one or more of the equipment or subsystem(s) identified in the ODCM, a special report, pursuant to Specification 5.9.3, shall be prepared and submitted to the Commission within 30 days. This report shall include the following information:

(i) Identification of equipment or subsystem(s) not operable and reason for inoperability.

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

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

d. The hydrogen and oxygen monitors shall be monitoring the in-service gas decay tank during the transfer of waste gases to the gas decay tank and the concentration of hydrogen and oxygen shall be limited to below flammability concentrations. Whenever the monitors are inoperable, transfer of waste gases to a gas decay tank may continue provided grab samples are taken from the gas decay tank and analyszed: (1) every 8 hours during degassing operations, and (2) daily during other operations.

e. ~~(i)~~ The ~~stack monitors for~~ Auxiliary Building Exhaust Stack gaseous, particulate, and iodine activit~~ies~~y monitors may be inoperable provided that 1) releases from a gas decay tank, containment pressure relief line, and the containment purge line are secured, and 2) whenever the ~~ventilation~~ Auxiliary Building Exhaust sStack gas or particulate activity monitor is inoperable, appropriate grab samples will be taken and analyzed once per eight (8) hours.

f. ~~(ii)~~ During power operation, the condenser air ejector discharge shall be monitored for gross radioactivity. If this monitor is inoperable, grab samples shall be taken and analyzed daily for principal gamma emitters.

~~f.~~ g. During release of gaseous radioactive wastes from the gaseous waste discharge header or during containment venting to the ~~ventilation~~ Auxiliary Building Exhaust sStack, the following conditions shall be met:

(i) The gas, iodine, and particulate monitors shall be monitoring the ~~vent~~ Auxiliary Building Exhaust sStack.

(ii) At least one exhaust fan shall be in operation.

(iii) The effluent control radiation monitors shall be set in accordance with the ODCM to alarm and automatically terminate the releases prior to exceeding the limits specified in 2.9.1(2)a(i) above.

(iv) The activity shall be monitored and recorded. The flow rate shall be monitored and recorded, or determined by calculation.

(v) During the release of gaseous wastes from the containment purge line, a containment gas monitor and a particulate monitor shall monitor the containment, in addition to conforming with (i) through (iv) above.

h. During releases from the Laboratory and Radioactive Waste Processing Building Exhaust Stack, the following conditions shall be met:

(i) The Laboratory and Radioactive Waste Processing Building (LRWPB) Exhaust Stack gas, iodine, and particulate monitors shall be monitoring the LRWPB Exhaust Stack. The effluent control radiation monitors shall be set in accordance with the ODCM to alarm prior to exceeding the limits specified in 2.9.1(2)a(i) above. The gas activity monitor may be inoperable provided that appropriate grab samples be taken and analyzed once per 24 hours. The particulate and iodine activity monitors may be inoperable provided that samples are continuously collected as required in Table 3-12.

(ii) The effluent flow rate shall be monitored and recorded, or determined by calculation.

Basis

Releases of radioactivity in liquid wastes within the design objective levels provide reasonable assurance that the resulting annual exposure from liquid effluents will not exceed the limits specified in Appendix I to 10 CFR Part 50. These specifications provide reasonable assurance that the resulting exposure will not exceed 3 mrem to total body or 10 mrem to any organ. At the same time, these specifications permit the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power under unusual operating conditions which may temporarily result in releases higher than the design objective levels but still within the concentration limits specified in 10 CFR Part 20.

The design objectives have been developed based on operating experience, calculation procedures based on models and data set forth in Regulatory Guide 1.109, and the evaluation of Fort Calhoun facility in accordance with Appendix I of 10 CFR Part 50 dose design objectives. The design objectives take into account a combination of variables including fuel failures, primary system leakage, primary-to-secondary system leakage and the performance of various radioactive waste treatment systems.

Specification 2.9.1(1)a requires the licensee to limit the concentration of radioactive materials in liquid effluents released from the site to levels specified in 10 CFR Part 20, Appendix B, for unrestricted areas. This specification provides assurance that no member of the general public will be exposed at any time to liquid

Basis (Continued)

requirements in accordance with Section IV.A of Appendix I to 10 CFR Part 50, in addition to the requirements of Section 5.9 of these Technical Specifications.

Specification 2.9.1(2)c requires the operation of equipment or subsystem(s) of the radioactive gaseous waste system, as identified in the ODCM, to reduce the release of radioactive materials in gaseous effluents to as low as reasonably achievable, consistent with the requirements of 10 CFR Part 50.36a, and General Design Criterion 60 of Appendix A to 10 CFR Part 50. Normal use of the equipment or subsystem(s) in the radioactive gaseous waste system provides reasonable assurance that the quantity released will not exceed the design objectives.

Specification 2.9.1(2)d ensures that the concentration of potentially explosive gas mixtures entrained in the gas decay tank(s) will be maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits with a measurement program provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

Specification 2.9.1(2)e provides assurance that releases from gas decay tank, Auxiliary Building Exhaust Stack, containment pressure relief line, and containment purge line are not made whenever the ~~ventilation~~ stack gaseous, particulate and iodine monitors are inoperable.

~~This s~~Specification ~~also~~ 2.9.1(2)f assures that the gross radioactivity, during power operation, is monitored from the condenser air ejector discharge.

Specification 2.9.1(2)~~f~~g requires operation of suitable equipment to dilute, control, and monitor in order to provide assurance that radioactive materials released in the gaseous effluents are properly controlled and monitored in accordance with the requirements of General Design Criteria 60 and 64 of 10 CFR Part 50, Appendix A.

Specification 2.9.1(2)h provides provisions for releases from the Laboratory and Radioactive Waste Processing Building (LRWPB) whenever the LRWPB Exhaust Stack gas, particulate or iodine activity monitors are inoperable.

TABLE 3-3

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS

| | Channel Description | Surveillance Function | Frequency | Surveillance Method |
|---|---|---|---|---|
| 1. | Primary CEA Position Indication System | a. Check | S | a. Comparison of output data with secondary CEAPIS. |
| | | b. Test | M | b. Test of power dependent insertion limits, deviation, and sequence monitoring systems. |
| | | c. Calibrate | R | c. Physically measured CEDM position used to verify system accuracy. Calibrate CEA position interlocks. |
| 2. | Secondary CEA Position Indication System | a. Check | S | a. Comparison of output data with primary CEAPIS. |
| | | b. Test | M | b. Test of power dependent insertion limit, deviation, out-of-sequence, and overlap monitoring systems. |
| | | c. Calibrate | R | c. Calibrate secondary CEA position indication system and CEA interlock alarms. |
| 3. | Area, Process, and Post-Accident Radiation Monitors Except Effluent Radiation Monitors(1) | a. Check | D | a. Normal readings observed and internal test signals used to verify instrument operation. |
| | | b. Test | M | b. Detector exposed to remote operated radiation check source or test signal. |
| | | c. Calibrate | R | c. RM-063L, M, and H and RM-064 - One time factory calibration is acceptable provided linearity solid sources are used to check the integrity of the detectors. RM-091A and B - In situ calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. In situ calibration for at least one decade below 10 R/hr shall be by means of calibrated radiation source. All other monitors - Exposure to known radiation source. |

(1) The surveillance requirements for effluent radiation monitors are described under Specification 3.12.1. Effluent radiation monitors are: RM-041, RM-042, RM-043, RM-054A, RM-054B, RM-055, RM-055A, RM-057, RM-060, RM-061, and RM-062. RM-050 and RM-051 are considered effluent radiation monitors when monitoring the ~~ventilation~~ Auxiliary Building Exhaust Stack.

(iii) Quarterly channel functional tests.

(iv) Channel calibration at refueling frequency.

e. The steam generator blowdown effluent flow rate will be calibrated at refueling frequency and visually determined operable daily.

f. Records shall be maintained of the radioactive concentrations and volume before dilution of each batch of liquid effluent released and of the average dilution flow and length of time over which each discharge occurred. Analytical results shall be submitted to the Commission in accordance with Section 5.9.4.a of these specifications.

(2) Gaseous Effluents

a. Radioactive gaseous waste sampling and activity analyses shall be performed in accordance with Table 3-12. The results of these analyses shall be used with the calculational methods in the ODCM to assure that the concentration of radioactive materials in unrestricted areas is limited to the values in Specification 2.9.1(2)a.

b. (i) ~~A ventilation stack radition~~ An Auxiliary Building Exhaust Stack monitor shall have a source check prior to any release of radioactive materials from a gas decay tank or the containment. A monthly source check will be performed during refueling outages if a purge or gas decay tank release is not done during that month.

(ii) ~~Each ventilation stack~~ The Auxiliary Building Exhaust Stack gaseous, particulate, and iodine monitors and the Laboratory and Radioactive Waste Processing Building Exhaust Stack gaseous, particulate, and iodine monitors shall have a quarterly channel functional test.

(iii) ~~Each ventilation stack~~ The Auxiliary Building Exhaust Stack gaseous, particulate, and iodine monitors and the Laboratory and Radioactive Waste Processing Building Exhaust Stack gaseous, particulate, and iodine monitors shall be calibrated at refueling frequency.

(iv) The ~~ventilation~~ Auxiliary Building Exhaust and the Laboratory and Radioactive Waste Processing Building Exhaust stack flow rates will be calibrated and functionally tested at refueling frequency. The Auxiliary Building Exhaust and the Laboratory and Radioactive Waste Processing Building Exhaust stack radiation monitors flow

rates will be calibrated and functionally tested at refueling frequency. ~~Both~~ The stack flow rates and radiation monitor flow rates will be determined operable by visual inspectio daily.

(v) The Laboratory and Radioactive Waste Processing Building Exhaust Stack gaseous, particulate, and iodine activity monitors shall have a daily channel check and a monthly source check.

c. The condenser air ejector monitor shall have a:

(i) Daily channel check.

(ii) Monthly source check.

TABLE 3-12

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS

| Gaseous Source | Sampling and Analysis Frequency | Type of Activity Analysis | Lower Limit of Detection (LLD) (4) (μCi/ml) |
|---|---|---|---|
| A. Gas Decay Tank Releases | Prior to each release | Principal Gamma(5) Emitters | 1.0 E-04(1) |
| B. Containment Purge Releases or Containment Pressure Relief Line Releases | Prior to each release | Principal Gamma(5) Emitters | 1.0 E-04(1) |
| | Prior to each release | H-3 | 1.0 E-06 |
| | Monthly (3) | Tritium (H-3) | 1.0 E-06 |
| C. Condenser Air Ejector Releases | Monthly | Principal Gamma(5) Emitters | 1.0 E-04(1) |
| D. Continuous(2) Auxiliary Building and Laboratory & Radioactive Waste Processing Building Exhaust Stack Releases | Weekly (Charcoal Sample) | I-131 | 1.0 E-12 |
| | Weekly (2) (Particulates) | Principal Gamma(5) Emitters I-131 & Particulates with half-lives greater than 8 days | 1.0 E-11 |
| | Monthly Composite | Grossα | 1.0 E-11 |
| | Quarterly Composite (Particulates) | Sr-89, Sr-90 | 1.0 E-11 |

NOTES:

(1) For certain mixtures of gamma emitters, it may not be possible to measure radionuclides at levels near their sensitivity limits when other nuclides are present in the sample at much higher levels. Under these circumstances, it will be more appropriate to calculate the levels of such radionuclides using observed ratios with those radionuclides which are measurable.

one or more of the equipment or subsystem(s) identified in the ODCM, a special report, pursuant to Specification 5.9.3, shall be prepared and submitted to the Commission within 30 days. This report shall include the following information:

(i) Identification of equipment or subsystem(s) not operable and reason for inoperability.

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

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

d. The hydrogen and oxygen monitors shall be monitoring the in-service gas decay tank during the transfer of waste gases to the gas decay tank and the concentration of hydrogen and oxygen shall be limited to below flammability concentrations. Whenever the monitors are inoperable, transfer of waste gases to a gas decay tank may continue provided grab samples are taken from the gas decay tank and analyzed: (1) every 8 hours during degassing operations, and (2) daily during other operations.

e. The Auxiliary Building Exhaust Stack gaseous, particulate, and iodine activity monitors may be inoperable provided that 1) releases from a gas decay tank, containment pressure relief line, and the containment purge line are secured, and 2) whenever the Auxiliary Building Exhaust Stack gas or particulate activity monitor is inoperable, appropriate grab samples will be taken and analyzed once per eight (8) hours.

f. During power operation, the condenser air ejector discharge shall be monitored for gross radioactivity. If this monitor is inoperable, grab samples shall be taken and analyzed daily for principal gamma emitters.

g. During release of gaseous radioactive wastes from the gaseous waste discharge header or during containment venting to the Auxiliary Building Exhaust Stack, the following conditions shall be met:

(i) The gas, iodine, and particulate monitors shall be monitoring the Auxiliary Building Exhaust Stack.

(ii) At least one exhaust fan shall be in operation.

(iii) The effluent control radiation monitors shall be set in accordance with the ODCM to alarm and automatically terminate the releases prior to exceeding the limits specified in 2.9.1(2)a(i) above.

(iv) The activity shall be monitored and recorded. The flow rate shall be monitored and recorded, or determined by calculation.

(v) During the release of gaseous wastes from the containment purge line, a containment gas monitor and a particulate monitor shall monitor the containment, in addition to conforming with (i) through (iv) above.

h. During releases from the Laboratory and Radioactive Waste Processing Building Exhaust Stack, the following conditions shall be met:

(i) The Laboratory and Radioactive Waste Processing Building (LRWPB) Exhaust Stack gas, iodine, and particulate monitors shall be monitoring the LRWPB Exhaust Stack. The effluent control radiation monitors shall be set in accordance with the ODCM to alarm prior to exceeding the limits specified in 2.9.1(2)a(i) above. The gas activity monitor may be inoperable provided that appropriate grab samples be taken and analyzed once per 24 hours. The particulate and iodine activity monitors may be inoperable provided that samples are continuously collected as required in Table 3-12.

(ii) The effluent flow rate shall be monitored and recorded, or determined by calculation.

Basis

Releases of radioactivity in liquid wastes within the design objective levels provide reasonable assurance that the resulting annual exposure from liquid effluents will not exceed the limits specified in Appendix I to 10 CFR Part 50. These specifications provide reasonable assurance that the resulting exposure will not exceed 3 mrem to total body or 10 mrem to any organ. At the same time these specifications permit the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power under unusual operating conditions which may temporarily result in releases higher than the design objective levels but still within the concentration limits specified in 10 CFR Part 20.

The design objectives have been developed based on operating experience, calculation procedures based on models and data set forth in Regulatory Guide 1.109, and the evaluation of Fort Calhoun facility in accordance with Appendix I of 10 CFR Part 50 dose design objectives. The design objectives take into account a combination of variables including fuel failures, primary system leakage, primary-to-secondary system leakage and the performance of various radioactive waste treatment systems.

Specification 2.9.1(1)a requires the licensee to limit the concentration of radioactive materials in liquid effluents released from the site to levels specified in 10 CFR Part 20, Appendix B, for unrestricted areas. This specification provides assurance that no member of the general public will be exposed at any time to liquid

Bases (Continued)

containing radioactive materials in excess of limits considered permissible under the Commission's Regulations.

Specification 2.9.1(1)b establishes the frequency of dose calculations in accordance with the ODCM. This specification also establishes the reporting requirements in accordance with Section IV.A of Appendix I to 10 CFR Part 50, in addition to the requirements of Section 5.9 of these Technical Specifications.

Specification 2.9.1(1)c requires the operation of the equipment or subsystem(s) of the radioactive liquid waste system, as identified in the ODCM, to reduce the release of radioactive materials in liquid effluents to as low as reasonably achievable, consistent with the requirements of 10 CFR Part 50.36a, and General Design Criterion 60 of Appendix A to 10 CFR Part 50. Normal use of the equipment or subsystem(s) in the radioactive liquid waste system provides reasonable assurance that the quantity released will not exceed the design objectives.

Basis (Continued)

requirements in accordance with Section IV.A of Appendix I to 10 CFR Part 50, in addition to the requirements of Section 5.9 of these Technical Specifications.

Specification 2.9.1(2)c requires the operation of equipment or subsystem(s) of the radioactive gaseous waste system, as identified in the ODCM, to reduce the release of radioactive materials in gaseous effluents to as low as reasonably achievable, consistent with the requirements of 10 CFR Part 50.36a, and General Design Criterion 60 of Appendix A to 10 CFR Part 50. Normal use of the equipment or subsystem(s) in the radioactive gaseous waste system provides reasonable assurance that the quantity released will not exceed the design objectives.

Specification 2.9.1(2)d ensures that the concentration of potentially explosive gas mixtures entrained in the gas decay tank(s) will be maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits with a measurement program provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

Specification 2.9.1(2)e provides assurance that releases from gas decay tank, Auxiliary Building Exhaust Stack, containment pressure relief line, and containment purge line are not made whenever the stack gas, particulate and iodine monitors are inoperable.

Specification 2.9.1(2)f assures that the gross radioactivity, during power operation, is monitored from the condenser air ejector discharge.

Specification 2.9.1(2)g requires operation of suitable equipment to dilute, control, and monitor in order to provide assurance that radioactive materials released in the gaseous effluents are properly controlled and monitored in accordance with the requirements of General Design Criteria 60 and 64 of 10 CFR Part 50, Appendix A.

Specification 2.9.1(2)h provides for releases from the Laboratory and Radioactive Waste Processing Building (LRWPB) whenever the LRWPB Exhaust Stack gas, particulate or iodine activity monitors are inoperable.

TABLE 3-3

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS

| | Channel Description | Surveillance Function | Frequency | Surveillance Method |
|---|---|---|---|---|
| 1. | Primary CEA Position Indication System | a. Check | S | a. Comparison of output data with secondary CEAPIS. |
| | | b. Test | M | b. Test of power dependent insertion limits, deviation, and sequence monitoring systems. |
| | | c. Calibrate | R | c. Physically measured CEDM position used to verify system accuracy. Calibrate CEA position interlocks. |
| 2. | Secondary CEA Position Indication System | a. Check | S | a. Comparison of output data with primary CEAPIS. |
| | | b. Test | M | b. Test of power dependent insertion limit, deviation, out-of-sequence, and overlap monitoring systems. |
| | | c. Calibrate | R | c. Calibrate secondary CEA position indication system and CEA interlock alarms. |
| 3. | Area, Process, and Post-Accident Radiation Monitors Except Effluent Radiation Monitors(1) | a. Check | D | a. Normal readings observed and internal test signals used to verify instrument operation. |
| | | b. Test | M | b. Detector exposed to remote operated radiation check source or test signal. |
| | | c. Calibrate | R | c. RM-063L, M, and H and RM-064 - One time factory calibration is acceptable provided linearity solid sources are used to check the integrity of the detectors. RM-091A and B - In situ calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. In situ calibration for at least one decade below 10 R/hr shall be by means of calibrated radiation source. All other monitors - Exposure to known radiation source. |

(1) The surveillance requirements for effluent radiation monitors are described under Specification 3.12.1. Effluent radiation monitors are: RM-041, RM-042, RM-043, RM-054A, RM-054B, RM-055, RM-055A, RM-057, RM-060, RM-061, and RM-062. RM-050 and RM-051 are considered effluent radiation monitors when monitoring the Auxiliary Building Exhaust Stack.

(iii) Quarterly channel functional tests.

(iv) Channel calibration at refueling frequency.

e. The steam generator blowdown effluent flow rate will be calibrated at refueling frequency and visually determined operable daily.

f. Records shall be maintained of the radioactive concentrations and volume before dilution of each batch of liquid effluent released and of the average dilution flow and length of time over which each discharge occurred. Analytical results shall be submitted to the Commission in accordance with Section 5.9.4.a of these specifications.

(2) Gaseous Effluents

a. Radioactive gaseous waste sampling and activity analyses shall be performed in accordance with Table 3-12. The results of these analyses shall be used with the calculational methods in the ODCM to assure that the concentration of radioactive materials in unrestricted areas is limited to the values in Specification 2.9.1(2)a.

b. (i) An Auxiliary Building Exhaust Stack monitor shall have a source check prior to any release of radioactive materials from a gas decay tank or the containment. A monthly source check will be performed during refueling outages if a purge or gas decay tank release is not done during that month.

(ii) The Auxiliary Building Exhaust Stack gaseous, particulate, and iodine monitors and the Laboratory and Radioactive Waste Processing Building Exhaust Stack gaseous, particulate, and iodine monitors shall have a quarterly channel functional test.

(iii) The Auxiliary Building Exhaust Stack gaseous, particulate, and iodine monitors and the Laboratory and Radioactive Waste Processing Building Exhaust Stack gaseous, particulate, and iodine monitors shall be calibrated at refueling frequency.

(iv) The Auxiliary Building Exhaust and the Laboratory and Radioactive Waste Processing Building Exhaust stack flow rates will be calibrated and functionally tested at refueling frequency. The Auxiliary Building Exhaust and the Laboratory and Radioactive Waste Processing Building Exhaust stack radiation monitors flow

rates will be calibrated and functionally tested at refueling frequency. The stack flow rates and radiation monitor flow rates will be determined operable by visual inspection daily.

(v) The Laboratory and Radioactive Waste Processing Building Exhaust Stack gaseous, particulate, and iodine activity monitors shall have a daily channel check and a monthly source check.

c. The condenser air ejector monitor shall have a:

(i) Daily channel check.

(ii) Monthly source check.

TABLE 3-12

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS

| Gaseous Source | Sampling and Analysis Frequency | Type of Activity Analysis | Lower Limit of Detection (LLD) (4) (μCi/ml) |
|---|---|---|---|
| A. Gas Decay Tank Releases | Prior to each release | Principal Gamma(5) Emitters | 1.0 E-04(1) |
| B. Containment Purge Releases or Containment Pressure Relief Line Releases | Prior to each release | Principal Gamma(5) Emitters | 1.0 E-04(1) |
| | Prior to each release | H-3 | 1.0 E-06 |
| | Monthly (3) | Tritium (H-3) | 1.0 E-06 |
| C. Condenser Air Ejector Releases | Monthly | Principal Gamma(5) Emitters | 1.0 E-04(1) |
| D. Continuous(2) Auxiliary Building and Laboratory & Radioactive Waste Processing Building Exhaust Stack Releases | Weekly (Charcoal Sample) | I-131 | 1.0 E-12 |
| | Weekly (2) (Particulates) | Principal Gamma(5) Emitters I-131 & Particulates with half-lives greater than 8 days | 1.0 E-11 |
| | Monthly Composite | Gross α | 1.0 E-11 |
| | Quarterly Composite (Particulates) | Sr-89, Sr-90 | 1.0 E-11 |

NOTES:

(1) For certain mixtures of gamma emitters, it may not be possible to measure radionuclides at levels near their sensitivity limits when other nuclides are present in the sample at much higher levels. Under these circumstances, it will be more appropriate to calculate the levels of such radionuclides using observed ratios with those radionuclides which are measurable.

ATTACHMENT B

DISCUSSION, JUSTIFICATION, AND NO SIGNIFICANT HAZARDS CONSIDERATIONS

DISCUSSION AND JUSTIFICATION

The Omaha Public Power District proposes to revise Fort Calhoun Station Unit No. 1 Technical Specifications 2.9.1, 3.12.1 and Tables 3-3 and 3-12 concerning liquid and gaseous effluents to reflect the addition of the new Radioactive Waste Processing Building.

Liquid and gaseous effluents Sections 2.9.1 and 3.12.1, Tables 3-3, and 3-12

The reason for changes to pages 2-44 through 2-47, 3-13, 3-70, and 3-74 is to include provisions for the new Laboratory and Radioactive Waste Processing Building exhaust stack gaseous, particulate and iodine activity monitors. To differentiate the new exhaust stack from the existing stack, the title of the existing stack was changed to "The Auxiliary Building Exhaust Stack." The design of the new building calls for a dedicated ventilation discharge. This discharge point will be monitored and will be used for exhaust of the laboratory section of the new chemical and radiation protection locker facility addition as well.

Changes to Table 3-3 adds the new gaseous, particulate, and iodine activity monitors (RM-041, 042, 043) to existing plant effluent monitors. Changes to Sections 2.9.1 and 3.12.1 "Liquid and Gaseous Effluents" are made to include the new monitors with the existing stack monitors for grab sample provisions, functional test, calibration, and flow rate calibration and testing. The grab sample provisions require daily samples be taken and analyzed. This is consistent with the present specification concerning condenser air ejector discharge. Changes to Table 3-12 are made to include the new discharge point for radioactive gaseous waste sampling and analysis.

The new release point is not expected to significantly increase the doses calculated for the routine gaseous effluent release. To ensure that an accidental release from the building is within the allowable range, a calculation was performed to determine the dose at the exclusion area boundary due to iodine releases from the liquid Radwaste processing equipment. Radioactive sources used in the calculation were I-131, I-132, I-133, I-134 and I-135. Concentration values used were from Updated Safety Analysis Report Section 11 "Radioactive Waste and Radiation Protection and Monitoring," Table 11.1-13 "Fission and Corrosion Product Activity in Waste Treatment System at 70°F" for "As Received" nuclide. The calculation assumed a 70 gpm flow rate from the waste treatment system to the filtration and ion-exchange equipment in the Radioactive Waste Processing Building. Based on the above assumptions, the maximum equilibrium radioiodine

DISCUSSION, JUSTIFICATION, AND NO SIGNIFICANT HAZARDS CONSIDERATIONS

DISCUSSION AND JUSTIFICATION (CONTINUED)

inventory was calculated. In the event of an ion-exchange equipment rupture it was assumed that 10% of the iodine collected on the resin bed will be released to the water. It was further conservatively assumed that 10% of the iodine in the water becomes airborne. These assumptions are in accordance with Standard Review Plan criteria contained in Section 15.6.5 Appendix B.

The results for two (2) hours thyroid dose calculations at the site boundary was determined as 3.8 rem or approximately 1% of the 10 CFR 100 limits. Thus these results remain within a small fraction of the bounds of 10 CFR 100.

Administrative Changes

Specifications 2.9.1(2)e(i), 2.9.1(2)e(ii), and 2.9.1(2)f are being renumbered to 2.9.1(2)e, 2.9.1(2)f and 2.9.1(2)g respectively. In the present specifications, Specification 2.9.1(2)e(i) concerns monitoring releases from the gas decay tank or containment while Specification 2.9.1(2)e(ii) concerns monitoring the condenser air ejector discharge. This renumbering provides separate specifications for monitoring releases from the different sources. The bases to this specification was revised to reflect this renumbering.

The word "analysed" in specification 2.9.1(2)d is misspelled and is being corrected to "analyzed."

BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION:

The proposed change does not involve a significant hazards consideration because operation of the Fort Calhoun Station in accordance with the proposed change would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

Updated Safety Analysis Report Section 14.20 "Waste Liquid Incident" provides evaluation for:

a) Release of liquid waste from components in the radwaste disposal system.

b) Release of liquid waste from one monitor tank, or one hotel waste tank to the circulating water discharge tunnel.

The proposed Radwaste Processing Building includes floor drains in [illegible] with the possibility of pipe break/leakage. Pipes [illegible] liquid radwaste will enter the new building in a coated concrete pipe chase. The pipe chase extends to the processing compartment which is seismically designed and includes floor drains and a lined sump. The entire floor of the compartment is covered with a steel liner for additional protection. The proposed liquid processing system (filtration and ion exchanger) will be located in this compartment. Therefore, in the event of a liquid radwaste pipe leak/break, the contaminated liquid will be collected in the sumps and pumped back to the existing radwaste disposal system in the Auxiliary Building. Also, in the event of a liquid processing system (ion exchangers) rupture, liquid radwaste will be contained in the seismic compartment.

Proposed revisions to the technical specifications include the addition of a new ventilation discharge from the Radioactive Waste Processing Building HVAC combined with the laboratory area of the chemical and radiation protection-locker facility. The ventilation stack will be equipped with a three channel (Particulate, Iodine, and Noble Gas) effluent monitor with indication in the main control room. The releases from the new discharge are anticipated to be insignificant compared with releases from the existing plant discharge stack.

Therefore, it can be concluded that the proposed amendment to the technical specifications does not involve a significant increase in the probability or consequences of an accident previously evaluated.

BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION: (CONTINUED)

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated.

As described above, a liquid radwaste incident is evaluated under USAR Section 14.20. However, to determine off-site doses due to ion exchange system rupture in the Radioactive Waste Processing Building a calculation was performed. The results indicated 3.8 rem thyroid dose from iodines at the exclusion area boundary. This dose is approximately 1% of the 10 CFR 100 limit. The calculation used "As Received" iodine inventory from USAR Table 11.1-13. It was assumed a 70 gpm flow rate from the waste treatment system to the ion-exchange equipment located in the building. In the event of the ion-exchange equipment rupture it was assumed that 10% of the iodine collected on the resin bed will be released to the water. It was further conservatively assumed that 10% of the iodine in the water becomes airborne. Liquid radwaste processing and solidification/dewatering will be conducted in a seismically designed compartment and potential spills will be contained and routed back to the radwaste system. Ventilation discharge will be monitored for any airborne releases. The radioactive sources present in the Radioactive Waste Processing Building are identical to those currently in the Auxiliary Building.

Therefore, the possibility of a new or different kind of accident other than any evaluated previously in the Updated Safety Analysis Report would not be created.

(3) Involve a significant reduction in a margin of safety.

Due to close proximity of the Radioactive Waste Processing Building and the Auxiliary Building (a 6" gap separates the two structures) the entire frame of the building was seismically designed. Analysis has indicated no interaction between the two buildings will occur in a design basis earthquake.

The liquid radwaste system extended to the Radioactive Waste Processing Building is an extension of the existing system and is non-safety related as defined in Omaha Public Power District's Critical Quality Equipment List.

Therefore, the proposed changes to Technical Specification will not reduce the margin of safety.

The Commission has provided guidance concerning the application of the standards for determining whether a significant hazards consideration exists by providing certain examples (48 FR 14870) of amendments that are considered not likely to involve significant hazards consideration. Example (vi) relates to a change which either may result in some increase to the probability or consequences of a previously-analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component specified in the Standard Review Plan.

The proposed change described above is similar to Example (vi) in that the addition of the Radioactive Waste Processing Building has been analyzed utilizing the Standard Review Plan criteria and the results are well within the acceptance criteria of both the Standard Review Plan and the Fort Calhoun Station Unit No. 1 Updated Safety Analysis Report.

Therefore based on the above considerations, OPPD does not believe that this proposed amendment involves a significant hazards consideration as defined by 10 CFR 50.92 and the proposed changes will not result in a condition which significantly alters the impact of the Station on the environment. As discussed above, there is no significant change in the types or significant increase in the amounts of any effluents that may be released off-site, and there is no significant increase in individual or cumulative occupational radiation exposure. Thus, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and pursuant to 10 CFR 51.22(b) no environmental assessment need by prepared.