June 30, 2000

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

SUBJECT: D. C. COOK - NRC INSPECTION 50-315/2000015(DRS)

Dear Mr. Powers:

On June 15, 2000, the NRC completed an ongoing inspection of the steam generator replacement at your D. C. Cook reactor facility. The enclosed report presents the results of this inspection. No violations of NRC requirements were identified.

Areas examined are identified in the report. Within those areas, the inspection consisted of a selective examination of procedures and representative records, and interviews with personnel. The objective of the inspection effort was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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/

John A. Grobe, Director
Division of Reactor Safety

Docket No. 50-315
License No. DPR-58

Enclosure: Inspection Report 50-315/2000015(DRS)

See Attached Distribution

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See Attached Distribution
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cc w/encl: A. C. Bakken III, Site Vice President
J. Pollock, Plant Manager
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

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-315
License No:	DPR-58
Report No:	50-315/2000015(DRS)
Licensee:	American Electric Power Company
Facility:	Donald C. Cook Nuclear Generating Plant
Location:	1 Cook Place Bridgman, MI
Dates:	May 18, 25-26, and June 14-15, 2000
Inspector:	Donald Jones, Reactor Inspector
Approved by:	John M. Jacobson, Chief, Mechanical Engineering Branch Division of Reactor Safety

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

EXECUTIVE SUMMARY

D. C. Cook, Unit 1
NRC Inspection Report 50-315/2000015(DRS)

This report completed an ongoing inspection effort which covered the conduct of the D. C. Cook Unit 1 steam generator replacement project. This was an announced inspection conducted by one regional inspector.

Maintenance

- Welding activities were well controlled and demonstrated good management oversight. The radiographs reviewed were of good quality and met ASME Code, Section III acceptance requirements (Section M1.1).

- Observations of the containment restoration work verified that the activities complied with the applicable code and specification requirements (Section M1.2).

M1 Conduct of Maintenance

M1.1 Observations of Replacement Steam Generator Welding Activities

a. Inspection Scope (50001)

The inspector observed replacement steam generator welding activities and reviewed final weld radiographs.

b. Observations and Findings

The inspector verified welder qualifications (Bechtel D. C. Cook Welder Qualification List), filler material withdrawals (Filler Material Withdrawal Authorization (Form WR-6)), and the heat input control check sheet during observation of the manual welding of the steam generator main steam nozzle reducer-to-elbow weld (FW-7) of steam generator 4. The welding was performed in accordance with welding procedure specification P3(G3), P1(G2)-AT-Lh (CVN +40).

Radiographs of the following listed welds were reviewed by the inspector and found to be acceptable in accordance with ASME Code Section III:

SYSTEM: FEEDWATER

RT NO.	WELD NO.	STEAM GENERATOR
RT-113/114	FW-3 R1	2
RT-111/112	FW-4	2

SYSTEM: MAIN STEAM

RT NO.	WELD NO.	STEAM GENERATOR
RT-097A	FW-1 R1	1
RT-097	FW-2 R1	1
RT-127	FW-4	2
RT-129	FW-5	3
RT-116	FW-6	3
RT-121	FW-8 R1	4

c. Conclusions

Welding activities were well controlled and demonstrated good management oversight. The radiographs reviewed were of good quality and met ASME Code, Section III acceptance requirements.

M1.2 Containment Restoration Activities

a. Inspection Scope (50001)

The inspector observed the restoration of the steam generator concrete enclosures after SG replacement. This inspection included review of work packages, drawings, procedures, and inspection records.

b. Observations and Findings

The inspector observed the restoration activities of the steam generator concrete enclosures (the top of the steam generator concrete enclosures were removed to accommodate replacement of the steam generators). The inspector observed concrete reinforcing bar (rebar) placement, including splicing by welding and cadwelding, prior to placement of concrete. Cadweld splicing observations included fitup, preheat, and final post splice inspection. During the splicing, a firewatch was observed to be present.

c. Conclusions

Observations of the containment restoration work verified that the activities complied with the applicable code and specification requirements.

V. Management Meeting

X1 Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on June 15, 2000. The licensee acknowledged the findings presented. The licensee did not identify any items discussed as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

C. Bakken, Site Vice President
J. Pollock, Plant Manager
J. Kobyra, SGRP Project Director
D. Petro, SGRP Engineering Manager
M. Allen, SGRP Production Manager
S. Johnson, SGRP Welding Engineer
R. Crane, Licensing
R. Meister, Regulatory Affairs
R. Gaston, Regulatory Affairs

Bechtel

G. Klein, Welding Supervisor
G. Stoll, NDE Level III

INSPECTION PROCEDURES USED

IP 50001: Steam Generator Replacement Inspection

PARTIAL LIST OF DOCUMENTS REVIEWED

Technical Specification for Purchase of Reinforcing Steel for Donald C. Cook Nuclear Plant Unit 1 Steam Generator Replacement Project, Specification 23733-C-303(Q)

Technical Specification for Placing Reinforcing Steel for Donald C. Cook Nuclear Plant Unit 1 Steam Generator Replacement Project, Specification 23733-C-304(Q)

Technical Specification for Purchase and Installation of Cadweld Rebar Splices for Donald C. Cook Nuclear Plant Unit 1 Steam Generator Replacement Project, Specification 23733-C-309(Q)

Cadweld Splice Record, Steam Generator 2, WP/IR# C-DOG-540

Procedure	Revision	Title
RT-ASME/ANSI	0	Bechtel Nondestructive Examination Standard Radiographic Examination
CP-C-11	0	Testing of Cadweld Rebar Splices
CP-C-5	0	Cadweld