

June 18, 1987

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Collection letter

to Amnt. 116 to DPR-41

Docket Nos. 50-250
and 50-251

Mr. C. O. Woody, Group Vice President
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Dear Mr. Woody:

SUBJECT: ADMINISTRATIVE ERRORS - PREVIOUSLY ISSUED AMENDMENTS FOR THE
TURKEY POINT PLANT, UNITS 3 AND 4

On March 21, 1980, the Commission issued Amendment Nos. 56 and 48 to Facility Operating License Nos. DPR-31 and DPR-41 for Turkey Point Units 3 and 4, respectively. The amendments revised the reactor coolant pressure-temperature limits to account for neutron irradiation induced increases in reactor vessel metal nil ductility temperature.

Technical Specification page 3.1-2 did not correctly reference the applicable figures (Figures 3.1-1a, 3.1-1b, 3.1-2c, and 3.1-2d) for Unit 4. In order to provide the correct reference to the figures, enclosed is the corrected page 3.1-2 to be inserted in Appendix A of Facility Operating License Nos. DPR-31 and DPR-41, respectively. Please note that the corrected page contains different amendment numbers (110 and 104) due to the fact that another amendment was subsequently issued.

In addition, Amendment Nos. 123 and 116, issued March 6, 1987 to Facility Operating License Nos. DPR-31 and DPR-41 for Turkey Point Units 3 and 4, respectively, also contained administrative errors. The amendments revised the immediate notification requirements and the Licensee Event Reporting System per guidance provided in Generic Letter 83-43 to assure compliance with the revised Section 50.73 of Title 10 of the Code of Federal Regulations. The corrections to be made are as follows:

- (1) On page iii under "Administrative Controls", Section 6.13 "Environmental Qualification" should have read "Post Accident Sampling."
- (2) On page 1-3 under "Channel Check," the second sentence should read, "This determination shall include, where possible, comparison of the channel with other independent channels measuring the same variable or radioactive source check of the area and process Radiation Monitoring Systems for Channels."

In addition, on page 1-3 under "Channel Functional Test," the paragraph should read, "A channel functional test consists of injecting a real or simulated signal into the channel to verify that it is operable, including alarm and/or trip initiating action."

Mr. C. O. Woody

- 2 -

- (3) Two typographical errors have been corrected on page 6-17 under 6.9.3.d, Special Reports, and one typographical error has been corrected in the third paragraph on page 6-21.

Finally, the Attachment the to License Amendment page stated to remove pages 6-5 thru 6-27, and replace them with pages 6-5 thru 6-31. The instruction should have read to remove pages 6-5 thru 6-31 and replace them with pages 6-5 thru 6-27. In addition, page 3.1-5a should also have been deleted from the Technical Specifications. Therefore, please remove page 3.1-5a and pages 6-28 thru 6-31 from the Technical Specifications for Turkey Point Units 3 and 4.

In summary with regard to corrections to Amendment Nos. 123 and 116, please replace pages iii, 1-3, 6-17 and 6-21 with the enclosed corrected pages. In addition, page 3.1-5a and pages 6-28 thru 6-31 may be removed from the Technical Specifications.

We apologize for any inconvenience these errors may have caused.

Sincerely,

Daniel G. McDonald, Project Manager
Project Directorate II-2
Division of Reactor Projects-I/II

Enclosures:
As stated

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See next page

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6/18/87

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2. PRESSURE-TEMPERATURE LIMITS

The Reactor Coolant System (except for the pressurizer) pressure and temperature shall be limited during heatup, cooldown, criticality (except for lower power physics tests), and inservice leak and hydrostatic testing in accordance with the limit lines shown on Figures 3.1-1a through 3.1-1d (Unit 3) and 3.1-1a, 3.1-1b, 3.1-2c and 3.1-2d (Unit 4). Allowable pressure-temperature combinations are BELOW AND TO THE RIGHT of the lines on the Figures. Heatup and cooldown rate limits are:

- a. A maximum heatup rate of 100°F in any one hour.
- b. A maximum cooldown rate of 100°F in any one hour.
- c. A maximum temperature change of $\geq 5^\circ\text{F}$ in any one hour during hydrostatic testing operation above system design pressure.

The pressurizer pressure and temperature shall be limited in accordance with the following:

- d. The pressurizer shall be limited to a maximum heatup rate of 100°F in any one hour, and a maximum cooldown rate of 200°F in any one hour.
- e. The pressurizer shall be limited to a maximum Reactor Coolant System spray water temperature differential of 320°F.

With any of the above limits exceeded, restore the temperature and/or pressure within the limits within 30 minutes, determine that the RCS or pressurizer remains acceptable for continued operations or, if at power, be in at least hot shutdown within the next 6 hours and cold shutdown within the following 30 hours.

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1.7 INSTRUMENTATION SURVEILLANCE

1) **Channel Check**

Channel check is a qualitative determination of acceptable operability by observation of channel behavior during operation. This determination shall include comparison of the channel with other independent channels measuring the same variable or radioactive source check of the Area and Process Radiation Monitoring Systems for channels.

2) **Channel Functional Test**

A channel functional test consists of injecting a simulated signal into the channel to verify that it is operable, including alarm and/or trip initiating action.

3) **Channel Calibration**

Channel calibration consists of the adjustment of channel output such that it responds, with acceptable range and accuracy, to known values of the parameter which the channel measures. Calibration shall encompass the entire channel, including alarm or trip, and shall be deemed to include the channel functional test.

1.8 REPORTABLE EVENT

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

6.9.3 SPECIAL REPORTS

Special reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification where appropriate.

- a. In-service inspection, reference 4.2
- b. Tendon surveillance, reference 4.4
- c. Fire protection systems, reference 3.14.
- d. Peaking Factor Limit Report - The $W(Z)$ function(s) for Base-Load Operation corresponding to a $\pm 2\%$ band about the target flux difference and/or a $\pm 3\%$ band about the target flux difference, the Load-Follow function $F_Z(Z)$ and the augmented surveillance turnon power fraction, P_T , shall be provided to the U.S. Nuclear Regulatory Commission, at least 60 days prior to cycle initial criticality, whenever P_T is ≥ 1.0 . In the event, the option of Baseload Operation (as defined in Section 3.2.6.a "3&") will not be exercised, the submission of the $W(Z)$ function is not required. Should these values (i.e., $W(Z)$, $F_Z(Z)$ and P_T) change requiring a new submittal or an amended submittal to the Peaking Factor Limit Report, the values would be submitted 60 days prior to the date the values would become effective unless otherwise approved by the Commission.
- e. With the calculated dose from the release of radioactive materials in liquid or gaseous effluents exceeding the limits of Technical Specifications 3.9.1.b, 3.9.2.b, or 3.9.2.c, submit a report which identifies the cause(s) for exceeding the limit 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 limits of 3.9.1.b, 3.9.2.b, or 3.9.2.c.
- f. With untreated radioactive liquid effluents exceeding the limits of 3.9.1.d pursuant to Specification 3.9.1.d.3, submit a report which includes the following information:
 - (1) Identification of the inoperable equipment or subsystems and the reason for inoperability,
 - (2) Action(s) taken to restore the inoperable equipment to OPERABLE status, and
 - (3) Summary description of action(s) taken to prevent a recurrence.

The Radioactive Effluent Release 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 5.1-1) 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, and determined by sampling frequency and measurement, shall be used for determining the gaseous pathway doses. Approximate and conservative approximate methods may be used in lieu of actual meteorological measurements. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

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 for the previous calendar year. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, March 1976.

The Radioactive Effluent Release Report shall also include the results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.1.4.2.a. 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) Fuel burnup by core region, 3) Clean-up flow history starting 48 hours prior to the first sample in which the limit was exceeded, 4) History of de-gassing operations, if any, starting 48 hours prior to the first sample in which the limit was exceeded, and 5) The time duration when the specific activity of the primary coolant exceeded 1.0 microcurie per gram DOSE EQUIVALENT I-131.

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. Volume,
- b. Total curie quantity (specific whether determined by measurement or estimate),
- c. Principal radionuclides (specify whether determined by measurement or estimate),
- d. Type of waste (e.g., dewatered spent resin, compacted dry waste, evaporator bottoms),
- e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and
- f. Solidification agent or absorbent (e.g., cement, urea formaldehyde).

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 123 FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 116 FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NOS. 50-250 AND 50-251

Revise Appendix A as follows:

Remove Pages

i
ii
iii
vi
Pg 1-3
Pg 3.1-5
Pg 3.2-7
Pg 3.14-1 thru 3.14-3
Table 4.2-3
Pg 4.2-6
Pg 4.11-1
*Pg 6.1
Fig. 6.2-1
Fig. 6.2-2
Table 6.2-1
Pg 6-5 thru 6-~~2~~ 3)
B3.14-1
B4.2-1
B4.2-13

Insert Pages

i
ii
iii
vi
Pg 1-3
Pg 3.1-5
Pg 3.2-7
Pg 3.14-1 thru 3.14-3
Table 4.2-3
Pg 4.2-6
Pg 4.11-1
Pg 6.1
Fig. 6.2-1
Fig. 6.2-2
Table 6.2-1
Pg 6-5 thru 6-~~2~~ 7
B3.14-1
B4.2-1
B4.2-13

*The entire Section 6, "Administrative Controls", is being replaced per these Amendments due to changes and reformatting. Pages 6-1,-5,-6,-12,-13,-20,-22,-25, 26,-27 and Table 6.2-1 have no changes but have been retyped to be consistent with the format of Section 6.

6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

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

6.2 ORGANIZATION

6.2.1 OFFSITE

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

6.2.2 FACILITY STAFF

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.
- c. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trip.

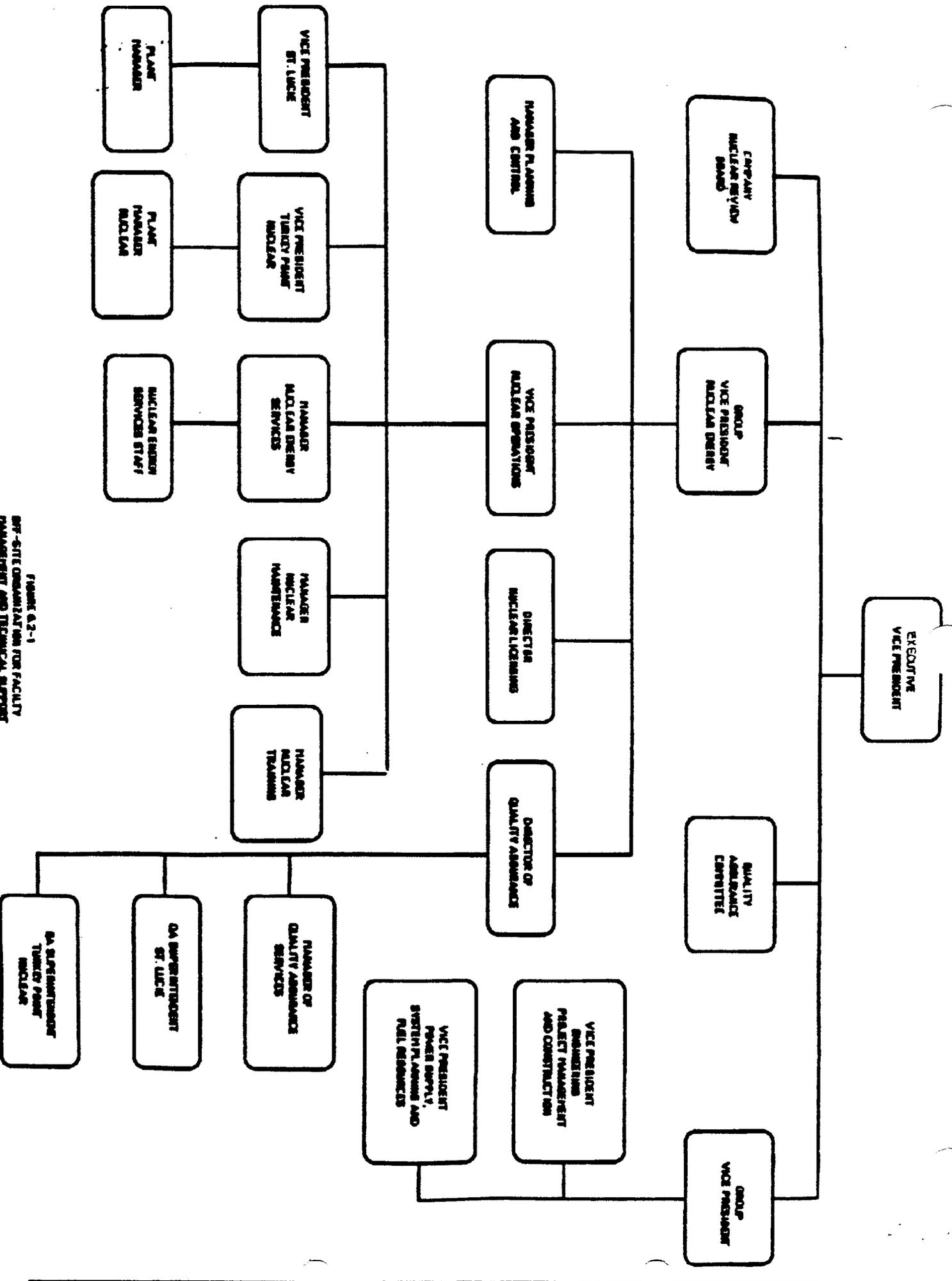
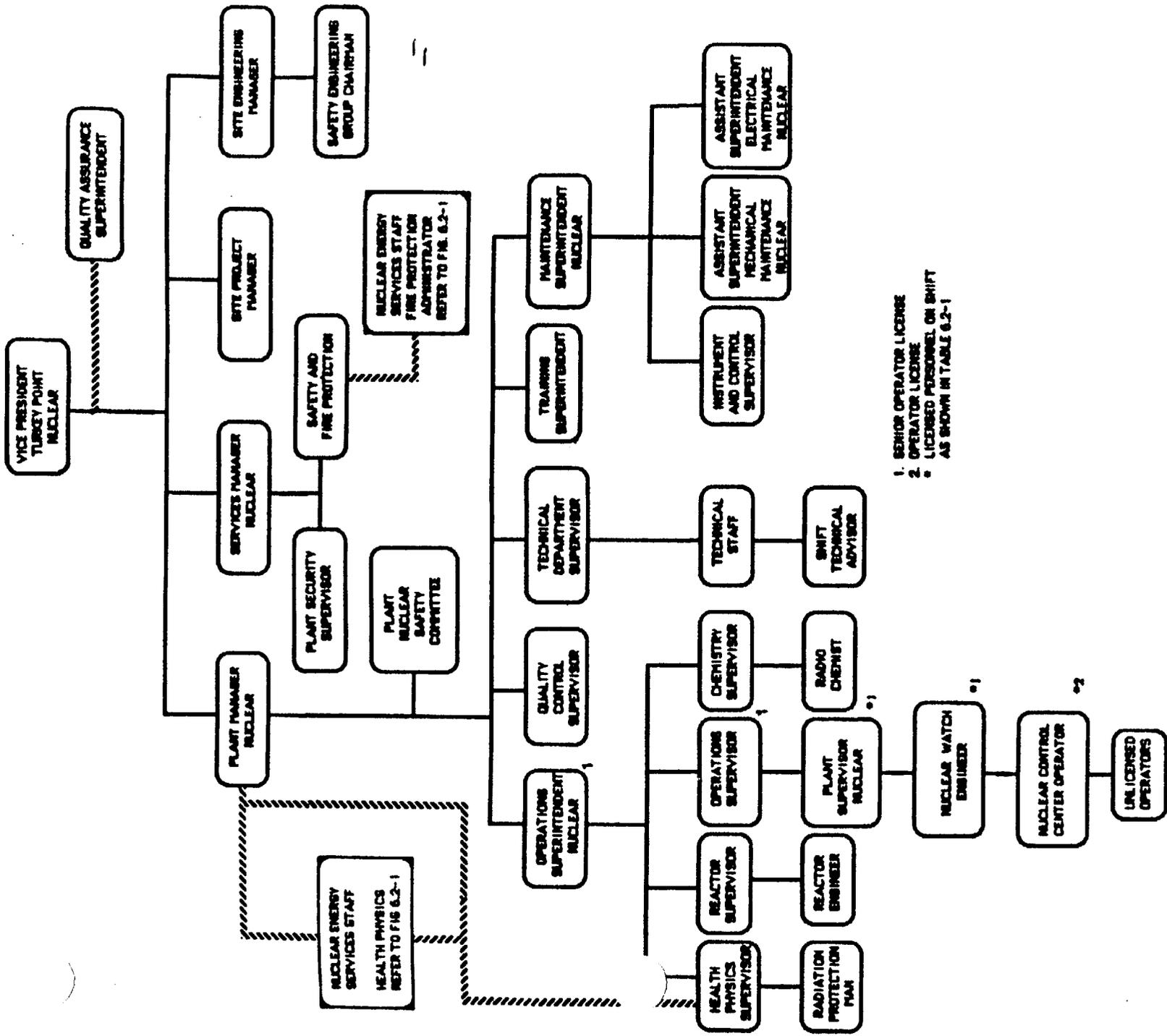


FIGURE 6.2-1
OFF-SITE ORGANIZATION FOR FACILITY
MANAGEMENT AND TECHNICAL SUPPORT



- 1. SENIOR OPERATOR LICENSE
- 2. OPERATOR LICENSE
- LICENSED PERSONNEL ON SHIFT AS SHOWN IN TABLE 6.2-1

PLANT ORGANIZATION CHART
FIGURE 6.2-2

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION #

LICENSE CATEGORY QUALIFICATIONS	ONE OR TWO UNITS OPERATING ^A	ALL UNITS SHUTDOWN
SRO*	2	1 **
RO	3	2
Non-Licensed Auxiliary Operators	3	3
Shift Technical Advisor	1 ⁺	None Required

+ This position may be filled by one of the SROs above, provided the individual meets the qualification requirements of 6.3.1.

* Includes the licensed Senior Reactor Operator serving as Shift Supervisor.

** Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising the movement of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel.

^A Operating is defined as $K_{eff} \geq 0.99$, % thermal power excluding decay heat greater than or equal to zero, and an average coolant temperature $T_{avg} \geq 200$ F.

Shift crew composition may be one less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided 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 crewman being late or absent.

- d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- e. ALL CORE ALTERATIONS shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- f. A site Fire Brigade of at least 5 members shall be maintained onsite at all times*. The Fire Brigade shall not include 2 members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency.

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions except for the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and in the response and analysis of the plant for transients and accidents.

6.3.2 Health Physics Supervisor Qualifications

6.3.2.1 The Health Physics Supervisor at the time of appointment to the position, shall, except as indicated below, meet the following:

1. He shall have a bachelor's degree or equivalent in a science or engineering subject, including some formal training in radiation protection.
2. He shall have five years of professional experience in applied radiation protection; where a master's degree in a related field is equivalent to one year experience and a doctor's degree in a related field is equivalent to two years of experience.
3. Of his five years of experience, three years shall be in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered at Turkey Point Plant.

6.3.2.2 When the Health Physics Supervisor does not meet the above requirements, compensatory action shall be taken which the Plant Nuclear Safety Committee determines and the NRC Office of Nuclear Reactor Regulation concurs that the action meets the intent of Specification 6.3.2.1.

* 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 Fire Brigade members provided immediate action is taken to restore the Fire Brigade to within the minimum requirements.

6.4

TRAINING

- 6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5, ANSI N18.1-1971 and Appendix A to 10 CFR Part 55.
- 6.4.2 A training program for the fire brigade shall be maintained under the direction of the Fire Protection Administrator and shall meet or exceed the requirements of 10 CFR 50.48 and 10 CFR 50 Appendix R.

6.5

REVIEW AND AUDIT

6.5.1 Plant Nuclear Safety Committee (PNSC)

6.5.1.1 FUNCTION

The PNSC shall function to advise the Plant Manager - Nuclear on all matters related to nuclear safety.

6.5.1.2 COMPOSITION

The Plant Nuclear Safety Committee shall be composed of the:

1. Chairman: Plant Manager - Nuclear
2. Vice Chairman: Operations Superintendent - Nuclear
3. Technical Department Supervisor
4. Maintenance Superintendent - Nuclear
5. Instrument and Control Supervisor
6. Health Physics Supervisor
7. Reactor Supervisor

6.5.1.3 ALTERNATES

Alternate members shall be appointed in writing by the PNSC Chairman to serve on a temporary basis; however, no more than two alternates shall participate in PNSC activities at any one time.

6.5.1.4 MEETING FREQUENCY

The PNSC shall meet at least once per calendar month and as convened by the PNSC Chairman.

6.5.1.5 QUORUM

A quorum of the PNSC shall consist of the Chairman or Vice Chairman and four (4) members including alternates.

6.5.1.6 RESPONSIBILITIES

The Plant Nuclear Safety Committee shall be responsible for:

- a. Review of 1) all procedures and changes thereto required by Section 6.8 and 2) any other proposed procedures or changes thereto as determined by the Plant Manager - Nuclear to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to the Technical Specifications in Appendix A of the license.
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications and preparation and forwarding a report covering evaluation and recommendations to prevent recurrence to the Vice President - Nuclear Operations, to the Group Vice President - Nuclear Energy and to the Chairman of the Company Nuclear Review Board.

- f. Review of facility operations to detect potential safety hazards.
- g. Performance of special reviews and investigations and reports thereon as requested by the Chairman of the Company Nuclear Review Board.
- h. Review of the Plant Security Plan and implementing procedures and submitting recommended changes to the Chairman of the Company Nuclear Review Board.
- i. Review of the Emergency Plan and implementing procedures and submitting recommended changes to the Chairman of the Company Nuclear Review Board.
- j. Review of changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL.
- k. Review of all REPORTABLE EVENTS.

6.5.1.7 AUTHORITY

The Plant Nuclear Safety Committee shall:

- a. Recommend to the Plant Manager - Nuclear written approval or disapproval (in minutes of PNSC meeting) of items considered under 6.5.1.6(a) through (d) above.
- b. Render determinations in writing (in minutes of PNSC meetings) with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide immediate written notification to the Vice President of Nuclear Operations and the Company Nuclear Review Board of disagreement between the PNSC and the Plant Manager - Nuclear; however, the Plant Manager - Nuclear shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

6.5.1.8 RECORDS

The Plant Nuclear Safety Committee shall maintain written minutes of each meeting and copies shall be provided to the Vice President - Nuclear Operations and Chairman of the Company Nuclear Review Board.

6.5.2 COMPANY NUCLEAR REVIEW BOARD (CNRB)

6.5.2.1 FUNCTION

The Company Nuclear Review Board 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 and electrical engineering.
- h. Quality assurance practices.

6.5.2.2 COMPOSITION

The CNRB shall be composed of the following members:

1. Chairman: Group Vice President - Nuclear Energy
2. Member: Vice President - Nuclear Operations
3. Member: Vice President - Engineering, Project Management, and Construction
4. Member: Chief Engineer - Power Plant Engineering
5. Member: Director - Nuclear Licensing
6. Member: Director - Quality Assurance
7. Member: Manager - Nuclear Energy Services
8. Member: Manager - Nuclear Fuels
9. Member: Senior Project Manager - Power Plant Engineering
10. Member: Group Vice President

6.5.2.3 ALTERNATES

Alternate members shall be appointed in writing by the (CNRB) Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in CNRB activities at any one time.

6.5.2.4 CONSULTANTS

Consultants shall be utilized as determined by the CNRB to provide expert advice to the CNRB.

6.5.2.5 MEETING FREQUENCY

The CNRB shall meet at least once per calendar quarter during the initial year of facility operation following fuel loading and at least once per six months thereafter.

6.5.2.6 QUORUM

A quorum of the CNRB shall consist of the Chairman or designated acting Chairman and four (4) members including alternates. No more than a minority of the quorum shall have line responsibility for operation of the facility.

6.5.2.7 REVIEW

The CNRB shall review:

- a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of Section 50.59, 10 CFR to verify that such actions did not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- d. Proposed changes in Technical Specifications or Licenses.
- e. Violations of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements or of internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- g. All REPORTABLE EVENTS.

- h. Any indication of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems or components.
- i. Reports and meeting minutes of the Plant Nuclear Safety Committee.

6.5.2.8 AUDITS

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

- a. The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per year.
- b. The performance, training and qualifications of the entire facility staff at least once per year.
- c. The results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per six months.
- d. The performance of all activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50 at least once per two years.
- e. The Emergency Plans and implementing procedures at least once per year.
- f. The Security Plan and implementing procedures at least once per year.
- g. The Facility Fire Protection Program and implementing procedures at least once per two years.

- h. An independent fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified licensee personnel or an outside fire protection firm.
- i. An inspection and audit of the fire protection and loss prevention program shall be performed by an outside qualified fire consultant at intervals no greater than three (3) years.
- j. The radiological environmental monitoring program and the results thereof, at least once per year.
- k. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once every two years.
- l. The PROCESS CONTROL PROGRAM and implementing procedures for dewatering of radioactive bead resin at least once every two years.
- m. The performance of activities required by the Quality Control Program to meet the criteria of Regulatory Guide 1.21, Revision 1 June 1974 and Regulatory Guide 4.1, Revision 1, April 1975, at least once per year.
- n. Any other area of facility operation considered appropriate by the CNRB or the Executive Vice President.

6.5.2.9 AUTHORITY

The CNRB shall report to and advise the Executive Vice President on those areas of responsibility specified in Section 6.5.2.7 and 6.5.2.8.

6.5.2.10 RECORDS

Records of CNRB activities shall be prepared, approved and distributed as indicated below:

- a. Minutes of each CNRB meeting shall be prepared, approved and forwarded to the Executive Vice President within fourteen days following each meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 e, f, g and h above, shall be prepared, approved and forwarded to the Executive Vice President within fourteen days following completion of the review.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Executive Vice President and to the management positions responsible for the areas audited within thirty (30) days after completion of the audit.

6.6 **REPORTABLE EVENT ACTION**

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the PNSC, and the results of this review shall be submitted to the CNRB, the Vice President - Nuclear Operations, and the Group Vice President - Nuclear Energy.

6.7 **SAFETY LIMIT VIOLATION**

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

- a. The provisions of 10 CFR 50.36(c)(1)(i) shall be complied with immediately.
- b. The Safety Limit violation shall be reported immediately to the Commission, the Vice President of Nuclear Operations and to the CNRB.
- c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PNSC. 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 CNRB, the Vice President of Nuclear Operations and the Commission within ten (10) days of the violation.

6.8 **PROCEDURES**

6.8.1 Written procedures and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Section 5.1 and 5.3 of ANSI N18.7-1972, Appendix "A" of USNRC Regulatory Guide 1.33, PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, Quality Control Program for effluent monitoring using the guidance in Regulatory Guide 1.21, Revision 1, June 1974, Quality Control Program for environmental monitoring using the guidance in Regulatory Guide 4.1, Revision 1, April 1975, and the Facility Fire Protection Program except as provided in 6.8.2 and 6.8.3 below.

- 6.8.2 Each procedure and administrative policy of 6.8.1 above, and changes thereto, except the Quality Control Program for environmental monitoring, shall be reviewed by the PNSC and approved by the Plant Manager - Nuclear prior to implementation and periodically as provided by procedure.
- 6.8.3 Temporary 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 Operators License on the unit affected.
 - c. The change is documented, reviewed by the PNSC and approved by the Plant Manager - Nuclear within fourteen days of implementation.

6.9 REPORTING REQUIREMENTS

In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following identified reports shall be submitted to the U. S. Nuclear Regulatory Commission, Document Control Desk, Washington DC. pursuant to 10 CFR 50.4.

6.9.1 ROUTINE REPORTS

- a. Startup Report - A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier and (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the plant. The report shall address each of the tests identified in the FSAR and shall in general include a description of the measured values of the operating conditions of 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.

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 of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

- b. A tabulation of occupational exposure data shall be submitted annually.

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, 1/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 estimated 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 least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

- c. Monthly Operating Report - Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555, with a copy to the appropriate regional offices, to arrive no later than the fifteenth of each month following the calendar month covered by the report.

6.9.2 (Deleted)

- 1. This tabulation supplements the requirements of Section 20.407 of 10 CFR Part 20.

- g. With untreated gaseous effluents exceeding the limits of 3.9.2.e pursuant to Specification 3.9.2.e.2, submit a report which includes the following information:
- (1) Identification of the inoperable equipment or subsystems and the reason for inoperability,
 - (2) Action(s) taken to restore the inoperable equipment to OPERABLE status, and
 - (3) Summary description of action(s) taken to prevent a recurrence.
- h. With the annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC from all uranium fuel cycle sources exceeding the limits of Technical Specification 3.9.2.h, submit a report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the limits of Specification 3.9.2.h and includes the schedule for achieving conformance with those limits. This 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 limits of Specification 3.9.2.h and if the release condition resulting in violation of 40 CFR Part 190 has not already been corrected, the 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.
- i. With the measured levels of radioactivity in environmental samples as a result of plant effluents pursuant to Specification 4.12.1.b, submit a 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 dose to a MEMBER OF THE PUBLIC is less than the limits of Specifications 3.9.1.b, 3.9.2.b and 3.9.2.c.
- j. If the limits of Technical Specification 3.20 are exceeded, submit a report describing the cause of the unavailability, action taken and a schedule for restoration within 30 days.
- k. Whenever the results of steam generator tube inspections fall into Category C-3 of Table 4.2-3, a Special Report shall be submitted within 30 days and prior to resumption of plant operation. This report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence. Reference T.S. 4.2.5.5.c.

- l. If the power tilt in Technical Specification 3.2.6.h is not corrected to less than 2% within 24 hours and its design hot channel factors for rated power are not exceeded, a Special Report with an evaluation as to the cause of the discrepancy shall be submitted within 30 days. Reference T.S. 3.2.6.i(1)
- m. Following a normalization of the computed boron concentration as a function of burnup, if the difference between the observed and predicted boron concentration reached the equivalent of one percent in reactivity, a Special Report shall be submitted within 30 days. Reference T.S. 4.11.

6.9.4 UNIQUE REPORTING REQUIREMENTS

6.9.4.a SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT*

Routine Radioactive Effluent Release Reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year.

The Radioactive Effluent Release Report shall include a summary of the quantities of radioactive liquid and gaseous effluents 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.

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.

* 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.

** In lieu of submission with the 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.

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 OFFSITE DOSE CALCULATION MANUAL (ODCM) and the PROCESS CONTROL PROGRAM (PCP) as well as a listing of new locations for dose calculations and/or environmental monitoring:

- a. Necessitated by the unavailability of environmental samples, pursuant to Specification 4.12.1.c; report shall also include the causes for unavailability of samples
- b. Identified by the land use census pursuant to Specification 4.12.2.

6.9.4.b ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT*

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 information based on trend analysis of the results of the radiological environmental surveillance activities for the report period, including a comparison, as appropriate, with preoperational studies, with operational controls and with previous environmental surveillance reports and an assessment of the observed impact of the plant operation on the environment. The reports shall also include the results of land use censuses required by Specification 4.12.2.

The Annual Radiological Environmental Operating Reports shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the Table and Figures in the ODCM, as well as summarized and tabulated results of 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.

* A single submittal may be made for a multiple unit station.

The reports shall also include the following: a summary description of the radiological environmental monitoring program; at least two legible maps** covering all sampling locations keyed to a table giving distances and directions from the centerline of the plant vent stack; the results of the Interlaboratory Comparison Program required by Specification 4.12.3; discussion of all deviations from the sampling schedule of Table 4.12-1, and discussion of all analyses in which the LLD required by Table 4.12-3 was not achievable.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five (5) years:

- a. Records and logs of facility 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.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of reactor tests and experiments.
- f. Records of changes made to Operating Procedures.
- g. Records of radioactive shipments.
- h. Records of sealed source leak tests and results.
- i. Records of annual physical inventory verifying accountability of sources on record.

** One map shall cover stations near the SITE BOUNDARY; a second shall include the more distant stations.

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

- a. Records and drawing changes reflecting facility 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 facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
- g. Records of training and qualification for members of the plant staff for the duration of their employment.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities as required by Corporate Quality Assurance Manual except as listed in Specification 6.10.1.
- 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 meetings of the PNSC and the CNRB.
- l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.
- m. Records of the service lives of all snubbeys required by specification 3.13 including the date of which the service life commences and associated installation and maintenance records.
- n. Annual Radiological Environmental Monitoring Reports and records of analyses transmitted to the licensee which are used to prepare the Annual Radiological Environmental Monitoring Report.

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 20:

- a. 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 and any individual or group of individuals permitted to enter such areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. Each High Radiation Area in which the intensity of radiation is greater than 1000 mRem/hr shall be subject to the provisions of 6.12.1(a) above, and in addition locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under administrative control.

6.13 **POST ACCIDENT 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:

1. Training of personnel,
2. Procedures for sampling and analysis,
3. Provisions for maintenance of sampling and analysis equipment.

6.14 **SYSTEMS INTEGRITY**

The licensee shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventative maintenance and periodic visual inspection requirements, and
2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

6.15 **IODINE MONITORING**

The licensee shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

6.16 **BACKUP METHODS FOR DETERMINING SUBCOOLING MARGIN**

The licensee shall implement a program which will ensure the capability to accurately monitor the Reactor Coolant System subcooling margin. This program shall include the following:

1. Training of personnel, and
2. Procedures for monitoring.

6.17 PROCESS CONTROL PROGRAM (PCP)

6.17.1 The PCP shall be reviewed by PNSC prior to implementation.

6.17.2 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 dewatered bead resin to existing criteria for radioactive wastes; and
 - c. Documentation of the fact that the change has been reviewed and found acceptable by the PNSC.
2. Shall become effective upon review and acceptance by the PNSC.

6.18 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.18.1 The ODCM shall be reviewed by the PNSC prior to submittal to the Commission.

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

6.18.3 Licensee initiated changes to the ODCM:

- a. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made effective. This submittal shall contain:
 1. 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);
 2. A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and
 3. Documentation of the fact that the change has been reviewed and found acceptable by the PNSC.
- b. Shall become effective upon review and acceptance by the PNSC.