

ATTACHMENT 2 TO AEP:NRC:0659V

EXISTING TECHNICAL SPECIFICATIONS

PAGES MARKED TO REFLECT PROPOSED CHANGES

9304220165 930416
PDR ADOCK 05000315
P PDR



1950

ADMINISTRATIVE CONTROLS

- 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 NSDRG shall be composed of the following regular members:

- 1. ^{Group} Vice President - Nuclear Operations (NSDRG Chairman)
- 2. ~~Section~~ Manager, Nuclear Safety, ~~and~~ Licensing - Nuclear Operations ^{Assessment} (NSDRG 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~~
- 5. Senior Vice President and Chief Engineer
- 6. ~~Chief - Electrical Engineering~~ Vice President and Chief Electrical Engineer
- 7. Vice President - Project Management and Construction
- 8. ~~Assistant Vice President - Nuclear Engineering~~ Chief Nuclear Engineer
- 9. Assistant Vice President - Civil Engineering
- 10. Assistant Vice President - Design
- 11. Division Manager - Environmental and Technical Assessment
- 12. Director - Quality Assurance
- 13. ~~Division Manager - Electrical Systems~~ Manager, Plans and Programs - Nuclear Operations

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

~~President and Chief Operating Officer.~~

ALTERNATE MEMBERS

6.5.2.3 Designated alternate members shall be appointed by the ~~Senior Executive Vice President - Engineering and Construction~~ ^{President and Chief Operating Officer} or such other person as he shall designate. In addition, temporary alternata members may be appointed by the NSDRG 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.

ADMINISTRATIVE CONTROLS

- 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. Vice President - Nuclear Operations

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 ^{issued} ~~forwarded to the Senior Executive Vice President - Engineering and Construction, AEPSC,~~ within 14 days following each meeting.
- b. Reports of reviews encompassed ^{issued} ~~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. Nuclear Operations

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

ADMINISTRATIVE CONTROLS

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT³

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.

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT³

6.9.1.8 Routine radioactive effluent release report¹² covering the operation of the unit during the previous ~~12~~ months of operation shall be submitted within ~~60~~₉₀ days after January 1 ~~and July 1 of each year~~ of each year.

6.9.1.9 The radioactive effluent release report¹² 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

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.



ADMINISTRATIVE CONTROLS

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 ⁹⁰ ~~30~~ days after January 1⁰ ~~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 ⁹⁰ speed, wind direction and atmospheric stability. The report submitted ~~30~~ 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. ⁹⁰ ~~This~~ report^x 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 ⁹⁰ ~~these~~ report^x. 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 ⁹⁰ ~~30~~ 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),



ADMINISTRATIVE CONTROLS

- 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 report^x 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),



ADMINISTRATIVE CONTROLS

- 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. ^{Group} Vice President - Nuclear Operations (NSDRC Chairman)
- 2. Section Manager, Nuclear Safety and Licensing - Nuclear Operations: (NSDRC Secretary) ^{Assessment}
- 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~~
- 5. Senior Vice President and Chief Engineer
- 6. ~~Senior Vice President - Electrical Engineering~~ Vice President and Chief Electrical Engineer
- ~~8. Vice President - Mechanical Engineering~~
- 7. Vice President - Project Management and Construction
- 8. ~~Assistant Vice President - Nuclear Engineering~~ Chief Nuclear Engineer
- 9. Assistant Vice President - Civil Engineering
- 10. Assistant Vice President - Design
- 11. Division Manager - Environmental and Technical Assessment
- 12. Director - Quality Assurance
- 13. ~~Division Manager - Electrical Systems~~ Manager, Plans and Programs - Nuclear Operations

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

President and Chief Operating Officer.

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.

ADMINISTRATIVE CONTROLS

- 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. *Nuclear Operations*

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 *issued* ~~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 *issued* ~~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 *Nuclear Operation* 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.



ADMINISTRATIVE CONTROLS

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT³

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.

~~ANNUAL~~ ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT³

6.9.1.8 Routine radioactive ¹²effluent release report~~x~~ covering the operation of the unit during the previous ~~X~~ months of operation shall be submitted within ~~90~~ ⁹⁰ days after January 1 and ~~July 1~~ of each year.

6.9.1.9 The radioactive effluent release report~~x~~ 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

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.

ADMINISTRATIVE CONTROLS

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~~⁹⁰ 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~~⁹⁰ 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. ~~This report~~^{This report} 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 ~~this~~^{this} report. 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~~⁹⁰ 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),

ADMINISTRATIVE CONTROLS

- 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 report 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:

ATTACHMENT 3 TO AEP:NRG:0659V

PROPOSED REVISED TECHNICAL SPECIFICATIONS PAGES

ADMINISTRATIVE CONTROLS

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

Additional members and Vice Chairman may be appointed by the President and Chief Operating Officer.

ALTERNATE MEMBERS

6.5.2.3 Designated alternate members shall be appointed by the President and Chief Operating Officer 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.

ADMINISTRATIVE CONTROLS

- 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 NSDRG.

AUTHORITY

6.5.2.9 The NSDRG shall report to and advise the Vice President - Nuclear Operations, 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 NSDRG activities shall be prepared, approved and distributed as indicated below:

- a. Minutes of each NSDRG meeting shall be prepared, approved and issued within 14 days following each meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and issued within 14 days following completion of the review.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Vice President - Nuclear Operations, 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

ADMINISTRATIVE CONTROLS

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT³

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.

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT³

6.9.1.8 Routine radioactive effluent release report covering the operation of the unit during the previous 12 months of operation shall be submitted within 90 days after January 1 of each year.

6.9.1.9 The radioactive effluent release report 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

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.

ADMINISTRATIVE CONTROLS

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 90 days after January 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 90 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. This report 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 this report. 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 90 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),

ADMINISTRATIVE CONTROLS

- 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 report 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),



ADMINISTRATIVE CONTROLS

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

Additional members and Vice Chairman may be appointed by the President and Chief Operating Officer.

ALTERNATE MEMBERS

6.5.2.3 Designated alternate members shall be appointed by the President and Chief Operating Officer 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.



ADMINISTRATIVE CONTROLS

- 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 Vice President - Nuclear Operations, 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 issued within 14 days following each meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and issued within 14 days following completion of the review.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Vice President - Nuclear Operations, 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



ADMINISTRATIVE CONTROLS

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT³

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.

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT³

6.9.1.8 Routine radioactive effluent release report covering the operation of the unit during the previous 12 months of operation shall be submitted within 90 days after January 1 of each year.

6.9.1.9 The radioactive effluent release report 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

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.

ADMINISTRATIVE CONTROLS

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 90 days after January 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 90 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. This report 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 this report. 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 90 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),



ADMINISTRATIVE CONTROLS

- 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 report 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: