May 30, 2000

C0500-09
10 CFR 50.90

Docket Nos.: 50-315
50-316

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2
TECHNICAL SPECIFICATION CHANGE REQUEST
CHANGES REQUIRED TO REFLECT 10 CFR PART 20 REQUIREMENTS

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the Licensee for Donald C. Cook Nuclear Plant Units 1 and 2, proposes to amend Appendix A, Technical Specifications (T/S), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to make changes to several T/S to reflect implementation of the revised 10 CFR Part 20, "Standards for Protection Against Radiation." The proposed changes would update 10 CFR Part 20 section and table numbers and change wording to be consistent with the revised 10 CFR Part 20. In addition, I&M proposes to revise T/S 6.8.4.a.7 to maintain existing instantaneous dose rate limitations in the Offsite Dose Calculation Manual. A proposed revision to the requirements governing the annual tabulation of radiation exposures is also included.

Attachment 1 provides a detailed description in support of the proposed changes. Attachments 2A and 2B provide marked up T/S pages for Unit 1 and Unit 2, respectively. Attachments 3A and 3B provide the proposed T/S pages with the changes incorporated for Unit 1 and Unit 2, respectively. Attachment 4 describes the evaluation performed in accordance with 10 CFR 50.92(c), which concludes that no significant hazard is involved. Attachment 5 provides the environmental assessment. This request includes no new commitments.

I&M requests NRC review and approval within 6 months and a 30-day implementation period following approval. No previous submittals affect T/S pages that are submitted in this request. If any future submittals affect these T/S

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pages, then I&M will coordinate changes to the pages with the NRC Project Manager to ensure proper T/S page control when the associated license amendment requests are approved.

Copies of this letter and its attachments are being transmitted to the Michigan Public Service Commission and Michigan Department of Environmental Quality, in accordance with the requirements of 10 CFR 50.91.

Should you have any questions, please contact Mr. Robert C. Godley, Director of Regulatory Affairs, at (616) 466-2698.

Sincerely,

R. P. Powers
Vice President

/dms

Attachments

c: J. E. Dyer
MDEQ - DW & RPD
NRC Resident Inspector
R. Whale

AFFIRMATION

I, Robert P. Powers, being duly sworn, state that I am Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this Request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

Robert P. Powers
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 8TH DAY OF MAY, 2000

Notary Public

My Commission Expires

PATRICIA A. EDDIE
NOTARY PUBLIC - BERRIEN CO. MICH
MY COMMISSION EXPIRES
NOVEMBER - 5 - 2000

ATTACHMENT 1 TO C0500-09

DESCRIPTION AND SAFETY ANALYSIS FOR THE PROPOSED CHANGES

A. Summary of the Proposed Changes

Indiana Michigan Power Company (I&M) proposes to amend Appendix A, Technical Specifications (T/S), of Facility Operating Licenses DPR-58 and DPR-74 for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, respectively. I&M proposes to make changes to several T/S to reflect implementation of the revised 10 CFR Part 20, "Standards for Protection Against Radiation." The proposed changes would update 10 CFR Part 20 section and table numbers and change wording to be consistent with the revised 10 CFR Part 20. In addition, I&M proposes to revise T/S 6.8.4.a.7 to maintain existing instantaneous dose rate limitations in the Offsite Dose Calculation Manual (ODCM). A proposed revision to the requirements governing the annual tabulation of radiation exposures is also included.

The proposed changes are described in detail in Section D of this attachment. T/S pages that are marked to show the proposed changes are provided in Attachments 2A and 2B for Unit 1 and Unit 2, respectively. The proposed T/S pages, with the changes incorporated, are provided in Attachments 3A and 3B for Unit 1 and Unit 2, respectively.

B. Description and Bases of the Current Requirements

10 CFR 50.36a, "Technical Specifications on Effluents from Nuclear Power Reactors," delineates the requirement for T/S prescribing programmatic controls for radioactive effluents and radiological monitoring. These T/S are designed to maintain radiation doses to members of the public from gaseous and liquid effluent releases from nuclear power plants within the limits prescribed in 10 CFR 20.106, "Radioactivity in effluents to unrestricted areas"; Appendix I to 10 CFR 50, "Numerical guides for design objectives and limiting conditions for operation to meet the criterion 'as low as is reasonably achievable [ALARA]' for radioactive material in light-water-cooled nuclear power reactor effluents"; and 40 CFR 190, "Environmental Radiation Protection Standards for Nuclear Power Operations."

T/S 6.8.4.a.2, 6.8.4.a.3, and 6.8.4.a.7 delineate elements of the radioactive effluent controls program, which conforms to 10 CFR 50.36a. T/S 6.8.4.a.2 specifies that program limitations on concentrations of radioactive materials released in liquid effluents to unrestricted areas conform to 10 CFR 20, Appendix B, Table II, Column 2. T/S 6.8.4.a.3 requires monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.106 and with the methodology and parameters in the ODCM. T/S 6.8.4.a.7 specifies program limitations on dose rate resulting from radioactive material released in gaseous effluents to areas beyond the site boundary conform to the dose associated with 10 CFR 20, Appendix B, Table II, Column 1.

T/S 6.9.1.5.a requires submittal of a tabulation on an annual basis of the number of station, utility, and other personnel receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions. The reporting requirements are consistent with draft Revision 4 to Regulatory Guide 1.16, "Reporting of Operating Information - Appendix A, Technical Specifications," dated August 1975. Note 2 to T/S 6.9.1.5 provides clarification that the required submittal supplements the requirements of 10 CFR 20.407, "Personnel Monitoring Reports."

T/S 6.12.1 and T/S 6.12.2 outline the means used in lieu of those prescribed in 10 CFR 20.203(c)(2) for controlling access to a high radiation area.

C. Need for Revision of the Requirement

The NRC approved revisions to 10 CFR Part 20 on June 20, 1991. In accordance with the rulemaking, these changes were implemented at CNP on January 1, 1994. The revisions to 10 CFR Part 20 included numerous changes in section numbers, table number style, terminology, and technical content. Draft Generic Letter (GL), "Guidance for Modification of Technical Specifications to reflect (A) Revisions to 10 CFR Part 20, 'Standards for protection against Radiation' and 10 CFR 50.36a, 'Technical Specifications on Effluents from Nuclear Power Reactors', (B) Related Current Industry Initiatives, and (C) Miscellaneous Related Editorial Clarifications, Draft," dated December 16, 1993, states that, while not specifically required, a revision to T/S is desirable to correlate specific T/S requirements to the new Part 20 requirements. In addition, T/S limitations on the instantaneous dose rate resulting from gaseous effluents to areas beyond the site boundary need to be revised to provide consistency with the ODCM.

The requirements governing the annual tabulation of radiation exposures provide only radiation exposures incurred by individuals receiving more than 100 mrem for a job or work function. While this methodology was generally adequate to capture the bulk of dose associated with a job or work function in the past, increasingly effective ALARA programs have reduced the fraction of all workers who exceed 100 mrem in a year. The bulk of the dose total associated with many job or work functions in the annual report is now incurred by individuals receiving less than 100 mrem. Consequently, the current annual report methodology provides an incomplete picture of radiation exposures associated with job or work functions. The report content should be modified to provide information that is more complete.

D. Description of the Proposed Changes

I&M proposes the following administrative changes:

- Change "10 CFR 20, Appendix B, Table II, Column 2" to "10 CFR 20.1001-20.2402, Appendix B, Table 2, Column 2" in T/S 6.8.4.a.2

- Change "in accordance with 10 CFR 20.106" to "pursuant to 10 CFR 20.1302" in T/S 6.8.4.a.3 and 6.14.1.a.2
- Reflect reporting of total dose in a category rather than dose from reported high dose individuals in T/S 6.9.1.5.a
- Add electronic dosimetry as a source of data, specify reporting "deep dose" rather than "whole body dose," and correct a spelling error in "totaling" in T/S 6.9.1.5.a
- Change "20.407" to "20.2206" in T/S 6.9.1.5.a, Note 2
- Reflect revised 10 CFR Part 20 references, wording, and definition for "high radiation area" in T/S 6.12.1 and T/S 6.12.2

I&M also proposes to delete the reference to "10 CFR 20, Appendix B, Table II, Column 1" in T/S 6.8.4.a.7 and replace it with the instantaneous dose rate limitations in Section 3.2.4, "Gaseous Effluents," of the ODCM. The specific limitations to be added are: a) for noble gases, less than or equal to a dose rate of 500 mrem/year to the total body and less than or equal to a dose rate of 3000 mrem/year to the skin, and b) for Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days, less than or equal to a dose rate of 1500 mrem/year to any organ.

E. Bases for the Proposed Changes

The proposed changes to T/S 6.8.4.a.2, 6.8.4.a.3, Note 2 to T/S 6.9.1.5, and T/S 6.14.1.a.2 reflect equivalent 10 CFR 20.1001-20.2402 section numbers, table number style, and terminology. The proposed change to use "deep dose" in place of "whole body dose" in T/S 6.9.1.5.a also reflects current terminology. The proposed change to correct the spelling error in "totaling" in T/S 6.9.1.5.a is editorial. These changes are administrative in nature and do not impact the associated requirements.

Although the proposed changes to T/S 6.9.1.5.a are not consistent with draft Revision 4 to Regulatory Guide 1.16, they will provide users of the annual reports a more accurate accounting of radiation exposure associated with a specified job or work function. Currently, only radiation exposures incurred by individuals receiving more than 100 mrem are reported for a job or work function. While this methodology was generally adequate to capture the bulk of dose associated with a job or work function in the past, increasingly effective ALARA programs have reduced the fraction of all workers who exceed 100 mrem in a year. The bulk of the dose total associated with many job or work functions in the annual report is now incurred by individuals receiving less than 100 mrem. Consequently, the current annual report provides an incomplete picture of radiation exposures associated with job or work functions. The proposed report requirements provide a more realistic report of doses actually associated with a job or work function. Informal discussions with the Staff have indicated that licensee's reporting practices vary and that the proposed reporting requirements are preferred.

T/S 6.12.1 applicability is currently defined by an upper limit only, relying on knowledge of the "high radiation area" definition to establish the lower limit. In order to clarify the applicability requirement for T/S 6.12.1, I&M proposes to provide a lower limit based on the revised definition for high radiation area and adopt terminology consistent with 10 CFR Part 20. The proposed change to T/S 6.12.2 replaces "radiation is greater than 1000 mrem/hr" with "radiation level at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates is greater than 1000 mrem in 1 hour" to align T/S terminology with that of 10 CFR Part 20. These changes are administrative and do not impact the associated requirements.

The proposed changes to gaseous and liquid concentration limits are consistent with NUREG/CR-6204, "Questions and Answers Based on Revised 10 CFR Part 20," dated May 1994. Question 18 specifically addressed whether changes in the T/S and ODCMs were required as a result of the explicit 100-mrem/year limit in the revised Part 20. The Staff responded that the instantaneous release rate limits for airborne releases will not be changed because they are imposed on licensees as a control to ensure that licensees meet 10 CFR 50, Appendix I requirements. However, the information for liquid effluents, to the extent that it directly references 10 CFR 20, Appendix B concentration values, will need to be changed in the T/S. The ODCM was revised on January 1, 1994, to reflect the revised concentrations for liquid effluents. The instantaneous gaseous release limits in the ODCM are maintained. Maintaining the ODCM limits is also consistent with the draft GL dated December 16, 1993. Release rates for liquid effluents are addressed by providing the reference to the current table in 10 CFR Part 20. I&M is not requesting approval of different limits for liquid effluents such as those provided in the draft GL dated December 16, 1993.

H. Impact on Previous Submittals

No previous submittals affect T/S pages that are submitted in this request. If any future submittals affect these T/S pages, I&M will coordinate changes to the pages with the NRC Project Manager to ensure proper T/S page control when the associated license amendment requests are approved.

ATTACHMENT 2A TO C0500-09

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 1

6-7
6-8
6-10
6-14
6-15

PROCEDURES AND PROGRAMS (Continued)

6.8.4 The following programs shall be established, implemented, and maintained:

a. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,

2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR ~~Part~~ 20.**1001-20.2402**, Appendix B, Table ~~II~~ **2**, Column 2,

3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents ~~in accordance with~~ **pursuant to** 10 CFR 20.~~106~~**1302** and with the methodology and parameters in the ODCM,

4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,

5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,

6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

PROCEDURES AND PROGRAMS (Continued)

7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY ~~conforming to the dose associated with 10 CFR Part 20, Appendix B, Table II, Column 1.~~ shall be limited to the following:

a) **For noble gases: Less than or equal to a dose rate of 500 mrem/year to the total body and less than or equal to a dose rate of 3000 mrem/year to the skin, and**

b) **For Iodine–131, Iodine–133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.**

8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,

9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and

10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and

3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

6.9 STARTUP REPORT (Continued)

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 **annual** 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. **Also included is a tabulation of the total person rem exposures for station, utility, and other personnel associated with each work and job function.** The dose assignment to various duty functions may be estimates based on pocket dosimeter, **electronic dosimeter,** TLD, or film badge measurements. Small exposures ~~totalling~~ **totaling** less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total ~~whole body~~ **deep** 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~~ **20.2206** of 10 CFR Part 20.

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~~ **Pursuant to 10 CFR 20.1601(c), in lieu of the requirements of 10 CFR 20.1601(a) and (b), each high radiation area in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 100 mrem but less than or equal to 1000 mrem in 1 hour at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates,** 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 **level at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates** is greater than 1000 ~~mrem/hr~~ **mrem in 1 hour**. 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.

* 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.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 Changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 Changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the level of radioactive effluent control ~~required by 10 CFR 20.106~~ **pursuant to 10 CFR 20.1302**, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

ATTACHMENT 2B TO C0500-09

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 2

6-7
6-8
6-10
6-14
6-15

PROCEDURES AND PROGRAMS (Continued)

6.8.4 The following programs shall be established, implemented, and maintained:

a. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,

2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR ~~Part~~ 20.**1001-20.2402**, Appendix B, Table ~~II~~ **2**, Column 2,

3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents ~~in accordance with~~ **pursuant to** 10 CFR 20.~~106~~ **1302** and with the methodology and parameters in the ODCM,

4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,

5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,

6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

PROCEDURES AND PROGRAMS (Continued)

7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY ~~conforming to the dose associated with 10 CFR Part 20, Appendix B, Table II, Column 1.~~ **shall be limited to the following:**

a) **For noble gases: Less than or equal to a dose rate of 500 mrem/year to the total body and less than or equal to a dose rate of 3000 mrem/year to the skin, and**

b) **For Iodine–131, Iodine–133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.**

8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,

9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and

10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and

3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

STARTUP REPORT (Continued)

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 **annual** 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. **Also included is a tabulation of the total person rem exposures for station, utility, and other personnel associated with each work and job function.** The dose assignment to various duty functions may be estimates based on pocket dosimeter, **electronic dosimeter,** TLD, or film badge measurements. Small exposures ~~totalling~~ **totaling** less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total ~~whole body~~ **deep** 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~~ **20.2206** of 10 CFR Part 20.

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~~ **Pursuant to 10 CFR 20.1601(c), in lieu of the requirements of 10 CFR 20.1601(a) and (b), each high radiation area in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 100 mrem but less than or equal to 1000 mrem in 1 hour at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates,** 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 **level at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates** is greater than 1000 ~~mrem/hr~~ **mrem in 1 hour**. 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.

* 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.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 Changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 Changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the level of radioactive effluent control ~~required by 10 CFR 20.106~~ **pursuant to 10 CFR 20.1302**, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

ATTACHMENT 3A TO C0500-09

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PROCEDURES AND PROGRAMS (Continued)

6.8.4 The following programs shall be established, implemented, and maintained:

a. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,

2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR 20.1001-20.2402, Appendix B, Table 2, Column 2,

3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents pursuant to 10 CFR 20.1302 and with the methodology and parameters in the ODCM,

4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,

5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,

6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

PROCEDURES AND PROGRAMS (Continued)

7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY shall be limited to the following:

a) For noble gases: Less than or equal to a dose rate of 500 mrem/year to the total body and less than or equal to a dose rate of 3000 mrem/year to the skin, and

b) For Iodine–131, Iodine–133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.

8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,

9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and

10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and

3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

6.9 STARTUP REPORT (Continued)

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 annual exposures greater than 100 mrem 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. Also included is a tabulation of the total person rem exposures for station, utility, and other personnel associated with each work and job function. The dose assignment to various duty functions may be estimates based on pocket dosimeter, electronic dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total deep dose received 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 20.2206 of 10 CFR Part 20.

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 Pursuant to 10 CFR 20.1601(c), in lieu of the requirements of 10 CFR 20.1601(a) and (b), each high radiation area in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 100 mrem but less than or equal to 1000 mrem in 1 hour at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates, 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 radiation level at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates is greater than 1000 mrem in 1 hour. 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.

* 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.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 Changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 Changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the level of radioactive effluent control pursuant to 10 CFR 20.1302, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

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PROCEDURES AND PROGRAMS (Continued)

6.8.4 The following programs shall be established, implemented, and maintained:

a. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,

2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR 20.1001-20.2402, Appendix B, Table 2, Column 2,

3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents pursuant to 10 CFR 20.1302 and with the methodology and parameters in the ODCM,

4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,

5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,

6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

PROCEDURES AND PROGRAMS (Continued)

7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY shall be limited to the following:

a) For noble gases: Less than or equal to a dose rate of 500 mrem/year to the total body and less than or equal to a dose rate of 3000 mrem/year to the skin, and

b) For Iodine–131, Iodine–133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.

8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,

9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and

10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

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A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and

3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

STARTUP REPORT (Continued)

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]

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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 annual exposures greater than 100 mrem 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. Also included is a tabulation of the total person rem exposures for station, utility, and other personnel associated with each work and job function. The dose assignment to various duty functions may be estimates based on pocket dosimeter, electronic dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total deep dose received 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 20.2206 of 10 CFR Part 20.

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 Pursuant to 10 CFR 20.1601(c), in lieu of the requirements of 10 CFR 20.1601(a) and (b), each high radiation area in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 100 mrem but less than or equal to 1000 mrem in 1 hour at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates, 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 radiation level at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates is greater than 1000 mrem in 1 hour. 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.

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* 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.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 Changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 Changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2. A determination that the change will maintain the level of radioactive effluent control pursuant to 10 CFR 20.1302, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

b. Shall become effective after review and acceptance by the PNSRC and the approval of the Plant Manager.

c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

ATTACHMENT 4 TO C0500-09

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

Indiana Michigan Power Company (I&M) has evaluated this proposed amendment and determined that it does not involve a significant hazard. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

1. involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated;

2. create the possibility of a new or different kind of accident from any previously analyzed; or

3. involve a significant reduction in a margin of safety.

I&M proposes to make changes to several Technical Specifications (T/S) to reflect implementation of the revised 10 CFR Part 20, "Standards for Protection Against Radiation." The proposed changes would update 10 CFR Part 20 section and table numbers and change wording to be consistent with the revised 10 CFR Part 20. In addition, I&M proposes to revise T/S 6.8.4.a.7 to maintain existing instantaneous dose rate limitations in the Offsite Dose Calculation Manual (ODCM). A proposed revision to the requirements governing the annual tabulation of radiation exposures is included.

The determination that the criteria set forth in 10 CFR 50.92 are met for this amendment request is provided below.

1. Does the change involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated?

The proposed changes do not physically alter any plant structures, systems, or components (SSCs), and do not affect or create new accident initiators or precursors for any accident evaluated in the Updated Final Safety Analysis Report. Therefore, the probability of an accident previously evaluated is unchanged.

The proposed changes do not affect the types or amounts of radionuclides released following an accident, or the initiation and duration of their release. The changes are administrative in nature. Therefore, the consequences of an accident previously evaluated are not increased.

Therefore, the probability of occurrence or the consequences of accidents previously evaluated are not significantly increased.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes do not physically alter any SSC and do not affect or create new accident initiators or precursors. The accident analysis assumptions and results are unchanged. No new failures or interactions have been created.

Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

10 CFR 20.1301, Appendix I to 10 CFR 50, and 40 CFR 190 establish the controls and limitations on total effective dose equivalent to individual members of the public from effluents discharged to unrestricted areas. The proposed changes maintain established limits for radioactive liquid effluents established in 10 CFR Part 20 and limits for radioactive gaseous effluents established in the ODCM. I&M continues to comply with limits specified in 10 CFR 20.1301, Appendix I to 10 CFR 50, and 40 CFR 190. Since compliance with these regulatory requirements has not been compromised, the proposed changes do not involve a significant reduction in the margin of safety.

In summary, based upon the above evaluation, I&M has concluded that the proposed amendment involves no significant hazards consideration.

ATTACHMENT 5 TO C0500-09

ENVIRONMENTAL ASSESSMENT

Indiana Michigan Power Company (I&M) has evaluated this license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. I&M has determined that this license amendment request meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria.

(i) The amendment involves no significant hazards consideration.

As demonstrated in Attachment 4, this proposed amendment does not involve significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

The changes do not affect the production of radioactive effluents and they maintain established effluent release limits. Therefore, there will be no significant change in the types or significant increase in the amounts of any effluents released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in significant changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no significant increase in individual or cumulative occupational radiation exposure resulting from this change.