

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 212 License No. DPR-77

- The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 7, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (.i) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

 Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 212, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

De Hoday for

 This license amendment is effective as of its date of issuance, to be implemented within 45 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Frederick J. Hebdon, Director Project Directorate II-3

Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: October 2, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 212

FACILITY CPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
6-1	6-1
6-5	6-5
6-6	6-6
6-10	6-10
6-11	6-11
6-12	6-12
6-24	6-24

6.1 RESPONSIBILITY

- 6.1.1 The Plant Manager shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.
- 6.1.2 The Shift Operations 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 Site Vice President, shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

6.2.1 OFFSITE AND ONSITE ORGANIZATIONS

An onsite and an offsite organization shall be established for unit operation and corporate management. The onsite and offsite organization shall include the positions for activities affecting the safety of the nuclear power plant.

- a. Lines of authority, responsibility, and communication shall be established and defined from the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organizational charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the FSAR and will be updated in accordance with 10 CFR 50.71(e).
- b. The President, TVA Nuclear and Chief Nuclear Officer shall have corporate responsibility for overall plant nuclear safety. This individual shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support in the plant so that continued nuclear safety is assured.
- c. The Plant Manager shall be responsible for overall unit safe operation and shall have control over those onsite resources necessary for safe operation and maintenance of the plant.
- d. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 FACILITY STAFF

- a. Each on-duty unit shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Reactor Operator shall be in the unit Control Room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3 or 4, at least one licensed Senior Reactor Operator shall be in the Control Room.

6.2.3 INDEPENDENT SAFETY ENGINEERING (ISE)

FUNCTION

6.2.3.1 The ISE shall function to examine plant operating characteristics, NRC issuances, industry advisories, Licensee Event Reports and other sources which may indicate areas for improving plant safety.

COMPOSITION

6.2.3.2 The ISE shall be composed of at least 3 dedicated full-time engineers located onsite. These engineers will be supplemented as necessary by full-time engineers shared among all TVA ruclear sites to achieve an equivalent staffing of 5 full-time engineers performing the ISE functions applicable to Sequoyah.

RESPONSIBILITIES

6.2.3.3 The ISE shall be responsible for maintaining surveillance of plant activities to provide independent verification* that these activities are performed correctly and that human errors are reduced as much as practical.

AUTHORITY

6.2.3.4 The ISE shall make detailed recommendations for revised procedures, equipment modifications, or other means of improving plant safety to the Manager, Independent Review and Analysis.

6.2.4 SHIFT TECHNICAL ADVISOR (STA)

6.2.4.1 The STA shall serve in an advisory capacity to the Shift Operations Supervisor on matters pertaining to the engineering aspects of assuring safe operation of the unit.

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 RADCON/Chemistry Control Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

^{*}Not responsible for sign-off function.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Plant Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and 10 CFR Part 55 and shall include familiarization with relevant industry operational experience.

6.5 REVIEW AND AUDIT

6.5.0 The President, TVA Nuclear and Chief Nuclear Officer is responsible for the safe operation of all TVA power plants.

6.5.1 PLANT OPERATIONS REVIEW COMMITTEE (PORC)

FUNCTION

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

COMPOSITION

6.5.1.2 The PORC shall be composed of the:

Chairman:

Plant Manager

Member:

Operations Manager

Member:

RADCON/Chemistry Control Manager

Member:

Maintenance and Modifications Manager

Member:

Technical Support Manager

Member:

Site quality Manager

Member:

Engineering and Materials Representative

ADMINISTRATIVE CONTROLS

QUALIFICATIONS

6.5.2.3 The Chairman, members, and alternate members of the NSRB shall be appointed in writing by the President, TVA Nuclear and Chief Nuclear Officer and shall have an academic degree in engineering or a physical science field, or the equivalent; and in addition, shall have a minimum of five years technical experience in one or more areas given in 6.5.2.1. No more than two alternates shall participate as voting members in NSRB activities at any one time.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the NSRB Chairman to provide expert advice to the NSRB.

MEETING FREQUENCY

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

QUORUM

6.5.2.6 The minimum quorum of the NSRB necessary for the performance of the NSRB review and audit functions of these technical specifications shall consist of more than half the NSRB membership or at least 5 members, whichever is greater. This quorum shall include the Chairman or his appointed alternate and the NSRB members, including appointed alternate members, meeting the requirements of Specification 6.5.2.3. No more than a minority of the quorum shall have line responsibility for operation of the unit.

REVIEW

- 6.5.2.7 The NSRB shall be cognizant of review of:
 - 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.
 - 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.
 - Proposed changes to Technical Specifications or this Operating License.
 - e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.

ADMINISTRATIVE CUNTROLS

- f. Significant operating abnormalities or deviations from normal and expected performance of unit equipment that affect nuclear safety.
- g. All REPORTABLE EVENTS.
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components that could affect nuclear safety.
- i. Reports and meetings minutes of the PORC.

AUDITS

- 6.5.2.8 Audits of unit activities shall be performed under the cognizance of the NSRB. These audits shall encompass:
 - a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions.
 - b. The performance, training and qualifications of the entire facility staff.
 - c. The results of actions taken to correct deficiencies occurring in unit equipment, structures, systems or method of operation that affect nuclear safety.
 - d. The performance of activities required by the Nuclear Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50.
 - e. (Deleted)
 - f. (Deleted)
 - g. Any other area of unit operation considered appropriate by the NSRB or the President, TVA Nuclear and Chief Nuclear Officer.
 - h. The Facility Fire Protection Program and implementing procedures at least once per 24 months.
 - i. An independent fire protection and loss prevention program inspection and audit shall be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm.
 - j. 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 3 years.

ADMINISTRATIVE CONTROLS

- k. The radiological environmental monitoring program and the results thereof.
- 1. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures.
- m. The PROCESS CONTROL PROGRAM and implementing procedures for SOLIDIFICATION of radioactive wastes.
- n. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 4.15, December 1977 or Regulatory Guide 1.21, Rev. 1, 1974 and Regulatory Guide 4.1, Rev. 1, 1975.

AUTHORITY

6.5.2.9 The NSRB shall report to and advise the President, TVA Nuclear and Chief Nuclear Officer of those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8.

RECORDS

- 6.5.2.10 Records of NSRB activities shall be prepared, approved and distributed as indicated below:
 - a. Minutes of each NSRB meeting shall be prepared, approved and forwarded to the President, TVA Nuclear and Chief Nuclear Officer within 14 days following each meeting.
 - b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the President, TVA Nuclear and Chief Nuclear Officer within 14 days following completion of the review.
 - c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the President, TVA Nuclear and Chief Nuclear Officer and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.5.3 THIS SPECIFICATION IS DELETED

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 20.1601(a) of 10 CFR 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 requiring issuance of a Radiation Work Permit* (RWP). 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. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility RADCON/Chemistry Control Manager in the RWP.

6.12.2 The requirements of 6.12.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to preyent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Operations Supervisor on duty and/or the RADCON/Chemistry Control Manager.

^{*}Radiological Control personnel or personnel escorted by Radiological Control personnel in accordance with approved emergency procedures, shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 202 License No. DPR-79

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 7, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 202, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

 This license amendment is effective as of its date of issuance, to be implemented within 45 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Frederick J. Hebdon, Director Project Directorate II-3

Division of Reactor Projects - I/II

Da Hoor for

Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: October 2, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 202

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
6-1	6-1
6-5	6-5
6-6	6-6
6-9	6-9
6-11	6-11
6-12	6-12
6-18	6-18
6-25	6-25

6.1 RESPONSIBILITY

- 6.1.1 The Plant Manager shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.
- 6.1.2 The Shift Operations 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 Site Vice President shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

6.2.1 OFFSITE AND ONSITE ORGANIZATIONS

An onsite and an offsite organization shall be established for unit operation and corporate management. The onsite and offsite organization shall include the positions for activities affecting the safety of the nuclear power plant.

- a. Lines of authority, responsibility, and communication shall be established and defined from the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organizational charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the FSAR and will be updated in accordance with 10 CFR 50.71(e).
- b. The President, TVA Nuclear and Chief Nuclear Officer shall have corporate responsibility for overall plant nuclear safety. This individual shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support in the plant so that continued nuclear safety is assured.
- c. The Plant Manager shall be responsible for overall unit safe operation, and shall have control over those onsite resources necessary for safe operation and maintenance of the plant.
- d. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 FACILITY STAFF

- a. Each on duty unit shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Reactor Operator shall be in the unit Control Room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3 or 4, at least one licensed Senior Reactor Operator shall be in the Control Room.

6.2.3 INDEPENDENT SAFETY ENGINEERING (ISE)

FUNCTION

6.2.3.1 The ISE shall function to examine plant operating characteristics, NRC issuances, industry advisories, Licensee Event Reports and other sources which may indicate areas for improving plant safety.

COMPOSITION

6.2.3.2 The ISE shall be composed of at least 3 dedicated full-time engineers located onsite. These engineers will be supplemented as necessary by full-time engineers shared among all TVA nuclear sites to achieve an equivalent staffing of 5 full-time engineers performing the ISE functions applicable to Sequoyah.

RESPONSIBILITIES

6.2.3.3 The ISE shall be responsible for maintaining surveillance of plant activities to provide independent verification* that these activities are performed correctly and that human errors are reduced as much as practical.

AUTHORITY

6.2.3.4 The ISE shall make detailed recommendations for revised procedures, equipment modifications, or other means of improving plant safety to the Manager, Independent Review and Analysis.

6.2.4 SHIFT TECHNICAL ADVISOR (STA)

6.2.4.1 The STA shall serve in an advisory capacity to the Shift Operations Supervisor on matters pertaining to the engineering aspects of assuring safe operation of the unit.

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 RADCON/Chemistry Control Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

^{*}Not responsible for sign-off function.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Plant Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and 10 CFR Part 55 and shall include familiarization with relevant industry operational experience.

6.5 REVIEW AND AUDIT

5.5.0 President, TVA Nuclear and Chief Nuclear Officer is responsible for the safe operation of all TVA power plants.

6.5.1 PLANT OPERATIONS REVIEW COMMITTEE (PORC)

FUNCTION

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

COMPOSITION

6.5.1.2 The PORC shall be composed of the:

Chairman:

Plant Manager

Member:

Operations Manager

Member:

RADCON Chemistry Control Manager

Member:

Maintenance and Modifications Manager

Member:

Technical Support Manager

Member:

Site Quality Manager

Member:

Engineering and Materials Representative

as the individual/group which designed the modifications. Proposed modifications to structures, systems, and components that affect plant nuclear safety shall be approved prior to implementation by the Plant Manager, or Duty Plant Manager.

c. Individuals responsible for reviews performed in accordance with Specifications 6.5.1A.la and -b, shall be designated by approved written procedures. Each such review shall be performed by qualified personnel of the appropriate discipline and shall include a determination of whether or not additional, cross-disciplinary review is necessary. Each such review shall also include determination of whether or not an unreviewed safety question is involved pursuant to Section 10 CFR 50.59.

6.5.2 NUCLEAR SAFETY REVIEW BOARD (NSRB)

FUNCTION

- 6.5.2.1 The NSRB shall function to provide for independent review and audit to assure adequacy 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

COMPOSITION

6.5.2.2 The NSRB shall be composed of at least five members, including the Chairman. Members of the NSRB may be from Nuclear Power, or other TVA organization or external to TVA.

QUALIFICATIONS

6.5.2.3 The Chairman, members, and alternate members of the NSRB shall be appointed in writing by the President, TVA Nuclear and Chief Nuclear Officer and shall have an academic degree in engineering or a physical science field, or the equivalent; and in addition, shall have a minimum of five years technical experience in one or more areas given in 6.5.2.1. No more than two alternates shall participate as voting members in NSRB activities at any one time.

AUDITS

6.5.2.8 Audits of unit activities shall be performed under the cognizance of the NSRB. These audits shall encompass:

- a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions.
- The performance, training and qualifications of the entire facility staff.
- c. The results of actions taken to correct deficiencies occurring in unit equipment, structures, systems or method of operation that affect nuclear safety.
- d. The performance of activities required by the Nuclear Quality Assurance Program to meet the criteria of Appendix "8", 10 CFR 50.
- e. (Deleted)
- f. (Deleted)
- g. Any other area of unit operation considered appropriate by the NSRB or the President, TVA Nuclear and Chief Nuclear Officer.
- h. The Facility Fire Protection Program and implementing procedures at least once per 24 months.
- An independent fire protection and loss prevention program inspection and audit shall be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- j. 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 3 years.
- k. The radiological environmental monitoring program and the results thereof.
- The OFFSITE DOSE CALCULATION MANUAL and implementing procedures.
- m. The PROCESS CONTROL PROGRAM and implementing procedures for SOLIDIFICATION of radioactive wastes.
- n. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 4.15, December 1977 or Regulatory Guide 1.21, Rev. 1, 1974 and Regulatory Guide 4.1, Rev. 1, 1975.

AUTHORITY

6.5.2.9 The NSRB shall report to and advise the President, TVA Nuclear and Chief Nuclear Officer on those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8.

RECORDS

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

- a. Minutes of each NSR8 meeting shall be prepared, approved and forwarded to the President, TVA Nuclear and Chief Nuclear Officer within 14 days following each meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the President, TVA Nuclear and Chief Nuclear Officer within 14 days following completion of the review.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the President, TVA Nuclear and Chief Nuclear Officer and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.5.3 THIS SPECIFICATION IS DELETED

6.8.4 f. Radioactive Effluent Controls Program (Cont.)

of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY SHALL BE LIMITED to the following:
 - For noble gases: Less than or equal to a dose rate of 500 mrem/yr to the total body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
 - For Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50.
- 9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radio-nuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and
- 10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

g. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
- 2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and

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 20.1601(a) of 10 CFR 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 chall be controlled by requiring issuance of a Radiation Work Permit* (RWP). 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. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility RADCON/Chemistry Control Manager in the RWP.

6.12.2 The requirements of 6.12.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Operations Supervisor on duty and/or the RADCON/Chemistry Control Manager.

^{*}Radiological Control personnel or personnel escorted by Radiological Control personnel in accordance with approved emergency procedures, shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.