Docket Nos. 50-315 and 50-316

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FAllenspach	

Mr. Milton P. Alexich, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

Dear Mr. Alexich:

SUBJECT: AMENDMENT NOS. 154 AND 138 TO FACILITY OPERATING LICENSE NOS. DPR-58 AND DPR-74: CHANGES TO SECTION 6.0 TECHNICAL SPECIFICATIONS (TAC NOS. 75043 AND 75044)

The Commission has issued the enclosed Amendment No. 154 to Facility Operating License No. DPR-58 and Amendment No. 138 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 August 25, 1989, as modified December 12, 1989, June 1, and October 26, 1990.

These amendments make various changes to Section 6.0 of the (TS) including title changes, editorial changes, changes to the qualifications, structure, and quorum requirements of the Plant Nuclear Safety Review Committee, and changes to reporting requirements. Additionally, editorial changes are being made to Sections 3.0 and 4.0 of the TS to remove obsolete references or add new ones to the Section 6.0 TS. These changes are described in greater detail in the Safety Evaluation. As you requested, we are allowing 180 days for implementation of these amendments.

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

Sincerely,

Timothy G. Colburn, Sr. Project Manager
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 154 to DPR-58
2. Amendment No. 138 to DPR-74
3. Safety Evaluation

See Reports

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COOK AMEND 75043/4

April 9, 1991

Docket Nos. 50-315 and 50-316

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Mr. Gene Fitzpatrick, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

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Timothy G. Colburn, Sr. Project Manager
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 154 to DPR-58
2. Amendment No. 138 to DPR-74
3. Safety Evaluation

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LA/PD31:DRP345	PM/PD31:DRP345	D/PD31:DRP345	LPEB	OGC
*PShuttleworth	*TColburn	*LMarsh	*AGody	*CWoodhead
03/06/91	03/26/91	04/08/91	03/29/91	04/01/91

COOK AMEND 75043/4

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

April 9, 1991

Docket Nos. 50-315 and 50-316

Mr. Gene Fitzpatrick, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

Dear Mr. Alexich:

SUBJECT: AMENDMENT NOS. 154 AND 138 TO FACILITY OPERATING LICENSE NOS. DPR-58 AND DPR-74: CHANGES TO SECTION 6.0 TECHNICAL SPECIFICATIONS (TAC NOS. 75043 AND 75044)

The Commission has issued the enclosed Amendment No. 154 to Facility Operating License No. DPR-58 and Amendment No. 138 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 August 25, 1989, as modified December 12, 1989, June 1, and October 26, 1990.

These amendments make various changes to Section 6.0 of the (TS) including title changes, editorial changes, changes to the qualifications, structure, and quorum requirements of the Plant Nuclear Safety Review Committee, and changes to reporting requirements. Additionally, editorial changes are being made to Sections 3.0 and 4.0 of the TS to remove obsolete references or add new ones to the Section 6.0 TS. These changes are described in greater detail in the Safety Evaluation. As you requested, we are allowing 180 days for implementation of these amendments.

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Sincerely,

Timothy G. Colburn

Timothy G. Colburn, Sr. Project Manager
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 154 to DPR-58
2. Amendment No. 138 to DPR-74
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. Gene Fitzpatrick
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

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Resident Inspectors Office
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Lansing, Michigan 48909

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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 154
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 August 25, 1989, as modified December 12, 1989, June 1, and October 26, 1990, 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-58 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 154 , 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 its issuance and shall be implemented within 180 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

William O. Long

for L. B. Marsh, Director
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 9, 1991

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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 138
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 August 25, 1989, as modified December 12, 1989, June 1, and October 26, 1990, 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. 138 , 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 its issuance and shall be implemented within 180 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

William O. Long

for L. B. Marsh, Director
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 9, 1991

ATTACHMENT TO LICENSE AMENDMENT NO.154

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 marginal lines indicating the area of change.

REMOVE	INSERT
XVII	XVII
XVIII	XVIII
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3/4 3-62	3/4 6-62
3/4 6-9	3/4 6-9
3/4 11-4	3/4 11-4
3/4 11-5	3/4 11-5
3/4 11-6	3/4 11-6
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3/4 11-17	3/4 11-17
3/4 12-2	3/4 12-2
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INSTRUMENTATION

RADIOACTIVITY LIQUID EFFLUENT INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded.

APPLICABILITY: As shown in Table 3.3-12.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than a value which will ensure that the limits of 3.11.1.1 are met, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, reset, or declare the channel inoperable.

b. With one or more radioactive liquid effluent monitoring instrumentation channels inoperable, take the applicable ACTION shown in Table 3.3-12.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9.1 The setpoints shall be determined in accordance with methodology as described in the ODCM and shall be recorded.

4.3.3.9.2 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-8.

Instrumentation

Radioactive Gaseous Process and Effluent Monitoring Instrumentation

Limiting Condition for Operation

3.3.3.10 The radioactive gaseous process and effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of 3.11.2.1 are not exceeded.

APPLICABILITY: As shown in Table 3.3-13.

ACTION:

a. With a radioactive gaseous process or effluent monitoring instrumentation channel alarm/trip setpoint less conservative than a value which will ensure that the limits of 3.11.2.1 are met, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel, reset, or declare the channel inoperable.
b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13.
c. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.10.1 The setpoints shall be determined in accordance with methodology as described in the ODCM and shall be recorded.*

4.3.3.10.2 Each radioactive gaseous process of effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION. and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-9.

* This surveillance requirement does not apply to the Waste Gas Holdup System Hydrogen and Oxygen Monitors, as their setpoints are not addressed in the ODCM.

CONTAINMENT STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.6 The structural integrity of the containment structure and steel liner shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the structural integrity of the containment structure or steel liner not conforming to the above requirements, restore their structural integrity to within the limits prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.6 The structural integrity of the containment structure and steel liner shall be determined during the shutdown for each Type A containment leakage rate test (reference Specification 4.6.1.2) by a visual inspection of all accessible surfaces of the structure and steel liner and verifying no apparent changes in appearance of the surfaces or other abnormal degradation.

An initial report of any abnormal degradation of the containment structure or liner detected during these inspections shall be made within 10 days after detection.

RADIOACTIVE EFFLUENTS

DOSE

LIMITING CONDITION FOR OPERATION

3.11.1.2 The dose or dose commitment to an individual from radioactive material in liquid effluents released to unrestricted areas (see Figure 5.1-3) shall be limited:

a. During any calendar quarter to less than or equal to 1.5 mrem to the total body and to less than or equal to 5 mrem to any organ, and

b. During any calendar year to less than or equal to 3 mrem to the total body and to less than or equal to 10 mrem to any organ.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits. This Special Report shall also include (1) the results of radiological analyses of the drinking water source, and (2) the radiological impacts on finished drinking water supplies with regard to the requirements of 40 CFR 141, Safe Drinking Water Act. (Applicable only if drinking water supply is taken from the receiving water body.)

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.2 Dose Calculations: Cumulative dose contributions from liquid effluents shall be determined in accordance with the Offsite Dose Calculation Manual (ODCM) at least once per 31 days.

Radioactive Effluents

Liquid Waste Treatment

Limiting Condition For Operation

3.11.1.3 The liquid radwaste treatment system shall be used to reduce the radioactive materials in liquid wastes prior to their discharge when the projected doses due to the liquid effluent from the site (see Figure 5.1-3) when averaged over 31 days, would exceed 0.06 mrem to the total body or 0.2 mrem to any organ.

Applicability: At all times.

Action:

a. With radioactive liquid waste being discharged without treatment and in excess of the above limits, in lieu of any other report required by Specification 6.9.1, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:

   1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
   2. Action(s) taken to restore the inoperable equipment to operable status, and
   3. Summary description of action(s) taken to prevent recurrence.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

4.11.1.3 Doses due to liquid releases to UNRESTRICTED AREAS shall be projected at least once per 31 days, in accordance with the ODCM, whenever liquid releases are being made without being processed by the liquid radwaste treatment system.

Radioactive Effluents

Liquid Holdup Tanks*

Limiting Condition For Operation

3.11.1.4 The quantity of radioactive material contained in each of the following tanks shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

a. Outside temporary tanks.

Applicability: At all times.

Action:

a. With the quantity of radioactive material in any of the above listed tanks exceeding the above limit, without delay suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit.
b. The provisions of Specifications 3.0.3 and 3.0.4. are not applicable.

Surveillance Requirements

4.11.1.4 The quantity of radioactive material contained in each of the above listed tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

* Tanks included in this Specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.

RADIOACTIVE EFFLUENTS

DOSE, NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.2 The air dose in UNRESTRICTED AREAS due to noble gases released in gaseous effluents shall be limited to the following:

a. During any calendar quarter, to less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation;

b. During any calendar year, to less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

APPLICABILITY: At all times.

ACTION:

a. With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.2 Dose Calculations Cumulative dose contributions for the total time period shall be determined in accordance with the Offsite Dose Calculation Manual (ODCM) at least once every 31 days.

RADIOACTIVE EFFLUENTS

DOSES, RADIOIODINES, RADIOACTIVE MATERIAL IN PARTICULATE FORM, AND RADIONUCLIDES OTHER THAN NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to A MEMBER OF THE PUBLIC from radioiodine, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than 8 days in gaseous effluents released to unrestricted areas shall be limited to the following:

a. During any calendar quarter to less than or equal to 7.5 mrem to any organ;

b. During any calendar year to less than or equal to 15 mrem to any organ;

c. Less than 0.1% of the 3.11.2.3(a) and (b) limits as a result of burning contaminated oil.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, or radionuclides other than noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective action to be taken to assure that subsequent release will be within the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.3 DOSE CALCULATIONS Cumulative dose contributions for the total time period shall be determined in accordance with the ODCM at least once every 31 days.

RADIOACTIVE EFFLUENTS

GASEOUS RADWASTE TREATMENT

LIMITING CONDITION FOR OPERATION

3.11.2.4 The gaseous radwaste treatment system and the ventilation exhaust treatment system shall be used to reduce the radioactive materials in gaseous waste prior to their discharge when the projected gaseous effluent air doses due to gaseous effluent releases to unrestricted areas (See Figure 5.1.3) when averaged over 31 days, would exceed 0.2 mrad for gamma radiation and 0.4 mrad for beta radiation. The ventilation exhaust treatment system shall be used to reduce radioactive materials in gaseous waste prior to their discharge when the projected doses due to gaseous effluent releases to unrestricted areas (See Figure 5.1-3) when averaged over 31 days would exceed 0.3 mrem to any organ.

APPLICABILITY: At all times.

ACTION:

a. With gaseous waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which includes the following information:

   1. Identification of the inoperable equipment or subsystems and the reason for inoperability.

   2. Action(s) taken to restore the inoperable equipment to operable status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.4 Doses due to gaseous releases to UNRESTRICTED AREAS shall be projected at least once per 31 days in accordance with the ODCM, whenever the gaseous waste treatment system or ventilation exhaust treatment system is not operational.

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

3.11.2.5 The concentration of oxygen in the waste gas holdup system shall be limited to less than or equal to 3% by volume if the hydrogen in the system is greater than or equal to 4% by volume.

APPLICABILITY: At all times.

ACTION:

a. With the concentration of oxygen in the waste gas holdup system greater than 3% by volume but less than or equal to 4% by volume and containing greater than or equal to 4% hydrogen, restore the concentration of oxygen to less than or equal to 3% or reduce the hydrogen concentration to less than 4% within 96 hours.

b. With the concentration of oxygen in the waste gas holdup system or tank greater than 4% by volume and greater than 4% hydrogen by volume without delay suspend all additions of waste gases to the system or tank and reduce the concentration of oxygen to less than or equal to 3% or the concentration of hydrogen to less than or equal to 4% within 96 hours in the system or tank.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.5 The concentration of oxygen in the waste gas holdup system shall be determined to within the above limits by continuously monitoring the waste gases in the waste gas holdup system with the oxygen monitors required OPERABLE by Table 3.3-13 of Specification 3.3.3.10.

RADIOACTIVE EFFLUENTS

GAS STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas storage tank shall be limited to 43,800 curies noble gas (considered as Xe-133).

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any gas storage tank exceeding the above limit, without delay suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas storage tank shall be determined to be within the above limit at least once per 4 days by analysis of the Reactor Coolant System noble gases.

3/4.11.3 SOLID RADIOACTIVE WASTE

LIMITING CONDITION FOR OPERATION

3.11.3 The solid radwaste system shall be used as applicable in accordance with a PROCESS CONTROL PROGRAM for the SOLIDIFICATION and packaging of radioactive wastes to ensure meeting the requirements of 10 CFR Part 20 and of 10 CFR Part 71 prior to shipment of radioactive wastes from the site.

APPLICABILITY: At all times.

ACTION:

a. With the packaging requirements of 10 CFR Part 20 and/or 10 CFR Part 71 not satisfied, suspend shipments of defectively packaged solid radioactive wastes from the site.

b. With the solid radwaste system inoperable for more than 31 days, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:

   1. Identification of the inoperable equipment or subsystems and the reason for inoperability,

   2. Action(s) taken to restore the inoperable equipment to operable status,

   3. A description of the alternative used for SOLIDIFICATION and packaging of radioactive wastes, and

   4. Summary description of action(s) taken to prevent a recurrence.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

3/4 11.4 TOTAL DOSE

LIMITING CONDITION FOR OPERATION

3.11.4 The dose or dose commitment to a real individual from all uranium fuel cycle sources is limited to less than or equal to 25 mrem to the total body or any organ (except the thyroid, which is limited to less than or equal to 75 mrem) over a period of 12 consecutive months.

APPLICABILITY: At all times.

ACTION:

a. With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specification 3.11.1.2.a, 3.11.1.2.b, 3.11.2.2.a, 3.11.2.2.b, 3.11.2.3.a, or 3.11.2.3.b, prepare and submit a Special Report to the Director, Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, within 30 days, which defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the limits of Specification 3.11.4. This Special Report shall include an analysis which estimates the radiation exposure (dose) to a member of the public from uranium fuel cycle sources (including all effluent pathways and direct radiation) for a 12 consecutive month period that includes the release(s) covered by this report. If the estimated dose(s) exceeds the limits of Specification 3.11.4, and if the release condition resulting in violation of 40 CFR 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR 190 and including the specified information of paragraph 190.11(b). Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete. The variance only relates to the limits of 40 CFR 190, and does not apply in any way to the requirements for dose limitation of 10 CFR Part 20, as addressed in other sections of this Technical Specification.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.4 DOSE CALCULATIONS: Cumulative dose contributions from liquid and gaseous effluents shall be determined in accordance with Specifications 4.11.1.2, 4.11.2.2, and 4.11.2.3 and with the ODCM.

LIMITING CONDITION FOR OPERATION (CONTINUED)

c. With milk or fresh leafy vegetable samples unavailable from any of the sample locations required by Table 3.12-1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause of the unavailability of samples and identifies locations for obtaining replacement samples. The locations from which samples were unavailable may then be deleted from Table 3.12-1 provided the locations from which the replacement samples were obtained are added to the environmental monitoring program as replacement locations, if available.

d. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.12.1 The radiological environmental monitoring samples shall be collected pursuant to Table 3.12-1 from the locations given in the table and figures in the ODCM and shall be analyzed pursuant to the requirements of Tables 3.12-1 and 4.12-1.

3/4.12.2 LAND USE CENSUS

LIMITING CONDITION FOR OPERATION

3.12.2 A land use census shall be conducted and shall identify the location of the nearest milk animal, the nearest residence and the nearest garden* of greater than 500 square feet producing fresh leafy vegetables in each of the 9 land covering meteorological sectors within a distance of five miles.

APPLICABILITY: At all times.

ACTION:

a. With a land use census identifying a location(s) which yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location(s).

b. With a land use census identifying a location(s) which yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than at a location from which samples are currently being obtained in accordance with Specification 3.12.1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location. The new location shall be added to the radiological environmental monitoring program within 30 days, if possible. The sampling location having the lowest calculated dose or dose commitment (via the same exposure pathway) may be deleted from this monitoring program after (October 31) of the year in which this land use census was conducted.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.12.2. The land use census shall be conducted at least once per 12 months between the dates of June 1 and October 1, by door-to-door survey, aerial survey, or by consulting local agriculture authorities.

* Broad leaf vegetation sampling may be performed at the site boundary in the direction sector with the highest D/Q in lieu of the garden census.

Radiological Environment Monitoring

3/4 12.3 Interlaboratory Comparison Program

Limiting Condition For Operation

3.12.3 Analyses shall be performed on radioactive materials supplied as part of an Interlaboratory Comparison Program which has been approved by the Commission.

Applicability: At all times.

Action:

a. With analyses not being performed as required above, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

4.12.3 A summary of the results obtained as part of the above required Interlaboratory Comparison Program and in accordance with the ODCM (or participants in the EPA crosscheck program shall provide the EPA program code designation for the unit) shall be included in the Annual Radiological Environmental Operating Report.

ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Shift Supervisor (or during his absence from the control room complex, a designated individual) shall be responsible for the control room command function. A management directive to this effect signed by the Vice President - Nuclear Operations shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

ONSITE AND OFFSITE ORGANIZATIONS

6.2.1 Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.

a. Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organizational charts. These organizational charts will be documented in the FSAR and updated in accordance with 10 CFR 50.71(e).

b. The Plant Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.

c. The Vice President - Nuclear Operations shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.

d. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

FACILITY STAFF

6.2.2 The Facility organization shall be subject to the following:

a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in Mode 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room.

c. An individual* qualified in radiation protection procedures shall be on site when fuel is in the reactor.

d. All CORE ALTERATIONS shall be directly supervised by a licensed Senior Operator trained or qualified in refueling and CORE ALTERATIONS (SO-CA) who has no other concurrent responsibilities during this operation.

e. A site fire brigade of at least 5 members* shall be maintained onsite at all times. The fire brigade shall not include 3 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.

f. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with NRC Policy Statement on working hours (Generic Letter 82-12).

g. The Shift Supervisor, Assistant Shift Supervisor, and Unit Supervisor shall hold a Senior Operator License.

h. The Operations Superintendent must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor and one mid-level Operations Production Supervisor shall hold a current Senior Operator License.

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*The individual qualified in radiation protection procedures and the composition of the fire brigade may be less than the minimum requirements for a period of time not to exceed 2 hours, in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION*

LICENSE CATEGORY	APPLICABLE MODES	
	1,2,3 & 4	5 & 6
SS	1**	1**#
SOL	1	None
OL	2	1
Non-Licensed	2	1
Shift Technical Adv.	1**	None

Does not include the licensed Senior Operator - CA supervising CORE ALTERATIONS.

* Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.

** Shared with Cook Nuclear Plant Unit 2.

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the Plant Radiation Protection Manager, who shall meet or exceed qualifications of Regulatory Guide 1.8, September 1975, (2) the Shift Technical Advisor, who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents and, (3) the Operations Superintendent, who must hold or have held a Senior Operator License as specified in Section 6.2.2.h.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.5 REVIEW AND AUDIT

6.5.1 PLANT NUCLEAR SAFETY REVIEW COMMITTEE (PNSRC)

FUNCTION

6.5.1.1 The PNSRC shall function to advise the Plant Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PNSRC shall be composed of Assistant Plant Managers, Department Superintendents, or supervisory personnel reporting directly to the Plant Manager, Assistant Plant Managers or Department Superintendents from the functional areas listed below:

Licensing Activities	Technical Support
Safety & Assessment	Radiation Protection
Operations	Maintenance

The Chairman, his alternate and other members and their alternates of the PNSRC shall be designated by the Plant Manager. In addition to the Chairman, the PNSRC membership shall consist of one individual from each of the areas designated above.

PNSRC members and alternates shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. The nuclear power plant operations individual shall meet the qualifications of Section 4.2.2 of ANSI N18.1-1971 except for the requirement to hold a current Senior Operator License. The operations individual must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor. The maintenance individual shall meet the qualifications of Section 4.2.3 of ANSI N18.1-1971.

ALTERNATES

6.5.1.3 No more than two alternates shall participate as voting members in PNSRC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PNSRC shall meet at least once per calendar month and as convened by the PNSRC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the PNSRC shall consist of the Chairman or his designated alternate and at least three members including alternates.

RESPONSIBILITIES

6.5.1.6 The PNSRC shall be responsible for:

a. Review of all Plant Manager Instructions (PMIs) and revisions thereto.

b. Review of safety evaluations for (1) plant site procedures and revisions thereto which affect the nuclear safety of the plant; (2) changes or modifications to nuclear safety-related structures, systems or components; and (3) tests or experiments which affect plant nuclear safety to verify that such actions did not constitute an unreviewed safety question as defined in 10 CFR 50.59.

c. Review of (1) proposed procedures and revisions to procedures, (2) changes to equipment, systems, or facilities, and (3) proposed tests or experiments which may involve an unreviewed safety question as defined in 10 CFR 50.59.

d. Review of proposed changes to Appendix "A" Technical Specifications or the Operating License and rendering determinations in writing with regard to whether or not the proposed change constitutes a Significant Hazards Consideration.

e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Chairman of the NSDRC.

f. Review of all REPORTABLE EVENTS.

g. Review of facility operations to detect potential nuclear safety hazards.

h. Performance of special reviews, investigations of analyses and reports thereon as requested by the Chairman of the NSDRC.

i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Chairman of the NSDRC.

j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Chairman of the NSDRC.

k. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluations, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Vice President - Nuclear Operations and to the NSDRC.

l. Review of changes to the PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, and radwaste treatment system.

AUTHORITY

6.5.1.7 The PNSRC shall:

a. Recommend to the Plant Manager written approval or disapproval of items considered under 6.5.1.6 (a) through (d) above.

b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6 (a) through (c) and (e) above constitutes an unreviewed safety question.

c. Provide written notification within 24 hours to the Vice President - Nuclear Operations and the NSDRC of disagreement between the PNSRC and the Plant Manager; however, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The PNSRC shall maintain written minutes of each meeting and copies shall be provided to the Chairman of the NSDRC.

6.5.2 NUCLEAR SAFETY AND DESIGN REVIEW COMMITTEE (NSDRC)

FUNCTION

6.5.2.1 The NSDRC shall function to provide independent review and audit of designated activities in the areas of:

a. nuclear power plant operations

b. nuclear engineering

c. chemistry and radiochemistry

d. metallurgy

e. instrumentation and control

f. radiological safety

g. mechanical and electrical engineering

h. quality assurance practices

COMPOSITION

6.5.2.2 The NSDRC shall be composed of the following regular members:

1. Vice President - Nuclear Operations (NSDRC Chairman)
2. Section Manager, Nuclear Safety and Licensing - Nuclear Operations (NSDRC Secretary)
3. Plant Manager - Donald C. Cook Nuclear Plant
4. Executive Assistant to the President - Indiana Michigan Power Company
5. Senior Executive Vice President - Engineering & Construction
6. Senior Vice President and Chief Engineer
7. Chief - Electrical Engineering
8. Vice President - Project Management and Construction
9. Assistant Vice President - Nuclear Engineering
10. Assistant Vice President - Civil Engineering
11. Assistant Vice President - Design
12. Division Manager - Environmental and Technical Assessment
13. Director - Quality Assurance
14. Division Manager - Electrical Systems

Additional members and Vice Chairman may be appointed by the Senior Executive Vice President - Engineering and Construction.

ALTERNATE MEMBERS

6.5.2.3 Designated alternate members shall be appointed by the Senior Executive Vice President - Engineering and Construction or such other person as he shall designate. In addition, temporary alternate members may be appointed by the NSDRC Chairman to serve on an interim basis, as required. Temporary alternate members are empowered to act on the behalf of the regular or designated alternate members for whom they substitute.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the NSDRC Chairman to provide expert advice to the NSDRC.

MEETING FREQUENCY

6.5.2.5 The NSDRC shall meet at least once per six months.

QUORUM

6.5.2.6 A quorum, the minimum number of regular members and alternates required to hold a NSDRC meeting shall be eight members, of whom no more than two shall be designated or temporary alternates. The Chairman or acting Chairman shall be present for all NSDRC meetings. If the number of members present* is greater than a quorum, then the majority participating and voting at the meeting shall not have line responsibility for operations of the facility. For the purpose of a quorum, only the Plant Manager is considered to have line responsibility.

REVIEW

6.5.2.7. The NSDRC is responsible for assuring that independent** reviews of the following are performed:

a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question.

b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in 10 CFR 50.59.

c. Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59.

d. Proposed changes in Technical Specifications or this operating license.

e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.

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*Regular NSDRC members are expected to attend the meeting whenever possible, and alternates may attend as voting members only on an irregular basis. If both a regular member and his alternate attend a meeting, only the regular member may participate as a voting member, and the alternate is considered a guest.

**Independent reviews may be performed by groups which report directly to the NSDRC and which must have NSDRC membership participation.

f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.

g. All REPORTABLE EVENTS.

h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.

i. Reports and meeting minutes of the PNSRC.

AUDITS

6.5.2.8 Audits of facility activities shall be performed under the cognizance of the NSDRC. These audits shall encompass:

a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.

b. The performance, training, and qualifications of the entire facility staff at least once per 12 months.

c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.

d. The performance of activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per 24 months.

e. The Facility Emergency Plan and implementing procedures at least once per 12 months.

f. The Facility Security Plan and implementing procedures at least once per 12 months.

g. The fire protection programmatic controls including the implementing procedures at least once per 24 months by qualified licensee QA personnel.

h. The fire protection equipment and program implementation at least once per 12 months using either a qualified offsite licensee fire protection engineer or an outside independent fire protection consultant. An outside independent fire protection consultant shall be used at least every third year.

i. The Radiological Environmental Monitoring Program and the results thereof at least once per 12 months.

j. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.

k. The PROCESS CONTROL PROGRAM and implementing procedures for solidification of radioactive wastes at least once per 24 months.

l. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 1.21, Rev. 1, June 1974 and Regulatory Guide 4.1, Rev. 1, April 1975 at least once per 12 months.

m. Any other area of facility operation considered appropriate by the NSDRC.

AUTHORITY

6.5.2.9 The NSDRC shall report to and advise the Senior Executive Vice President - Engineering and Construction, AEPSC, on those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8.

RECORDS

6.5.2.10 Records of NSDRC activities shall be prepared, approved and distributed as indicated below:

a. Minutes of each NSDRC meeting shall be prepared, approved and forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC, within 14 days following each meeting.

b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC, within 14 days following completion of the review.

c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC, and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.5.3 TECHNICAL REVIEW AND CONTROL

6.5.3.1 Activities which affect nuclear safety shall be conducted as follows:

a. Procedures required by Specification 6.8 and other procedures which affect plant nuclear safety, and changes thereto, shall be prepared, reviewed and approved. Each such procedure or procedure change shall be reviewed by a qualified individual/group other than the individual/group which prepared the procedure or procedure change, but who may be from the same organization as the individual/group which prepared the procedure or procedure change. Procedures other than Plant Manager Procedures

shall be approved by the appropriate department head as previously designated in writing by the Plant Manager. The Plant Manager shall approve Security Plan implementing procedures, Emergency Plan implementing procedures and Plant Manager Procedures. Temporary changes to procedures which do not change the intent of the approved procedures shall be approved for implementation by two members of the plant staff, at least one of whom holds a Senior Operator license, and documented. The temporary changes shall be approved by the original approval authority within 14 days of implementation. For changes to procedures which may involve a change in intent of the approved procedures, the person authorized above to approve the procedure shall approve the change prior to implementation.

b. Proposed changes or modifications to plant nuclear safety-related structures, systems and components shall be reviewed as designated by the Plant Manager. Each such modification shall be reviewed (reference T/S 6.5.3.1.e) by a qualified (reference T/S 6.5.3.1.d) individual/group other than the individual/group which designed the modification, but who may be from the same organization as the individual/group which designed the modifications. Proposed modifications to plant nuclear safety-related structures, systems and components shall be approved prior to implementation by the Plant Manager.

c. Proposed tests and experiments which affect plant nuclear safety and are not addressed in the Final Safety Analysis Report or Technical Specifications shall be prepared, reviewed, and approved. Each such test or experiment shall be reviewed by qualified individuals/groups other than the individual/group which prepared the proposed test or experiment to assure cross-disciplinary review as appropriate for the proposed test or experiment. Proposed tests and experiments shall be approved before implementation by the Plant Manager.

d. Individuals who conducted the reviews performed in accordance with Specification 6.5.3.1a, 6.5.3.1b, and 6.5.3.1c, shall be members of the plant management staff previously designated by the Plant Manager and shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. Each such review shall include a determination of whether or not additional, cross-disciplinary review is necessary. If deemed necessary, such review shall be performed by qualified personnel of the appropriate discipline.

e. Each review shall include a determination of whether or not an unreviewed safety question is involved. Pursuant to 10 CFR 50.59, NRC approval of items involving unreviewed safety questions shall be obtained prior to the Plant Manager approval for implementation.

f. The Emergency Plan and implementing procedures shall be reviewed at least once per 12 months. Recommended changes to the

plan and implementing procedures shall be reviewed pursuant to the requirements of Specifications 6.5.1.6 and 6.5.2.7 and approved by the Plant Manager. NRC approval shall be obtained as appropriate.

g. Recommended changes to the Security Plan and implementing procedures shall be reviewed pursuant to the requirements of Specifications 6.5.1.6 and 6.5.2.7 and approved by the Plant Manager. NRC approval shall be obtained as appropriate.

6.5.3.2 Records of the above activities shall be provided to the Plant Manager, PNSRC and/or the NSDRC as necessary for required reviews.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and a report submitted pursuant to the requirements of 10 CFR 50.73, and

b. Each REPORTABLE EVENT shall be reviewed by the PNSRC, and the results of this review shall be submitted to the NSDRC and the Vice President - Nuclear Operations.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a safety limit is violated:

a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Chairman of the NSDRC shall be notified within 24 hours.

b. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PNSRC. This report shall describe (1) applicable circumstances preceding the violation; (2) effects of the violation upon facility components, systems or structures; and (3) corrective action taken to prevent recurrence.

c. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman of the NSDRC and the Vice President - Nuclear Operations within 14 days of the violation.

d. Operation of the unit shall not be resumed until authorized by the Commission.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Rev. 2, February 1978.

b. Security Plan implementation.

c. Emergency Plan implementation.

d. PROCESS CONTROL PROGRAM implementation.

e. OFFSITE DOSE CALCULATION MANUAL implementation.

f. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974, and Regulatory Guide 4.1, Rev. 1, April 1975.

6.8.2 Each procedure and administrative policy of Specification 6.8.1 above, and changes thereto, including temporary changes, shall be reviewed prior to implementation as set forth in Specification 6.5 above.

6.8.3 A plant program for post-accident sampling shall be established, implemented, and maintained which will ensure the capability to obtain and analyze reactor coolant samples, containment atmosphere noble gas samples, and unit vent gaseous effluent samples for iodines and particulates under accident conditions. The program will include the following:

a. Training of personnel,

b. Procedures for sampling and analysis,

c. Provisions for maintenance of sampling and analysis equipment.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator unless otherwise noted.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL REPORTS[1]

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include:

a. A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions[2], e.g., reactor operations and surveillance, in-service inspection, routine maintenance, special maintenance (describe maintenance), waste processing and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

b. The complete results of steam generator tube in-service inspections performed during the report period (reference Specification 4.4.5.5.b).

c. Documentation of all challenges to the pressurizer power operated relief valves (PORVs) or safety valves.

d. Information regarding any instances when the I-131 specific activity limit was exceeded.

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[1] A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

[2] This tabulation supplements the requirements of 20.407 of 10 CFR Part 20.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT[3]

6.9.1.6 Routine radiological environmental operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.

6.9.1.7 The annual radiological environmental operating reports shall include summaries, interpretations, and statistical evaluation of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of the land-use census required by Specification 3.12.2. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report shall provide an analysis of the problem and a planned course of action to alleviate the problem.

The annual radiological environmental operating reports shall include summarized and tabulated results in the format of 3.12-2 of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program including sampling methods for each sample type, size, and physical characteristics of each sample type, sample preparation methods, analytical methods, and measuring equipment used; a map of all sample locations keyed to a table giving distances and directions from one reactor; the result of land-use census required by the Specification 3.12.2; and the results of participation in the Interlaboratory Comparison Program required by Specification 3.12.3.

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT[3]

6.9.1.8 Routine radioactive effluent release reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year.

6.9.1.9 The radioactive effluent release reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the units as outlined in Regulatory Guide 1.21, "Measuring, Evaluating and Reporting in Solid Wastes and Releases of Radioactive

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[3]A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station;however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material for each unit.

Materials in Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants," with data summarized on a quarterly basis following the format of Appendix B, thereof.

The radioactive effluent release report to be submitted 60 days after January 1, and July 1 of each year shall include a quarterly summary of hourly meteorological data collected during the reporting period. This summary may be either in the form of an hour-by-hour listing of wind speed, wind direction, atmospheric stability, and precipitation (if measured) on magnetic tape, or in the form of joint frequency distributions of wind speed, wind direction and atmospheric stability. The report submitted 60 days after January 1 shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. These reports shall include an assessment of the radiation doses from radioactive liquid and gaseous effluents to members of the public due to their activities inside the site boundary (Figure 5.1-3) during the reporting period. All assumptions used in making these assessments (i.e., specific activity, exposure time and location) shall be included in these reports. The meteorological conditions concurrent with the time of release of radioactive materials in gaseous effluents (as determined by sampling frequency and measurement) shall be used for determining the gaseous pathway doses. The assessment of radiation doses shall be performed in accordance with the Offsite Dose Calculation Manual (ODCM).

The radioactive effluent release report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed member of the public from reactor releases and other nearby uranium fuel cycle sources (including doses from primary effluent pathways and direct radiation) for the previous 12 consecutive months to show conformance with 40 CFR 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Rev. 1.

The radioactive effluent release report shall include the following information for each type of solid waste shipped offsite during the report period:

a. Volume (cubic meters),

b. Total curie quantity (specify whether determined by measurement or estimate),

c. Principal radionuclides (specify whether determined by measurement or estimate),

d. Type of waste (e.g., spent resin, compacted dry waste, evaporator bottoms),

e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and

f. Solidification agent (e.g., cement).

The radioactive effluent release report shall include unplanned releases from the site to unrestricted areas of radioactive materials in gaseous and liquid effluent on a quarterly basis.

The radioactive effluent release reports shall include any change to the PROCESS CONTROL PROGRAM (PCP) and the OFFSITE DOSE CALCULATION MANUAL (ODCM) made during the reporting period.

MONTHLY REACTOR OPERATING REPORT

6.9.1.10 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission (Attn: Document Control Desk), Washington, D.C. 20555, with a copy to the Regional Office no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

6.9.1.11.1 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

a. Moderator Temperature Coefficient Limits for Specification 3/4.1.1.4,

b. Rod Drop Time Limits for Specification 3/4.1.3.3,

c. Shutdown Rod Insertion Limits for Specification 3/4.1.3.4,

d. Control Rod Insertion Limits for Specification 3/4.1.3.5,

e. Axial Flux Difference for Specification 3/4.2.1,

f. Heat Flux Hot Channel Factor for Specification 3/4.2.2,

g. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3, and

h. Allowable Power Level for Specification 3/4.2.6.

6.9.1.11.2 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:

a. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985 (Westinghouse Proprietary),

CORE OPERATING LIMITS REPORT (Continued)

b. WCAP-8385, "Power Distribution Control and Load Following Procedures - Topical Report," September 1974 (Westinghouse Proprietary),

c. WCAP-10216-P-A, Part B, "Relaxation of Constant Axial Offset Control/F_Q Surveillance Technical Specification," June 1983 (Westinghouse Proprietary),

d. WCAP-10266-P-A Rev. 2, "The 1981 Version of Westinghouse Evaluation Mode Using BASH Code," March 1987 (Westinghouse Proprietary).

6.9.1.11.3 The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

6.9.1.11.4 The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC document control desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the attention of the document control desk - U.S. Nuclear Regulatory Commission (Washington, D.C. 20555), with copies to the Region III Administrator and the Resident Inspector at the Cook Nuclear Plant within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.

b. Seismic Monitoring Instrumentation Actuated, Specification 4.3.3.3.2.

c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.

d. High Specific Activity in RCS Coolant, Specification 3.4.8.

e. RCS Pressure Transient Mitigated By RHR Safety Valve or RCS Vent(s), Specification 3.4.9.3.

f. Moderator Temperature Coefficient, Specification 3.1.1.4.

SPECIAL REPORTS (Continued)

g. Sealed Source Leakage in Excess of Limits, Specification 4.7.7.1.3.

h. ECCS Actuation, Specifications 3.5.2 and 3.5.3.

i. Excessive Releases in Radioactivity, Specifications 3.11.1.2, 3.11.1.3, 3.11.2.2, 3.11.2.3, 3.11.2.4, and 3.11.4.

j. Inoperable Solid Radwaste System, Specification 3.11.3.

k. Excessive Level of Radioactivity in Quarterly Environmental Sample, Specification 3.12.1 (Action b).

l. Milk and Vegetable Samples Not Available, Specification 3.12.1 (Action c).

m. Greater Calculated Dose or Dose Commitment Identified by Land Census, Specification 3.12.2 (Actions a & b).

n. Violation of Safety Limit, Specification 6.7.1.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

a. Records and logs of unit operation covering time interval at each power level.

b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.

c. All REPORTABLE EVENTS submitted to the Commission.

d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.

e. Records of changes made to the procedures required by Specification 6.8.1.

f. Records of sealed source and fission detection leak tests and results.

g. Records of annual physical inventory of all sealed source material on record.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.

c. Records of radiation exposure for all individuals entering radiation control areas.

d. Records of gaseous and liquid radioactive material released to the environs.

e. Records of transient or operational cycles for those facility components identified in Table 5.9-1.

f. Records of reactor tests and experiments.

g. Records of training and qualification for current members of the Plant Staff.

h. Records of in-service inspections performed pursuant to these Technical Specifications.

i. Records of Quality Assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or review of tests and experiments pursuant to 10 CFR 50.59.

k. Records of meetings of the PNSRC and the NSDRC.

l. Records of radioactive shipments.

m. Records of the service lives of hydraulic snubbers listed on Table 3.7-4 including the date at which service life commences and associated installation and maintenance records.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and

conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit*. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made aware of it.

c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility Health Physicist in the Radiation Work Permit.

6.12.2 The requirements of 6.12.1 shall also apply to each high radiation area in which the intensity of radiation is greater than 1000mrem/hr. When possible, locked doors shall be provided to prevent unauthorized entry into such areas, and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or the Plant Health Physicist (Plant Radiation Protection Supervisor). Doors shall remain locked except during periods of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas. In the event that it is not possible or practicable to provide locked doors due to area size or configuration, the area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device.

6.13 DELETED

6.14 PROCESS CONTROL PROGRAM (PCP)

6.14.1 The PCP shall be approved by the Commission prior to implementation.

6.14.2 Licensee initiated changes to the PCP:

1. Shall be submitted to the Commission in the semi-annual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;

*Health Physics (Radiation Protection) personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

b. A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and

c. Documentation of the fact that the change has been reviewed and found acceptable by the PNSRC.

2. Shall become effective upon review and acceptance by the PNSRC.

6.15 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.15.1 The ODCM shall be approved by the Commission prior to implementation.

6.15.2 Licensee initiated changes to the ODCM:

1. Shall be submitted to the Commission in the Semi-annual Radioactive Effluent Release Report in the next report after the report period the change(s) was made effective. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s);

   b. A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and

   c. Documentation of the fact that the change has been reviewed and found acceptable by the PNSRC.

2. Shall become effective upon review and acceptance by the PNSRC.

6.15.3 Commission initiated changes:

1. Shall be determined by the PNSRC to be applicable to the facility after consideration of facility design.

2. The licensee shall provide the Commission with written notification of their determination of applicability including any necessary revisions to reflect facility design.

6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous, and Solid)

6.16.1 Licensee initiated major changes to the radioactive waste systems (liquid, gaseous and solid):

6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous, and Solid) (Continued)

1. Shall be reported to the Commission in the Annual Operating Report for the period in which the evaluation was reviewed by the (PNSRC). The discussions of each change shall contain:

   a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;

   b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

   c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

   d. An evaluation of the change which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;

   e. An evaluation of the change which shows the expected maximum exposure to individuals in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;

   f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;

   g. An estimate of the exposure to plant operation personnel as a result of the change; and

   h. Documentation of the fact that the change was reviewed and found acceptable by the PNSRC.

2. Shall become effective upon review and acceptance by the PNSRC.

6.16.2 Commission initiated changes:

1. The applicability of the change to the facility shall be determined by the (PNSRC) after consideration of the facility design.

2. The licensee shall provide the Commission with written notification of its determination of applicability including any necessary revisions to reflect facility design.

ATTACHMENT TO LICENSE AMENDMENT NO. 138

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 marginal lines indicating the area of change.

REMOVE	INSERT
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XVIII	XVIII
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3/4 3-58	3/4 5-58
3/4 6-9	3/4 6-9
3/4 11-4	3/4 11-4
3/4 11-5	3/4 11-5
3/4 11-6	3/4 11-6
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3/4 11-17	3/4 11-17
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INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded.

APPLICABILITY: As shown in Table 3.3-12.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than a value which will ensure that the limits of 3.11.1.1 are met, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, reset, or declare the channel inoperable.

b. With one or more radioactive liquid effluent monitoring instrumentation channels inoperable, take the applicable ACTION shown in Table 3.3-12.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9.1 The setpoints shall be determined in accordance with methodology as described in the ODCM and shall be recorded.

4.3.3.9.2 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-8.

Instrumentation

Radioactive Gaseous Process and Effluent Monitoring Instrumentation

Limiting Condition for Operation

3.3.3.10 The radioactive gaseous process and effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of 3.11.2.1 are not exceeded.

Applicability: As shown in Table 3.3-13.

Action:

a. With a radioactive gaseous process or effluent monitoring instrumentation channel alarm/trip setpoint less conservative than a value which will ensure that the limits of 3.11.2.1 are met, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel, reset, or declare the channel inoperable.

b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

4.3.3.10.1 The setpoints shall be determined in accordance with methodology as described in the ODCM and shall be recorded.*

4.3.3.10.2 Each radioactive gaseous process or effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-9.

* This surveillance requirement does not apply to the Waste Gas Holdup System Hydrogen and Oxygen Monitors, as their setpoints are not addressed in the ODCM.

CONTAINMENT STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.6 The structural integrity of the containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the structural integrity of the containment not conforming to the above requirements, restore the structural integrity to within the limits prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.6 The structural integrity of the containment shall be determined during the shutdown for each Type A containment leakage rate test (reference Specification 4.6.1.2) by a visual inspection of the exposed accessible interior and exterior surfaces of the containment, including the liner plate, and verifying no apparent changes in appearance of the surfaces or other abnormal degradation.

RADIOACTIVE EFFLUENTS

DOSE

LIMITING CONDITION FOR OPERATION

3.11.1.2 The dose or dose commitment to an individual from radioactive material in liquid effluents released to unrestricted areas (see Figure 5.1-3) shall be limited:

a. During any calendar quarter to less than or equal to 1.5 mrem to the total body and to less than or equal to 5 mrem to any organ, and

b. During any calendar year to less than or equal to 3 mrem to the total body and to less than or equal to 10 mrem to any organ.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits. This Special Report shall also include (1) the results of radiological analyses of the drinking water source, and (2) the radiological impacts on finished drinking water supplies with regard to the requirements of 40 CFR 141, Safe Drinking Water Act. (Applicable only if drinking water supply is taken from the receiving water body.)

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.2 Dose Calculations: Cumulative dose contributions from liquid effluents shall be determined in accordance with the Offsite Dose Calculation Manual (ODCM) at least once per 31 days.

Radioactive Effluents

Liquid Waste Treatment

Limiting Condition For Operation

3.11.1.3 The liquid radwaste treatment system shall be used to reduce the radioactive materials in liquid wastes prior to their discharge when the projected doses due to the liquid effluent from the site (see Figure 5.1-3) when averaged over 31 days, would exceed 0.06 mrem to the total body or 0.2 mrem to any organ.

Applicability: At all times.

Action:

a. With radioactive liquid waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:

   1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
   2. Action(s) taken to restore the inoperable equipment to operable status, and
   3. Summary description of action(s) taken to prevent recurrence.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

4.11.1.3 Doses due to liquid releases to UNRESTRICTED AREAS shall be projected at least once per 31 days, in accordance with the ODCM, whenever liquid releases are being made without being processed by the liquid radwaste treatment system.

Radioactive Effluents

Liquid Holdup Tanks*

Limiting Condition For Operation

3.11.1.4 The quantity of radioactive material contained in each of the following tanks shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

a. Outside temporary tanks.

Applicability: At all times.

Action:

a. With the quantity of radioactive material in any of the above listed tanks exceeding the above limit, without delay suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit.
b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

4.11.1.4 The quantity of radioactive material contained in each of the above listed tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

* Tanks included in this Specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.

RADIOACTIVE EFFLUENTS

DOSE, NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.2 The air dose in UNRESTRICTED AREAS due to noble gases released in gaseous effluents shall be limited to the following:

a. During any calendar quarter, to less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation;

b. During any calendar year, to less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

APPLICABILITY: At all times.

ACTION:

a. With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.2 Dose Calculations Cumulative dose contributions for the total time period shall be determined in accordance with the Offsite Dose Calculation Manual (ODCM) at least once every 31 days.

DOSES, RADIOIODINES, RADIOACTIVE MATERIAL IN PARTICULATE FORM, AND RADIONUCLIDES OTHER THAN NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to A MEMBER OF THE PUBLIC from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than 8 days in gaseous effluents released to unrestricted areas shall be limited to the following:

a. During any calendar quarter to less than or equal to 7.5 mrem to any organ;

b. During any calendar year to less than or equal to 15 mrem to any organ;

c. Less than 0.1% of the 3.11.2.3(a) and (b) limits as a result of burning contaminated oil.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, or radionuclides other than noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective action to be taken to assure that subsequent releases will be within the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.3 DOSE CALCULATIONS Cumulative dose contributions for the total time period shall be determined in accordance with the ODCM at least once every 31 days.

RADIOACTIVE EFFLUENTS

GASEOUS RADWASTE TREATMENT

LIMITING CONDITION FOR OPERATION

3.11.2.4 The gaseous radwaste treatment system and the ventilation exhaust treatment system shall be used to reduce the radioactive materials in gaseous waste prior to their discharge when the projected gaseous effluent air doses due to gaseous effluent releases to unrestricted areas (See Figure 5.1.3) when averaged over 31 days, would exceed 0.2 mrad for gamma radiation and 0.4 mrad for beta radiation. The ventilation exhaust treatment system shall be used to reduce radioactive materials in gaseous waste prior to their discharge when the projected doses due to gaseous effluent releases to unrestricted areas (See Figure 5.1-3) when averaged over 31 days would exceed 0.3 mrem to any organ.

APPLICABILITY: At all times.

ACTION:

a. With gaseous waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which includes the following information:

   1. Identification of the inoperable equipment or subsystems and the reason for inoperability.

   2. Action(s) taken to restore the inoperable equipment to operable status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.4 Doses due to gaseous releases to UNRESTRICTED AREAS shall be projected at least once per 31 days in accordance with the ODCM, whenever the gaseous waste treatment system or ventilation exhaust treatment system is not operational.

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

3.11.2.5 The concentration of oxygen in the waste gas holdup system shall be limited to less than or equal to 3% by volume if the hydrogen in the system is greater than or equal to 4% by volume.

APPLICABILITY: At all times.

ACTION:

a. With the concentration of oxygen in the waste gas holdup system greater than 3% by volume but less than or equal to 4% by volume and containing greater than or equal to 4% hydrogen, restore the concentration of oxygen to less than or equal to 3% or reduce the hydrogen concentration to less than 4% within 96 hours.

b. With the concentration of oxygen in the waste gas holdup system or tank greater than 4% by volume and greater than 4% hydrogen by volume without delay suspend all additions of waste gases to the system or tank and reduce the concentration of oxygen to less than or equal to 3% or the concentration of hydrogen to less than or equal to 4% within 96 hours in the system or tank.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.5 The concentration of oxygen in the waste gas holdup system shall be determined to be within the above limits by continuously monitoring the waste gases in the waste gas holdup system with the oxygen monitors required OPERABLE by Table 3.3-13 of Specification 3.3.3.10.

RADIOACTIVE EFFLUENTS

GAS STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas storage tank shall be limited to 43,800 curies noble gas (considered as Xe-133).

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any gas storage tank exceeding the above limit, without delay suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas storage tank shall be determined to be within the above limit at least once per 4 days by analysis of the Reactor Coolant System noble gases.

3/4.11.3 SOLID RADIOACTIVE WASTE

LIMITING CONDITION FOR OPERATION

3.11.3 The solid radwaste system shall be used as applicable in accordance with a PROCESS CONTROL PROGRAM for the SOLIDIFICATION and packaging of radioactive wastes to ensure meeting the requirements of 10 CFR Part 20 and of 10 CFR Part 71 prior to shipment of radioactive wastes from the site.

APPLICABILITY: At all times.

ACTION:

a. With the packaging requirements of 10 CFR Part 20 and/or 10 CFR Part 71 not satisfied, suspend shipments of defectively packaged solid radioactive wastes from the site.

b. With the solid radwaste system inoperable for more than 31 days, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:

   1. Identification of the inoperable equipment or subsystems and the reason for inoperability,

   2. Action(s) taken to restore the inoperable equipment to operable status,

   3. A description of the alternative used for SOLIDIFICATION and packaging of radioactive wastes, and

   4. Summary description of action(s) taken to prevent a recurrence.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

3/4 11.4 TOTAL DOSE

LIMITING CONDITION FOR OPERATION

3.11.4 The dose or dose commitment to a real individual from all uranium fuel cycle sources is limited to less than or equal to 25 mrem to the total body or any organ (except the thyroid, which is limited to less than or equal to 75 mrem) over a period of 12 consecutive months.

APPLICABILITY: At all times.

ACTION:

a. With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specification 3.11.1.2.a, 3.11.1.2.b, 3.11.2.2.a, 3.11.2.2.b, 3.11.2.3.a, or 3.11.2.3.b, prepare and submit a Special Report to the Director, Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, within 30 days, which defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the limits of Specification 3.11.4. This Special Report shall include an analysis which estimates the radiation exposure (dose) to a member of the public from uranium fuel cycle sources (including all effluent pathways and direct radiation) for a 12 consecutive month period that includes the release(s) covered by this report. If the estimated dose(s) exceeds the limits of Specification 3.11.4, and if the release condition resulting in violation of 40 CFR 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR 190 and including the specified information of paragraph 190.11(b). Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete. The variance only relates to the limits of 40 CFR 190, and does not apply in any way to the requirements for dose limitation of 10 CFR Part 20, as addressed in other sections of this Technical Specification.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.4 DOSE CALCULATIONS: Cumulative dose contributions from liquid and gaseous effluents shall be determined in accordance with Specifications 4.11.1.2, 4.11.2.2, and 4.11.2.3 and with the ODCM.

LIMITING CONDITION FOR OPERATION (CONTINUED)

c. With milk or fresh leafy vegetable samples unavailable from any of the sample locations required by Table 3.12-1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause of the unavailability of samples and identifies locations for obtaining replacement samples. The locations from which samples were unavailable may then be deleted from Table 3.12-1 provided the locations from which the replacement samples were obtained are added to the environmental monitoring program as replacement locations, if available.

d. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.12.1 The radiological environmental monitoring samples shall be collected pursuant to Table 3.12-1 from the locations given in the table and figures in the ODCM and shall be analyzed pursuant to the requirements of Tables 3.12-1 and 4.12-1.

3/4.12.2 LAND USE CENSUS

LIMITING CONDITION FOR OPERATION

3.12.2 A land use census shall be conducted and shall identify the location of the nearest milk animal, the nearest residence and the nearest garden* of greater than 500 square feet producing fresh leafy vegetables in each of the 9 land covering meteorological sectors within a distance of five miles.

APPLICABILITY: At all times.

ACTION:

a. With a land use census identifying a location(s) which yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location(s).

b. With a land use census identifying a location(s) which yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than at a location from which samples are currently being obtained in accordance with Specification 3.12.1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location. The new location shall be added to the radiological environmental monitoring program within 30 days, if possible. The sampling location having the lowest calculated dose or dose commitment (via the same exposure pathway) may be deleted from this monitoring program after (October 31) of the year in which this land use census was conducted.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.12.2. The land use census shall be conducted at least once per 12 months between the dates of June 1 and October 1, by door-to-door survey, aerial survey, or by consulting local agriculture authorities.

* Broad leaf vegetation sampling may be performed at the site boundary in the direction sector with the highest D/Q in lieu of the garden census.

3/4 12.3 Interlaboratory Comparison Program

Limiting Condition For Operation

3.12.3 Analyses shall be performed on radioactive materials supplied as part of an Interlaboratory Comparison Program which has been approved by the Commission.

Applicability: At all times.

Action:

a. With analyses not being performed as required above, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

4.12.3 A summary of the results obtained as part of the above required Interlaboratory Comparison Program and in accordance with the ODCM (or participants in the EPA crosscheck program shall provide the EPA program code designation for the unit) shall be included in the Annual Radiological Environmental Operating Report.

ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Shift Supervisor (or during his absence from the control room complex, a designated individual) shall be responsible for the control room command function. A management directive to this effect signed by the Vice President - Nuclear Operations shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

ONSITE AND OFFSITE ORGANIZATIONS

6.2.1 Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.

a. Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organizational charts. These organizational charts will be documented in the FSAR and updated in accordance with 10 CFR 50.71(e).

b. The Plant Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.

c. The Vice President - Nuclear Operations shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.

d. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

FACILITY STAFF

6.2.2 The Facility organization shall be subject to the following:

a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in Mode 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room.

c. An individual* qualified in radiation protection procedures shall be on site when fuel is in the reactor.

d. All CORE ALTERATIONS shall be directly supervised by a licensed Senior Operator trained or qualified in refueling and CORE ALTERATIONS (SO-CA) who has no other concurrent responsibilities during this operation.

e. A site fire brigade of at least 5 members* shall be maintained onsite at all times. The fire brigade shall not include 3 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.

f. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with NRC Policy Statement on working hours (Generic Letter 82-12).

g. The Shift Supervisor, Assistant Shift Supervisor, and Unit Supervisor shall hold a Senior Operator License.

h. The Operations Superintendent must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor and one mid-level Operations Production Supervisor shall hold a current Senior Operator License.

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*The individual qualified in radiation protection procedures and the composition of the fire brigade may be less than the minimum requirements for a period of time not to exceed 2 hours, in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION*

LICENSE CATEGORY	APPLICABLE MODES	
	1,2,3 & 4	5 & 6
SS	1**	1**#
SOL	1	None
OL	2	1
Non-Licensed	2	1
Shift Technical Adv.	1**	None

Does not include the licensed Senior Operator - CA supervising CORE ALTERATIONS.

* Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.

** Shared with Cook Nuclear Plant Unit 1.

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the Plant Radiation Protection Manager, who shall meet or exceed qualifications of Regulatory Guide 1.8, September 1975, (2) the Shift Technical Advisor, who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents and, (3) the Operations Superintendent, who must hold or have held a Senior Operator License as specified in Section 6.2.2.h.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.5 REVIEW AND AUDIT

6.5.1 PLANT NUCLEAR SAFETY REVIEW COMMITTEE (PNSRC)

FUNCTION

6.5.1.1 The PNSRC shall function to advise the Plant Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PNSRC shall be composed of Assistant Plant Managers, Department Superintendents, or supervisory personnel reporting directly to the Plant Manager, Assistant Plant Managers or Department Superintendents from the functional areas listed below:

Licensing Activities	Technical Support
Safety & Assessment	Radiation Protection
Operations	Maintenance

The Chairman, his alternate and other members and their alternates of the PNSRC shall be designated by the Plant Manager. In addition to the Chairman, the PNSRC membership shall consist of one individual from each of the areas designated above.

PNSRC members and alternates shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. The nuclear power plant operations individual shall meet the qualifications of Section 4.2.2 of ANSI N18.1-1971 except for the requirement to hold a current Senior Operator License. The operations individual must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor. The maintenance individual shall meet the qualifications of Section 4.2.3 of ANSI N18.1-1971.

ALTERNATES

6.5.1.3 No more than two alternates shall participate as voting members in PNSRC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PNSRC shall meet at least once per calendar month and as convened by the PNSRC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the PNSRC shall consist of the Chairman or his designated alternate and at least three members including alternates.

RESPONSIBILITIES

6.5.1.6 The PNSRC shall be responsible for:

a. Review of all Plant Manager Instructions (PMIs) and revisions thereto.

b. Review of safety evaluations for (1) plant site procedures and revisions thereto which affect the nuclear safety of the plant; (2) changes or modifications to nuclear safety-related structures, systems or components; and (3) tests or experiments which affect plant nuclear safety to verify that such actions did not constitute an unreviewed safety question as defined in 10 CFR 50.59.

c. Review of (1) proposed procedures and revisions to procedures, (2) changes to equipment, systems, or facilities, and (3) proposed tests or experiments which may involve an unreviewed safety question as defined in 10 CFR 50.59.

d. Review of proposed changes to Appendix "A" Technical Specifications or the Operating License and rendering determinations in writing with regard to whether or not the proposed change constitutes a Significant Hazards Considerations.

e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Chairman of the NSDRC.

f. Review of all REPORTABLE EVENTS.

g. Review of facility operations to detect potential nuclear safety hazards.

h. Performance of special reviews, investigations of analyses and reports thereon as requested by the Chairman of the NSDRC.

i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Chairman of the NSDRC.

j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Chairman of the NSDRC.

k. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluations, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Vice President - Nuclear Operations and to the NSDRC.

l. Review of changes to the PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, and radwaste treatment system.

AUTHORITY

6.5.1.7 The PNSRC shall:

a. Recommend to the Plant Manager written approval or disapproval of items considered under 6.5.1.6 (a) through (d) above.

b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6 (a) through (c) and (e) above constitutes an unreviewed safety question.

c. Provide written notification within 24 hours to the Vice President - Nuclear Operations and the NSDRC of disagreement between the PNSRC and the Plant Manager; however, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The PNSRC shall maintain written minutes of each meeting and copies shall be provided to the Chairman of the NSDRC.

6.5.2 NUCLEAR SAFETY AND DESIGN REVIEW COMMITTEE (NSDRC)

FUNCTION

6.5.2.1 The NSDRC shall function to provide independent review and audit of designated activities in the areas of:

a. nuclear power plant operations

b. nuclear engineering

c. chemistry and radiochemistry

d. metallurgy

e. instrumentation and control

f. radiological safety

g. mechanical and electrical engineering

h. quality assurance practices

COMPOSITION

6.5.2.2 The NSDRC shall be composed of the following regular members:

1. Vice President - Nuclear Operations (NSDRC Chairman)
2. Section Manager, Nuclear Safety and Licensing - Nuclear Operations (NSDRC Secretary)
3. Plant Manager - Donald C. Cook Nuclear Plant
4. Executive Assistant to the President - Indiana Michigan Power Company
5. Senior Executive Vice President - Engineering & Construction
6. Senior Vice President and Chief Engineer
7. Senior Vice President - Electrical Engineering
8. Vice President - Mechanical Engineering
9. Vice President - Project Management and Construction
10. Assistant Vice President - Nuclear Engineering
11. Assistant Vice President - Civil Engineering
12. Assistant Vice President - Design
13. Division Manager - Environmental and Technical Assessment
14. Director - Quality Assurance
15. Division Manager - Electrical Systems

Additional members and Vice Chairman may be appointed by the Senior Executive Vice President - Engineering and Construction.

ALTERNATE MEMBERS

6.5.2.3 Designated alternate members shall be appointed by the Senior Executive Vice President - Engineering and Construction or such other person as he shall designate. In addition, temporary alternate members may be appointed by the NSDRC Chairman to serve on an interim basis, as required. Temporary alternate members are empowered to act on the behalf of the regular or designated alternate members for whom they substitute.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the NSDRC Chairman to provide expert advice to the NSDRC.

MEETING FREQUENCY

6.5.2.5 The NSDRC shall meet at least once per six months.

QUORUM

6.5.2.6 A quorum, the minimum number of regular members and alternates required to hold a NSDRC meeting shall be eight members, of whom no more than two shall be designated or temporary alternates. The Chairman or acting Chairman shall be present for all NSDRC meetings. If the number of members present* is greater than a quorum, then the majority participating and voting at the meeting shall not have line responsibility for operations of the facility. For the purpose of a quorum, only the Plant Manager is considered to have line responsibility.

REVIEW

6.5.2.7. The NSDRC is responsible for assuring that independent** reviews of the following are performed:

a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question.

b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in 10 CFR 50.59.

c. Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59.

d. Proposed changes in Technical Specifications or this operating license.

e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.

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*Regular NSDRC members are expected to attend the meeting whenever possible, and alternates may attend as voting members only on an irregular basis. If both a regular member and his alternate attend a meeting, only the regular member may participate as a voting member, and the alternate is considered a guest.

**Independent reviews may be performed by groups which report directly to the NSDRC and which must have NSDRC membership participation.

f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.

g. All REPORTABLE EVENTS.

h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.

i. Reports and meeting minutes of the PNSRC.

AUDITS

6.5.2.8 Audits of facility activities shall be performed under the cognizance of the NSDRC. These audits shall encompass:

a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.

b. The performance, training, and qualifications of the entire facility staff at least once per 12 months.

c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.

d. The performance of activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per 24 months.

e. The Facility Emergency Plan and implementing procedures at least once per 12 months.

f. The Facility Security Plan and implementing procedures at least once per 12 months.

g. The fire protection programmatic controls including the implementing procedures at least once per 24 months by qualified licensee QA personnel.

h. The fire protection equipment and program implementation at least once per 12 months using either a qualified offsite licensee fire protection engineer or an outside independent fire protection consultant. An outside independent fire protection consultant shall be used at least every third year.

i. The Radiological Environmental Monitoring Program and the results thereof at least once per 12 months.

j. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.

k. The PROCESS CONTROL PROGRAM and implementing procedures for solidification of radioactive wastes at least once per 24 months.

l. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 1.21, Rev. 1, June 1974 and Regulatory Guide 4.1, Rev. 1, April 1975 at least once per 12 months.

m. Any other area of facility operation considered appropriate by the NSDRC.

AUTHORITY

6.5.2.9 The NSDRC shall report to and advise the Senior Executive Vice President - Engineering and Construction, AEPSC, on those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8.

RECORDS

6.5.2.10 Records of NSDRC activities shall be prepared, approved and distributed as indicated below:

a. Minutes of each NSDRC meeting shall be prepared, approved and forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC, within 14 days following each meeting.

b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC, within 14 days following completion of the review.

c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC, and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.5.3 TECHNICAL REVIEW AND CONTROL

6.5.3.1 Activities which affect nuclear safety shall be conducted as follows:

a. Procedures required by Specification 6.8 and other procedures which affect plant nuclear safety, and changes thereto, shall be prepared, reviewed and approved. Each such procedure or procedure change shall be reviewed by a qualified individual/group other than the individual/group which prepared the procedure or procedure change, but who may be from the same organization as the individual/group which prepared the procedure or procedure change. Procedures other than Plant Manager Procedures

shall be approved by the appropriate department head as previously designated in writing by the Plant Manager. The Plant Manager shall approve Security Plan implementing procedures, Emergency Plan implementing procedures and Plant Manager Procedures. Temporary changes to procedures which do not change the intent of the approved procedures shall be approved for implementation by two members of the plant staff, at least one of whom holds a Senior Operator license, and documented. The temporary changes shall be approved by the original approval authority within 14 days of implementation. For changes to procedures which may involve a change in intent of the approved procedures, the person authorized above to approve the procedure shall approve the change prior to implementation.

b. Proposed changes or modifications to plant nuclear safety-related structures, systems and components shall be reviewed as designated by the Plant Manager. Each such modification shall be reviewed (reference T/S 6.5.3.1.e) by a qualified (reference T/S 6.5.3.1.d) individual/group other than the individual/group which designed the modification, but who may be from the same organization as the individual/group which designed the modifications. Proposed modifications to plant nuclear safety-related structures, systems and components shall be approved prior to implementation by the Plant Manager.

c. Proposed tests and experiments which affect plant nuclear safety and are not addressed in the Final Safety Analysis Report or Technical Specifications shall be prepared, reviewed, and approved. Each such test or experiment shall be reviewed by qualified individuals/groups other than the individual/group which prepared the proposed test or experiment to assure cross-disciplinary review as appropriate for the proposed test or experiment. Proposed tests and experiments shall be approved before implementation by the Plant Manager.

d. Individuals who conducted the reviews performed in accordance with Specification 6.5.3.1a, 6.5.3.1b, and 6.5.3.1c, shall be members of the plant management staff previously designated by the Plant Manager and shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. Each such review shall include a determination of whether or not additional, cross-disciplinary review is necessary. If deemed necessary, such review shall be performed by qualified personnel of the appropriate discipline.

e. Each review shall include a determination of whether or not an unreviewed safety question is involved. Pursuant to 10 CFR 50.59, NRC approval of items involving unreviewed safety questions shall be obtained prior to the Plant Manager approval for implementation.

f. The Emergency Plan and implementing procedures shall be reviewed at least once per 12 months. Recommended changes to the

plan and implementing procedures shall be reviewed pursuant to the requirements of Specifications 6.5.1.6 and 6.5.2.7 and approved by the Plant Manager. NRC approval shall be obtained as appropriate.

g. Recommended changes to the Security Plan and implementing procedures shall be reviewed pursuant to the requirements of Specifications 6.5.1.6 and 6.5.2.7 and approved by the Plant Manager. NRC approval shall be obtained as appropriate.

6.5.3.2 Records of the above activities shall be provided to the Plant Manager, PNSRC and/or the NSDRC as necessary for required reviews.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and a report submitted pursuant to the requirements of 10 CFR 50.73, and

b. Each REPORTABLE EVENT shall be reviewed by the PNSRC, and the results of this review shall be submitted to the NSDRC and the Vice President - Nuclear Operations.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a safety limit is violated:

a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Chairman of the NSDRC shall be notified within 24 hours.

b. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PNSRC. This report shall describe (1) applicable circumstances preceding the violation; (2) effects of the violation upon facility components, systems or structures; and (3) corrective action taken to prevent recurrence.

c. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman of the NSDRC and the Vice President - Nuclear Operations within 14 days of the violation.

d. Operation of the unit shall not be resumed until authorized by the Commission.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Rev. 2, February 1978.

b. Security Plan implementation.

c. Emergency Plan implementation.

d. PROCESS CONTROL PROGRAM implementation.

e. OFFSITE DOSE CALCULATION MANUAL implementation.

f. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974, and Regulatory Guide 4.1, Rev. 1, April 1975.

6.8.2 Each procedure and administrative policy of Specification 6.8.1 above, and changes thereto, including temporary changes, shall be reviewed prior to implementation as set forth in Specification 6.5 above.

6.8.3 A plant program for post-accident sampling shall be established, implemented, and maintained which will ensure the capability to obtain and analyze reactor coolant samples, containment atmosphere noble gas samples, and unit vent gaseous effluent samples for iodines and particulates under accident conditions. The program will include the following:

a. Training of personnel,

b. Procedures for sampling and analysis,

c. Provisions for maintenance of sampling and analysis equipment.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator unless otherwise noted.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL REPORTS[1]

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include:

a. A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions[2], e.g., reactor operations and surveillance, in-service inspection, routine maintenance, special maintenance (describe maintenance), waste processing and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

b. The complete results of steam generator tube in-service inspections performed during the report period (reference Specification 4.4.5.5.b).

c. Documentation of all challenges to the pressurizer power operated relief valves (PORVs) or safety valves.

d. Information regarding any instances when the I-131 specific activity limit was exceeded.

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[1] A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

[2] This tabulation supplements the requirements of 20.407 of 10 CFR Part 20.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT[3]

6.9.1.6 Routine radiological environmental operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.

6.9.1.7 The annual radiological environmental operating reports shall include summaries, interpretations, and statistical evaluation of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of the land-use census required by Specification 3.12.2. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report shall provide an analysis of the problem and a planned course of action to alleviate the problem.

The annual radiological environmental operating reports shall include summarized and tabulated results in the format of 3.12-2 of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program including sampling methods for each sample type, size, and physical characteristics of each sample type, sample preparation methods, analytical methods, and measuring equipment used; a map of all sample locations keyed to a table giving distances and directions from one reactor; the result of land-use census required by the Specification 3.12.2; and the results of participation in the Interlaboratory Comparison Program required by Specification 3.12.3.

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT[3]

6.9.1.8 Routine radioactive effluent release reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year.

6.9.1.9 The radioactive effluent release reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the units as outlined in Regulatory Guide 1.21, "Measuring, Evaluating and Reporting in Solid Wastes and Releases of Radioactive

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[3]A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material for each unit.

Materials in Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants," with data summarized on a quarterly basis following the format of Appendix B, thereof.

The radioactive effluent release report to be submitted 60 days after January 1, and July 1 of each year shall include a quarterly summary of hourly meteorological data collected during the reporting period. This summary may be either in the form of an hour-by-hour listing of wind speed, wind direction, atmospheric stability, and precipitation (if measured) on magnetic tape, or in the form of joint frequency distributions of wind speed, wind direction and atmospheric stability. The report submitted 60 days after January 1 shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. These reports shall include an assessment of the radiation doses from radioactive liquid and gaseous effluents to members of the public due to their activities inside the site boundary (Figure 5.1-3) during the reporting period. All assumptions used in making these assessments (i.e., specific activity, exposure time and location) shall be included in these reports. The meteorological conditions concurrent with the time of release of radioactive materials in gaseous effluents (as determined by sampling frequency and measurement) shall be used for determining the gaseous pathway doses. The assessment of radiation doses shall be performed in accordance with the Offsite Dose Calculation Manual (ODCM).

The radioactive effluent release report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed member of the public from reactor releases and other nearby uranium fuel cycle sources (including doses from primary effluent pathways and direct radiation) for the previous 12 consecutive months to show conformance with 40 CFR 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Rev. 1.

The radioactive effluent release report shall include the following information for each type of solid waste shipped offsite during the report period:

a. Volume (cubic meters),

b. Total curie quantity (specify whether determined by measurement or estimate),

c. Principal radionuclides (specify whether determined by measurement or estimate),

d. Type of waste (e.g., spent resin, compacted dry waste, evaporator bottoms),

e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and

f. Solidification agent (e.g., cement).

The radioactive effluent release report shall include unplanned releases from the site to unrestricted areas of radioactive materials in gaseous and liquid effluent on a quarterly basis.

The radioactive effluent release reports shall include any change to the PROCESS CONTROL PROGRAM (PCP) and the OFFSITE DOSE CALCULATION MANUAL (ODCM) made during the reporting period.

MONTHLY REACTOR OPERATING REPORT

6.9.1.10 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission (Attn: Document Control Desk), Washington, D.C. 20555, with a copy to the Regional Office no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

6.9.1.11.1 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

a. Moderator Temperature Coefficient Limits for Specification 3/4.1.1.4,

b. Rod Drop Time Limits for Specification 3/4.1.3.4,

c. Shutdown Rod Insertion Limits for Specification 3/4.1.3.5,

d. Control Rod Insertion Limits for Specification 3/4.1.3.6,

e. Axial Flux Difference for Specification 3/4.2.1,

f. Heat Flux Hot Channel Factor for Specification 3/4.2.2,

g. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3, and

h. Allowable Power Level for Specification 3/4.2.6.

6.9.1.11.2 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:

CORE OPERATING LIMITS REPORT (Continued)

a. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985 (Westinghouse Proprietary).

b. WCAP-8385, "Power Distribution Control and Load Following Procedures - Topical Report," September 1974 (Westinghouse Proprietary)

c. WCAP-10216-P-A, Part B, "Relaxation of Constant Axial Offset Control/F_Q Surveillance Technical Specification," June 1983 (Westinghouse Proprietary),

d. WCAP-10266-P-A Rev. 2, "The 1981 Version of Westinghouse Evaluation Mode Using BASH Code," March 1987 (Westinghouse Proprietary).

6.9.1.11.3 The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

6.9.1.11.4 The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC document control desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the attention of the document control desk - U.S. Nuclear Regulatory Commission (Washington, D.C. 20555), with copies to the Region III Administrator and the Resident Inspector at the Cook Nuclear Plant within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.

b. Seismic Monitoring Instrumentation Actuated, Specification 4.3.3.3.2.

c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.

d. High Specific Activity in RCS Coolant, Specification 3.4.8.

e. RCS Pressure Transient Mitigated By RHR Safety Valve or RCS Vent(s), Specification 3.4.9.3.

f. Moderator Temperature Coefficient, Specification 3.1.1.4.

SPECIAL REPORTS (Continued)

g. Sealed Source Leakage in Excess of Limits, Specification 4.7.7.1.3.

h. ECCS Actuation, Specifications 3.5.2 and 3.5.3.

i. Excessive Releases in Radioactivity, Specifications 3.11.1.2, 3.11.1.3, 3.11.2.2, 3.11.2.3, 3.11.2.4, and 3.11.4.

j. Inoperable Solid Radwaste System, Specification 3.11.3.

k. Excessive Level of Radioactivity in Quarterly Environmental Sample, Specification 3.12.1 (Action b).

l. Milk and Vegetable Samples Not Available, Specification 3.12.1 (Action c).

m. Greater Calculated Dose or Dose Commitment Identified by Land Census, Specification 3.12.2 (Actions a & b).

n. Violation of Safety Limit, Specification 6.7.1.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

a. Records and logs of unit operation covering time interval at each power level.

b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.

c. All REPORTABLE EVENTS submitted to the Commission.

d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.

e. Records of changes made to the procedures required by Specification 6.8.1.

f. Records of sealed source and fission detection leak tests and results.

g. Records of annual physical inventory of all sealed source material on record.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.

c. Records of radiation exposure for all individuals entering radiation control areas.

d. Records of gaseous and liquid radioactive material released to the environs.

e. Records of transient or operational cycles for those facility components identified in Table 5.7-1.

f. Records of reactor tests and experiments.

g. Records of training and qualification for current members of the Plant Staff.

h. Records of in-service inspections performed pursuant to these Technical Specifications.

i. Records of Quality Assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or review of tests and experiments pursuant to 10 CFR 50.59.

k. Records of meetings of the PNSRC and the NSDRC.

l. Records of radioactive shipments.

m. Records of the service lives of hydraulic snubbers listed on Table 3.7-9 including the date at which service life commences and associated installation and maintenance records.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and

conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit*. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanies by one or more of the following:

a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made aware of it.

c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility Health Physicist in the Radiation Work Permit.

6.12.2 The requirements of 6.12.1 shall also apply to each high radiation area in which the intensity of radiation is greater than 1000mrem/hr. When possible, locked doors shall be provided to prevent unauthorized entry into such areas, and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or the Plant Health Physicist (Plant Radiation Protection Supervisor). Doors shall remain locked except during periods of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas. In the event that it is not possible or practicable to provide locked doors due to area size or configuration, the area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device.

6.13 DELETED

6.14 PROCESS CONTROL PROGRAM (PCP)

6.14.1 The PCP shall be approved by the Commission prior to implementation.

6.14.2 Licensee initiated changes to the PCP:

1. Shall be submitted to the Commission in the semi-annual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;

*Health Physics (Radiation Protection) personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

b. A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and

c. Documentation of the fact that the change has been reviewed and found acceptable by the PNSRC.

2. Shall become effective upon review and acceptance by the PNSRC.

6.15 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.15.1 The ODCM shall be approved by the Commission prior to implementation.

6.15.2 Licensee initiated changes to the ODCM:

1. Shall be submitted to the Commission in the Semi-annual Radioactive Effluent Release Report in the next report after the report period the change(s) was made effective. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s);

   b. A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and

   c. Documentation of the fact that the change has been reviewed and found acceptable by the PNSRC.

2. Shall become effective upon review and acceptance by the PNSRC.

6.15.3 Commission initiated changes:

1. Shall be determined by the PNSRC to be applicable to the facility after consideration of facility design.

2. The licensee shall provide the Commission with written notification of their determination of applicability including any necessary revisions to reflect facility design.

6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous, and Solid)

6.16.1 Licensee initiated major changes to the radioactive waste systems (liquid, gaseous and solid):

6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous, and Solid) (Continued)

1. Shall be reported to the Commission in the Annual Operating Report for the period in which the evaluation was reviewed by the (PNSRC). The discussions of each change shall contain:

   a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;

   b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

   c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

   d. An evaluation of the change which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;

   e. An evaluation of the change which shows the expected maximum exposure to individuals in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;

   f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;

   g. An estimate of the exposure to plant operation personnel as a result of the change; and

   h. Documentation of the fact that the change was reviewed and found acceptable by the PNSRC.

2. Shall become effective upon review and acceptance by the PNSRC.

6.16.2 Commission initiated changes:

1. The applicability of the change to the facility shall be determined by the (PNSRC) after consideration of the facility design.

2. The licensee shall provide the Commission with written notification of its determination of applicability including any necessary revisions to reflect facility design.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 154 TO FACILITY OPERATING LICENSE NO. DPR-58

AND AMENDMENT NO. 138 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 letter dated August 25, 1989, as modified December 12, 1989, June 1, and October 26, 1990, 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 make various changes to Section 6.0 of the TS including title changes, editorial changes, changes to the qualifications, structure, and quorum requirements of the Plant Nuclear Safety Review Committee (PNSRC) and changes to reporting requirements. Additionally, editorial changes are being made to Sections 3.0 and 4.0 of the TS to remove obsolete references to the Sections 6.0 TS. The licensee also requested 180 days to implement the requested changes when approved due to the extensive procedure modifications necessary.

2.0 EVALUATION

The following changes to the TS were proposed by the licensee and modified as indicated in response to staff comments.

(1) T/S 6.1.2 is being added and places an additional restriction on the Cook Nuclear Plant by requiring the Shift Supervisor or a designated individual during his absence to be responsible for the control room function. A management directive to this effect signed by the Vice President - Nuclear Operations will be reissued to all station personnel on an annual basis. Designating responsibility for the control room complex places additional restriction in the TS and is an improvement to the current TS. This change is also consistent with Revision 4 and the draft of Revision 5 of the Westinghouse Standard Technical Specifications and TS approved for Seabrook - Unit 1, Braidwood - Units 1 and 2, Byron - Units 1 and 2, and Shearon Harris - Unit 1.

(2) The proposed changes to TS 6.2.2b and Table 6.2-1 are being made in order to comply with the requirements of 10 CFR 50.54(m). The proposed TS would require at least one licensed Senior Operator to be in the control room when the facility is in Modes 1, 2, 3 and 4,

and would meet the minimum licensed operator staffing requirement that three Senior Operators be on site. The Shift Supervisor (SS) has been added to the list in Table 6.2-1 to be consistent with this requirement. These changes allow TS 6.2.2c to be deleted and the paragraphs following TS 6.2.2b have been renumbered.

Other changes made to Table 6.2-1 are editorial. The symbols "#" and "*" used to signify footnotes have been reversed in order to clarify which footnotes apply to the SS. Also the word "Reactor" has been removed from the title "Senior Reactor Operator License." (This change is also make in TS 6.2.2d and 6.2.2g.) This was done to obtain uniformity throughout the Section 6 TS.

The changes described above are consistent with Revision 4 of the Westinghouse Standard Technical Specifications and TS approved for Vogtle - Unit 1, Shearon Harris - Unit 1, and Seabrook - Unit 1.

(3) A footnote has been added to TS 6.2.2d and 6.2.2f which have been renumbered to TS 6.2.2c and 6.2.2.e. This change would allow up to two hours for the unexpected absence of an individual qualified in radiation protection procedures and the unexpected absence to the minimum composition of fire brigade members. The staff finds that this change is reasonable in that provisions for unexpected absences of short duration are acceptable. The change is also consistent with Revision 4 and the draft of Revision 5 of the Westinghouse Standard Technical Specifications.

(4) The changes to TS 6.3.1, 6.4.1, 6.5.2.3, 6.5.2.9, 6.5.2.10a, 6.5.3.10b, and 6.5.2.10c involve necessary title changes. Specifically, the licensee changed the "Plant Health Physics Supervisor" to "Plant Radiation Protection Manager," the "Training Coordinator" to "Training Manager," and the "Vice Chairman - Engineering and Construction" to "Senior Executive Vice President - Engineering and Construction." The changes make the TS consistent with the current titles used for these positions.

Additionally, by letter dated December 12, 1989, the licensee modified their request by adding a third exception to the minimum qualification standards of ANSI N18.1-1971 for the Operations Superintendent who was qualified as a Senior Operator, but who does not hold a current Senior Operator License as specified in TS 6.2.2h. The Shift Supervisor, who must maintain a Senior Operator License, has the responsibility of reviewing and approving any proposed operational instruction for the units prior to directing the operations of the units (this requirement is specified in TS Section 6.1.2). Unit Supervisors, who hold Senior Operator Licenses, direct the minute-to-minute activities in the control room. One mid-level Operations Production Supervisor also holds a current Senior Operator License. The licensee proposes that this meets the intent of the ANSI N18.1-1971 Standard. The staff has reviewed the additional exception and finds the licensee's proposed TS acceptable. Additionally, the licensee in their October 26, 1990, submittal clarified the requirement for the Operations Superintendent to hold or have held

a Senior Operator License following the staff's suggestion. This is acceptable.

(5) The proposed changes to TS 6.5.1.2, 6.5.1.3 and 6.5.1.5 affect the qualifications, structure, and quorum of the Plant Nuclear Safety Review Committee (PNSRC).

The proposed change to TS 6.5.1.2 is to add the minimum qualifications that the PNSRC members and alternate members must meet. Members and alternates will meet or exceed the minimum qualifications of ANSI N18.1-1971, Section 4.4. Also, plant operations personnel will meet the qualifications of Section 4.2.2 and maintenance personnel will meet the qualifications of Section 4.2.3. This change is an improvement to the current TS and similar to a change approved for Beaver Valley - Unit 2.

The PNSRC would consist of the Assistant Plant Managers, Department Superintendents, and personnel reporting directly to the Plant Manager, the Assistant Plant Managers, or Department Superintendents. All members would meet or exceed the minimum qualifications of ANSI N18.1-1971, Section 4.4. In addition to the Chairman, the PNSRC membership will consist of a minimum of one individual from each of the functional areas designated in TS 6.5.1.2 (the Quality Control Department for the Cook Nuclear Plant is known as the Safety & Assessment Department). This would eliminate the need to make a TS change when the company is reorganized or a member has a title change, but will maintain the consistency and expertise of the committee. The Plant Manager would appoint the chairman, members, and alternate members, but would not be a member of the PNSRC himself (the current TS designates the Plant Manager as the chairman of the PNSRC). This change would establish the PNSRC as a more independent advisory organization to the Plant Manager, instead of requiring the Plant Manager's direct involvement in the work activities of the PNSRC. This change requires that TS 6.5.1.3 be revised since the PNSRC Chairman would no longer appoint the alternate members. The staff agrees that this is an improvement to the current TS. This change is similar to TS approved for Vogtle - Unit 1.

At the staff's request, the licensee in their October 26, 1990, letter deleted the words "of a minimum" from TS Section 6.5.1.2 to more clearly define the number of members required for the PNSRC. Proposed changes to TS 6.5.1.5 clarify the requirements for a quorum of the PNSRC. The Chairman or his designated alternate and at least half of the members including alternates will be required for a quorum of the PNSRC. The restriction that only two alternates are allowed to make up the quorum has been removed from this specification because this restriction is in TS 6.5.1.3. In TS 6.5.1.3, the number of alternates that can participate as voting members in the PNSRC is limited to two at any one time. The staff agrees this proposed change is an improvement to the current TS as it clarifies the present requirement. A similar change has been approved in the TS for Beaver Valley - Unit 2.

(6) The changes to TS 6.5.1.6a, b, and c clarify the subject areas that the PNSRC will review. Specifically, the PNSRC will only perform reviews of subjects that could affect plant nuclear safety or involve an unreviewed safety question. These changes will allow the PNSRC to focus on issues related to plant safety and relieve the PNSRC from the unnecessary burden of reviewing routine or administrative changes. The changes have caused TS 6.5.1.6c to be renumbered 6.5.1.6d.

The criteria of 10 CFR 50.59 states that proposed design changes in the plant and changes in the procedures are described in the Final Safety Analysis Report (FSAR), and tests or experiments not described in the FSAR must be reviewed for unreviewed safety questions if they do not require changes to the TS. Currently, TS 6.5.1.7b requires a review per the unreviewed safety question criteria of not only these three areas (design changes, procedure changes and tests or experiments) but also of proposed changes to the TS and the Operating License. However, only a significant hazards consideration review is performed, as required by 10 CFR 50.92, for proposed TS and Operating License changes. An assessment of the safety consequences is performed as required by 10 CFR 50.73, for TS violations. TS 6.5.1.6d and TS 6.5.1.7b have been clarified accordingly.

Revisions have also been made to TS 6.5.1.6k to be more consistent with the draft of Revision 5 of the Westinghouse Standard Technical Specifications and TS approved for Seabrook - Unit 1, Shearon Harris - Unit 1, Vogtle - Unit 1, and Callaway - Unit 1.

(7) The change to TS 6.5.1.7c will require the Vice President - Nuclear Operations to be notified, in addition to the Nuclear Safety and Design Review Committee (NSDRC), of any disagreements between the PNSRC and the Plant Manager. At the present time, the Vice President - Nuclear Operations is the Chairman of the NSDRC and, therefore, would be notified when the NSDRC was notified. However, this change will ensure the Vice President - Nuclear Operations would be notified in the future if, for whatever reason, the Vice President - Nuclear Operations is not a member of the NSDRC. This change will also make the TS consistent with Revision 4 and the draft of Revision 5 of the Westinghouse Standard Technical Specifications.

(8) Changes to TS 6.5.2.2 are being made as a result of the recent reorganization and changes in personnel. The membership list has been changed to update the members' titles. Additional members may be added to the NSDRC by the Senior Executive Vice President - Engineering and Construction. This will allow the licensee the flexibility of adding qualified personnel to the committee without requiring a TS submittal.

(9) The proposed change to TS 6.5.2.6 is made to clarify that only the Plant Manager has line responsibility for operation of the facility. This is a clarification of an existing TS and is considered an improvement.

other than the individual/group who wrote the document, and will be approved prior to implementation by the Plant Manager.

TS 6.5.3.1d specifies the individuals who approved the reviews performed in accordance with Specifications 6.5.3.1a, 6.5.3.1b, and 6.5.3.1c will be members of the plant management staff and will meet or exceed the minimum qualifications of ANSI N18.1-1971, Section 4.4 for comparable positions. It is also specified in TS 6.5.3.1d, that the review will determine whether or not additional cross-disciplinary review is necessary. TS 6.5.3.1e specifies that the review will include a determination of whether or not an unreviewed safety question is involved.

TS 6.5.3.1f and 6.5.3.1g specify the review process for the Plant Security Plan and Emergency Plan and their implementing procedures.

TS 6.5.3.2 will require records of the above activities to be distributed to the Plant Manager, PNSRC, and/or NSDRC for required reviews.

These changes are an enhancement to the existing TS. The addition of Specification 6.5.3 ensures that adequate controls are in place and that technical reviews are performed of activities that affect nuclear safety. These proposed changes are similar to the TS approved for Callaway - Unit 1 and South Texas - Unit 1.

(13) The proposed changes to TS 6.6.1 clarify the actions to be taken for reportable events. The proposed specifications require that the Commission be notified and a report submitted as required by 10 CFR 50.73 in the case of a reportable event. This is not an additional requirement; it is a clarification that 10 CFR 50.73 must be applied to reportable events. The changes are consistent with the draft of Revision 5 of Westinghouse Standard Technical Specifications and the TS recently approved for South Texas - Unit 1, Callaway - Unit 1, Shearon Harris - Unit 1, Byron - Units 1 and 2, and Seabrook - Unit 1.

(14) The changes to TS 6.7.1 clarify the actions to be taken in the event a safety limit is violated. The requirement to have the facility in at least hot standby within one hour has been removed from this specification since Section 2 of the TS contains the requirement. The requirement to report the safety limit violation to the Commission within 24 hours has been changed to notifying by telephone the NRC Operations Center as soon as possible and in all cases within one hour. Paragraphs 6.7.1c and 6.7.1d have been renumbered to 6.7.1b and 6.7.1c with no changes to the text. An additional requirement is that restart of the unit would not take place until authorized by the Commission.

The additional requirements and clarification of these changes are considered an improvement to the existing TS. These changes would make the TS consistent with Revision 4 and the draft of Revision 5 of the Westinghouse Standard Technical Specifications.

(10) The change to TS 6.5.2.7.a would eliminate the review by the NSDRC of the safety evaluation of lower-tier plant procedures. The NSDRC would continue to review safety evaluations of the top-tier Plant Manager Instructions, which establish the policies that govern all other plant procedures and changes thereto. The staff took exception to the licensee's position in this area and in their October 26, 1990, submittal, the licensee modified this proposed TS to be consistent with staff guidance.

(11) The change to TS 6.5.2.8g and 6.5.2.8h clarifies the NSDRC audit requirements on fire protection. This change is administrative (for clarification). The change is also consistent with the draft of Revision 5 of the Westinghouse Standard Technical Specifications and TS approved for the following plants: South Texas - Unit 1, Callaway - Unit 1, Seabrook - Unit 1, Byron - Units 1 and 2, and Vogtle - Unit 1. The paragraphs following TS 6.5.2.8g and 6.5.2.8h have been renumbered.

(12) The proposed TS 6.5.3, "Technical Review and Control," has been added to the administrative controls section to ensure that activities affecting nuclear safety will continue to be adequately controlled and that technical reviews will be performed once these activities are removed from the PNSRC responsibilities. Transfer of review and approval responsibilities from the PNSRC to appropriate persons/groups will occur after the Plant Manager approves, in writing that those persons/groups designated are qualified.

TS 6.5.3.1a specifies how procedures required by Specifications 6.8, other procedures, and changes to procedures that affect plant nuclear safety are reviewed and approved. The review would be done by a qualified individual/group other than the individual/group that prepared the procedures or the changes. The Plant Manager will approve administrative procedures, Security Plan Implementing procedures and Emergency Plan implementing procedures. Procedures other than those mentioned above will be approved by the appropriate department head as designated in writing by the Plant Manager. Requirements for temporary changes to procedures that do not change the intent of the approved procedures have been included in this Specification. Temporary changes will be approved for implementation by two members of the plant staff, at least one of whom holds a Senior Operator License. These requirements for temporary changes to procedures are contained in the current TS under Specification 6.8.3. By including temporary changes to procedures in Specifications 6.5.3.1a, TS 6.8.3 would be redundant and has, therefore, been deleted. Section 6.8.4 added in Amendments 134 and 119 will be renumbered to Section 6.8.3.

TS 6.5.3.1b and 6.5.3.1c address proposed changes or modifications to plant nuclear safety-related structures, systems, components, and proposed tests and experiments that affect plant nuclear safety and are not addressed in the Final Safety Analysis Report or TS. Each of the above items will be reviewed by a qualified individual/group

(15) The changes to TS 6.8.1 are to delete refueling operations, surveillance, and test activities of safety-related equipment, and Fire Protection Program implementation from this list. Appendix A of Regulatory Guide 1.33, November 1972 adequately addresses these items and, therefore, there is no need to list them as separate items. Due to these items being deleted, the remaining items were renumbered.

(16) The change to Specification 6.8.2 specifies that temporary changes shall be reviewed prior to implementation.

(17) An additional requirement to include documentation of all challenges to the PORVs is being added to the monthly reactor operating report (TS 6.9.1.10). Although TS require a report of PORV challenges to be submitted on an annual basis, this monthly requirement has been added to make TS consistent with Revision 4 of the Westinghouse Standard Technical Specifications. The mailing address to which these reports are submitted has been corrected. This change is acceptable.

(18) In TS 6.9.2, additional reference specifications have been added to the activities identified. This change will make this list more complete than the current TS and, therefore, is considered to be an improvement. Corresponding references in Section 3.0/4.0 have been revised to adequately reflect the requirements in Specification 6.9.2. Additional editorial changes to Section 3.0/4.0 pages have been made. Specifically, to the extent possible, symbols have been written in words for clarification.

(19) TS 6.9.1.13 was deleted by Amendment No. 87 to the Unit 1 TS and Amendment No. 73 to the Unit 2 TS. However, the corresponding references in Section 3.0./4.0 have not been removed. The proposed revised TS pages delete these references.

Numerous other editorial changes such as changing upper and lower case headings, renumbering of pages, and revision of the Index to reflect the changes that have been made.

The staff has reviewed the licensee's proposed TS pages and finds them acceptable as modified. The proposed TS will provide an acceptable level of safety and are consistent with changes approved for other plants and are consistent with the Westinghouse Standard Technical Specifications.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes in 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. 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR section 51.22(c)(7).

These amendments also involve changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, with respect to these items, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendment.

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.

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Date: April 9, 1991