Public Service
Electric and Gas
Company

Corbin A. McNeill, Jr.
Vice President -
Nuclear

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609 339-4800

October 6, 1986

NLR-N86141

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20014

Attention: Mr. Steven A. Varga, Director
PWR Project Directorate #3
Division of PWR Licensing A

Gentlemen:

REQUEST FOR AMENDMENT
FACILITY OPERATING LICENSES DPR-70 AND DPR-75
UNIT NOS. 1 AND 2
SALEM GENERATING STATION
DOCKET NOS. 50-272 AND 50-311

In accordance with the Atomic Energy Act of 1954, as amended and the regulations thereunder, we hereby transmit copies of our request for amendment and our analyses of the changes to Facility Operating Licenses DPR-70 and DPR-75 for Salem Generating Station, Unit Nos. 1 and 2.

This amendment request is a revision of License Change Request 84-01, dated March 27, 1984. The changes revise report requirements pursuant to 10 CFR 50.72 and 50.73 and correct typographical errors in the Radiological Environmental Technical Specifications (RETS). Additional changes to Administrative Controls are included to reflect the current organization.

Because this proposed change is a revision to a previously submitted amendment request, no license fee is required.

Pursuant to the requirements of 10 CFR 50.91(b)(1), a copy of this request for amendment has been sent to the State of New Jersey as indicated below.

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This submittal includes three (3) signed originals and forty (40) copies.

Sincerely,

Enclosures

C Mr. Donald C. Fischer
Licensing Project Manager

Mr. T. J. Kenny
Senior Resident Inspector

Mr. Frank Cosolito, Acting Chief
Bureau of Radiation Protection
Department of Environmental Protection

Ref: LCR 84-01

STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

Corbin A. McNeill, Jr., being duly sworn according to law deposes and says:

I am Vice President of Public Service Electric and Gas Company, and as such, I find the matters set forth in our letter dated Oct. 6, 1986, concerning our Request for Amendment to Facility Operating Licenses DPR-70 and DPR-75, are true to the best of my knowledge, information and belief.

Subscribed and Sworn to before me
this 6th day of October, 1986

Notary Public of New Jersey

LARAINE Y. BEARD
Notary Public of New Jersey
My Commission Expires May 1, 1991

My Commission expires on

Public Service
Electric and Gas
Company

Corbin A. McNeill, Jr.
Vice President -
Nuclear

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609 339-4800

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Laraine Y. Beard
Notary Public of New Jersey

LARAINE Y. BEARD
Notary Public of New Jersey
My Commission Expires May 1, 1991

My Commission expires on _____

Proposed Change to Technical Specifications
Salem Unit Nos. 1 and 2

DESCRIPTION OF CHANGE

The proposed amendment revises changes originally submitted as License Change Request 84-01, dated March 27, 1984. The changes are as follows:

1. Revisions to report requirements pursuant to Sections 50.72 and 50.73 of Title 10 of the Code of Federal Regulations and correction of typographical errors in the Radiological Environmental Technical Specifications (RETS) package;

2. Revision of the primary coolant iodine spiking report requirements pursuant to Generic Letter 85-19;

3. Revision of the facility and corporate and off-site organization charts;

4. Revise Specification 6.4.2 regarding Fire Brigade training;

5. Revise portions of Specifications 6.5.1 to reflect SORC membership requirements and clarify SORC responsibilities;

6. Deletion of Section 6.5.2.7 on Nuclear Safety Review activities, incorporation of requirements into Specification 6.5.2.4.4, and revision of Specification 6.5.3.3;

7. Revision of Section 6.9.1.6 concerning submittal of Monthly Operating Reports.

For convenience, the entire Administrative Controls Section of the Technical Specifications has been retyped.

REASON FOR CHANGE

1. Since paragraph (g) of Section 50.73 specifically states that: "the requirements contained in this section replace all existing requirements for licensees to report 'Reportable Occurences' as defined in individual plant Technical Specifications", the reporting requirements incorporated into the "Administrative Controls" section of the Salem Technical Specifications should be changed to reflect the revised reporting requirements; the definition, "Reportable Occurence" should be replaced by a new term, "Reportable Event"; and, the Index should be updated. NRC is making these proposed changes to Standard Technical Specifications (STS) for all plants and have required that the changes be made for Salem in Generic Letter 83-43, dated December 19, 1983.

The Radiological Environmental Technical Specifications (RETS) for Salem were submitted prior to the changes to 10CFR50.72 and the addition of 10CFR50.73. In addition to updating RETS to reflect these report requirements, numerous typographical errors are being corrected.

2. Generic Letter 85-19, "Reporting Requirements on Primary Coolant Iodine Spikes" states that the reporting requirements related to primary coolant specific activity levels could be satisfied by the inclusion of the relevant information in an Annual Report. The proposed Technical Specification 6.9.1.5c details the information to be included in the annual report. The requirement for the submittal of a special report when the primary coolant activity limits are exceeded has been deleted from Technical Specification 6.9.2.

   Sections 3.4.8 (Unit 1) and 3.4.9 (Unit 2) and the respective bases sections have also been revised to reflect the changed report requirement.

3. Figures 6.2-1 and 6.2-2 have been revised to reflect changes in organization, including: establishment of Nuclear Safety Review, deletion of Nuclear Review Board, establishment of Engineering and Plant Betterment, deletion of the slot for Assistant Vice President - Nuclear Operations.

4. Responsibility for the Fire Brigade training program has been revised. The Manager - Site Protection is now responsible for this program.

5. SORC membership requirements (Specifications 6.5.1.2 and 6.5.1.3) have been revised to assure that all Salem Operations departments are represented. Included is the one department/one vote concept. All departments section heads (department engineers) will be alternates for their respective department managers. A maximum number of alternates at each SORC meeting will not be required due to the one department/one vote policy.

   Because of revised SORC membership requirements, Specification 6.5.1.5 is being changed to reflect a reduced quorum.

   Specification 6.5.1.6 has been revised to clarify SORC responsibility for review of violations, reports, investigations, and evaluations. This change recognizes the fact that SORC responsibility is to review for recommendations to the General Manager. Additional changes to this specification remove references to Nuclear Safety Review, since changes to facility security, emergency plan, and fire protection programs are covered in Specification 6.5.1.9 and since the General Manager - Nuclear Safety Review is on distribution of SORC minutes in accordance with

Specification 6.5.1.9. The distribution of reports is controlled internally by administrative procedures.

6. Section 6.5.2 has been generally revised in its entirety to more clearly define and clarify safety review and audit functions and responsibilities, as well as to make editorial corrections. The revision does not eliminate any safety review and audit functions currently existing in the Technical Specifications. The change to 6.5.2.4.3 allows flexibility to OSR to conduct its own audits while retaining the option to use NQA or independent consultants as auditors which are currently mandatory. Section 6.5.2.4.4.a. changes the frequency of reporting the results of reviews from 14 days to "at least monthly" to provide for incorporation of this information into a monthly report to the Vice President - Nuclear. Section 6.5.2.4.4.b. is revised to extend the period for submittal of formal audit reports to 60 days, when administrative and contractual requirements with external organizations preclude submittal within 30 days.

   Section 6.5.3.3 has been revised to delete the requirement for specific review of proposed changes to the Technical Specifications by SORC and NSR for existence of an unreviewed safety question under the provisions of 10CFR50.92. Additionally, SORC and NSR review of such proposed changes are currently required in Sections 6.5.1.6.c and 6.5.2.4.2.c, respectively. Minor editorial change to clarify that OSR as the specific reviewer rather than NSR.

7. Specification 6.9.1.6 requires that Monthly Operating Reports be submitted to the Director, Office of Management Information and Program Analysis. Since this office is defunct, these reports will be submitted to the NRC Document Control Desk.

SIGNIFICANT HAZARDS CONSIDERATION

The proposed changes are administrative in nature, in that they are being made to provide clarification, achieve consistency, correct errors, and change nomenclature. The change does not involve a significant hazards consideration because operation in accordance with this change would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. The change merely revises administrative requirements and corrects errors, and cannot increase the probability or consequences of an accident.

2. Create the possibility of a new or different kind of accident from any previously analyzed. It has been determined that a new or different kind of accident will not be possible due to this change.

3. Involve a significant reduction in a margin of safety. The proposed administrative changes will have no effect on safety margins.

The Commission has provided guidance concerning the application of the standards for determining whether a significant hazards consideration exists (48FR14870, April 6, 1983). Example (i) relates to purely administrative changes to Technical Specification, for example, to achieve consistency, correct errors, or change nomenclature. Example (iv) relates to a relief granted upon demonstration of acceptable operation from an operating restriction that was imposed because acceptable operation was not yet demonstrated. The proposed changes fall into these categories.

CHANGES TO
UNIT NO. 1
TECHNICAL SPECIFICATIONS

DEFINITIONS

ADMININSTRATIVE CONTROLS

ADMININSTRATIVE CONTROLS

REACTOR TRIP SYSTEM RESPONSE TIME

1.26 The REACTOR TRIP SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until loss of stationary gripper coil voltage.

REPORTABLE EVENT

1.27 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10CFR Part 50.

SHUTDOWN MARGIN

1.28 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all full length rod cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be fully withdrawn.

SITE BOUNDARY

1.29 The SITE BOUNDARY shall be that line beyond which the land is not owned, leased, or otherwise controlled by the licensee, as shown in Figure 5.1-3, and which defines the exclusion area as shown in Figure 5.1-1.

SOLIDIFICATION

1.30 SOLIDIFICATION shall be the conversion of wet radioactive wastes into a form that meets shipping and burial ground requirements.

SOURCE CHECK

1.31 SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a source of increased radioactivity.

STAGGERED TEST BASIS

1.32 A STAGGERED TEST BASIS shall consist of:

a. A test schedule for (n) systems, subsystems, trains, or other designated components obtained by dividing the specified test interval into (n) equal subintervals,

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 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. The alarm/trip setpoints of these channels shall be determined in accordance with the OFFSITE DOSE CALCULATION MANUAL (ODCM).

Applicability: At all times.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable or change the setpoint so it is acceptably conservative.

b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Exert best efforts to return the instrument to operable status within 30 days and, if unsuccessful, explain in the next semiannual radioactive effluent release report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 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 4.3-12.

TABLE 4.3-12 (Continued)

TABLE NOTATION

(1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exist:

1. Instrument indicates measured levels at or above the alarm/trip setpoint.

2. Circuit failure. (Loss of Power)

3. Instrument indicates a downscale failure. (Indication on instrument drawer in Control Equipment Room only)

(2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exist:

1. Instrument indicates measured levels at or above the alarm/trip setpoint.

2. Circuit failure. (Loss of Power)

3. Instrument indicates a downscale failure. (Indication on instrument drawer in Control Equipment Room only)

4. Instrument controls not set in operate mode. (On instruments equipped with operate mode switches only)

(3) The initial CHANNEL CALIBRATION was performed using appropriate liquid or gaseous calibration sources obtained from reputable suppliers. The activity of the calibration sources were reconfirmed using a multi-channel analyzer which was calibrated using one or more NBS standards.

(4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

* During liquid additions to the tank.

** If tank level indication is not provided, verification will be done by visual inspection.

\# The R18 channel is an in-line channel which requires periodic decontamination. Any count indication above 10,000 cpm constitutes a SOURCE CHECK for compliance purposes.

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive gaseous 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 Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the ODCM.

APPLICABILITY: As shown in Table 3.3-13

ACTION:

a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable or change the setpoint so it is acceptably conservative.

b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to operable status within 30 days and, if unsuccessful, explain in the next semiannual radioactive effluent release report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each radioactive gaseous 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 4.3-13.

REACTOR COOLANT SYSTEM

SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

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

a. $\leq$ 1.0 uCi/gram DOSE EQUIVALENT I-131, and

b. $\leq 100/\overline{E}$ uCi/gram gross activity

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

ACTION:

MODES 1, 2 and 3*

a. With the specific activity of the primary coolant > 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 at least HOT STANDBY with T_{avg} < 500°F within 6 hours.

b. With the specific activity of the primary coolant > $100/\overline{E}$ uCi/gram, be in at least HOT STANDBY with T_{avg} < 500°F within 6 hours.

MODES 1,2,3,4 and 5

a. With the specific activity of the primary coolant > 1.0 uCi/gram DOSE EQUIVALENT I-131 or > $100/\overline{E}$ uCi/gram, perform the sampling and analysis requirements of item 4a of Table 4.4-2 until the specific activity of the primary coolant is restored to within its limits.

SURVEILLANCE REQUIREMENTS

4.4.8 The specific activity of the primary coolant shall be determined to be within the limits by performance of the sampling and analysis program of Table 4.4-4.

*With Tavg $\geq$500°F

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RADIOACTIVE EFFLUENTS

DOSE

LIMITING CONDITION FOR OPERATION

3.11.1.2 The dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released, from each reactor unit, to UNRESTRICTED AREAS (see Figure 5.1-3) shall be limited:

a. During any calendar quarter to less than or equal to 1.5 mrems to the total body and to less than or equal to 5 mrems to any organ, and

b. During any calendar year to less than or equal to 3 mrems to the total body and to less than or equal to 10 mrems 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 that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.2 Cumulative dose contributions from liquid effluents shall be determined in accordance with the ODCM at least once per 31 days.

RADIOACTIVE EFFLUENTS

LIQUID RADWASTE TREATMENT

LIMITING CONDITION FOR OPERATION

3.11.1.3 The liquid radwaste treatment system shall be used to reduce the radioactive materials liquid wastes prior to their discharge when the projected cumulative doses due to the liquid effluent from each reactor to UNRESTRICTED AREAS (see Figure 5.1-3) exceed 0.375 mrem to the total body or 1.25 mrem to any organ during any calendar quarter.

APPLICABILITY: At all times.

ACTION:

a. With the 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 that includes the following information:

   1. Explanation of why liquid radwaste was being discharged without treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability.

   2. Action(s) taken to restore the inoperable equipment to OPERABLE status, and

   3. Summary description of action(s) taken to prevent a 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 shall be projected at least once per 31 days in accordance with the ODCM.

RADIOACTIVE EFFLUENTS

DOSE - NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.2 The air dose due to noble gases released in gaseous effluents, from each reactor unit, from the site areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation and,

b. During any calendar year: 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 that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the release and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.2 Cumulative dose contributions for the current calendar quarter and current calendar year shall be determined in accordance with the ODCM at least once per 31 days.

RADIOACTIVE EFFLUENTS

DOSE - IODINE-131, TRITIUM, AND RADIONUCLIDES IN PARTICULATE FORM

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to a MEMBER OF THE PUBLIC from iodine-131, from tritium, and from all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released, from each reactor unit, from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 7.5 mrems to any organ and,

b. During any calendar year: Less than or equal to 15 mrems to any organ.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of iodine-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days, 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 that identifies the cause(s) for exceeding the limit and defines the corrective actions that have been taken to reduce the release and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.3 Cumulative dose contributions for the current calendar quarter and current calendar year for iodine-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the ODCM at least once per 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 radioactive materials in gaseous waste prior to their discharge when the projected gaseous effluent air doses due to gaseous effluent releases, from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3), exceed 0.625 mrad for gamma radiation and 1.25 mrad for beta radiation in any calendar quarter. 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, from each reactor unit, from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) would exceed 1.875 mrem to any organ in any calendar quarter.

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 that includes the following information:

   1. Explanation of why gaseous radwaste was being discharged without treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability,

   2. Action(s) taken to restore the inoperable equipment equipment to OPERABLE status, and

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

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 from the site shall be projected at least once per 31 days in accordance with the ODCM.

SOLID RADIOACTIVE WASTE

LIMITING CONDITION FOR OPERATION

3.11.3. The solid radwaste system shall be used in accordance with a PROCESS CONTROL PROGRAM to process wet radioactive waste to meet shipping and burial ground requirements.

APPLICABILITY: At all times.

ACTION:

a. With the provisions of the PROCESS CONTROL PROGRAM not satisfied, suspend shipments of defectively processed or defectively packaged solid radioactive wastes from the site.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.3. The PROCESS CONTROL PROGRAM shall be used to verify the SOLIDIFICATION of at least one representative test specimen from at least every tenth batch of each type of wet radioactive waste (e.g., filter sludges, spent resins, evaporator bottoms, boric acid solutions, and sodium sulfate solutions).

a. If any test specimen fails to verify SOLIDIFICATION, the SOLIDIFICATION of the batch under test shall be suspended until such time as additional test specimens can be obtained, alternative SOLIDIFICATION parameters can be determined in accordance with the PROCESS CONTROL PROGRAM, and a subsequent test verifies SOLIDIFICATION. SOLIDIFICATION of the batch may then be resumed using the alternative SOLIDIFICATION parameters determined by the PROCESS CONTROL PROGRAM.

b. If the initial test specimen from a batch of waste fails to verify SOLIDIFICATION, the PROCESS CONTROL PROGRAM shall provide for the collection and testing of representative test specimens from each consecutive batch of the same type of wet waste until at least three consecutive initial test specimens demonstrate SOLIDIFICATION. The PROCESS CONTROL PROGRAM shall be modified as required, as provided in Specification 6.13, to assure SOLIDIFICATION of subsequent batches of waste.

RADIOACTIVE EFFLUENTS

3/4.11.4 TOTAL DOSE

LIMITING CONDITION FOR OPERATION

3.11.4 The annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC, due to releases of radioactivity and radiation, from uranium fuel cycle sources shall be limited to less than or equal to 25 mrems to the total body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mrems).

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 3.11.1.2a, 3.11.1.2b, 3.11.2.2a, 3.11.2.2b, 3.11.2.3a, or 3.11.2.3b, calculations should be made including direct radiation contributions from the reactor units and from outside storage tanks to determine whether the limits of this Specification have been exceeded. If such is the case, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This Specical Report, as defined in 10 CFR Part 20.405c, shall include an analysis that estimates the radiation exposure (dose) to a MEMBER OF THE PUBLIC from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the calendar year that includes the release(s) covered by this report. It shall also describe levels of radiation and concentrations of radioactive material involved, and the cause of the exposure levels or concentrations. If the estimated dose(s) exceeds the above limits, and if the release condition resulting in violation of 40 CFR Part 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR Part 190. Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete.

3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.1 MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.1. The radiological environmental monitoring program shall be conducted as specified in Table 3.12-1.

APPLICABILITY: At all times.

ACTION:

a. With the radiological environmental monitoring program not being conducted as specified in Table 3.12-1, prepare and submit to the Commission, in the Annual Radiological Environmental Operating Report required by Specification 6.9.1.7, a description of the reasons for not conducting the program as required and the plans for preventing a recurrence.

b. With the level of radioactivity as the result of plant effluents in an environmental sampling medium at a specified location exceeding the reporting levels of Table 3.12-2 when averaged over any calendar quarter, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce radioactive effluents so that the potential annual dose to a MEMBER OF THE PUBLIC is less than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2, and 3.11.2.3. When more than one of the radionuclides in Table 3.12-2 are detected in the sampling medium, this report shall be submitted if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \ldots \geq 1.0$$

When radionuclides other than those in Table 3.12-2 are detected and are the result of plant effluents, this report shall be submitted if the potential annual dose to a member of the public is equal to or

3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.1 MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

ACTION: (Cont'd)

greater than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2, and 3.11.2.3. This report is not required if the measured level of radioactivity was not the result of plant effluents; however, in such an event, the condition shall be reported and described in the Annual Radiological Environmental Operating Report.

c. With milk or fresh leafy vegetable samples unavailable from one or more of the sample locations required by Table 3.12-1, identify locations for obtaining replacement samples and add them to the radiological environmental monitoring program within 30 days. The specific locations from which samples were unavailable may then be deleted from the monitoring program.

Pursuant to Specification 6.9.1.8, identify the cause of the unavailability of samples and the new location(s) for obtaining replacement samples in the next Semiannual Radioactive Effluent Release Report. Include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

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 specified in the ODCM and shall be analyzed pursuant to the requirements of Table 4.12-1.

TABLE 3.12-2

REPORTING LEVELS FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

Reporting Levels

Analysis	Water (pCi/1)	Airborne Particulate or Gases (pCi/m^3)	Fish (pCi/Kg, wet)	Milk (pCi/1)	Food Products (pCi/Kg, wet)
H-3	2×10^4(*)				
Mn-54	1×10^3		3×10^4		
Fe-59	4×10^2		1×10^4		
Co-58	1×10^3		3×10^4		
Co-60	3×10^2		1×10^4		
Zn-65	3×10^2		2×10^4		
Zr-Nb-95	4×10^2				
I-131	2 (**)	0.9		3	1×10^2
Cs-134	30	10	1×10^3	60	1×10^3
Cs-137	50	20	2×10^3	70	2×10^3
Ba-La-140	2×10^2			3×10^2	

(*) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 3×10^4 pCi/l may be used.

(**) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 20 pCi/l may be used.

TABLE 4.12-1

MAXIMUM VALUES FOR THE LOWER LIMITS OF DETECTION (LLD)[a,b]

Analysis	Water (pCi/l)	Airborne Particulate or Gases (pCi/m^3)	Fish (pCi/Kg, wet)	Milk (pCi/l)	Food Products (pCi/Kg, wet)	Sediment (pCi/Kg, dry)
gross beta	4	1×10^{-2}				
H-3	2000 (*)					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15					
I-131	1	7×10^{-2}		1	60	
Cs-136	15(**)	5×10^{-2}	130	15	60	150
Cs-137	18	6×10^{-2}	150	18	80	180
Ba-La-140	15			15		

(*) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 3000 pCi/l may be used.

(**) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 15 pCi/l may be used.

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 within a distance of 8 km (5 miles) the location in each of the 16 meteorological sectors of the nearest milk animal, the nearest residence and the nearest garden* of greater than 50 m^2 (500 ft^2) producing broad leaf vegetation. (For elevated releases as defined in Regulatory Guide 1.111, Revision 1, July 1977, the land use census shall also identify within a distance of 5 km (3 miles) the locations in each of the 16 meteorological sectors of all milk animals and all gardens of greater than 50 m^2 producing broad leaf vegetation.

APPLICABILITY: At all times.

ACTION:

a. With a land use census identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, identify the new location(s) in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.8.

b. With a land use census identifying a location(s) that 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, add the new location(s) to the radiological environmental monitoring program within 30 days. The sampling location(s), excluding the control station location, having the lowest calculated dose or dose commitment(s) (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. Pursuant to Specification 6.9.1.8, identify the new location(s) in the next Semiannual Radioactive Effluent Release Report and also include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

*Broad leaf vegetation sampling of at least three different kinds of vegetation may be performed at the SITE BOUNDARY in each of two different direction sectors with the highest predicted D/Qs in lieu of the garden census. Specifications for broadleaf vegetation sampling in Table 3.12-1.4c shall be followed, including analysis of control samples.

3/4.12.2 LAND USE CENSUS (Cont'd)

SURVEILLANCE REQUIREMENTS

4.12.2 The land use census shall be conducted during the growing season at least once per 12 months using that information that will provide the best results, such as by a door-to-door survey, aerial survey, or by consulting local agriculture authorities. The results of the land use census shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.7

3/4.12.3. INTERLABORATORY COMPARISON PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.3 Analyses 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 pursuant to Specification 6.9.1.7.

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 shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.7.

3/4.4.8 SPECIFIC ACTIVITY

The limitations on the specific activity of the primary coolant ensure that the resulting 2 hour dose at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a steam generator tube rupture accident in conjunction with an assumed steady state primary-to-secondary steam generator leakage rate of 1.0 GPM. The values for the limits on specific activity represent interim limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative in that specific site parameters of the Salem site, such as site boundary location and meteorological conditions, were not considered in this evaluation. The NRC is finalizing site specific criteria which will be used as the basis for the reevaluation of the specific activity limits of this site. This reevaluation may result in higher limits.

Operation with specific activity levels exceeding 1.0 uCi/gram DOSE EQUIVALENT I-131 but within the limits shown on Figure 3.4-1 must be restricted to no more than 800 hours per year (approximately 10% of the unit's yearly operating time) since the activity levels allowed by Figure 3.4-1 increase the 2 hour thyroid does at the site boundary by a factor of up to 20 following a postulated steam generator tube rupture. The reporting of cumulative time over 500 hours in any 6 month consecutive period with greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 will allow sufficient time for Commission evaluation of the circumstances prior to reaching the 800 hour limit.

Reducing T_{avg} to less than 500°F prevents the release of activity should a steam generator tube rupture since the saturation pressure of the primary coolant is below the lift pressure of the atmospheric steam relief valves. The surveillance requirements provide adequate assurance that excessive specific activity levels in the primary coolant will be detected in sufficient time to take corrective action. Information obtained on iodine spiking will be used to assess the parameters associated with spiking phenomena. A reduction in frequency of isotopic analyses following power changes may be permissible if justified by the data obtained.

6.1 RESPONSIBILITY

6.1.1 The General Manager - Salem Operations shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Senior Nuclear Shift Supervisor or during his absence from the Control Room, a designated individual shall be responsible for the Control Room command function. A management directive to this effect, signed by the Vice President - Nuclear shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:

a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, at least one licensed Senior Reactor Operator shall be in the Control room area at all times.

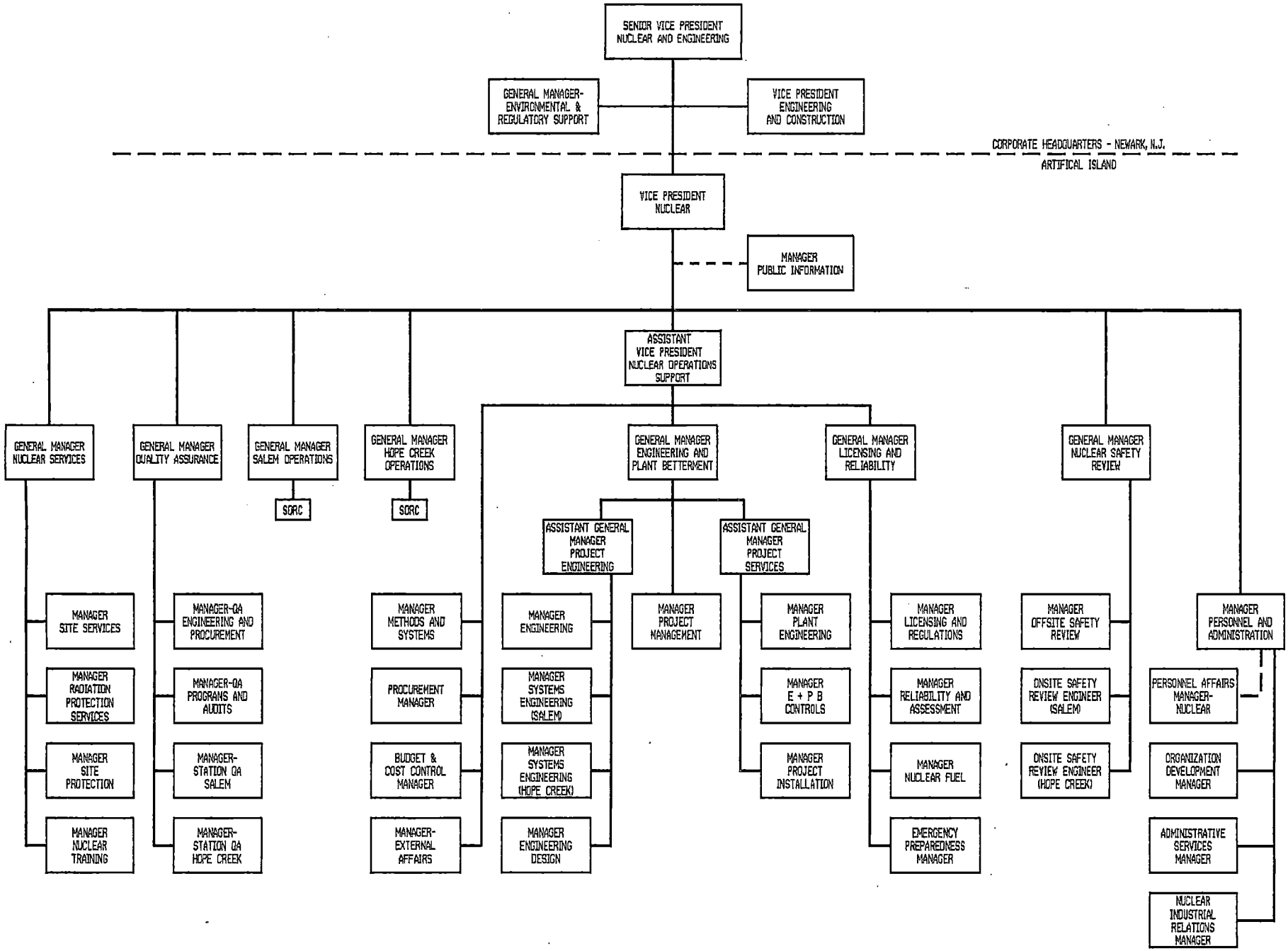
c. A Radiation Protection technician# shall be on site when fuel is in the reactor.

d. ALL CORE ALTERATIONS shall be observed and directly supervised by a licensed Senior Reactor Operator who has no other concurrent responsibilities during this operation.

e. A site Fire Brigade of at least 5 members shall be maintained onsite at all times#. The Fire Brigade shall not include 4 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.

f. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with the NRC Policy Statement on working hours (Generic Letter No. 82-12).

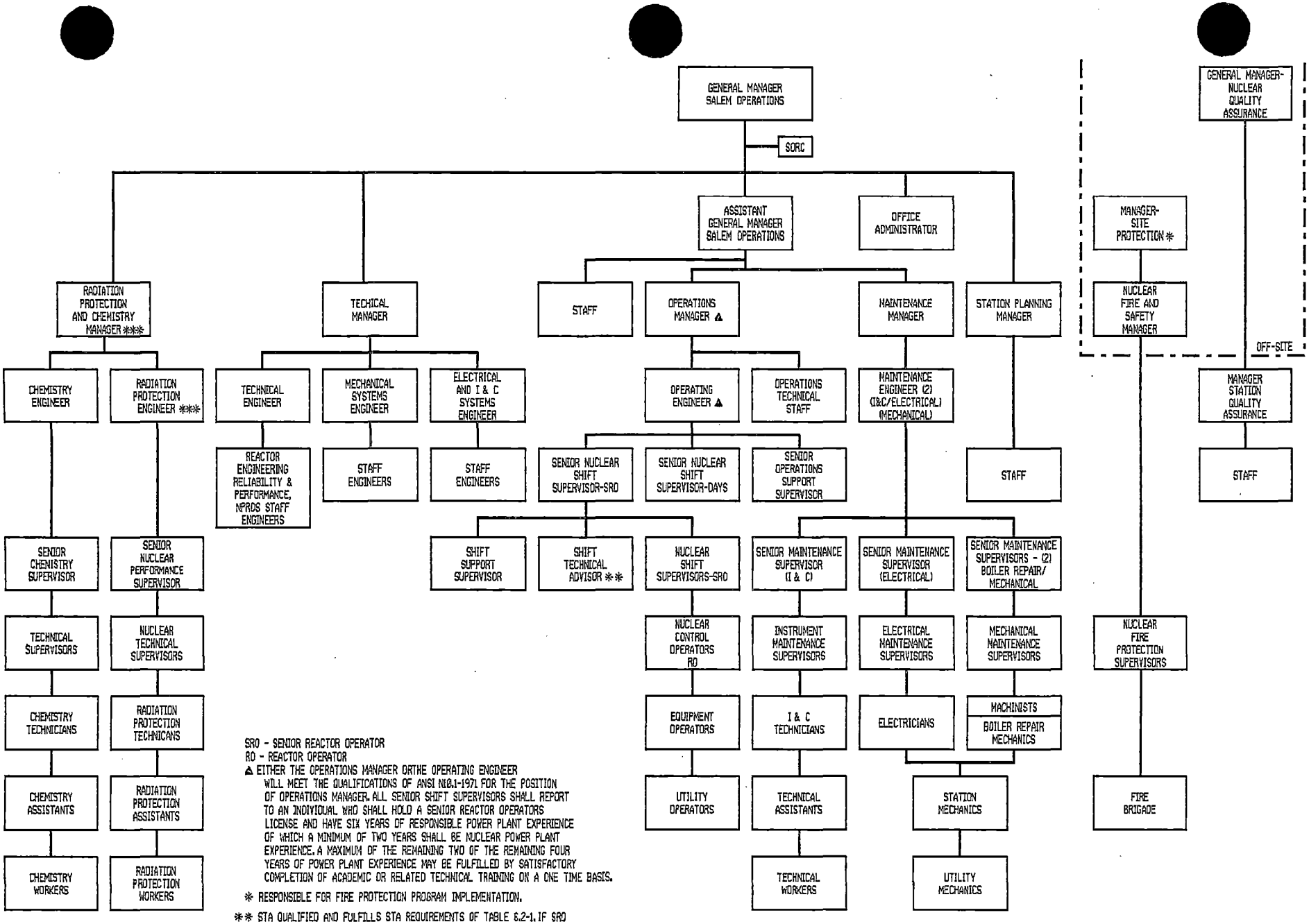
#The radiation protection technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of the radiation protection technician and/or Fire Brigade members provided immediate action is taken to restore the radiation protection technician and/or Fire Brigade to within the minimum requirements.



— — DENOTES MATRIX FUNCTION

VPN14

FIGURE 6.2-1 CORPORATE HEADQUARTERS AND OFF-SITE ORGANIZATION FOR MANAGEMENT AND TECHNICAL SUPPORT



SRO - SENIOR REACTOR OPERATOR
RO - REACTOR OPERATOR

▲ EITHER THE OPERATIONS MANAGER ORTHE OPERATING ENGINEER WILL MEET THE QUALIFICATIONS OF ANSI N18.1-1971 FOR THE POSITION OF OPERATIONS MANAGER. ALL SENIOR SHIFT SUPERVISORS SHALL REPORT TO AN INDIVIDUAL WHO SHALL HOLD A SENIOR REACTOR OPERATORS LICENSE AND HAVE SIX YEARS OF RESPONSIBLE POWER PLANT EXPERIENCE OF WHICH A MINIMUM OF TWO YEARS SHALL BE NUCLEAR POWER PLANT EXPERIENCE. A MAXIMUM OF THE REMAINING TWO OF THE REMAINING FOUR YEARS OF POWER PLANT EXPERIENCE MAY BE FULFILLED BY SATISFACTORY COMPLETION OF ACADEMIC OR RELATED TECHNICAL TRAINING ON A ONE TIME BASIS.

* RESPONSIBLE FOR FIRE PROTECTION PROGRAM IMPLEMENTATION.

** STA QUALIFIED AND FULFILLS STA REQUIREMENTS OF TABLE 6.2-1. IF SRO LICENSED WILL BE ASSIGNED NUCLEAR SHIFT SUPERVISORY DUTIES.

*** AT LEAST ONE OF THESE POSITIONS MUST MEET OR EXCEED THE QUALIFICATION STANDARDS OF USNRC REGULATORY GUIDE 1.8, SEPT. 1975.

VPN15

FIGURE 6.2-2 FACILITY ORGANIZATION

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION
SALEM UNIT 1

WITH UNIT 2 IN MODES 5 OR 6 OR DE-FUELED		
POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3 & 4	MODES 5 & 6
SNSS	1[a]	1[a]
SRO	1[b]	none
STA	1[b]	none
NCO	2	1
EO/UO	3	2[c]
Maintenance Electrician	1	none
Radiation Protection Technician	1[a]	1*[a]

WITH UNIT 2 IN MODES 1, 2, 3 OR 4		
POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3 & 4	MODES 5 & 6
SNSS	1[a]	1[a]
SRO	1[b]	none
STA	1[b]	none
NCO	2	1
EO/UO	3[d]	1
Maintenance Electrician	1[a]	none
Radiation Protection Technician	1[a]	1[a]

a/ Individual may fill the same position on Unit 2

b/ Individual who fulfills the STA requirement may fill the same position on Unit 2. The STA, if a licensed SRO, may concurrently fill the SRO position on one unit; the other unit also requires a qualified SRO on shift.

c/ One of the two required individuals may fill the position on Unit 2, such that there are a total of three EO/UO's for both units.

d/ One of the three required individuals may fill the same position of Unit 2, such that there are a total of five EO/UO's for both units.

* Not needed if both reactors are de-fueled.

TABLE 6.2.1 (Continued)

SNSS - Senior Nuclear Shift Supervisor with a Senior Reactor Operator License on both units.

SRO - Individual with a Senior Reactor Operator License on both units (normally, a Nuclear Shift Supervisor).

NCO - Nuclear Control Operator with a Reactor Operator License on both units.

STA - Shift Technical Advisor (if licensed as SRO, may be assigned duties as a Nuclear Shift Supervisor).

EO/UO - Equipment Operator or Utility Operator.

Except for the Senior Nuclear Shift Supervisor, the Shift Crew Composition may be one less than the minimum requirements of Table 6.2-1 for a period of time not to exceed 2 hours in order to accomodate the unexpected absence of on-duty shift crew members provided that immediate action is taken to restore the Shift Crew Composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewperson's being late or absent.

During and absence of the Senior Nuclear Shift Supervisor from the Control Room area while the unit is in any MODE, an individual with a valid SRO License shall be designated to assume the Control Room command function.

6.2.3 SHIFT TECHNICAL ADVISOR

6.2.3.1 The Shift Technical Advisor shall serve in an advisory capacity to the Senior Nuclear Shift Supervisor on matters pertaining to the engineering aspects assuring safe operation of the unit.

6.2.3.2 The Shift Technical Advisor 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.

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 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees, except for the Radiation Protection Engineer or Radiation Protection/Chemistry Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be coordinated by each functional level manager (Department Head) at the facility and maintained under the direction of the Manager - Nuclear Training and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees, and shall include familiarization with relevant industry operational experience.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Manager - Site Protection and shall meet or exceed the requirements of Section 27 of NFPA Code-1975, except for Fire Brigade training sessions which shall be held at least quarterly.

6.5 REVIEW AND AUDIT

6.5.1 STATION OPERATIONS REVIEW COMMITTEE (SORC)

FUNCTION

6.5.1.1 The Station Operations Review Committee shall function to advise the General Manager - Salem Operations on operational matters related to nuclear safety.

COMPOSITION

6.5.1.2 The Station Operations Review Committee (SORC) shall be composed of:

Chairman:	General Manager - Salem Operations
Member and Vice Chairman:	Assistant General Manager - Salem Operations
Member and Vice Chairman:	Maintenance Manager
Member and Vice Chairman:	Operations Manager
Member:	Technical Manager
Member:	Radiation Protection/Chemistry Manager
Member:	Planning Manager
Member:	On-Site Safety Review Engineer (or designee)

6.5.1.3 Alternates:

a. Department Engineers may act as a member in the absence of the Department Manager.

b. Additional alternates (to 6.5.1.3.a) may be appointed as determined by the SORC Chairman (in writing).

c. An alternate will not make up part of the voting quorum when the member the alternate represents is present. (one department - one vote).

d. If the Chairman for a meeting is a "Vice-Chairman", an alternate from that Department Manager's department may attend as a voting member.

e. The Senior Nuclear Shift Supervisor may act as an alternate for the Operations Manager in the absence of the Operations Manager or when the Operations Manager is acting as Chairman.

MEETING FREQUENCY

6.5.1.4 The SORC shall meet at least once per calendar month and as convened by the SORC Chairman or his designated alternate.

QUORUM

6.5.1.5 The minimum quorum of the SORC necessary for the performance of the SORC responsibility and authority provisions of these technical specifications shall consist of the Chairman or his designated alternate and four members including alternates.

RESPONSIBILITIES

6.5.1.6 The Station Operations Review Committee shall be responsible for:

a. Review of 1) Station Administrative Procedures and changes thereto and 2) Newly created procedures or changes to existing procedures that involve a significant safety issue as described in Section 6.5.3.2.d.

b. Review of all proposed tests and experiments that affect nuclear safety.

c. Review of all proposed changes to Appendix "A" Technical Specifications.

d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.

e. Review of investigations of all violations of the Technical Specifications including the reports covering evaluations and recommendations to prevent recurrence.

f. Review of all REPORTABLE EVENTS.

g. Review of facility operations as determined by the SORC Chairman to detect potential nuclear hazards.

h. Review of special reviews, investigations or analyses and reports as determined by the SORC Chairman.

i. Review of the Facility Security Plan and implementing procedures and changes to the plan or its procedures.

j. Review the Facility Emergency Plan and implementing procedures and changes to the plan or its procedures.

k. Review of the Fire Protection Program and implementing procedures and changes to the plan or its procedures.

l. Review of all unplanned on-site releases of radioactivity to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence.

m. Review of changes to the PROCESS CONTROL MANUAL and the OFF-SITE DOSE CALCULATION MANUAL.

SORC REVIEW PROCESS

6.5.1.7 A technical review and control system utilizing qualified reviewers shall function to perform the periodic or routine review of procedures and changes thereto. Details of this technical review process are provided in Section 6.5.3.

AUTHORITY

6.5.1.8 The Station Operations Review Committee shall:

a. Recommend to the General Manager - Salem Operations written approval or disapproval of items considered under 6.5.1.6.

b. Provide written notification within 24 hours to the Vice President - Nuclear and the General Manager - Nuclear Safety Review of disagreement between the SORC and the General Manager - Salem Operations; however, the General Manager - Salem Operations shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.9 The Station Operations Review Committee shall maintain written minutes of each meeting and copies shall be provided to the Vice President - Nuclear, the General Manager - Nuclear Safety Review and the Manager - Offsite Safety Review.

6.5.2 NUCLEAR SAFETY REVIEW

FUNCTION

6.5.2.1 The Nuclear Safety Review Department (NSR) shall function to provide independent review and audit of designated activities.

COMPOSITION

6.5.2.2 NSR shall consist of the General Manager - Nuclear Safety Review, the Manager - Offsite Safety Review, who is supported by at least four dedicated, full-time engineers, and the Onsite Safety Review Group, which is managed by the Onsite Safety Review Engineer and is supported by at least three dedicated, full-time engineers located onsite.

The Manager - Offsite Safety Review and staff shall meet or exceed the qualifications described in Section 4.7 of ANS 3.1 - 1981 and shall be guided by the provisions for independent review described in Section 4.3 of ANSI N18.7 1976 (ANS 3.2).

The Offsite Safety Review staff shall generally possess experience and competence in the areas listed in Section 6.5.2.4.1. A system of qualified reviewers from other technical organizations shall be utilized to augment expertise in the disciplines of Section 6.5.2.4.1 where appropriate. Such qualified reviewers shall meet the same qualification requirements as the Offsite Safety Review staff, and shall not have been involved with performance of the original work.

The Onsite Safety Review Engineer and staff shall meet or exceed the qualifications described in Section 4.4 of ANS 3.1-1981.

CONSULTANTS

6.5.2.3 Consultants or other techical experts shall be utilized by NSR to the extent necessary, as determined by the General Manager - Nuclear Safety Review.

6.5.2.4 OFFSITE SAFETY REVIEW (OSR)

FUNCTION

6.5.2.4.1 The OSR organization shall function to provide independent review and audit of designated activities in the areas of:

a. Nuclear Power Plant Operations,

b. Nuclear Engineering,

c. Chemistry and Radiochemistry,

d. Metallurgy,

e. Instrumentation and Control,

f. Radiological Safety,

g. Mechanical Engineering,

h. Electrical Engineering,

i. Quality Assurance,

j. Nondestructive Testing,

k. Emergency Preparedness.

REVIEW

6.5.2.4.2 OSR shall review:

a. The safety evaluations for changes to procedures, equipment or systems; and tests or experiments completed under the provisions of 10CFR 50.59 to verify that such actions did not constitute an unreviewed safety question;

b. Proposed changes to procedures, equipment, or systems and tests or experiments which involve an unreviewed safety question as defined in 10CFR 50.59;

c. Proposed changes to Technical Specifications or the Operating License;

d. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance;

e. Significant operating abnormalities or deviations from normal and expected performance of facility equipment that affect nuclear safety;

f. All REPORTABLE EVENTS;

g. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components that could affect nuclear safety; and

h. Reports and meeting minutes of the SORC.

AUDITS

6.5.2.4.3 Audits of facility activities shall be performed under the cognizance of OSR. These audits shall encompass:

a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months;

b. The performance, training and qualifications of the entire facility staff at least once per 12 months;

c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months;

d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10CFR 50, at least once per 24 months;

e. The Facility Emergency Plan and implementing procedures at least once per 12 months;

f. The Facility Security Plan and implementing procedures at least once per 12 months;

g. Any other area of facility operation considered appropriate by the General Manager - Nuclear Safety Review or the Vice President - Nuclear;

h. The facility Fire Protection Program and implementing procedures at least once per 24 months;

i. The fire protection and loss prevention program implementation at least once per 12 months utilizing either qualified offsite licensee fire protection personnel or an outside independent fire protection consultant. An outside independent fire protection consultant shall be utilized at least once per 36 months; and

j. The radiological environmental monitoring program and the results thereof at least once per 12 months.

The above audits may be conducted by the Nuclear Quality Assurance Department or an independent consultant. Audit plans shall be reviewed by OSR prior to issuance. Audit results and recommendations shall be reviewed by OSR.

RECORDS

6.5.2.4.4 Records of OSR activities shall be maintained. Reports of reviews and audits shall be prepared and distributed as indicated below:

a. The results of reviews performed pursuant to Section 6.5.2.4.2 shall be reported to the Vice President - Nuclear at least monthly.

b. Audit reports prepared pursuant to Section 6.5.2.4.3 shall be forwarded by the auditing organization to the Vice President - Nuclear and to the management positions responsible for the areas audited within 30 days after completion of internally conducted audits and within 60 days after completion of externally conducted audits.

6.5.2.5 ONSITE SAFETY REVIEW GROUP (SRG)

FUNCTION

6.5.2.5.1 The SRG shall function to provide: the review of plant design and operating experience for potential opportunities to improve plant safety; evaluation of plant operations and maintenance activities; and advice to management on the overall quality and safety of plant operations.

The SRG shall make recommendations for revised procedures, equipment modifications, or other means of improving plant safety to appropriate station/ corporate management.

RESPONSIBILITIES

6.5.2.5.2 The SRG shall be responsible for:

a. Review of selected plant operating characteristics, NRC issuances, industry advisories, and other appropriate sources of plant design and operating experience information which may indicate areas for improving plant safety.

b. Reviews of selected facility features, equipment and systems.

c. Reviews of selected procedures, and plant activities including maintenance, modifications, operational problems and operational analysis.

d. Surveillance of selected plant operations and maintenance activities to provide independent verification* that they are performed correctly and that human errors are reduced to as low as reasonably achievable.

*Not responsible for sign-off function.

AUTHORITY

6.5.2.6 NSR shall report to and advise the Vice President - Nuclear on those areas of responsibility specified in Sections 6.5.2.4 and 6.5.2.5.

6.5.3 TECHNICAL REVIEW AND CONTROL

ACTIVITIES

6.5.3.1 Programs required by Technical Specification 6.8 and other procedures which affect nuclear safety as determined by the General Manager - Salem Operations, and changes thereto, other than editorial or typographical changes, shall be reviewed as follows:

PROCEDURE RELATED DOCUMENTS

6.5.3.2 Procedures, Programs and changes thereto shall be reviewed as follows:

a. Each newly created procedure, program or change thereto shall be independently reviewed by an individual knowledgeable in the subject area other than the individual who prepared the procedure, program or procedure change, but who may be from the same organization as the individual/group which prepared the procedure or procedure change. Procedures other than Station Administrative Procedures will be approved by the appropriate Station Department Manager or by the Assistant General Manager - Salem Operations. Each Station Department Manager shall be responsible for a predesignated class of procedures. The General Manager - Salem Operations shall approve Station Administrative Procedures, Security Plan implementing procedures, Fire Protection implementing procedures and Emergency Plan implementing procedures.

b. On-the-spot changes to procedures which clearly do not change the intent of the approved procedures shall be approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator License.

c. Revisions to procedures which may involve a change in intent of the approved procedures, shall be reviewed in accordance with Section 6.5.3.2.a above.

d. Individuals responsible for reviews performed in accordance with item 6.5.3.2a above shall be approved by the SORC Chairman and designated as Station Qualified Reviewers. A system of Station Qualified Reviewers, each of whom shall possess qualifications that meet or exceed the requirements of Section 4.3 or 4.4 of ANSI N18.1 - 1971, shall be maintained by the SORC Chairman. Each review shall include a written determination of whether or not additional cross-disciplinary review is necessary. If deemed necessary, such review shall be performed by the appropriate designated review personnel.

e. If the Department Manager determines that the documents involved contain signficant safety issues, the documents shall be forwarded for SORC review and also to OSR for an independent review to determine whether or not an unreviewed safety question is involved. Pursuant to 10CFR50.59, NRC approval of items involving unreviewed safety questions or Technical Specification changes shall be obtained prior to implementation.

NON-PROCEDURE RELATED DOCUMENTS

6.5.3.3 Tests or experiments and changes to equipment or systems shall be forwarded for SORC review and also to OSR for an independent review to determine whether or not an unreviewed safety question is involved. Proposed changes to Technical Specifications shall also be forwarded to SORC for review and to OSR for an independent review to determine whether or not a significant hazards consideration (10CFR50.92) is involved. The results of OSR reviews will be provided to SORC. Pursuant to 10CFR50.59, NRC aproval of items involving unreviewed safety questions or requiring Technical Specification changes shall be obtained prior to implementation.

RECORDS

6.5.3.4 Written records of reviews performed in accordance with item 6.5.3.2a above, including recommendations for approval or disapproval, shall be maintained. Copies shall be provided to the General Manager - Salem Operations, SORC, OSR and/or NRC as necessary when their reviews are required.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Section 50.73 to 10CFR Part 50, and

b. Each REPORTABLE EVENT shall be reviewed by the SORC and the resultant Licensee Event Report submitted to OSR and the Vice President - Nuclear.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

a. The unit shall be placed in at least HOT STANDBY within one hour.

b. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within one hour. The Vice President - Nuclear and the General Manager - Nuclear Safety Review shall be notified within 24 hours.

c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the SORC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.

d. The Safety Limit Violation Report shall be submitted to the NRC, the General Manager - Nuclear Safety Review and the Vice President - Nuclear within 14 days of the violation.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.

b. Refueling operations.

c. Surveillance and test activities of safety related equipment.

d. Security Plan implementation.

e. Emergency Plan implementation.

f. Fire Protection Program implementation.

g. PROCESS CONTROL PROGRAM implementation.

h. OFFSITE DOSE CALCULATION MANUAL implementation.

i. Quality Assurance Program for effluent and environmental monitoring.

6.8.2 Each procedure and administrative policy of 6.8.1 above, and changes thereto, shall be reviewed and approved in accordance with Specification 6.5.1.6 or 6.5.3, as appropriate, prior to implementation and reviewed periodically as set forth in administrative procedures.

6.8.3 On-the-spot changes to procedures of 6.8.1 above may be made provided:

a. The intent of the original procedure is not altered.

b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.

c. The change is documented and receives the same level of review and approval as the original procedure under Specification 6.5.3.2a within 14 days of implementation.

6.8.4 The following programs shall be maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include (recirculation spray, safety injection, chemical and volume control, gas stripper, recombiners, ...). The program shall include the following:

(i) Preventative maintenance and periodic visual inspection requirements, and

(ii) Integrated leak test requirements for each system at refueling cycle intervals or less.

b. In-Plant Radiation Monitoring

A program which will ensure the capability to accurately determine the airborne iodine concentration in areas under accident conditions. This program shall include the following:

(i) Training of personnel,

(ii) Procedures for monitoring, and

(iii) Provisions for maintenance of sampling and analysis equipment.

c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

(i) Identification of a sampling schedule for the critical variables and the control points for these variables,

(ii) Identification of the procedures used to measure the values of the critical variables,

(iii) Identification of process sampling points, including monitoring at the discharge of the condensate pumps for evidence of condenser in-leakage.

(iv) Procedures for the recording and management of data,

(v) Procedures defining corrective actions for off-control-point chemistry conditions,

(vi) A procedure identifying (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective action.

d. Backup Method for Determining Subcooling Margin

A program which will ensure the capability to accurately monitor the Reactor Coolant System Subcooling Margin. This program shall include the following:

(i) Training of personnel, and

(ii) Procedures for monitoring.

e. Postaccident Sampling

A program* which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

(i) Training of personnel

(ii) Procedures for sampling and analysis,

(iii) 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 Administrator, Region 1, 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 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.

*It is acceptable if the licensee maintains details of the program in plant operation manuals.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement or commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL REPORTS[1]/

6.9.1.4 Annual reports covering activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year.

6.9.1.5 Reports required on an annual basis shall include:

a. A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,[2]/e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at lest 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

b. The complete results of steam generator tube service inspections performed during the report period (reference Specification 4.4.5.5.b).

1/ A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

2/ This tabulation supplements the requirements of section 20.407 of 10 CFR Part 20.

c. The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific acivity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the Document Control Desk, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Administrator, Region 1, no later than the 15th of each month following the calendar month covered by the report.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT*

6.9.1.7 Routine Radiological Environmental Operating Reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.

The Annual Radiological Environmental Operating Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies with operational controls (as appropriate), and with previous environmental surveillance reports, and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use censuses required by Specification 3.12.2.

*A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

The Annual Radiological Environmental Operating Reports shall include the results of analysis of all radiological environmental samples and of all measurements taken during the period pursuant to the Table and Figures in the environmental radiation section of the ODCM; as well as summarized and tabulated results of locations specified in these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program; at least two legible maps, one covering sampling stations near the SITE BOUNDARY and a second including the more distant stations, all keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program, required by Specification 3.12.3; and discussion of all analyses in which the LLD required by Table 4.12-1 was not achievable.

SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT*

6.9.1.8 Routine Radioactive Effluent Release Reports covering the operation of the unit during the previous six months of operation shall be submitted within 60 days after January 1 and July 1 of each year.

The Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21. "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

*A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

The Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.* This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the SITE BOUNDARY (Figure 5.1-3) during the report period. All assumptions used in making these assessments (i.e., specific activity, exposure time and location) shall be included in these reports. The meteorological conditions concurrent with the time of release of radioactive materials in gaseous effluents (as determined by sampling frequency and measurement) shall be used for determining the gaseous pathway doses. The assessment of radiation doses shall be performed in accordance with the OFFSITE DOSE CALCULATION MANUAL.

The Radioactive Effluent Release Report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed MEMBER OF THE PUBLIC from reactor releases and other nearby uranium fuel cycle sources (including doses from primary effluent pathways and direct radiation) for the previous calendar year to show conformance with 40 CFR Part 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Rev. 1, October 1977.

The Radioactive Effluent Release Reports shall include the following information for each class of solid waste (as defined by 10 CFR Part 61) shipped offsite during the report period:

a. Container volume,

b. Total curie quantity (specify whether determined by measurement or estimate),

c. Principal radionuclides (specify whether determined by measurement or estimate),

d. Source of waste and processing employed (e.g., dewatered spent resin, compacted dry waste, evaporator bottoms),

*In lieu of submission with the first half year Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.

e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and

f. Solidification agent or absorbent (e.g., cement, urea formaldahyde).

The Radioactive Effluent Release Reports shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The Radioactive Effluent Release Reports shall include any changes made during the reporting period to the PROCESS CONTROL PROGRAM (PCP) and to the OFFSITE DOSE CALCULATION MANUAL (ODCM), as well as a listing of new locations for dose calculations and/or environmental monitoring identified by the land use census pursuant to Specification 3.12.2.

RADIAL PEAKING FACTOR LIMIT REPORT

6.9.1.9 The (F_{xy}) for RATED THERMAL POWER (F_{xy}^{RTP}) for all core planes containing bank "D" control rods and all unrodded core planes and the plot of predicted ($F_Q^T \cdot P_{Rel}$) vs. Axial Core Height with the limit envelope shall be provided to the NRC Regional Administrator with a copy to Director of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 at least 60 days prior to each cycle initial criticality unless otherwise approved by the Commission by letter.

In addition, in the event that the limit should change requiring a new submittal or an amended submittal to the Peaking Factor Limit Report, it will be submitted 60 days prior to the date the limit would become effective unless otherwise approved by the Commission by letter.

Any information needed to support F_{xy}^{RTP} will be by request from the NRC and need not be included in this report.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Administrator of the Regional Office within the time period specified for each report.

6.10 RECORD RETENTION

In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

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 Operating Procedures required by Specification 6.8.1.

f. Records of radioactive shipments.

g. Records of sealed source and fission detector leak tests and results.

h. Records of annual physical inventory of all sealed source material of record.

6.10.2 The following records shall be retained for the duration of the Unit Operating License:

a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.

c. Records of radiation exposure for all individuals entering radiation control areas.

d. Records of gaseous and liquid radioactive material released to the environs.

e. Records of transient or operational cycles for those facility components identified in Table 5.7-1.

f. Records of reactor tests and experiments.

g. Records of training and qualification for current members of the plant staff.

h. Records of in-service inspections performed pursuant to these Technical Specifications.

i. Records of Quality Assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of SORC meetings and activities of OSR (and meetings of its predecessor the Nuclear Review Board).

l. Records for Environmental Qualification which are covered under the provisions of Paragraph 6.16.

m. Records of the service lives of all hydraulic and mechanical snubbers listed on Tables 3.7-4a and 3.7-4b including the date at which the service life commences and associated installation and maintenance records.

n. Records of secondary water sampling and water quality.

o. Records of analyses required by the radiological environmental monitoring program which would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR Part 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr* shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit**. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.

c. A health physics qualified individual (i.e., qualified in radiation protection procedures) with a radiation dose rate monitoring device who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Work Permit.

6.12.2 In addition to the requirements of 6.12.1, areas accessible to personnel with radiation levels* such that a major portion of the body could receive in one hour a dose greater than 1000 mrem shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Senior Nuclear Shift Supervisor on duty and/or Senior Supervisor - Radiation Protection. Doors shall remain locked except during periods of access by personnel under an approved Radiation Work Permit which shall specify the dose rate levels in the immediate work area and the maximum allowable stay time for individuals in that area. For individual areas accessible to personnel with radiation levels such that a major portion of the

* This is normally defined as the level at a distance of 18 inches from the source or accessible surface.

**Radiation Protection Personnel or personnel escorted by Radiation Protection personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they are otherwise following plant radiation protection procedures for entry into high radiation areas.

body could receive in one hour a dose in excess of 1000 mrem* that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device. In lieu of the stay time specification of the RWP, direct or remote (such as use of closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities within the area.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 The PCP shall be approved by the Commission prior to implementation.

6.13.2 Licensee initiated changes to the PCP:

1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;

   b. A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and

   c. Documentation of the fact that the change has been reviewed and found acceptable by the SORC.

2. Shall become effective upon review and acceptance by the SORC.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Licensee initiated changes to the ODCM:

1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s);

* This is normally defined as the level at a distance of 18 inches from the source or accessible surface.

b. A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determination; and

c. Documentation of the fact that the change has been reviewed and found acceptable by the SORC.

2. Shall become effective upon review and acceptance by the SORC.

6.15 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE TREATMENT SYSTEMS

6.15.1 Licensee initiated major changes to the radioactive waste system (liquid, gaseous and solid):

1. Shall be reported to the Commission in the UFSAR for the period in which the evaluation was reviewed by SORC. The discussion of each change shall contain:

   a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR Part 50.59;

   b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

   c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

   d. An evaluation of the change, which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;

   e. An evaluation of the change, which shows the expected maximum exposures to individual in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;

   f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;

   g. An estimate of the exposure to plant operating personnel as a result of the change; and

   h. Documentation of the fact that the change was reviewed and found acceptable by SORC.

2. Shall become effective upon review and acceptance by the SORC.

6.16 ENVIRONMENTAL QUALIFICATION

6.16.1 By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class 1E Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," December 1979. Copies of these documents are attached to Order for Modification of License No. DPR-70 dated October 24, 1980.

6.16.2 By no later than December 1, 1980, complete and auditible records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified

CHANGES TO
UNIT NO. 2
TECHNICAL SPECIFICATIONS

DEFINITIONS

SECTION PAGE

1.0 DEFINITIONS

INDEX

ADMININSTRATIVE CONTROLS

ADMININSTRATIVE CONTROLS

REACTOR TRIP SYSTEM RESPONSE TIME

1.26 The REACTOR TRIP SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until loss of stationary gripper coil voltage.

REPORTABLE EVENT

1.27 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10CFR Part 50.

SHUTDOWN MARGIN

1.28 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all full length rod cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be fully withdrawn.

SITE BOUNDARY

1.29 The SITE BOUNDARY shall be that line beyond which the land is not owned, leased, or otherwise controlled by the licensee, as shown in Figure 5.1-3, and which defines the exclusion area as shown in Figure 5.1-1.

SOLIDIFICATION

1.30 SOLIDIFICATION shall be the conversion of wet radioactive wastes into a form that meets shipping and burial ground requirements.

SOURCE CHECK

1.31 SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a source of increased radioactivity.

STAGGERED TEST BASIS

1.32 A STAGGERED TEST BASIS shall consist of:

a. A test schedule for (n) systems, subsystems, trains, or other designated components obtained by dividing the specified test interval into (n) equal subintervals,

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 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. The alarm/trip setpoints of these channels shall be determined in accordance with the OFFSITE DOSE CALCULATION MANUAL (ODCM).

Applicability: At all times.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable or change the setpoint so it is acceptably conservative.

b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Exert best efforts to return the instrument to operable status within 30 days and, if unsuccessful, explain in the next semiannual radioactive effluent release report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 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 4.3-12.

TABLE 4.3-12 (Continued)

TABLE NOTATION

(1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exist:

1. Instrument indicates measured levels at or above the alarm/trip setpoint.

2. Circuit failure. (Loss of Power)

3. Instrument indicates a downscale failure. (Indication on instrument drawer in Control Equipment Room only)

(2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exist:

1. Instrument indicates measured levels at or above the alarm/trip setpoint.

2. Circuit failure. (Loss of Power)

3. Instrument indicates a downscale failure. (Indication on instrument drawer in Control Equipment Room only)

4. Instrument controls not set in operate mode. (On instruments equipped with operate mode switches only)

(3) The initial CHANNEL CALIBRATION was performed using appropriate liquid or gaseous calibration sources obtained from reputable suppliers. The activity of the calibration sources were reconfirmed using a multi-channel analyzer which was calibrated using one or more NBS standards.

(4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

* During liquid additions to the tank.

** If tank level indication is not provided, verification will be done by visual inspection.

\# The R18 channel is an in-line channel which requires periodic decontamination. Any count indication above 10,000 cpm constitutes a SOURCE CHECK for compliance purposes.

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive gaseous 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 Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the ODCM.

APPLICABILITY: As shown in Table 3.3-13

ACTION:

a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable or change the setpoint so it is acceptably conservative.

b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to operable status within 30 days and, if unsuccessful, explain in the next semiannual radioactive effluent release report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each radioactive gaseous 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 4.3-13.

SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

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

a. $\leq$ 1.0 uCi/gram DOSE EQUIVALENT I-131, and

b. $\leq 100/\overline{E}$ uCi/gram gross activity

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

ACTION:

MODES 1, 2 and 3*

a. With the specific activity of the primary coolant > 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 at least HOT STANDBY with T_{avg} < 500°F within 6 hours.

b. With the specific activity of the primary coolant > $100/\overline{E}$ uCi/gram, be in at least HOT STANDBY with T_{avg} < 500°F within 6 hours.

MODES 1,2,3,4 and 5

a. With the specific activity of the primary coolant > 1.0 uCi/gram DOSE EQUIVALENT I-131 or > $100/\overline{E}$ uCi/gram, perform the sampling and analysis requirements of item 4a of Table 4.4-2 until the specific activity of the primary coolant is restored to within its limits.

SURVEILLANCE REQUIREMENTS

4.4.8 The specific activity of the primary coolant shall be determined to be within the limits by performance of the sampling and analysis program of Table 4.4-4.

*With Tavg $\geq$500°F

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RADIOACTIVE EFFLUENTS

DOSE

LIMITING CONDITION FOR OPERATION

3.11.1.2 The dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released, from each reactor unit, to UNRESTRICTED AREAS (see Figure 5.1-3) shall be limited:

a. During any calendar quarter to less than or equal to 1.5 mrems to the total body and to less than or equal to 5 mrems to any organ, and

b. During any calendar year to less than or equal to 3 mrems to the total body and to less than or equal to 10 mrems 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 that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.2 Cumulative dose contributions from liquid effluents shall be determined in accordance with the ODCM at least once per 31 days.

RADIOACTIVE EFFLUENTS

LIQUID RADWASTE TREATMENT

LIMITING CONDITION FOR OPERATION

3.11.1.3 The liquid radwaste treatment system shall be used to reduce the radioactive materials liquid wastes prior to their discharge when the projected cumulative doses due to the liquid effluent from each reactor to UNRESTRICTED AREAS (see Figure 5.1-3) exceed 0.375 mrem to the total body or 1.25 mrem to any organ during any calendar quarter.

APPLICABILITY: At all times.

ACTION:

a. With the 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 that includes the following information:

   1. Explanation of why liquid radwaste was being discharged without treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability.

   2. Action(s) taken to restore the inoperable equipment to OPERABLE status, and

   3. Summary description of action(s) taken to prevent a 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 shall be projected at least once per 31 days in accordance with the ODCM.

RADIOACTIVE EFFLUENTS

DOSE - NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.2 The air dose due to noble gases released in gaseous effluents, from each reactor unit, from the site areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation and,

b. During any calendar year: 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 that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the release and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.2 Cumulative dose contributions for the current calendar quarter and current calendar year shall be determined in accordance with the ODCM at least once per 31 days.

RADIOACTIVE EFFLUENTS

DOSE - IODINE-131, TRITIUM, AND RADIONUCLIDES IN PARTICULATE FORM

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to a MEMBER OF THE PUBLIC from iodine-131, from tritium, and from all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released, from each reactor unit, from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 7.5 mrems to any organ and,

b. During any calendar year: Less than or equal to 15 mrems to any organ.

APPLICABILITY: At all times.

ACTION:

a. With the calculated dose from the release of iodine-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days, 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 that identifies the cause(s) for exceeding the limit and defines the corrective actions that have been taken to reduce the release and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.3 Cumulative dose contributions for the current calendar quarter and current calendar year for iodine-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the ODCM at least once per 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 radioactive materials in gaseous waste prior to their discharge when the projected gaseous effluent air doses due to gaseous effluent releases, from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3), exceed 0.625 mrad for gamma radiation and 1.25 mrad for beta radiation in any calendar quarter. 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, from each reactor unit, from the site to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) would exceed 1.875 mrem to any organ in any calendar quarter.

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 that includes the following information:

   1. Explanation of why gaseous radwaste was being discharged without treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability,

   2. Action(s) taken to restore the inoperable equipment equipment to OPERABLE status, and

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

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 from the site shall be projected at least once per 31 days in accordance with the ODCM.

SOLID RADIOACTIVE WASTE

LIMITING CONDITION FOR OPERATION

3.11.3. The solid radwaste system shall be used in accordance with a PROCESS CONTROL PROGRAM to process wet radioactive waste to meet shipping and burial ground requirements.

APPLICABILITY: At all times.

ACTION:

a. With the provisions of the PROCESS CONTROL PROGRAM not satisfied, suspend shipments of defectively processed or defectively packaged solid radioactive wastes from the site.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.3. The PROCESS CONTROL PROGRAM shall be used to verify the SOLIDIFICATION of at least one representative test specimen from at least every tenth batch of each type of wet radioactive waste (e.g., filter sludges, spent resins, evaporator bottoms, boric acid solutions, and sodium sulfate solutions).

a. If any test specimen fails to verify SOLIDIFICATION, the SOLIDIFICATION of the batch under test shall be suspended until such time as additional test specimens can be obtained, alternative SOLIDIFICATION parameters can be determined in accordance with the PROCESS CONTROL PROGRAM, and a subsequent test verifies SOLIDIFICATION. SOLIDIFICATION of the batch may then be resumed using the alternative SOLIDIFICATION parameters determined by the PROCESS CONTROL PROGRAM.

b. If the initial test specimen from a batch of waste fails to verify SOLIDIFICATION, the PROCESS CONTROL PROGRAM shall provide for the collection and testing of representative test specimens from each consecutive batch of the same type of wet waste until at least three consecutive initial test specimens demonstrate SOLIDIFICATION. The PROCESS CONTROL PROGRAM shall be modified as required, as provided in Specification 6.13, to assure SOLIDIFICATION of subsequent batches of waste.

3/4.11.4 TOTAL DOSE

LIMITING CONDITION FOR OPERATION

3.11.4 The annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC, due to releases of radioactivity and radiation, from uranium fuel cycle sources shall be limited to less than or equal to 25 mrems to the total body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mrems).

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 3.11.1.2a, 3.11.1.2b, 3.11.2.2a, 3.11.2.2b, 3.11.2.3a, or 3.11.2.3b, calculations should be made including direct radiation contributions from the reactor units and from outside storage tanks to determine whether the limits of this Specification have been exceeded. If such is the case, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This Specical Report, as defined in 10 CFR Part 20.405c, shall include an analysis that estimates the radiation exposure (dose) to a MEMBER OF THE PUBLIC from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the calendar year that includes the release(s) covered by this report. It shall also describe levels of radiation and concentrations of radioactive material involved, and the cause of the exposure levels or concentrations. If the estimated dose(s) exceeds the above limits, and if the release condition resulting in violation of 40 CFR Part 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR Part 190. Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete.

3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.1 MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.1. The radiological environmental monitoring program shall be conducted as specified in Table 3.12-1.

APPLICABILITY: At all times.

ACTION:

a. With the radiological environmental monitoring program not being conducted as specified in Table 3.12-1, prepare and submit to the Commission, in the Annual Radiological Environmental Operating Report required by Specification 6.9.1.7, a description of the reasons for not conducting the program as required and the plans for preventing a recurrence.

b. With the level of radioactivity as the result of plant effluents in an environmental sampling medium at a specified location exceeding the reporting levels of Table 3.12-2 when averaged over any calendar quarter, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce radioactive effluents so that the potential annual dose to a MEMBER OF THE PUBLIC is less than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2, and 3.11.2.3. When more than one of the radionuclides in Table 3.12-2 are detected in the sampling medium, this report shall be submitted if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \ldots \geq 1.0$$

When radionuclides other than those in Table 3.12-2 are detected and are the result of plant effluents, this report shall be submitted if the potential annual dose to a member of the public is equal to or

3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.1 MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

ACTION: (Cont'd)

greater than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2, and 3.11.2.3. This report is not required if the measured level of radioactivity was not the result of plant effluents; however, in such an event, the condition shall be reported and described in the Annual Radiological Environmental Operating Report.

c. With milk or fresh leafy vegetable samples unavailable from one or more of the sample locations required by Table 3.12-1, identify locations for obtaining replacement samples and add them to the radiological environmental monitoring program within 30 days. The specific locations from which samples were unavailable may then be deleted from the monitoring program.

Pursuant to Specification 6.9.1.8, identify the cause of the unavailability of samples and the new location(s) for obtaining replacement samples in the next Semiannual Radioactive Effluent Release Report. Include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

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 specified in the ODCM and shall be analyzed pursuant to the requirements of Table 4.12-1.

TABLE 3.12-2

REPORTING LEVELS FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

Reporting Levels

Analysis	Water (pCi/l)	Airborne Particulate or Gases (pCi/m^3)	Fish (pCi/Kg, wet)	Milk (pCi/l)	Food Products (pCi/Kg, wet)
H-3	2×10^4(*)				
Mn-54	1×10^3		3×10^4		
Fe-59	4×10^2		1×10^4		
Co-58	1×10^3		3×10^4		
Co-60	3×10^2		1×10^4		
Zn-65	3×10^2		2×10^4		
Zr-Nb-95	4×10^2				
I-131	2 (**)	0.9		3	1×10^2
Cs-134	30	10	1×10^3	60	1×10^3
Cs-137	50	20	2×10^3	70	2×10^3
Ba-La-140	2×10^2			3×10^2	

(*) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 3×10^4 pCi/l may be used.

(**) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 20 pCi/l may be used.

TABLE 4.12-1

MAXIMUM VALUES FOR THE LOWER LIMITS OF DETECTION (LLD)[a,b]

Analysis	Water (pCi/l)	Airborne Particulate or Gases (pCi/m^3)	Fish (pCi/Kg, wet)	Milk (pCi/l)	Food Products (pCi/Kg, wet)	Sediment (pCi/Kg, dry)
gross beta	4	1×10^{-2}				
H-3	2000 (*)					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15					
I-131	1	7×10^{-2}		1	60	
Cs-136	15(**)	5×10^{-2}	130	15	60	150
Cs-137	18	6×10^{-2}	150	18	80	180
Ba-La-140	15			15		

(*) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 3000 pCi/l may be used.

(**) For drinking water samples. This is a 40CFR141 value. If no drinking water pathway exists, a value of 15 pCi/l may be used.

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 within a distance of 8 km (5 miles) the location in each of the 16 meteorological sectors of the nearest milk animal, the nearest residence and the nearest garden* of greater than 50 m^2 (500 ft^2) producing broad leaf vegetation. (For elevated releases as defined in Regulatory Guide 1.111, Revision 1, July 1977, the land use census shall also identify within a distance of 5 km (3 miles) the locations in each of the 16 meteorological sectors of all milk animals and all gardens of greater than 50 m^2 producing broad leaf vegetation.

APPLICABILITY: At all times.

ACTION:

a. With a land use census identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, identify the new location(s) in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.8.

b. With a land use census identifying a location(s) that 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, add the new location(s) to the radiological environmental monitoring program within 30 days. The sampling location(s), excluding the control station location, having the lowest calculated dose or dose commitment(s) (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. Pursuant to Specification 6.9.1.8, identify the new location(s) in the next Semiannual Radioactive Effluent Release Report and also include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

*Broad leaf vegetation sampling of at least three different kinds of vegetation may be performed at the SITE BOUNDARY in each of two different direction sectors with the highest predicted D/Qs in lieu of the garden census. Specifications for broadleaf vegetation sampling in Table 3.12-1.4c shall be followed, including analysis of control samples.

3/4.12.2 LAND USE CENSUS (Cont'd)

SURVEILLANCE REQUIREMENTS

4.12.2 The land use census shall be conducted during the growing season at least once per 12 months using that information that will provide the best results, such as by a door-to-door survey, aerial survey, or by consulting local agriculture authorities. The results of the land use census shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.7

3/4.12.3. INTERLABORATORY COMPARISON PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.3 Analyses 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 pursuant to Specification 6.9.1.7.

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 shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.7.

3/4.4.9 SPECIFIC ACTIVITY

The limitations on the specific activity of the primary coolant ensure that the resulting 2 hour dose at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a steam generator tube rupture accident in conjunction with an assumed steady state primary-to-secondary steam generator leakage rate of 1.0 GPM. The values for the limits on specific activity represent interim limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative in that specific site parameters of the Salem site, such as site boundary location and meteorological conditions, were not considered in this evaluation. The NRC is finalizing site specific criteria which will be used as the basis for the reevaluation of the specific activity limits of this site. This reevaluation may result in higher limits.

Operation with specific activity levels exceeding 1.0 uCi/gram DOSE EQUIVALENT I-131 but within the limits shown on Figure 3.4-1 must be restricted to no more than 800 hours per year (approximately 10% of the unit's yearly operating time) since the activity levels allowed by Figure 3.4-1 increase the 2 hour thyroid does at the site boundary by a factor of up to 20 following a postulated steam generator tube rupture. The reporting of cumulative time over 500 hours in any 6 month consecutive period with greater than 1.0 uCi/gram DOSE EQUIVALENT I-131 will allow sufficient time for Commission evaluation of the circumstances prior to reaching the 800 hour limit.

Reducing T_{avg} to less than 500°F prevents the release of activity should a steam generator tube rupture since the saturation pressure of the primary coolant is below the lift pressure of the atmospheric steam relief valves. The surveillance requirements provide adequate assurance that excessive specific activity levels in the primary coolant will be detected in sufficient time to take corrective action. Information obtained on iodine spiking will be used to assess the parameters associated with spiking phenomena. A reduction in frequency of isotopic analyses following power changes may be permissible if justified by the data obtained.

6.1 RESPONSIBILITY

6.1.1 The General Manager - Salem Operations shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Senior Nuclear Shift Supervisor or during his absence from the Control Room, a designated individual shall be responsible for the Control Room command function. A management directive to this effect, signed by the Vice President - Nuclear shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:

a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, at least one licensed Senior Reactor Operator shall be in the Control room area at all times.

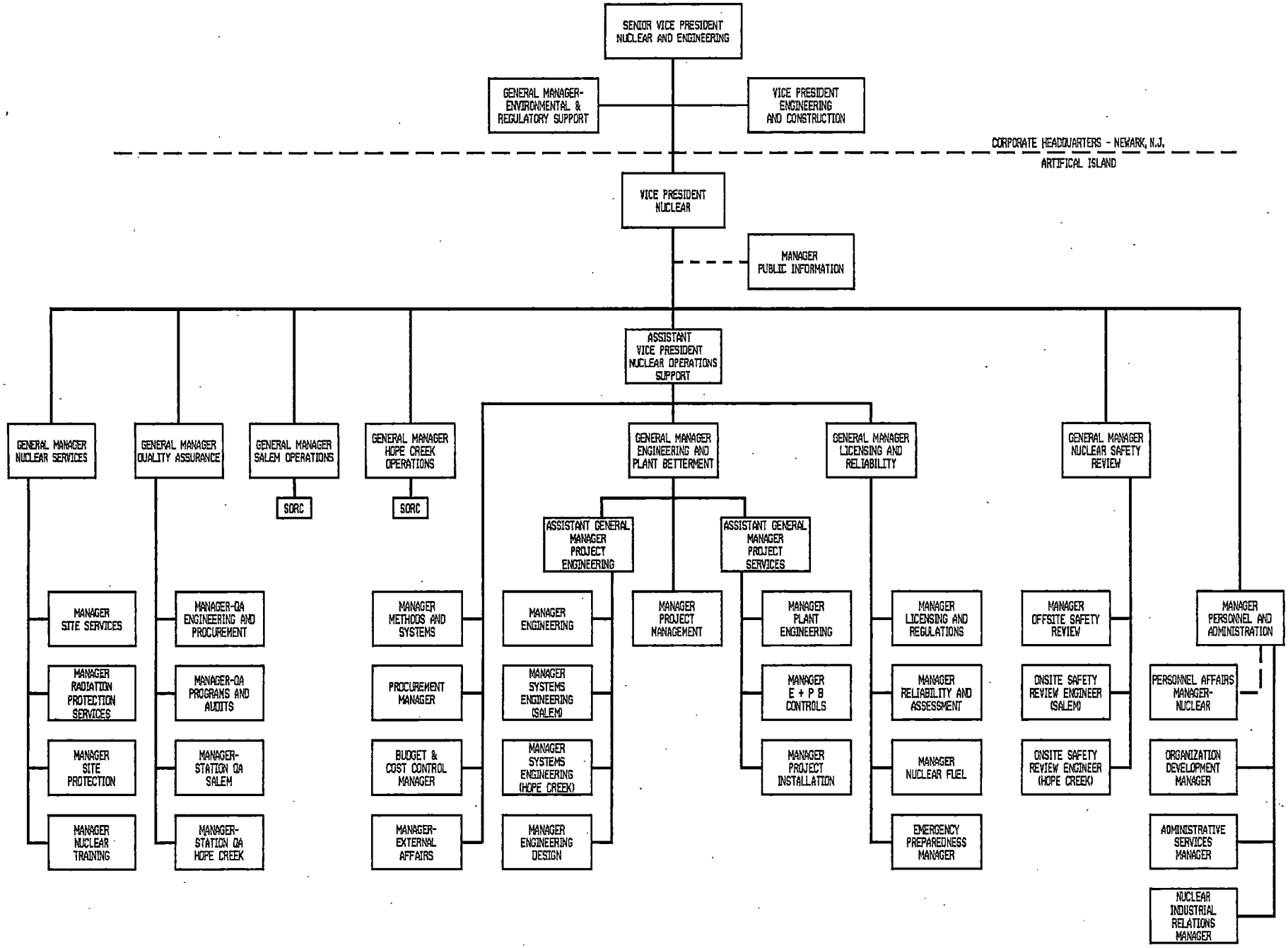
c. A Radiation Protection technician# shall be on site when fuel is in the reactor.

d. ALL CORE ALTERATIONS shall be observed and directly supervised by a licensed Senior Reactor Operator who has no other concurrent responsibilities during this operation.

e. A site Fire Brigade of at least 5 members shall be maintained onsite at all times#. The Fire Brigade shall not include 4 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.

f. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with the NRC Policy Statement on working hours (Generic Letter No. 82-12).

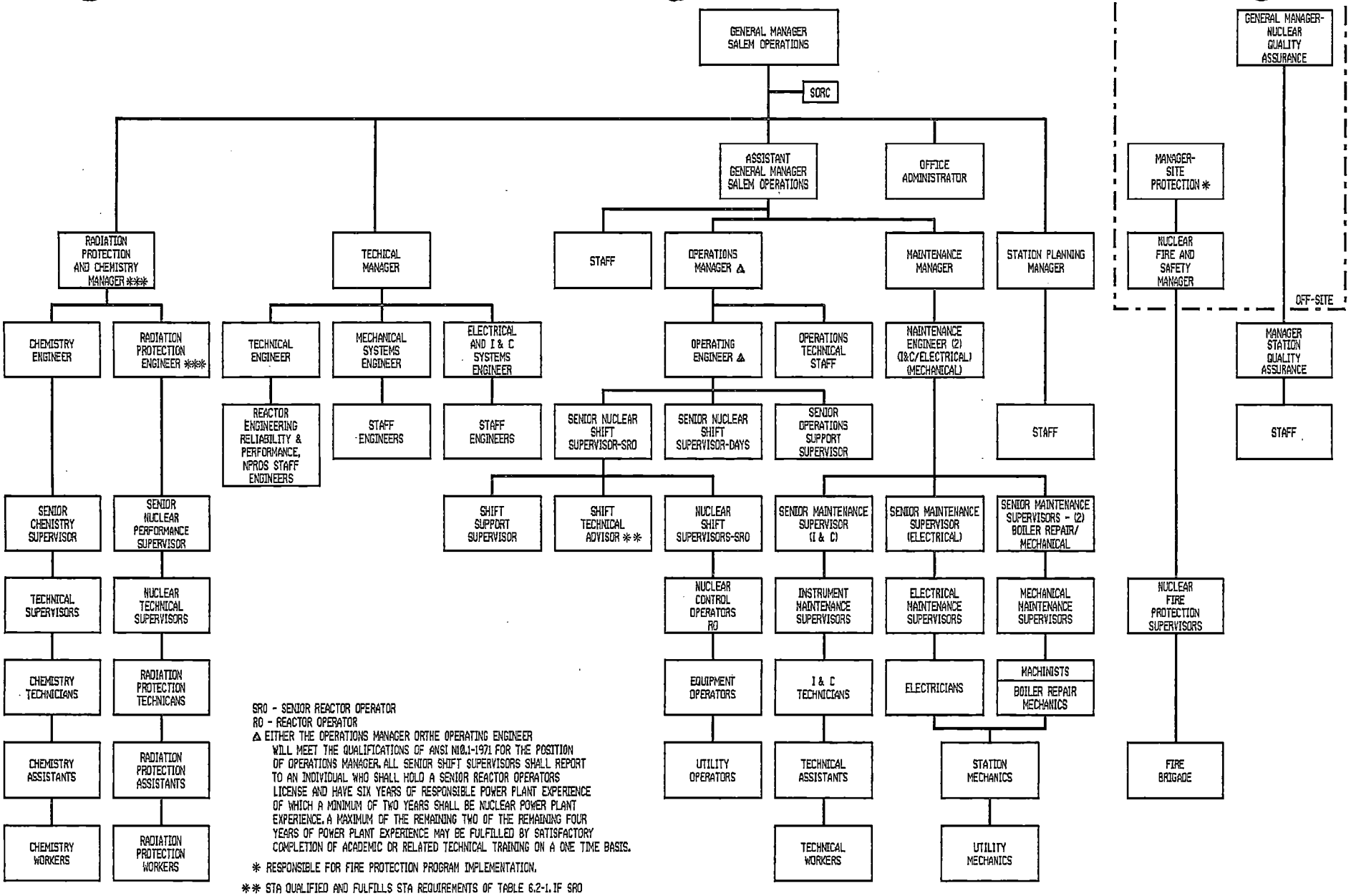
#The radiation protection technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of the radiation protection technician and/or Fire Brigade members provided immediate action is taken to restore the radiation protection technician and/or Fire Brigade to within the minimum requirements.



— — DENOTES MATRIX FUNCTION

VPN12

FIGURE 6.2-1 CORPORATE HEADQUARTERS AND OFF-SITE ORGANIZATION FOR MANAGEMENT AND TECHNICAL SUPPORT



SRO - SENIOR REACTOR OPERATOR
RO - REACTOR OPERATOR
Δ EITHER THE OPERATIONS MANAGER ORTHE OPERATING ENGINEER WILL MEET THE QUALIFICATIONS OF ANSI N18.1-1971 FOR THE POSITION OF OPERATIONS MANAGER. ALL SENIOR SHIFT SUPERVISORS SHALL REPORT TO AN INDIVIDUAL WHO SHALL HOLD A SENIOR REACTOR OPERATORS LICENSE AND HAVE SIX YEARS OF RESPONSIBLE POWER PLANT EXPERIENCE OF WHICH A MINIMUM OF TWO YEARS SHALL BE NUCLEAR POWER PLANT EXPERIENCE. A MAXIMUM OF THE REMAINING TWO OF THE REMAINING FOUR YEARS OF POWER PLANT EXPERIENCE MAY BE FULFILLED BY SATISFACTORY COMPLETION OF ACADEMIC OR RELATED TECHNICAL TRAINING ON A ONE TIME BASIS.

* RESPONSIBLE FOR FIRE PROTECTION PROGRAM IMPLEMENTATION.

** STA QUALIFIED AND FULFILLS STA REQUIREMENTS OF TABLE 6.2-1. IF SRO LICENSED WILL BE ASSIGNED NUCLEAR SHIFT SUPERVISORY DUTIES.

*** AT LEAST ONE OF THESE POSITIONS MUST MEET OR EXCEED THE QUALIFICATION STANDARDS OF USNRC REGULATORY GUIDE 1.8, SEPT. 1975.

VPN13

FIGURE 6.2-2 FACILITY ORGANIZATION

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION
SALEM UNIT 2

WITH UNIT 1 IN MODES 5 OR 6 OR DE-FUELED		
POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3 & 4	MODES 5 & 6
SNSS	1[a]	1[a]
SRO	1[b]	none
STA	1[b]	none
NCO	2	1
EO/UO	3	2[c]
Maintenance Electrician	1	none
Radiation Protection Technician	1[a]	1*[a]

WITH UNIT 1 IN MODES 1, 2, 3 OR 4		
POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3 & 4	MODES 5 & 6
SNSS	1[a]	1[a]
SRO	1[b]	none
STA	1[b]	none
NCO	2	1
EO/UO	3[d]	1
Maintenance Electrician	1[a]	none
Radiation Protection Technician	1[a]	1[a]

a/ Individual may fill the same position on Unit 1

b/ Individual who fulfills the STA requirement may fill the same position on Unit 1. The STA, if a licensed SRO, may concurrently fill the SRO position on one unit; the other unit also requires a qualified SRO on shift.

c/ One of the two required individuals may fill the position on Unit 1, such that there are a total of three EO/UO's for both units.

d/ One of the three required individuals may fill the same position of Unit 1, such that there are a total of five EO/UO's for both units.

* Not needed if both reactors are de-fueled.

TABLE 6.2.1 (Continued)

SNSS - Senior Nuclear Shift Supervisor with a Senior Reactor Operator License on both units.

SRO - Individual with a Senior Reactor Operator License on both units (normally, a Nuclear Shift Supervisor).

NCO - Nuclear Control Operator with a Reactor Operator License on both units.

STA - Shift Technical Advisor (if licensed as SRO, may be assigned duties as a Nuclear Shift Supervisor).

EO/UO - Equipment Operator or Utility Operator.

Except for the Senior Nuclear Shift Supervisor, the Shift Crew Composition may be one less than the minimum requirements of Table 6.2-1 for a period of time not to exceed 2 hours in order to accomodate the unexpected absence of on-duty shift crew members provided that immediate action is taken to restore the Shift Crew Composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewperson's being late or absent.

During and absence of the Senior Nuclear Shift Supervisor from the Control Room area while the unit is in any MODE, an individual with a valid SRO License shall be designated to assume the Control Room command function.

6.2.3 SHIFT TECHNICAL ADVISOR

6.2.3.1 The Shift Technical Advisor shall serve in an advisory capacity to the Senior Nuclear Shift Supervisor on matters pertaining to the engineering aspects assuring safe operation of the unit.

6.2.3.2 The Shift Technical Advisor 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.

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 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees, except for the Radiation Protection Engineer or Radiation Protection/Chemistry Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be coordinated by each functional level manager (Department Head) at the facility and maintained under the direction of the Manager - Nuclear Training and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees, and shall include familiarization with relevant industry operational experience.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Manager - Site Protection and shall meet or exceed the requirements of Section 27 of NFPA Code-1975, except for Fire Brigade training sessions which shall be held at least quarterly.

6.5 REVIEW AND AUDIT

6.5.1 STATION OPERATIONS REVIEW COMMITTEE (SORC)

FUNCTION

6.5.1.1 The Station Operations Review Committee shall function to advise the General Manager - Salem Operations on operational matters related to nuclear safety.

COMPOSITION

6.5.1.2 The Station Operations Review Committee (SORC) shall be composed of:

Chairman:	General Manager - Salem Operations
Member and Vice Chairman:	Assistant General Manager - Salem Operations
Member and Vice Chairman:	Maintenance Manager
Member and Vice Chairman:	Operations Manager
Member:	Technical Manager
Member:	Radiation Protection/Chemistry Manager
Member:	Planning Manager
Member:	On-Site Safety Review Engineer (or designee)

6.5.1.3 Alternates:

a. Department Engineers may act as a member in the absence of the Department Manager.

b. Additional alternates (to 6.5.1.3.a) may be appointed as determined by the SORC Chairman (in writing).

c. An alternate will not make up part of the voting quorum when the member the alternate represents is present. (one department - one vote).

d. If the Chairman for a meeting is a "Vice-Chairman", an alternate from that Department Manager's department may attend as a voting member.

e. The Senior Nuclear Shift Supervisor may act as an alternate for the Operations Manager in the absence of the Operations Manager or when the Operations Manager is acting as Chairman.

MEETING FREQUENCY

6.5.1.4 The SORC shall meet at least once per calendar month and as convened by the SORC Chairman or his designated alternate.

QUORUM

6.5.1.5 The minimum quorum of the SORC necessary for the performance of the SORC responsibility and authority provisions of these technical specifications shall consist of the Chairman or his designated alternate and four members including alternates.

RESPONSIBILITIES

6.5.1.6 The Station Operations Review Committee shall be responsible for:

a. Review of 1) Station Administrative Procedures and changes thereto and 2) Newly created procedures or changes to existing procedures that involve a significant safety issue as described in Section 6.5.3.2.d.

b. Review of all proposed tests and experiments that affect nuclear safety.

c. Review of all proposed changes to Appendix "A" Technical Specifications.

d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.

e. Review of investigations of all violations of the Technical Specifications including the reports covering evaluations and recommendations to prevent recurrence.

f. Review of all REPORTABLE EVENTS.

g. Review of facility operations as determined by the SORC Chairman to detect potential nuclear hazards.

h. Review of special reviews, investigations or analyses and reports as determined by the SORC Chairman.

i. Review of the Facility Security Plan and implementing procedures and changes to the plan or its procedures.

j. Review the Facility Emergency Plan and implementing procedures and changes to the plan or its procedures.

k. Review of the Fire Protection Program and implementing procedures and changes to the plan or its procedures.

l. Review of all unplanned on-site releases of radioactivity to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence.

m. Review of changes to the PROCESS CONTROL MANUAL and the OFF-SITE DOSE CALCULATION MANUAL.

SORC REVIEW PROCESS

6.5.1.7 A technical review and control system utilizing qualified reviewers shall function to perform the periodic or routine review of procedures and changes thereto. Details of this technical review process are provided in Section 6.5.3.

AUTHORITY

6.5.1.8 The Station Operations Review Committee shall:

a. Recommend to the General Manager - Salem Operations written approval or disapproval of items considered under 6.5.1.6.

b. Provide written notification within 24 hours to the Vice President - Nuclear and the General Manager - Nuclear Safety Review of disagreement between the SORC and the General Manager - Salem Operations; however, the General Manager - Salem Operations shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.9 The Station Operations Review Committee shall maintain written minutes of each meeting and copies shall be provided to the Vice President - Nuclear, the General Manager - Nuclear Safety Review and the Manager - Offsite Safety Review.

6.5.2 NUCLEAR SAFETY REVIEW

FUNCTION

6.5.2.1 The Nuclear Safety Review Department (NSR) shall function to provide independent review and audit of designated activities.

COMPOSITION

6.5.2.2 NSR shall consist of the General Manager - Nuclear Safety Review, the Manager - Offsite Safety Review, who is supported by at least four dedicated, full-time engineers, and the Onsite Safety Review Group, which is managed by the Onsite Safety Review Engineer and is supported by at least three dedicated, full-time engineers located onsite.

The Manager - Offsite Safety Review and staff shall meet or exceed the qualifications described in Section 4.7 of ANS 3.1 - 1981 and shall be guided by the provisions for independent review described in Section 4.3 of ANSI N18.7 - 1976 (ANS 3.2).

The Offsite Safety Review staff shall generally possess experience and competence in the areas listed in Section 6.5.2.4.1. A system of qualified reviewers from other technical organizations shall be utilized to augment expertise in the disciplines of Section 6.5.2.4.1 where appropriate. Such qualified reviewers shall meet the same qualification requirements as the Offsite Safety Review staff, and shall not have been involved with performance of the original work.

The Onsite Safety Review Engineer and staff shall meet or exceed the qualifications described in Section 4.4 of ANS 3.1-1981.

CONSULTANTS

6.5.2.3 Consultants or other techical experts shall be utilized by NSR to the extent necessary, as determined by the General Manager - Nuclear Safety Review.

6.5.2.4 OFFSITE SAFETY REVIEW (OSR)

FUNCTION

6.5.2.4.1 The OSR organization shall function to provide independent review and audit of designated activities in the areas of:

a. Nuclear Power Plant Operations,

b. Nuclear Engineering,

c. Chemistry and Radiochemistry,

d. Metallurgy,

e. Instrumentation and Control,

f. Radiological Safety,

g. Mechanical Engineering,

h. Electrical Engineering,

i. Quality Assurance,

j. Nondestructive Testing,

k. Emergency Preparedness.

REVIEW

6.5.2.4.2 OSR shall review:

a. The safety evaluations for changes to procedures, equipment or systems; and tests or experiments completed under the provisions of 10CFR 50.59 to verify that such actions did not constitute an unreviewed safety question;

b. Proposed changes to procedures, equipment, or systems and tests or experiments which involve an unreviewed safety question as defined in 10CFR 50.59;

c. Proposed changes to Technical Specifications or the Operating License;

d. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance;

e. Significant operating abnormalities or deviations from normal and expected performance of facility equipment that affect nuclear safety;

f. All REPORTABLE EVENTS;

g. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components that could affect nuclear safety; and

h. Reports and meeting minutes of the SORC.

AUDITS

6.5.2.4.3 Audits of facility activities shall be performed under the cognizance of OSR. These audits shall encompass:

a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months;

b. The performance, training and qualifications of the entire facility staff at least once per 12 months;

c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months;

d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10CFR 50, at least once per 24 months;

e. The Facility Emergency Plan and implementing procedures at least once per 12 months;

f. The Facility Security Plan and implementing procedures at least once per 12 months;

g. Any other area of facility operation considered appropriate by the General Manager - Nuclear Safety Review or the Vice President - Nuclear;

h. The facility Fire Protection Program and implementing procedures at least once per 24 months;

i. The fire protection and loss prevention program implementation at least once per 12 months utilizing either qualified offsite licensee fire protection personnel or an outside independent fire protection consultant. An outside independent fire protection consultant shall be utilized at least once per 36 months; and

j. The radiological environmental monitoring program and the results thereof at least once per 12 months.

The above audits may be conducted by the Nuclear Quality Assurance Department or an independent consultant. Audit plans shall be reviewed by OSR prior to issuance. Audit results and recommendations shall be reviewed by OSR.

RECORDS

6.5.2.4.4 Records of OSR activities shall be maintained. Reports of reviews and audits shall be prepared and distributed as indicated below:

a. The results of reviews performed pursuant to Section 6.5.2.4.2 shall be reported to the Vice President - Nuclear at least monthly.

b. Audit reports prepared pursuant to Section 6.5.2.4.3 shall be forwarded by the auditing organization to the Vice President - Nuclear and to the management positions responsible for the areas audited within 30 days after completion of internally conducted audits and within 60 days after completion of externally conducted audits.

6.5.2.5 ONSITE SAFETY REVIEW GROUP (SRG)

FUNCTION

6.5.2.5.1 The SRG shall function to provide: the review of plant design and operating experience for potential opportunities to improve plant safety; evaluation of plant operations and maintenance activities; and advice to management on the overall quality and safety of plant operations.

The SRG shall make recommendations for revised procedures, equipment modifications, or other means of improving plant safety to appropriate station corporate management.

RESPONSIBILITIES

6.5.2.5.2 The SRG shall be responsible for:

a. Review of selected plant operating characteristics, NRC issuances, industry advisories, and other appropriate sources of plant design and operating experience information which may indicate areas for improving plant safety.

b. Reviews of selected facility features, equipment and systems.

c. Reviews of selected procedures, and plant activities including maintenance, modifications, operational problems and operational analysis.

d. Surveillance of selected plant operations and maintenance activities to provide independent verification* that they are performed correctly and that human errors are reduced to as low as reasonably achievable.

*Not responsible for sign-off function.

AUTHORITY

6.5.2.6 NSR shall report to and advise the Vice President - Nuclear on those areas of responsibility specified in Sections 6.5.2.4 and 6.5.2.5.

6.5.3 TECHNICAL REVIEW AND CONTROL

ACTIVITIES

6.5.3.1 Programs required by Technical Specification 6.8 and other procedures which affect nuclear safety as determined by the General Manager - Salem Operations, and changes thereto, other than editorial or typographical changes, shall be reviewed as follows:

PROCEDURE RELATED DOCUMENTS

6.5.3.2 Procedures, Programs and changes thereto shall be reviewed as follows:

a. Each newly created procedure, program or change thereto shall be independently reviewed by an individual knowledgeable in the subject area other than the individual who prepared the procedure, program or procedure change, but who may be from the same organization as the individual/group which prepared the procedure or procedure change. Procedures other than Station Administrative Procedures will be approved by the appropriate Station Department Manager or by the Assistant General Manager - Salem Operations. Each Station Department Manager shall be responsible for a predesignated class of procedures. The General Manager - Salem Operations shall approve Station Administrative Procedures, Security Plan implementing procedures, Fire Protection implementing procedures and Emergency Plan implementing procedures.

b. On-the-spot changes to procedures which clearly do not change the intent of the approved procedures shall be approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator License.

c. Revisions to procedures which may involve a change in intent of the approved procedures, shall be reviewed in accordance with Section 6.5.3.2.a above.

d. Individuals responsible for reviews performed in accordance with item 6.5.3.2a above shall be approved by the SORC Chairman and designated as Station Qualified Reviewers. A system of Station Qualified Reviewers, each of whom shall possess qualifications that meet or exceed the requirements of Section 4.3 or 4.4 of ANSI N18.1 - 1971, shall be maintained by the SORC Chairman. Each review shall include a written determination of whether or not additional cross-disciplinary review is necessary. If deemed necessary, such review shall be performed by the appropriate designated review personnel.

e. If the Department Manager determines that the documents involved contain signficant safety issues, the documents shall be forwarded for SORC review and also to OSR for an independent review to determine whether or not an unreviewed safety question is involved. Pursuant to 10CFR50.59, NRC approval of items involving unreviewed safety questions or Technical Specification changes shall be obtained prior to implementation.

NON-PROCEDURE RELATED DOCUMENTS

6.5.3.3 Tests or experiments and changes to equipment or systems shall be forwarded for SORC review and also to OSR for an independent review to determine whether or not an unreviewed safety question is involved. Proposed changes to Technical Specifications shall also be forwarded to SORC for review and to OSR for an independent review to determine whether or not a significant hazards consideration (10CFR50.92) is involved. The results of OSR reviews will be provided to SORC. Pursuant to 10CFR50.59, NRC aproval of items involving unreviewed safety questions or requiring Technical Specification changes shall be obtained prior to implementation.

RECORDS

6.5.3.4 Written records of reviews performed in accordance with item 6.5.3.2a above, including recommendations for approval or disapproval, shall be maintained. Copies shall be provided to the General Manager - Salem Operations, SORC, OSR and/or NRC as necessary when their reviews are required.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Section 50.73 to 10CFR Part 50, and

b. Each REPORTABLE EVENT shall be reviewed by the SORC and the resultant Licensee Event Report submitted to OSR and the Vice President - Nuclear.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

a. The unit shall be placed in at least HOT STANDBY within one hour.

b. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within one hour. The Vice President - Nuclear and the General Manager - Nuclear Safety Review shall be notified within 24 hours.

c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the SORC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.

d. The Safety Limit Violation Report shall be submitted to the NRC, the General Manager - Nuclear Safety Review and the Vice President - Nuclear within 14 days of the violation.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.

b. Refueling operations.

c. Surveillance and test activities of safety related equipment.

d. Security Plan implementation.

e. Emergency Plan implementation.

f. Fire Protection Program implementation.

g. PROCESS CONTROL PROGRAM implementation.

h. OFFSITE DOSE CALCULATION MANUAL implementation.

i. Quality Assurance Program for effluent and environmental monitoring.

6.8.2 Each procedure and administrative policy of 6.8.1 above, and changes thereto, shall be reviewed and approved in accordance with Specification 6.5.1.6 or 6.5.3, as appropriate, prior to implementation and reviewed periodically as set forth in administrative procedures.

6.8.3 On-the-spot changes to procedures of 6.8.1 above may be made provided:

a. The intent of the original procedure is not altered.

b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.

c. The change is documented and receives the same level of review and approval as the original procedure under Specification 6.5.3.2a within 14 days of implementation.

6.8.4 The following programs shall be maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include (recirculation spray, safety injection, chemical and volume control, gas stripper, recombiners, ...). The program shall include the following:

(i) Preventative maintenance and periodic visual inspection requirements, and

(ii) Integrated leak test requirements for each system at refueling cycle intervals or less.

b. In-Plant Radiation Monitoring

A program which will ensure the capability to accurately determine the airborne iodine concentration in areas under accident conditions. This program shall include the following:

(i) Training of personnel,

(ii) Procedures for monitoring, and

(iii) Provisions for maintenance of sampling and analysis equipment.

c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

(i) Identification of a sampling schedule for the critical variables and the control points for these variables,

(ii) Identification of the procedures used to measure the values of the critical variables,

(iii) Identification of process sampling points, including monitoring at the discharge of the condensate pumps for evidence of condenser in-leakage.

(iv) Procedures for the recording and management of data,

(v) Procedures defining corrective actions for off-control-point chemistry conditions,

(vi) A procedure identifying (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective action.

d. Backup Method for Determining Subcooling Margin

A program which will ensure the capability to accurately monitor the Reactor Coolant System Subcooling Margin. This program shall include the following:

(i) Training of personnel, and

(ii) Procedures for monitoring.

e. Postaccident Sampling

A program* which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

(i) Training of personnel

(ii) Procedures for sampling and analysis,

(iii) 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 Administrator, Region 1, 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 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 alsq be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

*It is acceptable if the licensee maintains details of the program in plant operation manuals.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement or commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL REPORTS[1]/

6.9.1.4 Annual reports covering activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year.

6.9.1.5 Reports required on an annual basis shall include:

a. A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,[2]/e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at lest 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

b. The complete results of steam generator tube service inspections performed during the report period (reference Specification 4.4.6.5.b).

1/ A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

2/ This tabulation supplements the requirements of section 20.407 of 10 CFR Part 20.

c. The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.9. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific acivity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the Document Control Desk, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Administrator, Region 1, no later than the 15th of each month following the calendar month covered by the report.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT*

6.9.1.7 Routine Radiological Environmental Operating Reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.

The Annual Radiological Environmental Operating Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies with operational controls (as appropriate), and with previous environmental surveillance reports, and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use censuses required by Specification 3.12.2.

*A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

The Annual Radiological Environmental Operating Reports shall include the results of analysis of all radiological environmental samples and of all measurements taken during the period pursuant to the Table and Figures in the environmental radiation section of the ODCM; as well as summarized and tabulated results of locations specified in these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program; at least two legible maps, one covering sampling stations near the SITE BOUNDARY and a second including the more distant stations, all keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program, required by Specification 3.12.3; and discussion of all analyses in which the LLD required by Table 4.12-1 was not achievable.

SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT*

6.9.1.8 Routine Radioactive Effluent Release Reports covering the operation of the unit during the previous six months of operation shall be submitted within 60 days after January 1 and July 1 of each year.

The Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21. "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

*A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

The Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.* This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the SITE BOUNDARY (Figure 5.1-3) during the report period. All assumptions used in making these assessments (i.e., specific activity, exposure time and location) shall be included in these reports. The meteorological conditions concurrent with the time of release of radioactive materials in gaseous effluents (as determined by sampling frequency and measurement) shall be used for determining the gaseous pathway doses. The assessment of radiation doses shall be performed in accordance with the OFFSITE DOSE CALCULATION MANUAL.

The Radioactive Effluent Release Report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed MEMBER OF THE PUBLIC from reactor releases and other nearby uranium fuel cycle sources (including doses from primary effluent pathways and direct radiation) for the previous calendar year to show conformance with 40 CFR Part 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Rev. 1, October 1977.

The Radioactive Effluent Release Reports shall include the following information for each class of solid waste (as defined by 10 CFR Part 61) shipped offsite during the report period:

a. Container volume,

b. Total curie quantity (specify whether determined by measurement or estimate),

c. Principal radionuclides (specify whether determined by measurement or estimate),

d. Source of waste and processing employed (e.g., dewatered spent resin, compacted dry waste, evaporator bottoms),

*In lieu of submission with the first half year Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.

e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and

f. Solidification agent or absorbent (e.g., cement, urea formaldahyde).

The Radioactive Effluent Release Reports shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The Radioactive Effluent Release Reports shall include any changes made during the reporting period to the PROCESS CONTROL PROGRAM (PCP) and to the OFFSITE DOSE CALCULATION MANUAL (ODCM), as well as a listing of new locations for dose calculations and/or environmental monitoring identified by the land use census pursuant to Specification 3.12.2.

RADIAL PEAKING FACTOR LIMIT REPORT

6.9.1.9 The (F_{xy}) for RATED THERMAL POWER (F_{xy}^{RTP}) for all core planes containing bank "D" control rods and all unrodded core planes and the plot of predicted ($F_Q^T \cdot P_{Rel}$) vs. Axial Core Height with the limit envelope shall be provided to the NRC Regional Administrator with a copy to Director of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 at least 60 days prior to each cycle initial criticality unless otherwise approved by the Commission by letter.

In addition, in the event that the limit should change requiring a new submittal or an amended submittal to the Peaking Factor Limit Report, it will be submitted 60 days prior to the date the limit would become effective unless otherwise approved by the Commission by letter.

Any information needed to support F_{xy}^{RTP} will be by request from the NRC and need not be included in this report.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Administrator of the Regional Office within the time period specified for each report.

6.10 RECORD RETENTION

In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

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 Operating Procedures required by Specification 6.8.1.

f. Records of radioactive shipments.

g. Records of sealed source and fission detector leak tests and results.

h. Records of annual physical inventory of all sealed source material of record.

6.10.2 The following records shall be retained for the duration of the Unit Operating License:

a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.

c. Records of radiation exposure for all individuals entering radiation control areas.

d. Records of gaseous and liquid radioactive material released to the environs.

e. Records of transient or operational cycles for those facility components identified in Table 5.7-1.

f. Records of reactor tests and experiments.

g. Records of training and qualification for current members of the plant staff.

h. Records of in-service inspections performed pursuant to these Technical Specifications.

i. Records of Quality Assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of SORC meetings and activities of OSR (and meetings of its predecessor the Nuclear Review Board).

l. Records for Environmental Qualification which are covered under the provisions of Paragraph 2.C(7) and 2.C(9) of Facility Operating License DPR-75.

m. Reocrds of service lives of all hydraulic and mechanical snubbers listed on Tables 3.7-4a and 3.7-4b including the date at which the service life commences and associated installation and maintenance records.

n. Records of secondary water sampling and water quality.

o. Records of analyses required by the radiological environmental monitoring program which would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR Part 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr* shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit**. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.

c. A health physics qualified individual (i.e., qualified in radiation protection procedures) with a radiation dose rate monitoring device who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Work Permit.

6.12.2 In addition to the requirements of 6.12.1, areas accessible to personnel with radiation levels* such that a major portion of the body could receive in one hour a dose greater than 1000 mrem shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Senior Nuclear Shift Supervisor on duty and/or Senior Supervisor - Radiation Protection. Doors shall remain locked except during periods of access by personnel under an approved Radiation Work Permit which shall specify the dose rate levels in the immediate work area and the maximum allowable stay time for individuals in that area. For individual areas accessible to personnel with radiation levels such that a major portion of the

* This is normally defined as the level at a distance of 18 inches from the source or accessible surface.

**Radiation Protection Personnel or personnel escorted by Radiation Protection personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they are otherwise following plant radiation protection procedures for entry into high radiation areas.

body could receive in one hour a dose in excess of 1000 mrem* that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device. In lieu of the stay time specification of the RWP, direct or remote (such as use of closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities within the area.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 The PCP shall be approved by the Commission prior to implementation.

6.13.2 Licensee initiated changes to the PCP:

1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;

   b. A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and

   c. Documentation of the fact that the change has been reviewed and found acceptable by the SORC.

2. Shall become effective upon review and acceptance by the SORC.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Licensee initiated changes to the ODCM:

1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

   a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s);

* This is normally defined as the level at a distance of 18 inches from the source or accessible surface.

b. A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determination; and

c. Documentation of the fact that the change has been reviewed and found acceptable by the SORC.

2. Shall become effective upon review and acceptance by the SORC.

6.15 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE TREATMENT SYSTEMS

6.15.1 Licensee initiated major changes to the radioactive waste system (liquid, gaseous and solid):

1. Shall be reported to the Commission in the UFSAR for the period in which the evaluation was reviewed by SORC. The discussion of each change shall contain:

   a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR Part 50.59;

   b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

   c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

   d. An evaluation of the change, which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;

   e. An evaluation of the change, which shows the expected maximum exposures to individual in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;

   f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;

   g. An estimate of the exposure to plant operating personnel as a result of the change; and

   h. Documentation of the fact that the change was reviewed and found acceptable by SORC.

2. Shall become effective upon review and acceptance by the SORC.