June 28, 1996

Mr. E. E. Fitzpatrick, Vice President Indiana Michigan Power Company c/o American Electric Power Service Corporation 1 Riverside Plaza Columbus, OH 43215

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2 - ISSUANCE OF AMENDMENTS RE: NEUTRON FLUX HIGH SETPOINTS FOR INOPERABLE MSSVs (TAC NOS. M92380 AND M92381)

Dear Mr. Fitzpatrick:

The Commission has issued the enclosed Amendment No. 210 to Facility Operating License No. DPR-58 and Amendment No. 195 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 19, 1995, and supplemented October 20, 1995 and April 8, 1996.

The amendments modify the neutron flux high setpoints for one or more main steam safety valves inoperable in response to Westinghouse Nuclear Safety Advisory Letter 94-001. The associated action statements are also revised and an exemption to TS 4.0.4 is added to support the operability surveillance.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

Sincerely,

Original Signed By:

John B. Hickman, Project Manager Project Directorate III-1 Division of Reactor Projects - III/IV Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosures: 1. Amendment No. 210 to DPR-58 2. Amendment No. 195 to DPR-74 3. Safety Evaluation

cc w/encl: See next page

607050026 960628

000315

DFOIY

CODV

DOCUMENT NAME: G:\WPDOCS\DCCOOK\CO92380.AMD To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure. ("N" = Copy with attachment/enclosure")							
OFFICE	LA:PD31	Ν	Ε	PM:PD31	EOGCABUN	(A)D:PD3/0	
NAME	CJamerson	OL	/	JHickman:	HOSE	RMReinhart	
DATE	6/18/96	7		6/18/96	6 / IM96	6/27/96	

OFFICIAL RECORD COPY



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

June 28, 1996

Mr. E. E. Fitzpatrick, Vice President Indiana Michigan Power Company c/o American Electric Power Service Corporation 1 Riverside Plaza Columbus, OH 43215

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2 - ISSUANCE OF AMENDMENTS RE: NEUTRON FLUX HIGH SETPOINTS FOR INOPERABLE MSSVs (TAC NOS. M92380 AND M92381)

Dear Mr. Fitzpatrick:

The Commission has issued the enclosed Amendment No. 210 to Facility Operating License No. DPR-58 and Amendment No. 195 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 19, 1995, and supplemented October 20, 1995 and April 8, 1996.

The amendments modify the neutron flux high setpoints for one or more main steam safety valves inoperable in response to Westinghouse Nuclear Safety Advisory Letter 94-001. The associated action statements are also revised and an exemption to TS 4.0.4 is added to support the operability surveillance.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

Sincerely,

John B. Hickman, Project Manager Project Directorate III-1 Division of Reactor Projects - III/IV Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosures:	1.	Amendment No.	210	to	DPR-58
	2.	Amendment No.	195	to	DPR-74
	2	C.C.L. Cuslust	ian		

3. Safety Evaluation

cc w/encl: See next page

Mr. E. E. Fitzpatrick Indiana Michigan Power Company

cc:

Regional Administrator, Region III U.S. Nuclear Regulatory Commission 801 Warrenville Road Lisle, Illinois 60532-4351

Attorney General Department of Attorney General 525 West Ottawa Street Lansing, Michigan 48913

Township Supervisor Lake Township Hall P.O. Box 818 Bridgman, Michigan 49106

Al Blind, Plant Manager Donald C. Cook Nuclear Plant 1 Cook Place Bridgman, Michigan 49106

U.S. Nuclear Regulatory Commission Resident Inspector's Office 7700 Red Arrow Highway Stevensville, Michigan 49127

Gerald Charnoff, Esquire Shaw, Pittman, Potts and Trowbridge 2300 N Street, N. W. Washington, DC 20037

Mayor, City of Bridgman Post Office Box 366 Bridgman, Michigan 49106

Special Assistant to the Governor Room 1 - State Capitol Lansing, Michigan 48909

Drinking Water and Radiological Protection Division Michigan Department of Environmental Quality 3423 N. Martin Luther King Jr Blvd P. O. Box 30630 CPH Mailroom Lansing, Michigan 48909-8130 Donald C. Cook Nuclear Plant

Mr. S. Brewer
American Electric Power Service Corporation
1 Riverside Plaza
Columbus. Ohio 43215

June 1996

DATED: June 28, 1996

¢

....

AMENDMENT NO. 210 TO FACILITY OPERATING LICENSE NO. DPR-58-D. C. COOK-UNIT 1 AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-74-D. C. COOK-UNIT 2 Docket File PUBLIC PDIII-1 Reading J. Roe C. Jamerson J. Hickman (2) OGC G. Hill, IRM (4) C. Grimes, O-11F23 C. Jackson ACRS W. Kropp, RIII SEDB

 \sim

-



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 210 License No. DPR-58

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated May 19, 1995 and supplemented October 20, 1995, and April 8, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

7607050035 760628 PDR ADUCK 05000315 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-58 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 210, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, with full implementation within 45 days.

FOR THE NUCLEAR REGULATORY COMMISSION

LE BI

Wohn B. Hickman, Project Manager Project Directorate III-1 Division of Reactor Projects - III/IV Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 28, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 210

TO FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

۰.

<u>INSERT</u>

3/4 7-1	3/4 7-1
3/4 7-2	3/4 7-2
B 3/4 7-1	B 3/4 7-1

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS 3/4.7 PLANT SYSTEMS

3/4.7.1 TURBINE CYCLE

SAFETY VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.1 All main steam line code safety valves associated with each steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. MODES 1 & 2: With 4 reactor coolant loops and associated steam generators in operation, and with one or more main steam line code safety valves inoperable, operation may proceed provided that within 4 hours, either the inoperable valve(s) are restored to OPERABLE status, or the Power Range Neutron Flux High Setpoint trip is reduced per Table 3.7-1; otherwise, be in HOT STANDBY within the next 6 hours and comply with action statement b.
- b. MODE 3: With a minimum of 3 reactor coolant loops and associated steam generators in operation, and with one or more main steam line code safety valves associated with an operating loop inoperable, operation may proceed provided that within 4 hours, either the inoperable valve(s) are restored to OPERABLE status, or the reactor trip breakers are opened; otherwise, be in HOT SHUTDOWN within the next 30 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.1 Each main steam line code safety valve shall be demonstrated OPERABLE in accordance with Specification 4.0.5 and with lift settings as shown in Table 4.7-1. The safety valve shall be reset to the nominal value $\pm 1\%$ whenever found outside the $\pm 1\%$ tolerance. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

• 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.7 PLANT SYSTEMS

.

TABLE 3.7-1

MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES DURING 4 LOOP OPERATION

Maximum Number of Inoperable Safety Valves on Any Operating Steam Generator	Maximum Allowable Power Range Neutron Flux High Setpoint (Percent of RATED THERMAL POWER)
1	65.1
2	46.5
3	28.0

COOK NUCLEAR PLANT-UNIT 1 Page 3/4 7-2

3/4.7.1 TURBINE CYCLE

3/4.7.1.1 SAFETY VALVES

The OPERABILITY of the main steam line code safety valves ensures that the secondary system pressure will be limited to within 110% of its design pressure of 1085 psig during the most severe anticipated system operational transient. The maximum relieving capacity is associated with a turbine trip from 100% RATED THERMAL POWER coincident with an assumed loss of condenser heat sink (i.e., no steam bypass to the condenser).

The specified valve lift settings and relieving capacities are in accordance with the requirements of Section III of the ASME Boiler and Pressure Code, 1971 Edition. The safety valve is OPERABLE with a lift setting of $\pm 3\%$ about the nominal value. However, the safety valve shall be reset to the nominal value $\pm 1\%$ whenever found outside the $\pm 1\%$ tolerance. The total relieving capacity for all valves on all of the steam lines is 17,153,800 lbs/hr which is approximately 121 percent of the total secondary steam flow of 14,120,000 lbs/hr at 100% RATED THERMAL POWER. A minimum of 2 OPERABLE safety valves per operable steam generator ensures that sufficient relieving capacity is available for the allowable THERMAL POWER restriction in Table 3.7-1.

STARTUP and/or POWER OPERATION is allowable with safety valves inoperable within the limitations of the ACTION requirements on the basis of the reduction in secondary system steam flow and THERMAL POWER required by the reduced reactor trip settings of the Power Range Neutron Flux channels. The reactor trip setpoint reductions are derived on the following bases:

$$Hi\Phi = (100/Q) \frac{(4w_sh_{fg})}{K}$$

where:

Hi Φ = Safety Analysis power range high neutron flux setpoint in percent

- Q = Nominal NSSS power rating of the plant (including reactor coolant pump heat) in Mwt
- K = Conversion factor, 947.82 (Btu/Sec)

- $w_s =$ Minimum total steam flow rate capability of the operable MSSVs on any one steam generator at the highest MSSV opening pressure including tolerance and accumulation, as appropriate, in lb/sec. For example, if the maximum number of inoperable MSSVs on any one steam generator is one, then w_s should be a summation of the capacity of the operable MSSVs at the highest operable MSSV operating pressure, excluding the highest capacity MSSV. If the maximum number of inoperable MSSVs per steam generator is three, then w_s should be a summation of the capacity of the operable MSSVs at the highest operable MSSV operating pressure, excluding the three highest capacity MSSVs.
- h_{fg} = Heat of vaporization for steam at the highest MSSV opening pressure including tolerance and accumulation, as appropriate in Btu/lbm
- 4 = Number of loops in plant

The values calculated from this algorithm are then adjusted lower for use in Technical Specification 3.7.1.1 to account for instrument and channel uncertainties by 9%. This reduces the maximum plant operating power level so that it is lower than the reactor protection system setpoint by an appropriate operating margin.

COOK NUCLEAR PLANT-UNIT 1



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.195 License No. DPR-74

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated May 19, 1995 and supplemented October 20, 1995, and April 8, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 195, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, with full implementation within 45 days.

FOR THE NUCLEAR REGULATORY COMMISSION

AB-

John B. Hickman, Project Manager Project Directorate III-1 Division of Reactor Projects - III/IV Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 28, 1996

ATTACHMENT TO LICENSE AMENDMENT NO.195

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

INSERT

3/4 7-1	3/4 7-1
3/4 7-2	3/4 7-2
B 3/4 7-1	B 3/4 7-1

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS3/4.7 PLANT SYSTEMS

3/4.7.1 TURBINE CYCLE

SAFETY VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.1 All main steam line code safety valves associated with each steam generator shall be OPERABLE.

<u>APPLICABILITY</u>: MODES 1, 2 and 3.

ACTION:

- a. MODES 1 & 2: With 4 reactor coolant loops and associated steam generators in operation, and with one or more main steam line code safety valves inoperable, operation may proceed provided that within 4 hours, either the inoperable valve(s) are restored to OPERABLE status, or the Power Range Neutron Flux High Setpoint trip is reduced per Table 3.7-1; otherwise, be in HOT STANDBY within the next 6 hours and comply with action statement b.
- b. MODE 3: With a minimum of 3 reactor coolant loops and associated steam generators in operation, and with one or more main steam line code safety valves associated with an operating loop inoperable, operation may proceed provided that within 4 hours, either the inoperable valve(s) are restored to OPERABLE status, or the reactor trip breakers are opened; otherwise, be in HOT SHUTDOWN within the next 30 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.1 Each main steam line code safety valve shall be demonstrated OPERABLE in accordance with Specification 4.0.5 and with lift settings as shown in Table 4.7-1. The safety valve shall be reset to the nominal value $\pm 1\%$ whenever found outside the $\pm 1\%$ tolreance. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.7 PLANT SYSTEMS

.

TABLE 3.7-1

MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES DURING 4 LOOP OPERATION

Maximum Number of Inoperable Safety Valves on Any Operating Steam Generator	Maximum Allowable Power Range Neutron Flux High Setpoint (Percent of RATED THERMAL POWER)
1	61.6
2	43.9
3	26.2

3/4 - BASES 3/4.7 PLANT SYSTEMS

3/4.7_1 TURBINE CYCLE

3/4.7.1.1 SAFETY VALVES

The OPERABILITY of the main steam line code safety valves ensures that the secondary system pressure will be limited to within 110% of its design pressure of 1085 psig during the most severe anticipated system operational transient. The maximum relieving capacity is associated with a turbine trip from 100% RATED THERMAL POWER coincident with an assumed loss of condenser heat sink (i.e., no steam bypass to the condenser).

The specified value lift settings and relieving capacities are in accordance with the requirements of Section III of the ASME Boiler and Pressure Code, 1971 Edition. The safety value is OPERABLE with a lift setting of $\pm 3\%$ about the nominal value. However, the safety value shall be reset to the nominal value $\pm 1\%$ whenever found outside the $\pm 1\%$ tolerance. The total relieving capacity of all safety values on all of the steam lines is 17,153,800 lbs/hr which is at least 105 percent of the maximum secondary steam flow rate at 100% RATED THERMAL POWER. A minimum of 2 OPERABLE safety values per steam generator ensures that sufficient relieving capacity is available for the allowable THERMAL POWER restriction in Table 3.7-1.

STARTUP and/or POWER OPERATION is allowable with safety valves inoperable within the limitations of the ACTION requirements on the basis of the reduction in secondary system steam flow and THERMAL POWER required by the reduced reactor trip settings of the Power Range Neutron Flux channels. The reactor trip setpoint reductions are derived on the following bases:

$$Hi\Phi = (100/Q) \frac{(4w_s h_{fg})}{K}$$

where:

Hi Φ = Safety Analysis power range high neutron flux setpoint in percent

- Q = Nominal NSSS power rating of the plant (including reactor coolant pump heat) in Mwt
- K = Conversion factor, 947.82 (Btu/Sec)Mwt
- $w_s = Minimum$ total steam flow rate capability of the operable MSSVs on any one steam generator at the highest MSSV opening pressure including tolerance and accumulation, as appropriate, in lb/sec. For example, if the maximum number of inoperable MSSVs on any one steam generator is one, then w_s should be a summation of the capacity of the operable MSSVs at the highest operable MSSVs operating pressure, excluding the highest capacity MSSV. If the maximum number of inoperable MSSVs per steam generator is three, then w_s should be a summation of the capacity of the capacity of the capacity of the operable MSSVs at the highest operable MSSVs per steam generator is three, then w_s should be a summation of the capacity of the capacity of the operable MSSVs at the highest operable MSSVs operating pressure, excluding the three highest capacity MSSVs.
- h_{fg} = Heat of vaporization for steam at the highest MSSV opening pressure including tolerance and accumulation, as appropriate in Btu/lbm
- 4 = Number of loops in plant

The values calculated from this algorithm are then adjusted lower for use in Technical Specification 3.7.1.1 to account for instrument and channel uncertainties by 9%. This reduces the maximum plant operating power level so that it is lower than the reactor protection system setpoint by an appropriate operating margin.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 210 TO FACILITY OPERATING LICENSE NO. DPR-58

AND AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-74

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By Tetter dated May 19, 1995, and supplemented October 20, 1995, and April 8, 1996, the Indiana Michigan Power Company (the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating License Nos. DPR-58 and DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The proposed amendments would lower the high neutron flux reactor trip setpoints with main steam safety valves (MSSVs) inoperable. The setpoints for the high neutron flux with inoperable MSSVs are contained in TS Table 3.7-1. The new methodology used to derive these new setpoints is also being changed in the basis portion of TS 3/4.7.1.1.

The action statement for TS 3.7.1.1. is being modified to allow continued operation with MSSVs inoperable with four reactor coolant loops in operation with the reactor trip breakers open in Mode 3. The current TS allows continued Mode 3 operation with three loops in operation and the reactor trip breakers open but not with four loops in operation. With four loops in operation the action statement now requires the reactor trip setpoints to be reduced according to TS Table 3.7-1. The proposed TS would not allow continued Mode 3 operation (with three or four loops in operation) with the reactor trip breakers closed with inoperable MSSVs. The proposed amendment would also now require that the reactor to be taken only to HOT SHUTDOWN rather than COLD SHUTDOWN if the action statement cannot be met. Additionally, the licensee is modifying the safety valve surveillance requirements (SR 4.7.1.2) to state the provisions of TS 4.0.4 do not apply to SR 4.7.1.1 for entry into Mode 3.

The April 8, 1996, submittal provided information clarifying the location of the TS 4.0.4 exemption statement. This information was within the scope of the original application and did not alter the staff's no significant hazards considerations determination. Therefore renoticing was not warranted.

9607050041 960628 ADOCK 05000315 PDR

2.0 EVALUATION

The MSSVs are designed to prevent the main steam lines and the secondary side of the steam generator from exceeding 110 percent of the design (1085 psi) pressure. Each steam line is equipped with five safety valves with staggered setpoints. A minimum of two operable safety valves is required on each steam line to be able to continue operation in Modes 1 and 2 in accordance with TS Table 3.7-1. The full relieving capacity of the MSSVs is designed to protect the main steam lines for the anticipated transient requiring the maximum relieving capacity, which is a turbine trip from 100 percent rated thermal power with no condenser heat sink available.

Westinghouse has determined that the methodology used by Indiana Michigan Power Company for the D. C. Cook plant to establish the maximum allowable power range neutron high flux setpoints may not provide a low enough setpoint to preclude an overpressurization of the main steam piping during some anticipated transients. The old methodology assumed that the maximum allowable initial power should be a linear function of the available relief valve capacity. The new methodology uses an algorithm to determine the maximum power allowable, and therefore the reactor trip setpoint, to assure the main steam lines are not overpressurized with inoperable MSSVs. Westinghouse issued Nuclear Safety Advisory Letter (NSAL) 94-001, dated January 20, 1994, with a new algorithm to determine the revised neutron flux high setpoints with inoperable MSSVs. The Nuclear Regulatory Commission has not endorsed the new Westinghouse methodology. However, the setpoints obtained using the methodology are lower, more conservative, and provide a greater margin to safety than the current setpoints. The setpoints with one, two, or three inoperable MSSVs would change from 87.2, 66.4, and 43.6 to 65.1, 46.5, and 28.0 percent. The bases in the TS are also being revised to include the new algorithm. The staff finds that the new setpoints and the basis for the neutron flux high reactor trip setpoints are more conservative and provide a greater margin to safety than the existing setpoints and are therefore acceptable.

The licensee also requests two of the action statements for TS 4.7.1.1 to be amended. The action statements for this TS, as currently written, are confusing. The current applicability for both statements is Modes 1, 2 and 3. Action B allows continued operation in Mode 3 if there are three of four reactor coolant system loops in operation and the reactor trip breakers open. Action B, as currently written, does not allow continued operation in Mode 3 with four reactor coolant system loops in operation and the reactor trip breakers open. Having four loops in operation provides more cooling than having three loops in operation and continued operation should be allowed in Mode 3 with four loops in operation if the reactor trip breakers are open. There is added conservatism provided by the amendments because the proposed TS will not allow Mode 3 operation with the reactor trip breakers closed with inoperable MSSVs. The current TS do allow Mode 3 operation with inoperable MSSVs if the neutron high flux reactor trip setpoints are reduced. Having the reactor trip breakers open provides greater assurance that there will not be a transient requiring the MSSVs.

Another change requires the reactor to be taken to HOT SHUTDOWN (Mode 4) rather than COLD SHUTDOWN (Mode 5) if the action statements for TS 3.7.1.1 cannot be met. This change is acceptable for two reasons. The applicability of TS 3.7.1.1 is Modes 1, 2 and 3. Allowing the reactor to be taken to Mode 4, a mode were the TS is not applicable, is acceptable. The ultimate safe condition of the plant with the new TS will be Mode 4. In Mode 4 there are no credible accidents that require the use of the MSSVs. Additionally, requiring the reactor to be taken to Mode 5 is unnecessary. The staff concludes, therefore, that the proposed changes to the action statement of TS 3.7.1.1 are acceptable.

The surveillance requirements (SR) for the MSSVs are also being modified to allow entry into Mode 3 without having the SR associated with the MSSVs having been performed in the stated surveillance interval. TS SR 3.7.1.2 is being added stating the provisions of TS 4.0.4 are not applicable for entry into Mode 3. TS 4.0.4 does not allow entry into an operational mode without having the SR having been performed in the stated surveillance interval. The change is acceptable because the SR cannot be performed prior to entering Mode 3. Τo perform SR 3.7.1.1, the secondary pressure must be above 800 psig and the reactor coolant system must be above 350°F to achieve this secondary pressure. The transition temperature for Mode 3 to 4 is 350°F. If the surveillance requirement is exceeded during an extended outage, the licensee would not be able to perform the SR prior to entering Mode 3. The change is also consistent with the Westinghouse Standard Technical Specifications and other SR that cannot be performed without entering an operational mode where the SR is required. The staff finds the proposed amendments acceptable.

3.0 STATE CONSULTATION

1.

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change the requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding (60 FR 65681). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments. 5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: C. Jackson

Date: June 28, 1996