensitivity in the area of foreign material exclusion in the ice condenser had improved. (Section M1.3)
- An apparent violation of 10 CFR Part 50 Appendix B, Criterion XVI was identified for failing to promptly identify and correct ice condenser basket material condition problems. (Section M1.4)
- An unresolved item was identified regarding past operability reviews of denting identified on ice condenser baskets. (Section M1.4).
- Corrective actions taken for the ice condenser basket denting and deck door bolting issues was adequate to support restart of the unit. (Sections M1.4 and M1.5)
- An apparent violation of 10 CFR Part 50, Appendix B, Criterion V was identified for failure to accomplish activities affecting quality in accordance with documented drawings. (Section M1.5)
- The stored ice chemical sampling technical specification (T.S.) was not sufficiently specific and warranted improvement to more clearly address T.S. intent in the actual specification. No immediate operability concerns were identified. (Section M1.6)
- Final material condition of the Unit 1 ice condenser was adequate to support operability of the ice condenser system. Applicable ice condenser Technical Specification surveillances were appropriately identified and successfully corrected. (Section M1.7)

Engineering

- Engineering oversight and problem resolution of a degraded condition in Bay five of the Unit 1 ice condenser was inadequate. This inadequacy

led to a significant condition adverse to quality being left unidentified and uncorrected for an approximate two year period. (Section M1.2.b.5)

- An apparent violation was identified concerning inadequate design control measures within the Unit 1 and 2 ice condenser systems. Corrective actions taken for the identified concerns were adequate to support restart of Unit 1 and continued operation of Unit 2. (Section E2.1)