

June 7, 2001

Mr. R. P. Powers
Senior Vice President
Nuclear Generation Group
American Electric Power Company
500 Circle Drive
Buchanan, MI 49107-1395

SUBJECT: CLOSURE OF NRC INSPECTION MANUAL CHAPTER 0350 OVERSIGHT
PANEL FOR D.C. COOK

Dear Mr. Powers:

The purpose of this letter is to inform you of the termination of the NRC Inspection Manual Chapter (IMC) 0350, "Oversight of Operating Reactor Facilities in an Extended Shutdown as a Result of Significant Performance Problems," Restart Panel for D.C. Cook. This letter describes the basis for the decision.

On April 17, 1998, the NRC Region III and Office of Nuclear Reactor Regulation established the Restart Panel for D.C. Cook because of findings of an NRC Architect Engineering Inspection which identified numerous engineering deficiencies that led your staff to declare the emergency core cooling systems inoperable in September 1997; and due to subsequent identification of concerns regarding the ice condenser and fibrous material inside containment. Since its inception, the IMC 0350 Panel has been meeting regularly to discuss the performance of D.C. Cook. The IMC 0350 Panel planned and coordinated all inspections at D.C. Cook, and played a key role in facilitating the communication of inspection results. The IMC 0350 Panel developed restart readiness conclusions for each Unit and closely monitored the Unit 2 restart evolution in June 2000 and the Unit 1 restart in December 2000. Recently, the IMC 0350 Panel focused on assessing the operational performance of both Units.

The IMC 0350 Panel's restart readiness conclusions communicated to you in letters dated June 13, 2000, for Unit 2, and December 12, 2000, for Unit 1, were developed based on the results of NRC inspections of corrective actions related to issues that were documented in each Unit's IMC 0350 Restart Action Matrix. The Unit 2 Restart Action Matrix consisted of 330 items, which included the Confirmatory Action Letter issues as well as programmatic and functional readiness issues. The Unit 1 Restart Action Matrix consisted of 44 items, which focused on technical issues related to the operability of systems.

In implementing the IMC 0350 process at D.C. Cook, there were numerous performance areas reviewed by the IMC 0350 Panel through resident and region-based inspections, including a Problem Identification and Resolution inspection; review of D.C. Cook self-assessments,

docketed correspondence, performance improvement plan changes, and corrective actions, including short-term corrective actions and long-term corrective actions not implemented before restart. In addition, the IMC 0350 Panel met numerous times with you and your staff to discuss performance improvement initiatives. The IMC 0350 Panel reviews included your staff's implementation of the expanded system readiness reviews, ice condenser and containment structure engineering evaluations and repairs, corrective action program implementation, and safe operational performance of the Units. The NRR technical staff focused on questions and concerns raised regarding the licensing basis of the plant.

The IMC 0350 Panel reviewed the effectiveness of your staff's expanded system readiness reviews in order to gain reasonable assurance that plant systems would be capable of meeting their safety and accident mitigation functions. Based on the results of several team inspections, the IMC 0350 Panel concluded that the expanded system readiness review process effectively evaluated the functionality of systems.

Issues related to surveillance testing, material condition, and the design and licensing bases of the ice condensers were documented in several NRC inspection reports following shutdown of the Units in 1997. Some of the specific issues involved inadequate ice condenser flow passage testing, ice weight testing, ice basket inspections, ice condenser door testing, and control of contractors. There were also issues with ice basket webbing damage, separated ice baskets, debris in the ice condenser, and modification and design control for ice condenser components. Prior to restart of both Units, the IMC 0350 Panel reviewed the results of NRC inspections of these issues and concluded that your staff took adequate corrective actions to address all of the issues, including the programmatic elements of the material condition issues and surveillance testing issues. The IMC 0350 Panel noted that since restart there have been no new safety significant issues identified concerning the ice condensers.

The IMC 0350 Panel's focus on containment structures arose from your staff's determination, in May 2000, that a condition outside the design basis of the plant existed with some containment internal concrete subcompartment structural elements. Specifically, certain walls and floors did not meet the design pressure load factor margin of 1.5 as described in your D.C. Cook UFSAR. In a public meeting on June 1, 2000, your staff described their findings related to Unit 2 containment subcompartment walls, including justification for operating the units while the structures were considered to be degraded but operable. In a second public meeting on September 27, 2000, your staff provided the IMC 0350 Panel and other NRC staff with a comprehensive description of the containment structural issues found in Units 1 and 2, an update on the status of these issues, including resolution strategies, and the corrective actions planned and implemented.

Your staff is continuing to evaluate containment structural calculations to determine conformance with the design basis. Your staff stated during the most recent IMC 0350 public

meeting on April 10, 2001, that all containment structures remain operable and that the extent of available margins are improving through refinement of the calculations. The IMC 0350 Panel determined that your staff is on schedule to complete their corrective actions to return the containment structures to full conformance with the licensed design basis. The NRC will conduct a public meeting with your staff to review the final resolution of this issue.

The IMC 0350 Panel has continued to focus on the outcome of your staff's corrective action program improvements. The IMC 0350 Panel remained cognizant of the overall products and results of the corrective action program through inspection activities and concluded that your staff is implementing the program in an acceptable manner.

Regarding the operational performance of the Units since restart, Unit 2 attained full power in early July 2000 and has since operated well. Except for a shutdown in late January 2001 to repair a loose connection in a rod control system cabinet, Unit 2 has been operating at or near full power. Your staff performed a successful restart of Unit 1 in December 2000 and Unit 1 attained full power in early January 2001. Unit 1 has operated well since reaching full power but has experienced some equipment problems, including main feedwater condenser cooling water issues, which necessitated plant power level changes to address those problems. The plant power changes resulted in the performance indicator for Unit 1 Unplanned Power Changes to cross from Green to White during the first quarter of 2001. In addition, our May 31, 2001 end-of-cycle plant performance assessment letter summarizes our assessment of your recent safety performance.

The IMC 0350 Panel reviewed your staff's actions in response to the emergent equipment problems through the inspection program and concluded that plant management used good operational focus and oversight in handling the equipment problems. Aside from the main feedwater condenser cooling water issues, there have not been any significant operational problems, significant operator errors, or procedure adherence problems associated with either Unit since their respective restarts. While your staff is still developing some performance indicators due to incomplete data to calculate the performance indicator, all published performance indicators have been verified and no significant issues have been identified.

After consultation with the Deputy Executive Director for Reactor Programs and the Director, Office of Nuclear Reactor Regulation, I have determined that D.C. Cook no longer warrants oversight through the IMC 0350 process. The NRC decision regarding termination of the IMC 0350 process at D.C. Cook was based on the determination that your staff has established an effective long-range improvement program, is sufficiently implementing the corrective action program, has demonstrated safe plant operation and overall improving performance, and has established an effective program to update and maintain the plant's design basis.

Termination of the IMC 0350 process at D.C. Cook, disbandment of the IMC 0350 Panel, and return to the routine oversight process will occur effective with the date of this letter. As communicated to you in our May 31, 2001 end-of-cycle plant performance assessment letter, the NRC will continue with augmented baseline inspections in areas where performance indicators are still under development. In addition, a supplemental inspection for the Unit 1 White performance indicator for Unplanned Power Changes will be performed.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this summary and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

J. E. Dyer
Regional Administrator

Docket Nos. 50-315; 50-316
License Nos. DPR-58; DPR-74

cc w/encl: A. C. Bakken III, Site Vice President
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M. Rencheck, Vice President, Nuclear Engineering
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Emergency Management Division
MI Department of State Police
D. Lochbaum, Union of Concerned Scientists

R. Powers

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