



February 3, 2005

NRC-05-010  
10 CFR 50.90

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Kewaunee Nuclear Power Plant  
Docket 50-305  
License No. DPR-43

License Amendment Request 209 To The Kewaunee Nuclear Power Plant Technical Specifications, Changes to Radioactive Effluent Controls Program Specifications

- References:
- 1) Industry/Technical Specification Task Force Change Traveler, TSTF-258-A, Rev. 4, "Changes to Section 5.0, Administrative Controls," dated July 31, 2003.
  - 2) Industry/Technical Specification Task Force Change Traveler, TSTF-308, Rev. 1, "Determination of Cumulative and Projected Dose Contribution in RECP," dated June 13, 2000.

Pursuant to 10 CFR 50.90, Nuclear Management Company, LLC, (NMC) is submitting this License Amendment Request (LAR) to the Kewaunee Nuclear Power Plant (KNPP) Technical Specifications (TS) to revise TS 6.16.b.1, "Radioactive Effluent Controls Program." The proposed changes update the TS to be consistent with the intent of 10 CFR 20 and Westinghouse Standard Technical Specifications (STS). Several of the proposed changes are consistent with portions of Industry/Technical Specification Task Force (TSTF) Change Travelers TSTF-258A, Rev. 4 (reference 1) and TSTF-308, Rev. 1 (reference 2).

Enclosure 1 to this letter contains a description of the proposed changes, a listing of the proposed changes, a background description, a technical analysis, and a regulatory safety analysis, which includes a no significant hazards determination and an environmental considerations review. Enclosure 2 contains the marked up Technical Specification pages and Enclosure 3 contains the affected Technical Specification pages as revised.

ADD1

The NMC requests approval of the proposed amendment by February 2, 2006 (one year from submittal date). Once approved, the amendment shall be implemented within 60 days.

Summary of Commitments

This letter makes one commitment. As stated in Enclosure 1, Section 4.0, Item 8, the KNPP ODCM and affected plant procedures will be updated during implementation of the approved TS amendment. This commitment is also noted in Enclosure 4.

If you have any questions or require additional information, please contact Mr. Gerald Riste at (920) 388-8424. A complete copy of this submittal has been transmitted to the State of Wisconsin as required by 10 CFR 50.91(b)(1).

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 3, 2005.



Craig W. Lambert  
Site Vice President, Kewaunee Nuclear Power Plant  
Nuclear Management Company, LLC

Enclosures (4)

cc: Administrator, Region III, USNRC  
Resident Inspector, Kewaunee, USNRC  
Project Manager, Kewaunee, USNRC  
Public Service Commission of Wisconsin

**ENCLOSURE 1**  
**NUCLEAR MANAGEMENT COMPANY, LLC,**  
**EVALUATION OF LICENSE AMENDMENT REQUEST 209 TO KEWAUNEE**  
**NUCLEAR POWER PLANT, OPERATING LICENSE NO. DPR-43,**  
**DOCKET NO. 50-305**

**1.0 DESCRIPTION**

The Nuclear Management Company (NMC), LLC, proposes to amend the Kewaunee Nuclear Power Plant (KNPP) Operating License DPR-43, Appendix A, "Technical Specifications." The License Amendment Request (LAR) will revise Technical Specification (TS) 6.16.b.1, "Radioactive Effluent Controls Program." The proposed changes update the TS to be consistent with the intent of 10 CFR 20 and to be consistent with Westinghouse Owner's Group (WOG) Standard Technical Specifications (STS). Several of the proposed changes are consistent with Industry/Technical Specification Task Force (TSTF) Change Travelers TSTF-258A, Rev. 4 (reference 1) and TSTF-308, Rev. 1 (reference 2). The TSTF-308 recommended changes for several TS administrative controls. Only the changes referring to the radioactive effluent controls program from TSTF-308 are proposed for inclusion into KNPP TS.

**2.0 PROPOSED CHANGES**

The proposed changes in this LAR are listed below. Marked up and affected pages showing the proposed changes are located in Enclosures 2 and 3, respectively. There are no corresponding TS bases to update.

1. TS 6.16.b.1, insert parentheses around the "S" in "MEMBERS OF THE PUBLIC" in the second line of the introductory paragraph and delete "OPERATING" before procedures in the fourth line of the introductory paragraph.
2. TS 6.16.b.1.B, change "10 CFR Part 20, Appendix B, Table II, Column 2" to "ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402."
3. TS 6.16.b.1.C, change reference from 10 CFR 20.106 to 10 CFR 20.1302.
4. TS 6.16.b.1.E, separate out the determination of cumulative and projected dose as follows: "Determination of cumulative 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. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days."

5. TS 6.16.b.1.G, delete current specification and insert:  
"Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY shall be limited to the following:
  1. For noble gases: a dose rate  $\leq$  500 mrem/yr to the total body and a dose rate  $\leq$  3000 mrem/yr to the skin, and
  2. For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq$  1500 mrem/yr to any organ."
6. TS 6.16.1.b.J, Insert ", beyond the site boundary," immediately following "MEMBER(S) OF THE PUBLIC".
7. Following TS 6.16.1.b.J, insert, "The provisions of TS 4.0.b and 4.0.c are applicable to the Radioactive Effluent Controls Program surveillance frequency."
8. TS 6.18.b.1.B, change reference from 10 CFR 20.106 to 10 CFR 20.1302.

### **3.0 BACKGROUND**

On January 31, 1989, the NRC issued Generic Letter (GL) 89-01 "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or to the Process Control Program," (reference 3). The GL outlined incorporation of the programmatic controls for radioactive effluents and radiological environmental monitoring into the TS to conform to the regulatory requirements of 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR 50. The GL also stated the procedural details included in the licensees' TSs on radioactive effluents, solid radioactive wastes, environmental monitoring, and associated reporting requirements were to be relocated to the Offsite Dose Calculation Manual (ODCM) or the Process Control Program (PCP) as appropriate. The GL included model TS and requested that the model specifications be incorporated without change in substance since the programmatic and reporting requirements were general in nature and did not contain plant-specific details.

Kewaunee Nuclear Power Plant submitted proposed amendment (PA) 114 (reference 4) on May 4, 1993, to remove the Radiological Effluent Technical Specifications (RETS) from the KNPP TS. The PA was in accordance with guidelines stated in GL 89-01. The proposed changes incorporated the model TSs with minor changes in format, which was permissible by the GL. The NRC approved the proposed changes in amendment 104 to the KNPP TS dated December 9, 1993 (reference 5). Only editorial changes to KNPP TS 6.16 have been made since amendment 104. It appears that Revision 1 of STS also adopted the GL 89-01 model TS, with minor changes in wording and formatting.

The 10 CFR 20 was revised in its entirety, effective January 1, 1994. Note that 10 CFR 50, Appendix I, which is the basis for the ODCM, was not revised at that time. The NRC had determined that it was acceptable for the licensees to retain their existing level of effluent control by implementing the "as low as is reasonably achievable" (ALARA) requirement after January 1, 1994, without submitting individual requests for amending their TSs to comply with the new 10 CFR 20.1101(b). Therefore, the current Kewaunee ODCM is based on the pre-1994 version of 10 CFR 20.

The WOG has initiated two TSTFs regarding STS 5.5.4, "Radioactive Effluent Controls Program," (KNPP TS 6.16.b.1). TSTF-308 clarified the wording used to describe the two surveillance requirements for cumulative and projected doses in STS 5.5.4.e (KNPP TS 6.16.b.1.E). The intent of TSTF-258-A was to clarify the STS to be consistent with the intent of 10 CFR 20. Changes in TSTF-258-A included changes to STS 5.5.4.b (KNPP TS 6.16.b.1.B) and STS 5.5.4.g (KNPP TS 6.16.b.1.G). At final industry resolution of these TSTFs, KNPP did not incorporate the changes.

The NMC is submitting this LAR to update the TS to be consistent with the intent of 10 CFR 20 and to include the clarifying updates that have occurred to STS. Implementation of this LAR will result in the KNPP ODCM being based on the post-1994 version of 10 CFR 20.

#### **4.0 TECHNICAL ANALYSIS**

##### **1. TS 6.16.b.1 Change Justification**

Inserting parentheses around the "S" in MEMBERS OF THE PUBLIC makes the verbiage consistent with KNPP TS title for definition TS 1.0.o.1. The deletion of the word "operating" in the specification introduction is editorial in nature and is proposed for clarification and to make the TS consistent with STS. Generic Letter 89-01, from which KNPP adopted the Radioactive Effluents Controls Program TSs, originally stated "operating procedures". However, the Westinghouse STS does not state "operating".

##### **2. TS 6.16.b.1.B Change Justification**

This change reflects the adaptation of the current liquid effluent concentration limits of 10 CFR 20 to liquid effluents from the plant. The liquid effluent concentration release rate limit upon which the TS is based is a 500 mrem per year rate. Its application to limiting the release rate is an ALARA constraint. The revision to the Appendix B, Table 2, Column 2 values incorporated by the 1994 revision to 10 CFR 20 alter the dose base for these values from 500 mrem per year to 50 mrem per year. Therefore, in order to retain the same dose base upon which the TS 6.16.b.1.b is based (500 mrem per year), the new Appendix B, Table 2, Column 2 values are multiplied by ten.

Change traveler TSTF-258 also made this change to the Westinghouse STS. The 1995 revision of Westinghouse STS referred to 10 CFR 20, Appendix B, Table II, Column 2. This is similar to the GL 89-01 model specifications but incorporated the 1994 10 CFR 20 revision. In TSTF-258, Westinghouse proposed the changes to STS to add "ten times the concentration of" to make the specifications more consistent with the intent of 10 CFR 20.

**3. TS 6.16.b.1.C Change Justification**

The 1994 revision of 10 CFR 20 replaced 10 CFR 20.106 with 10 CFR 20.1302.

**4. TS 6.16.b.1.E Change Justification**

The KNPP incorporated GL 89-01 model specifications with only changes in format. As stated in change traveler TSTF-308, Rev. 1, the GL 89-01 appears to have combined the surveillance requirements for the cumulative and projected dose contributions. In combining these requirements in the GL, it could be interpreted that it is required to determine a projected dose contribution for the current calendar quarter and current calendar year every 31 days. This has been clarified in STS, but still exists in KNPP TS. Therefore, this change clarifies the wording of the KNPP TS.

**5. TS 6.16.b.1.G Change Justification**

This revision maintains the same dose rate limits as referenced in the current wording for TS 6.16.b.1.G, while also maintaining consistency with the methods of the ODCM for calculating these dose rates. Recognizing that this limit is an ALARA constraint on the release rate for gaseous effluents and not an annual dose limit, reference to the 10 CFR 20, Appendix B, Table 2, Column 1 values is not necessary.

Change traveler TSTF-258 also supports this change. The change traveler states that the change was made to eliminate possible confusion or improper implementation of the revised 10 CFR 20 requirements.

**6. TS 6.16.1.b.J Change Justification**

The change is editorial and made to provide clarification. This change was also made to STS through change traveler TSTF-258. This change brings KNPP TS up to date with the STS.

**7. Surveillance Provisions Change Justification**

The change adds reference to KNPP TS 4.0.b and 4.0.c, which both contain provisions for maximum allowable surveillance frequency extension and missed surveillances. The provisions are currently stated in the KNPP ODCM. This change is editorial and will make KNPP TS more consistent with the STS.

**8. TS 6.18.b.1.B Change Justification**

The 1994 revision of 10 CFR 20 replaced 10 CFR 20.106 with 10 CFR 20.1302.

The above proposed changes update the current KNPP TS to the 1994 revision of 10 CFR 20. The changes also clarify the specifications and bring them up to date with the Westinghouse STS. The proposed changes do not affect any USAR accident analysis nor do the changes require any new analyses be performed. The KNPP ODCM and affected plant procedures will be updated during implementation of the approved TS amendment.

## 5.0 REGULATORY SAFETY ANALYSIS

### 5.1 No Significant Hazards Consideration

The Nuclear Management Company (NMC), LLC, proposes to amend Appendix A of the Kewaunee Nuclear Power Plant (KNPP) operating license DPR-43, "Technical Specifications." The amendments revise the KNPP Technical Specifications (TS) in TS 6.16.b.1, "Radioactive Effluent Controls Program," to be consistent with 10 CFR 20 and Westinghouse standard technical specifications (STS).

The NMC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

NMC Response:

No. Updating the specification to be consistent with 10 CFR 20 and the STS has no impact on plant structures, systems, or components, does not affect any accident initiators, and does not change any safety analysis. Therefore, the changes do not involve an increase in the probability or consequences of an accident previously evaluated.

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

NMC Response:

No. Updating the specification to be consistent with 10 CFR 20 and the STS will not change any equipment, require new equipment to be installed, or change the way current equipment operates. No credible new failure mechanisms, malfunctions, or accident initiators are created by the proposed changes. Therefore, the changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

NMC Response:

No. Updating the specification to be consistent with 10 CFR 20 and the STS has no impact on inputs to the safety analysis or to automatic plant actions. It also does not impact plant equipment or operation. Therefore, the change does not reduce the margin of safety.

Based on the above, the NMC concludes that the proposed amendments present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

## **5.2 Applicable Regulatory Requirements/Criteria**

The regulatory bases and guidance documents associated with the changes discussed in this amendment application are listed below. It is important to note that the KNPP was designed, constructed, and is being operated to comply with the owner's understanding of the intent of the Atomic Energy Commission (AEC) General Design Criteria (GDC) for Nuclear Power Plant Construction Permits as proposed on July 10, 1967. Since the construction of the plant was about 50 percent completed prior to the issuance of the February 20, 1971, 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," the plant was not required to be reanalyzed and the FSAR was not required to be revised to reflect these later criteria. However, the AEC SER, issued July 24, 1972, acknowledged that the AEC staff assessed the plant, as described in the FSAR, against the Appendix A design criteria and "...are satisfied that the plant design generally conforms to the intent of these criteria." As such, when GDC is referenced in the list below it is the appropriate 10 CFR 50, Appendix A, GDC. The associated criteria KNPP is licensed to (AEC GDC) is listed following the Appendix A GDC reference. This information is from the Final Safety Analysis (Amendment 7), which has been updated and is now titled the Updated Safety Analysis Report (USAR).

1. GDC 60, "Control of releases of radioactive materials to the environment." KNPP USAR states the plant was designed to meet AEC GDC 70, "Control of releases of Radioactivity to the Environment."
2. 10 CFR 20, "Standards for Protection Against Radiation"
3. 10 CFR 50.36a, "Technical specifications on effluents from nuclear power reactors."
4. 10 CFR 34a, "Design objectives for equipment to control releases of radioactive material in effluents – nuclear power reactors."
5. 40 CFR 190, "Environmental Standards for the Uranium Fuel Cycle."
6. 10 CFR 50 Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents."
7. Generic Letter (GL) 89-01 "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or to the Process Control Program," dated January 31, 1989.

## **6.0 ENVIRONMENTAL CONSIDERATION**

The proposed amendment is confined to (i) changes to surety, insurance, and/or indemnity requirements, or (ii) changes to recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## **7.0 REFERENCES**

1. Industry/Technical Specification Task Force Change Traveler, TSTF-258-A, Rev. 4, "Changes to Section 5.0, Administrative Controls," dated July 31, 2003.
2. Industry/Technical Specification Task Force Change Traveler, TSTF-308, Rev. 1, "Determination of Cumulative and Projected Dose Contribution in RECP," dated June 13, 2000.
3. Generic Letter (GL) 89-01 "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or to the Process Control Program," dated January 31, 1989.
4. Letter to Document Control Desk (NRC) from CR Steinhardt (WPSC), "Proposed Amendment 114 to Kewaunee Nuclear Power Plant Technical Specifications," dated May 4, 1993.
5. Letter to CA Schrock (WPSC) from RJ Laufer (NRC), "Amendment No. 104 to Facility Operating License No. DPR-43 (TAC No. M86417)," dated December 9, 1993.

**ENCLOSURE 2**

**NUCLEAR MANAGEMENT COMPANY, LLC,  
MARKED UP TS PAGES FOR LICENSE AMENDMENT REQUEST 209 TO  
KEWAUNEE NUCLEAR POWER PLANT, OPERATING LICENSE NO. DPR-43,  
DOCKET NO. 50-305**

**Marked Up TS Pages:**

**TS 6.16-1**

**TS 6.16-2**

**TS 6.18-1**

**3 pages follow**

## 6.16 RADIOLOGICAL EFFLUENTS

- a. Written procedures shall be established, implemented and maintained covering the activities referenced below:
  1. Process Control Program (PCP) implementation
  2. OFF-SITE DOSE CALCULATION MANUAL (ODCM) implementation
  3. Quality Assurance Program for effluent and environmental monitoring
- b. The following programs shall be established, implemented, and maintained:
  1. 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 MEMBER(S) OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program shall: (1) be contained in the ODCM, (2) be implemented by OPERATING procedures, and (3) include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- A. 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.
- B. Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to ten times the concentration values in 10 CFR Part 20, Appendix B, Table #2, Column 2 to 10 CFR 20.1001-20.2402.
- C. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.106-1302 and with the methodology and parameters in the ODCM.
- D. Limitations on the annual and quarterly doses or dose commitment to a MEMBER(S) 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.
- E. 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. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.

- F. 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% of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50.
- G. Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY conforming to the doses associated with 10 CFR Part 20, Appendix B, Table II, Column 1 shall be limited to the following:
1. For noble gases: a dose rate  $\leq 500$  mrem/yr to the total body and a dose rate of  $\leq 3000$  mrem/yr to the skin, and
  2. For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq 1500$  mrem/yr to any organ.
- H. 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.
- I. Limitations on the annual and quarterly doses to MEMBER(S) OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50.
- J. Limitations on the annual dose or dose commitment to any MEMBER(S) OF THE PUBLIC, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

The provisions of TS 4.0.b and 4.0.c are applicable to the Radioactive Effluents Controls Program surveillance frequency.

## 2. 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 measurement 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:

- A. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM.

## 6.18 OFF-SITE DOSE CALCULATION MANUAL (ODCM)

- a. The ODCM shall be approved by the Commission prior to implementation.
- b. Licensee initiated changes to the ODCM:
  1. Shall be documented and records of reviews performed shall be retained as required by TS 6.10.b.11. This documentation shall contain:
    - A. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change.
    - B. A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.4061302, 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.
  2. Shall become effective after review and acceptance by the PORC.
  3. 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 Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. The date the changes were made shall be indicated. In addition, a method such as redlining should be used to clearly identify the changes.

**ENCLOSURE 3**

**NUCLEAR MANAGEMENT COMPANY, LLC,  
AFFECTED TS PAGES FOR LICENSE AMENDMENT REQUEST 209 TO  
KEWAUNEE NUCLEAR POWER PLANT, OPERATING LICENSE NO. DPR-43,  
DOCKET NO. 50-305**

**Affected TS Pages:**

**TS 6.16-1**

**TS 6.16-2**

**TS 6.18-1**

**3 pages follow**

## 6.16 RADIOLOGICAL EFFLUENTS

- a. Written procedures shall be established, implemented and maintained covering the activities referenced below:
  1. Process Control Program (PCP) implementation
  2. OFF-SITE DOSE CALCULATION MANUAL (ODCM) implementation
  3. Quality Assurance Program for effluent and environmental monitoring
- b. The following programs shall be established, implemented, and maintained:
  1. 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 MEMBER(S) OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program shall: (1) be contained in the ODCM, (2) be implemented by procedures, and (3) include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- A. 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.
- B. Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402.
- C. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM.
- D. Limitations on the annual and quarterly doses or dose commitment to a MEMBER(S) 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.
- E. Determination of cumulative 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. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.

- F. 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% of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50.
- G. Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY shall be limited to the following:
  - 1. For noble gases: a dose rate  $\leq 500$  mrem/yr to the total body and a dose rate of  $\leq 3000$  mrem/yr to the skin, and
  - 2. For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq 1500$  mrem/yr to any organ.
- H. 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.
- I. Limitations on the annual and quarterly doses to MEMBER(S) OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50.
- J. Limitations on the annual dose or dose commitment to any MEMBER(S) OF THE PUBLIC, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

The provisions of TS 4.0.b and 4.0.c are applicable to the Radioactive Effluents Controls Program surveillance frequency.

## 2. 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 measurement 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:

- A. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM.

**6.18 OFF-SITE DOSE CALCULATION MANUAL (ODCM)**

- a. The ODCM shall be approved by the Commission prior to implementation.
- b. Licensee initiated changes to the ODCM:
  1. Shall be documented and records of reviews performed shall be retained as required by TS 6.10.b.11. This documentation shall contain:
    - A. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change.
    - B. A determination that the change will maintain the level of radioactive effluent control required by 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.
  2. Shall become effective after review and acceptance by the PORC.
  3. 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 Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. The date the changes were made shall be indicated. In addition, a method such as redlining should be used to clearly identify the changes.

**ENCLOSURE 4**  
**NUCLEAR MANAGEMENT COMPANY, LLC,**  
**LIST OF REGULATORY COMMITMENTS FOR LICENSE AMENDMENT**  
**REQUEST 209 TO KEWAUNEE NUCLEAR POWER PLANT OPERATING LICENSE**  
**NO. DPR-43, DOCKET NO. 50-305**

The following table identifies those actions committed to by the NMC in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to Mr. Gerald Riste at (920) 388-8424.

REGULATORY COMMITMENT	DUE DATE/EVENT
The KNPP ODCM and affected plant procedures will be updated during implementation of the approved TS amendment.	Implementation