

ATTACHMENT TO AEP:NRC:0659Q  
PROPOSED TECHNICAL SPECIFICATION PAGES

9006050196 900601  
PDR ADCK 05000315  
P PDC

## ADMINISTRATIVE CONTROLS

### 6.3 FACILITY STAFF QUALIFICATIONS

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

### 6.4 TRAINING

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

### 6.5 REVIEW AND AUDIT

#### 6.5.1 PLANT NUCLEAR SAFETY REVIEW COMMITTEE (PNSRC)

##### FUNCTION

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

##### COMPOSITION

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

Licensing Activities  
Safety & Assessment  
Operations

Technical Support  
Radiation Protection  
Maintenance

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

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

## ADMINISTRATIVE CONTROLS

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November 1978.
- b. Security Plan implementation.
- c. Emergency Plan implementation.
- d. PROCESS CONTROL PROGRAM implementation.
- e. OFFSITE DOSE CALCULATION MANUAL implementation.
- f. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974, and Regulatory Guide 4.1, Rev. 1, April 1975.

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

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

- a. Training of personnel,
- b. Procedures for sampling and analysis,
- c. Provisions for maintenance of sampling and analysis equipment.

## 6.9 REPORTING REQUIREMENTS

### ROUTINE REPORTS

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

### STARTUP REPORT

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

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

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

### ADMINISTRATIVE CONTROLS

- f. Sealed Source Leakage in Excess of Limits, Specification 4.7.7.1.3.
- g. ECCS Actuation, Specifications 3.5.2 and 3.5.3.
- h. Excessive Releases in Radioactivity, Specifications 3.11.1.2, 3.11.1.3, 3.11.2.2, 3.11.2.3, 3.11.2.4, and 3.11.4.
- i. Inoperable Solid Radwaste System, Specification 3.11.3.
- j. Excessive Level of Radioactivity in Quarterly Environmental Sample, Specification 3.12.1 (Action b).
- k. Milk and Vegetable Samples Not Available, Specification 3.12.1 (Action c).
- l. Greater Calculated Dose or Dose Commitment Identified by Land Census, Specification 3.12.2 (Actions a & b).
- m. Violation of Safety Limit, Specification 6.7.1.

### 6.10 RECORD RETENTION

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

- a. Records and logs of unit operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. All REPORTABLE EVENTS submitted to the Commission.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of changes made to the procedures required by Specification 6.8.1.
- f. Records of sealed source and fission detection leak tests and results.
- g. Records of annual physical inventory of all sealed source material on record.

## ADMINISTRATIVE CONTROLS

### 6.3 FACILITY STAFF QUALIFICATIONS

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

### 6.4 TRAINING

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

### 6.5 REVIEW AND AUDIT

#### 6.5.1 PLANT NUCLEAR SAFETY REVIEW COMMITTEE (PNSRC)

##### FUNCTION

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

##### COMPOSITION

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

Licensing Activities  
Safety & Assessment  
Operations

Technical Support  
Radiation Protection  
Maintenance

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

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

10  
11  
12  
13

14

15

16

17

18

19

20  
21

## ADMINISTRATIVE CONTROLS

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November 1978.
- b. Security Plan implementation.
- c. Emergency Plan implementation.
- d. PROCESS CONTROL PROGRAM implementation.
- e. OFFSITE DOSE CALCULATION MANUAL implementation.
- f. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974, and Regulatory Guide 4.1, Rev. 1, April 1975.

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

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

- a. Training of personnel,
- b. Procedures for sampling and analysis,
- c. Provisions for maintenance of sampling and analysis equipment.

## 6.9 REPORTING REQUIREMENTS

### ROUTINE REPORTS

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

### STARTUP REPORT

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

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



## ADMINISTRATIVE CONTROLS

- f. Sealed Source Leakage in Excess of Limits, Specification 4.7.7.1.3.
- g. ECCS Actuation, Specifications 3.5.2 and 3.5.3.
- h. Excessive Releases in Radioactivity, Specifications 3.11.1.2, 3.11.1.3, 3.11.2.2, 3.11.2.3, 3.11.2.4, and 3.11.4.
- i. Inoperable Solid Radwaste System, Specification 3.11.3.
- j. Excessive Level of Radioactivity in Quarterly Environmental Sample, Specification 3.12.1 (Action b).
- k. Milk and Vegetable Samples Not Available, Specification 3.12.1 (Action c).
- l. Greater Calculated Dose or Dose Commitment Identified by Land Census, Specification 3.12.2 (Actions a & b).
- m. Violation of Safety Limit, Specification 6.7.1.

## 6.10 RECORD RETENTION

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

- a. Records and logs of unit operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. All REPORTABLE EVENTS submitted to the Commission.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of changes made to the procedures required by Specification 6.8.1.
- f. Records of sealed source and fission detection leak tests and results.
- g. Records of annual physical inventory of all sealed source material on record.



1 2 3 4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

## INSTRUMENTATION

### RADIOACTIVITY LIQUID EFFLUENT INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: As shown in Table 3.3-12.

#### ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than a value which will ensure that the limits of 3.11.1.1 are met, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, reset, or declare the channel inoperable.
- b. With one or more radioactive liquid effluent monitoring instrumentation channels inoperable, take the applicable ACTION shown in Table 3.3-12.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

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

## Instrumentation

### Radioactive Gaseous Process and Effluent Monitoring Instrumentation

#### Limiting Condition for Operation

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

APPLICABILITY: As shown in Table 3.3-13.

#### ACTION:

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

#### SURVEILLANCE REQUIREMENTS

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

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

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



## REACTOR COOLANT SYSTEM

### SPECIFIC ACTIVITY

#### LIMITING CONDITION FOR OPERATION

3.4.8 The specific activity of the primary coolant shall be limited to:

- a. Less than or equal to 1.0 uCi/gram DOSE EQUIVALENT I-131, and
- b. Less than or equal to  $100/\bar{E}$  uCi/gram.

APPLICABILITY: MODES 1, 2, 3, 4 and 5.

#### ACTION:

MODES 1, 2 and 3\*

- a. With the specific activity of the primary coolant greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 but within the allowable limit (below and to the left of the line) shown on Figure 3.4-1, operation may continue for up to 48 hours provided that operation under these circumstances shall not exceed 10 percent of the unit's total yearly operating time. The provisions of Specification 3.0.4 are not applicable.
- b. With the specific activity of the primary coolant greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or exceeding the limit line shown on Figure 3.4-1, be in HOT STANDBY with  $T_{avg}$  less than  $500^{\circ}\text{F}$  within 6 hours.
- c. With the specific activity of the primary coolant greater than  $100/\bar{E}$  uCi/gram, be in HOT STANDBY with  $T_{avg}$  less than  $500^{\circ}\text{F}$  within 6 hours.

MODES 1, 2, 3, 4 and 5

- a. With the specific activity of the primary coolant greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 or greater than  $100/\bar{E}$  uCi/gram, perform the sampling and analysis requirements of item 4a of Table 4.4-4 until the specific activity of the primary coolant is restored to within its limits. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days. This report shall contain the results of the specific activity analyses together with the following information:

---

\* With  $T_{avg}$  greater than or equal to  $500^{\circ}\text{F}$

## CONTAINMENT SYSTEMS

### CONTAINMENT STRUCTURAL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

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

#### SURVEILLANCE REQUIREMENTS

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

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

## RADIOACTIVE EFFLUENTS

### DOSE

#### LIMITING CONDITION FOR OPERATION

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

- a. During any calendar quarter to less than or equal to 1.5 mrem to the total body and to less than or equal to 5 mrem to any organ, and
- b. During any calendar year to less than or equal to 3 mrem to the total body and to less than or equal to 10 mrem to any organ.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits. This Special Report shall also include (1) the results of radiological analyses of the drinking water source, and (2) the radiological impacts on finished drinking water supplies with regard to the requirements of 40 CFR 141, Safe Drinking Water Act. (Applicable only if drinking water supply is taken from the receiving water body.)
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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



## Radioactive Effluents

### Liquid Waste Treatment

#### Limiting Condition For Operation

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

Applicability: At all times.

#### Action:

- a. With radioactive liquid waste being discharged without treatment and in excess of the above limits prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:
  1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
  2. Action(s) taken to restore the inoperable equipment to operable status, and
  3. Summary description of action(s) taken to prevent recurrence.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### Surveillance Requirements

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



11-11-11

## Radioactive Effluents

### Liquid Holdup Tanks\*

#### Limiting Condition For Operation

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

- a. Outside temporary tanks.

Applicability: At all times.

#### Action:

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

#### Surveillance Requirements

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

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

## RADIOACTIVE EFFLUENTS

### DOSE, NOBLE GASES

#### LIMITING CONDITION FOR OPERATION

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

- a. During any calendar quarter, to less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation;
- b. During any calendar year, to less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

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

#### LIMITING CONDITION FOR OPERATION

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

- a. During any calendar quarter to less than or equal to 7.5 mrem to any organ;
- b. During any calendar year to less than or equal to 15 mrem to any organ;
- c. Less than 0.1% of the 3.11.2.3(a) and (b) limits as a result of burning contaminated oil.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, or radionuclides other than noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective action to be taken to assure that subsequent release will be within the above limits.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

### GASEOUS RADWASTE TREATMENT

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With gaseous waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which includes the following information:
  1. Identification of the inoperable equipment or subsystems and the reason for inoperability.
  2. Action(s) taken to restore the inoperable equipment to operable status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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



## RADIOACTIVE EFFLUENTS

## EXPLOSIVE GAS MIXTURE

### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

### ACTION:

- a. With the concentration of oxygen in the waste gas holdup system greater than or equal to 3% by volume but less than or equal to 4% by volume and containing greater than or equal to 4% hydrogen, restore the concentration of oxygen to less than or equal to 3% or reduce the hydrogen concentration to less than 4% within 96 hours.
- b. With the concentration of oxygen in the waste gas holdup system or tank greater than 4% by volume and greater than 4% hydrogen by volume without delay suspend all additions of waste gases to the system or tank and reduce the concentration of oxygen to less than or equal to 3% or the concentration of hydrogen to less than or equal to 4% within 96 hours in the system or tank.
- c. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

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



## RADIOACTIVE EFFLUENTS

### GAS STORAGE TANKS

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

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

#### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

### 3/4.11.3 SOLID RADIOACTIVE WASTE

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With the packaging requirements of 10 CFR Part 20 and/or 10 CFR Part 71 not satisfied, suspend shipments of defectively packaged solid radioactive wastes from the site.
- b. With the solid radwaste system inoperable for more than 31 days, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:
  1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
  2. Action(s) taken to restore the inoperable equipment to operable status,
  3. A description of the alternative used for SOLIDIFICATION and packaging of radioactive wastes, and
  4. Summary description of action(s) taken to prevent a recurrence.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

## RADIOACTIVE EFFLUENTS

### 3/4 11.4 TOTAL DOSE

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specification 3.11.1.2.a, 3.11.1.2.b, 3.11.2.2.a, 3.11.2.2.b, 3.11.2.3.a, or 3.11.2.3.b, prepare and submit a Special Report to the Director, Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, within 30 days, which defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the limits of Specification 3.11.4. This Special Report shall include an analysis which estimates the radiation exposure (dose) to a member of the public from uranium fuel cycle sources (including all effluent pathways and direct radiation) for a 12 consecutive month period that includes the release(s) covered by this report. If the estimated dose(s) exceeds the limits of Specification 3.11.4, and if the release condition resulting in violation of 40 CFR 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR 190 and including the specified information of paragraph 190.11(b). Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete. The variance only relates to the limits of 40 CFR 190, and does not apply in any way to the requirements for dose limitation of 10 CFR Part 20, as addressed in other sections of this Technical Specification.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

## RADIOLOGICAL ENVIRONMENTAL MONITORING

### LIMITING CONDITION FOR OPERATION (CONTINUED)

- c. With milk or fresh leafy vegetable samples unavailable from any of the sample locations required by Table 3.12-1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause of the unavailability of samples and identifies locations for obtaining replacement samples. The locations from which samples were unavailable may then be deleted from Table 3.12-1 provided the locations from which the replacement samples were obtained are added to the environmental monitoring program as replacement locations, if available.
- d. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

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

25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35

## RADIOLOGICAL ENVIRONMENTAL MONITORING

### 3/4.12.2 LAND USE CENSUS

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With a land use census identifying a location(s) which yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location(s).
- b. With a land use census identifying a location(s) which yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than at a location from which samples are currently being obtained in accordance with Specification 3.12.1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location. The new location shall be added to the radiological environmental monitoring program within 30 days, if possible. The sampling location having the lowest calculated dose or dose commitment (via the same exposure pathway) may be deleted from this monitoring program after (October 31) of the year in which this land use census was conducted.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

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

## Radiological Environment Monitoring

### 3/4 12.3 Interlaboratory Comparison Program

#### Limiting Condition For Operation

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

Applicability: At all times.

#### Action:

- a. With analyses not being performed as required above, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### Surveillance Requirements

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

## INSTRUMENTATION

### RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: As shown in Table 3.3-12.

#### ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than a value which will ensure that the limits of 3.11.1.1 are met, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, reset, or declare the channel inoperable.
- b. With one or more radioactive liquid effluent monitoring instrumentation channels inoperable, take the applicable ACTION shown in Table 3.3-12.
- c. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

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



## Instrumentation

### Radioactive Gaseous Process and Effluent Monitoring Instrumentation

#### Limiting Condition for Operation

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

Applicability: As shown in Table 3.3-13.

#### Action:

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

#### Surveillance Requirements

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

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

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

## REACTOR COOLANT SYSTEM

### SPECIFIC ACTIVITY

#### LIMITING CONDITION FOR OPERATION

3.4.8 The specific activity of the primary coolant shall be limited to:

- a. Less than or equal to 1.0 uCi/gram DOSE EQUIVALENT I-131, and
- b. Less than or equal to  $100/\bar{E}$  uCi/gram.

APPLICABILITY: MODES 1, 2, 3, 4 and 5.

#### ACTION:

MODES 1, 2 and 3\*

- a. With the specific activity of the primary coolant greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 but within the allowable limit (below and to the left of the line) shown on Figure 3.4-1, operation may continue for up to 48 hours provided that operation under these circumstances shall not exceed 10 percent of the unit's total yearly operating time. The provisions of Specification 3.0.4 are not applicable.
- b. With the specific activity of the primary coolant greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or exceeding the limit line shown on Figure 3.4-1, be in HOT STANDBY with  $T_{avg}$  less than  $500^{\circ}\text{F}$  within 6 hours.
- c. With the specific activity of the primary coolant greater than  $100/\bar{E}$  uCi/gram, be in at least HOT STANDBY with  $T_{avg}$  less than  $500^{\circ}\text{F}$  within 6 hours.

MODES 1, 2, 3, 4 and 5

- a. With the specific activity of the primary coolant greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 or greater than  $100/\bar{E}$  uCi/gram, perform the sampling and analysis requirements of item 4a of Table 4.4-4 until the specific activity of the primary coolant is restored to within its limits. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days. This report shall contain the results of the specific activity analyses together with the following information:

---

\* With  $T_{avg}$  greater than or equal to  $500^{\circ}\text{F}$

## CONTAINMENT SYSTEMS

### CONTAINMENT STRUCTURAL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

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

#### SURVEILLANCE REQUIREMENTS

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

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



## RADIOACTIVE EFFLUENTS

### DOSE

#### LIMITING CONDITION FOR OPERATION

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

- a. During any calendar quarter to less than or equal to 1.5 mrem to the total body and to less than or equal to 5 mrem to any organ, and
- b. During any calendar year to less than or equal to 3 mrem to the total body and to less than or equal to 10 mrem to any organ.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits. This Special Report shall also include (1) the results of radiological analyses of the drinking water source, and (2) the radiological impacts on finished drinking water supplies with regard to the requirements of 40 CFR 141, Safe Drinking Water Act. (Applicable only if drinking water supply is taken from the receiving water body.)
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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



1 2 3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

## Radioactive Effluents

### Liquid Waste Treatment

#### Limiting Condition For Operation

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

Applicability: At all times.

#### Action:

- a. With radioactive liquid waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:
  1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
  2. Action(s) taken to restore the inoperable equipment to operable status, and
  3. Summary description of action(s) taken to prevent recurrence.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### Surveillance Requirements

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

## Radioactive Effluents

### Liquid Holdup Tanks\*

#### Limiting Condition For Operation

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

- a. Outside temporary tanks.

Applicability: At all times.

#### Action:

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

#### Surveillance Requirements

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

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



## RADIOACTIVE EFFLUENTS

### DOSE, NOBLE GASES

#### LIMITING CONDITION FOR OPERATION

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

- a. During any calendar quarter, to less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation;
- b. During any calendar year, to less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be within the above limits.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

24 25 26 27 28 29 30

## RADIOACTIVE EFFLUENTS

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

#### LIMITING CONDITION FOR OPERATION

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

- a. During any calendar quarter to less than or equal to 7.5 mrem to any organ;
- b. During any calendar year to less than or equal to 15 mrem to any organ;
- c. Less than 0.1% of the 3.11.2.3(a) and (b) limits as a result of burning contaminated oil.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, or radionuclides other than noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective action to be taken to assure that subsequent release will be within the above limits.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

### GASEOUS RADWASTE TREATMENT

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With gaseous waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which includes the following information:
  1. Identification of the inoperable equipment or subsystems and the reason for inoperability.
  2. Action(s) taken to restore the inoperable equipment to operable status.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

## EXPLOSIVE GAS MIXTURE

### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With the concentration of oxygen in the waste gas holdup system greater than 3% by volume but less than or equal to 4% by volume and containing greater than or equal to 4% hydrogen, restore the concentration of oxygen to less than or equal to 3% or reduce the hydrogen concentration to less than 4% within 96 hours.
- b. With the concentration of oxygen in the waste gas holdup system or tank greater than 4% by volume and greater than 4% hydrogen by volume without delay suspend all additions of waste gases to the system or tank and reduce the concentration of oxygen to less than or equal to 3% or the concentration of hydrogen to less than or equal to 4% within 96 hours in the system or tank.
- c. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

### GAS STORAGE TANKS

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

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

#### SURVEILLANCE REQUIREMENTS

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

## RADIOACTIVE EFFLUENTS

### 3/4.11.3 SOLID RADIOACTIVE WASTE

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With the packaging requirements of 10 CFR Part 20 and/or 10 CFR Part 71 not satisfied, suspend shipments of defectively packaged solid radioactive wastes from the site.
- b. With the solid radwaste system inoperable for more than 31 days, prepare and submit to the Commission within 30 days pursuant to Specification 6.9.2 a Special Report which includes the following information:
  1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
  2. Action(s) taken to restore the inoperable equipment to operable status,
  3. A description of the alternative used for SOLIDIFICATION and packaging of radioactive wastes, and
  4. Summary description of action(s) taken to prevent a recurrence.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

## RADIOACTIVE EFFLUENTS

### 3/4 11.4 TOTAL DOSE

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specification 3.11.1.2.a, 3.11.1.2.b, 3.11.2.2.a, 3.11.2.2.b, 3.11.2.3.a, or 3.11.2.3.b, prepare and submit a Special Report to the Director, Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, within 30 days, which defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the limits of Specification 3.11.4. This Special Report shall include an analysis which estimates the radiation exposure (dose) to a member of the public from uranium fuel cycle sources (including all effluent pathways and direct radiation) for a 12 consecutive month period that includes the release(s) covered by this report. If the estimated dose(s) exceeds the limits of Specification 3.11.4, and if the release condition resulting in violation of 40 CFR 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR 190 and including the specified information of paragraph 190.11(b). Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete. The variance only relates to the limits of 40 CFR 190, and does not apply in any way to the requirements for dose limitation of 10 CFR Part 20, as addressed in other sections of this Technical Specification.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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



100

100

100

100

100

100

100

100

## RADIOLOGICAL ENVIRONMENTAL MONITORING

### LIMITING CONDITION FOR OPERATION (CONTINUED)

- c. With milk or fresh leafy vegetable samples unavailable from any of the sample locations required by Table 3.12-1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause of the unavailability of samples and identifies locations for obtaining replacement samples. The locations from which samples were unavailable may then be deleted from Table 3.12-1 provided the locations from which the replacement samples were obtained are added to the environmental monitoring program as replacement locations, if available.
- d. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

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

100

## RADIOLOGICAL ENVIRONMENTAL MONITORING

### 3/4.12.2 LAND USE CENSUS

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: At all times.

#### ACTION:

- a. With a land use census identifying a location(s) which yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location(s).
- b. With a land use census identifying a location(s) which yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than at a location from which samples are currently being obtained in accordance with Specification 3.12.1, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the new location. The new location shall be added to the radiological environmental monitoring program within 30 days, if possible. The sampling location having the lowest calculated dose or dose commitment (via the same exposure pathway) may be deleted from this monitoring program after (October 31) of the year in which this land use census was conducted.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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

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

1964

1964

Radiological Environment Monitoring

3/4 12.3 Interlaboratory Comparison Program

Limiting Condition For Operation

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

Applicability: At all times.

Action:

- a. With analyses not being performed as required above, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

Surveillance Requirements

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

