ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant General Manager shall be responsible for overall plant operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Shift Supervisor shall be responsible for the shift command function. A directive to this effect shall be issued and signed by the Vice President - Nuclear Operations.

6.2 ORGANIZATION

OFFSITE

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

PLANT STAFF

6.2.2 The plant organization shall be as shown in 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 approach to criticality through 15% power, scheduled reactor shutdown and during recovery from reactor trips.

d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.*

e. All core alterations, after the initial fuel loading, shall either be performed by a licensed Reactor Operator under the general supervision of a Senior Reactor Operator or a nonlicensed Operator directly supervised by a licensed Senior Reactor Operator (or Senior Operator Limited to Fuel Handling) who has no other concurrent responsibilities during this operation.

f. A Fire Brigade of at least 5 members shall be maintained on site at all times.* The Fire Brigade shall not include 3 members of the minimum shift crew necessary for safe shutdown of the plant and any personnel required for other essential functions during a fire emergency.

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*Radiation Protection coverage and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed two hours in order to accommodate unexpected absence provided immediate action is taken to restore the minimum requirements.

g. Administrative procedures shall be developed and implemented to limit the working hours of Plant staff who perform safety-related functions; ie, Senior Reactor Operators, Reactor Operators, Auxiliary Operators, Chemistry/Health Physics and Maintenance personnel and the first-line supervision of the above listed personnel.

Effective October 1, 1982, the use of overtime shall be minimized during all modes of operation. When any overtime is required, it shall meet the following criteria:

A. An individual shall not be permitted to work more than 16 hours straight (excluding shift turnover time).

B. An individual shall not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven-day period (all excluding shift turnover time).

C. A break of at least eight hours shall be allowed between scheduled work periods (including shift turnover time).

D. The scheduling and use of extended work shifts for an entire work group or shift complement is prohibited except during extended Plant shutdown periods.

Unusual circumstances which require deviation from the above policy shall be evaluated on a case basis and authorized by the Plant General Manager or his designee.

6.2.3 NUCLEAR ACTIVITIES PLANT ORGANIZATION (NAPO)

FUNCTION

6.2.3.1 The NAPO 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. The organization shall report to the Executive Engineer - NAPO. With the concurrence of the Executive Engineer, NAPO may function as staff to the onsite and offsite review organizations and provide technical support for problem resolution and General Office interface.

COMPOSITION

6.2.3.2 The NAPO shall be composed of members located at other Consumers Power Company facilities, and onsite members at the Palisades Plant. The NAPO on site shall consist of a minimum of five (5) technical personnel.[1]

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QUALIFICATIONS

6.2.3.3 Three of the full-time members shall each have a bachelor's degree in engineering or a related science. One of the three shall have a minimum of five years' professional experience which includes a minimum of two years' experience in power plant operation and/or design.

Any NAPO member may be drawn upon to perform NAPO duties on a temporary basis at any nuclear plant location.

REPORTS

6.2.3.4 Regular reports of NAPO activities shall be submitted to the NSB.

6.3 PLANT STAFF QUALIFICATIONS

6.3.1 Each member of the plant staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions.

6.3.2 The Plant Health Physicist shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.[2]

6.3.3 The Shift Technical Advisor/Shift Engineer (STA/SE) shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and/or operations, and response and analysis of the plant for transients and accidents.

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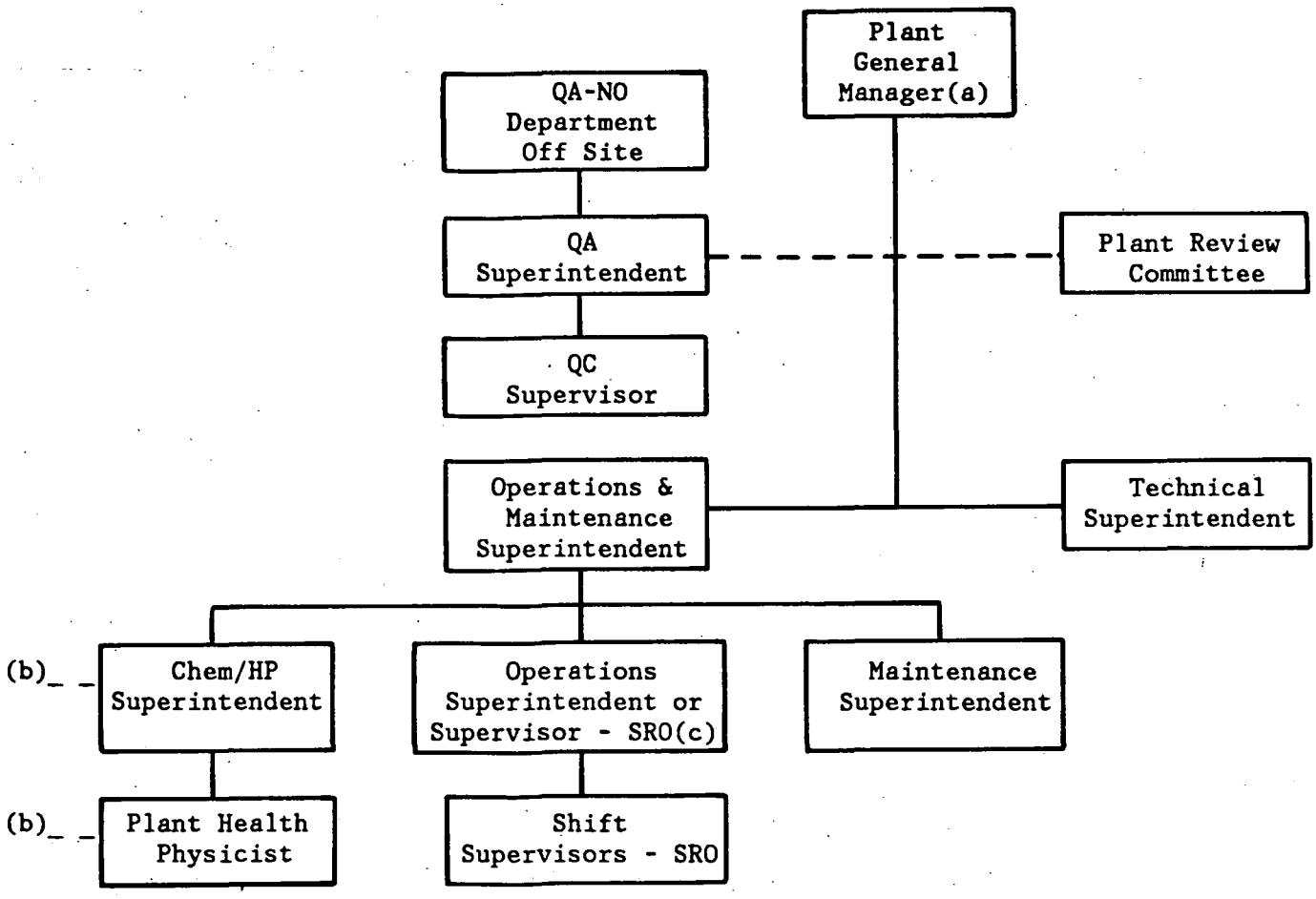
[1]The requirement for a minimum of five (5) technical personnel shall be effective on 1/1/83.

[2]For the purpose of this section, "Equivalent," as utilized in Regulatory Guide 1.8 for the bachelor's degree requirement, may be met with four years of any one or combination of the following: (a) Formal schooling in science or engineering, or (b) operational or technical experience/training in nuclear power.

CONSUMERS POWER COMPANY
PLANT ORGANIZATION



A. To support the above Plant organization, individuals knowledgeable in the following areas identified in ANSI N18.7-1976/ ANS 3.2 will report to the Plant General Manager:

1. Nuclear Power Plant Mechanical, Electrical and Electronic Systems
2. Nuclear Engineering
3. Chemistry and Radiochemistry
4. Radiation Protection (Reports to Plant Health Physicist)

A single individual may be qualified and perform in more than one discipline.

(a)Responsible for the Plant Fire Protection Program implementation.
(b)A Radiation Safety Manager (RPM as defined in Regulatory Guide 1.8) shall be designated by the Plant General Manager and shall be either the Chemistry and Health Physics Superintendent, the Plant Health Physicist or a Radiation Safety Supervisor. The Radiation Safety Manager shall have direct access to the Plant General Manager in the matters of radiation safety.
(c)Either the Operations Superintendent or the Operations Supervisor will hold an SRO and meet the other requirements of 6.3.1 of these Technical Specifications (as applicable to Operations Manager in ANSI N18.1). The individual holding an SRO shall be responsible for directing the activities of licensed operators.

(SRO - Senior Reactor Operator License)

Figure 6.2-2

Figure 6.2-2 (Contd)

B. The Security Force will be supervised as described in the Plant Security Plan.

C. Quality Assurance/Control activities will be in accordance with Consumers Power Company's Quality Assurance Program Description for Operational Nuclear Power Plants (CPC-2A, as revised).

Table 6.2-1

MINIMUM SHIFT CREW COMPOSITION

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	Power Operation, Hot Standby and Hot Shutdown	Cold Shutdown and Refueling Shutdown*
SS	1	1
STA/SE	1	None
RO	2	1
AO	2	2
Radiation Safety Technician	1	1
Chemistry Technician	1	1
Security	As stated in Security Plan	As stated in Security Plan

SS - Shift Supervisor with a Senior Reactor Operators License
STA/SE - Shift Technical Advisor/Shift Engineer
RO - Individual with a Reactor Operators License
AO - Auxiliary Operator

Except for the 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 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.

*Does not include additional personnel required when core alterations are being conducted. See Section 6.2.2.e.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the plant staff shall be maintained under the direction of the Director of Nuclear Operations 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.

6.4.2 The Director of Property Protection is responsible for the development, revision, approval and implementation of the Fire Brigade training program. This training shall, as practicable, meet or exceed the requirements of Section 27 of the NFPA Code-1975. Fire Brigade training drills shall be held at least quarterly.

6.5 REVIEW AND AUDIT

6.5.1 PLANT REVIEW COMMITTEE (PRC)

FUNCTION

6.5.1.1 The Plant Review Committee (PRC) shall function to advise the Plant General Manager on all matters related to nuclear safety.

COMPOSITION

The PRC shall be composed of:

Chairman: Plant General Manager or Designated Alternate
Member: Technical Superintendent
Member: Maintenance Superintendent
Member: Operations Superintendent
Member: Instrument and Control Engineer
Member: Reactor Engineer
Member: Health Physicist
Member: Shift Supervisor
Member: Chemical Engineer
Member: Technical Engineer or Supervisory Engineer
Member: Shift, Senior or General Engineer

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ALTERNATES

6.5.1.3 Alternate members of the PRC shall be appointed in writing by the PRC Chairman to serve on a temporary basis. However, no more than two alternates shall participate as a voting member at any one time in PRC activities.

MEETING FREQUENCY

6.5.1.4 The PRC shall meet at least once per calendar month, with special meetings as required.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS AND REPORTABLE OCCURRENCES

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 Director of the Regional Office of Inspection and Enforcement unless otherwise noted:

START-UP REPORT

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

6.9.1.2 The start-up 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.

6.9.1.3 Start-up reports shall be submitted within: (1) 90 days following completion of the start-up 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 start-up report does not cover all three events (ie, initial criticality, completion of start-up test program and resumption or commencement of commercial operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL REPORTS

6.9.1.4 An annual report covering occupational exposure 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 manrem exposure according to work and job functions;[1] eg, reactor operations and surveillance, in-service inspection, routine maintenance, special maintenance (describe maintenance), waste processing and refueling. The dose assignments to various duty functions may be estimated based on

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[1]This tabulation supplements the requirements of §20.407 of 10 CFR, Part 20.

pocket dosimeter, TLD or film badge measurements. Small exposures totaling less than 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total whole body dose received from external sources should be assigned to specific major work functions.

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 Director, Office of Management and Program Analysis, US Nuclear Regulatory Commission, Washington, DC 20555, with a copy to the Regional Office of Inspection and Enforcement, no later than the 15th of each month following the calendar month covered by the report.

REPORTABLE OCCURRENCES

6.9.1.7 The REPORTABLE OCCURRENCES of Specifications 6.9.1.8 and 6.9.1.9, below, including corrective actions and measures to prevent recurrence, shall be reported to the NRC. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a Licensee Event Report shall be completed and reference shall be made to the original report date.

PROMPT NOTIFICATION WITH WRITTEN FOLLOW-UP

6.9.1.8 The types of events listed below shall be reported within 24 hours by telephone and confirmed by telegraph, mailgram or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the event with a written follow-up report within 14 days. The written follow-up report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

a. Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reaches the set point specified as the limiting safety system setting in the Technical Specifications or failure to complete the required protective function.

   NOTE: Instrument drift discovered as a result of testing need not be reported under this item, but may be reportable under the items in Subsection 6.9.1.8.e, 6.9.1.8.f or 6.9.1.9.a, below.

b. Operation of the unit or affected systems when any parameter or operation subject to a limiting condition for operation is less conservative than the least conservative aspect of the Limiting Condition for Operation established in the Technical Specifications.

NOTE: If specified action is taken when a system is found to be operating between the most conservative and the least conservative aspects of a Limiting Condition for Operation listed in the Technical Specifications, the Limiting Condition for Operation is not considered to have been violated and need not be reported under this item, but it may be reportable under the item in Subsection 6.9.1.9.b, below.

c. Abnormal degradation discovered in fuel cladding, reactor coolant pressure boundary or primary containment.

NOTE: Leakage of valve packing or gaskets within the limits for identified leakage set forth in Technical Specifications need not be reported under this item.

d. Reactivity anomalies involving disagreement with the predicted value of reactivity balance under steady-state conditions during power operation greater than or equal to 1% $\Delta k/k$; a calculated reactivity balance indicating a SHUTDOWN MARGIN less conservative than specified in the Technical Specifications; short-term reactivity increases that correspond to a reactor period of less than five seconds or, if subcritical, an unplanned reactivity insertion of more than 0.5% $\Delta k/k$; or occurrence of any unplanned criticality.

e. Failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the SAR.

f. Personnel error or procedural inadequacy which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems required to cope with accidents analyzed in the SAR.

NOTE: For 6.9.1.8.e. and f., reduced redundancy that does not result in a loss of system function need not be reported under this section, but may be reportable under 6.9.1.9.b. and c. below.

g. Conditions arising from natural or man-made events that, as a direct result of the event, require plant shutdown, operation of safety systems or other protective measures required by Technical Specifications.

h. Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the Technical Specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.

i. Performance of structures, systems or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or Technical Specifications bases; or discovery during plant life of conditions not specifically considered in the

safety analysis report or Technical Specifications that require remedial action or corrective measures to prevent the existence of development of an unsafe condition.

NOTE: This item is intended to provide for reporting of potentially generic problems.

THIRTY-DAY WRITTEN REPORTS

6.9.1.9 The types of events listed below shall be the subject of written reports to the Director of the Regional Office within thirty days of occurrence of the event. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

a. Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the Technical Specifications, but which do not prevent the fulfillment of the functional requirements of affected systems.

b. Conditions leading to operation in a degraded mode permitted by a Limiting Condition for Operation or plant shutdown required by a Limiting Condition for Operation.

NOTE: Routine surveillance testing, instrument calibration or preventive maintenance which requires system configurations as described in the items in Subsections 6.9.1.9.a. and b. above need not be reported except where test results themselves reveal a degraded mode as described above.

c. Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.

d. Abnormal degradation of systems other than those specified in 6.9.1.8.c. above designed to contain radioactive material resulting from the fission process.

NOTE: Sealed sources or calibration sources are not included under this item. Leakage of valve packing or gaskets within the limits for identified leakage set forth in Technical Specifications need not be reported under this item.

OTHER REPORTING REQUIREMENTS

6.9.2 ROUTINE REPORTS

A. Radioactive Effluent Releases

A report on the radioactive discharges released from the site during the previous six (6) months of operation shall be submitted to the Director of the Region III Office of Inspection and Enforcement (with copies to the Director of Office of Nuclear Reactor Regulation) within 60 days after January 1 and July 1 of each year. The report shall include a summary of the quantities of effluents and wastes, specified below, reported in the format outlined in the tables associated with Appendix B of Regulatory Guide 1.21 (June 1974).

The report shall include an estimate of the uncertainty associated with the measurement of radioactive effluents. This error term is included to provide an estimate of the uncertainty and is not to be considered the absolute error associated with the measurements or to be used in determining compliance with these Technical Specifications.

These estimates will be based on a statistical analysis of a series of sample results (weighed appropriately for counting statistics) taken once a year from a minimum of one typical gaseous waste tank and from a minimum of one typical liquid waste tank. For noble gases released to the atmosphere from other than the waste gas system the error term will be estimated (and weight-averaged with the waste gas tank error) based on a statistical analysis of a series of sample results taken once a year (or the stack gas monitor counting statistics taken over one release per year) from each source contributing more than 10% of the total annual release.

The error term for iodine and particulates released to the atmosphere will be based on the counting statistics for one stack gas sample taken during the year.

The report shall include an estimate of the lower level of detection (in μCi/ml) if the unidentified portion of the release exceeds 10% of the total annual releases. This estimate of the lower level of detection will be made for those gamma emitting isotopes listed in Appendix B of Regulatory Guide 1.21 (June 1974) and will be provided based on a typical background gamma spectrum.

The report shall provide the following specific terms:

1. Supplemental Information

   a. Batch Releases

      The report should provide information relating to batch releases of liquid and gaseous effluents which are discharged to the environment. This information should include the number of

releases, total time period for batch releases, and the maximum, mean, and minimum time period of release.

b. Abnormal Releases

The number of abnormal releases of radioactive material to the environment should be reported. The total curies of radioactive materials released as a result of abnormal releases should be included.

2. Gaseous Effluents

a. Gases

(1) Total curies of fission and activation gases released.

(2) Average release rates (μCi/s) of fission and activation gases for the quarterly periods covered by the report.

(3) Percent of Technical Specifications limit for releases of fission and activation gases.

(4) Quarterly sums of total curies for each of the radionuclides determined to be released, based on analyses of fission and activation gases.

b. Iodines

(1) Total curies of each of the isotopes, Iodine-131, Iodine-133 and Iodine-135, determined to be released.

(2) Average release rate (μCi/s) of Iodine-131.

(3) Percent of Technical Specifications limit for Iodine-131.

c. Particulates

(1) Total curies of radioactive material in particulate form with half-lives greater than eight days determined to be released.

(2) Average release rate (μCi/s) of radioactive material in particulate form with half-lives greater than eight days.

(3) Percent of Technical Specifications limit for radioactive material in particulate form with half-lives greater than eight days.

(4) Total curies for each of the radionuclides in particulate form determined to be released based on analyses performed.

(5) Total curies of gross alpha radioactivity determined to be released.

d. Tritium

(1) Total curies of tritium determined to be released in gaseous effluents.

(2) Average release rate (μCi/s) of tritium.

(3) Percent of applicable limits for tritium.

3. Liquid Effluents

a. Mixed Fission and Activation Products

(1) Total curies of radioactive material determined to be released in liquid effluents (not including tritium, dissolved and/or entrained gases, and alpha-emitting material).

(2) Average concentrations (μCi/ml) of mixed fission and activation products released to unrestricted areas, average over the quarterly periods covered by the report.

(3) Percent of applicable limit of average concentrations released to unrestricted areas.

(4) Quarterly sums of total curies for each of the radionuclides determined to be released in liquid effluents, based on analyses performed.

b. Tritium

(1) Total curies of tritium determined to be released in liquid effluents.

(2) Average concentrations (μCi/ml) of tritium released in liquid effluents to unrestricted areas, averaged over the quarterly periods covered by the report.

(3) Percent of applicable limit of average concentrations released to unrestricted areas.

c. Dissolved and/or Entrained Gases

(1) Total curies of gaseous radioactive material determined to be released in liquid effluents.

(2) Average concentrations (μCi/ml) of dissolved and/or entrained gaseous radioactive material released to unre-

stricted areas, averaged over the quarterly periods covered by the report.

(3) Percent of applicable limit of average concentrations released to unrestricted areas.

(4) Total curies for each of the radionulides determined to be released as dissolved and/or entrained gases in liquid effluents.

d. Alpha Radioactivity

Total curies of gross alpha-emitting material determined to be released in liquid effluents.

e. Volumes

(1) Total measured volume (liters), prior to dilution, of liquid effluent released.

(2) Total determined volume, in liters, of dilution water used during the period of the report.

4. Solid Wastes

a. The total quantity in cubic meters and the total estimated radioactivity in curies for the following categories or types of waste shipped off site:

(1) Spent resins, filter sludges, evaporator bottoms;

(2) Dry compressible waste, contaminated equipment, etc;

(3) Irradiated components, control rods, etc;

(4) Other (furnish description).

b. The disposition of solid waste shipments (the number of shipments, the mode of transport and the destination).

c. The disposition of irradiated fuel shipments. (Identify the number of shipments, the mode of transport and the destination.)

5. Radiological Impact on Man

Potential doses to individuals and populations will be calculated using measured effluent and averaged meterological data.

a. Total body and significant organ doses (greater than 1 millirem) to individuals in unrestricted areas from receiving water-related exposure pathways.

b. The maximum offsite air doses (greater than 1 millirad) due to beta and gamma radiation at locations near ground level from gaseous effluents.

c. Organ doses (greater than 1 millirem) to individuals in unrestricted areas from radioactive iodine and radioactive material in particulate form from the major pathways of exposure.

d. Total body doses (greater than 1 manrem) to the population and average doses (greater than 1 millirem) to individuals in the population from receiving water-related pathways to a distance of 50 miles from the site.

e. Total body doses (greater than 1 manrem) to the population and average doses (greater than 1 millirem) to individuals in the population from gaseous effluents to a distance of 50 miles from the site.

B. Radiological Environmental Monitoring Program

1. An annual report of the results of the onsite and offsite radiological environmental program performed during the previous 12 months of operations shall be submitted to NRC within 90 days after January 1 of each preceding calendar year. The reports shall include narrative summaries, interpretations, and statistical evaluation, where appropriate, of the results of the radiological environmental monitoring activities described in Section 4.11 for the report period and assessment of the observed impacts of the plant operation on the environment. Results of the radiological environmental samples taken shall be summarized on an annual basis following the format of Table 6.9-1. In the event that some results are not available within the 90-day period, 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.

2. For each medium sampled during the year, a list of the sampling locations, the total number of samples, and the highest, lowest, and the average concentrations of the location of the highest average concentration shall be presented. Specifically, the report shall contain the following:

a. The number and types of samples taken; eg, airborne dust, precipitation, lake water.

b. The number and types of measurements made; eg, gross beta.

c. Locations of the sample points and monitoring stations.

d. The frequency of the surveys.

e. A summary of survey results.

3. Significant Levels of Radioactivity

   If samples or measurements averaged over appropriate data base indicate statistically significant levels of radioactivity above established or concurrent backgrounds, the following information shall be provided:

   a. The type of anlysis performed; eg, alpha, beta, gamma and/or isotopic.

   b. The minimum sensitivity of the monitoring system.

   c. The measured radiation level of sample concentration.

   d. The specific times when samples were taken and measurements were made.

   e. An estimate of the likely resultant exposures to the public.

4. If levels of radioactive materials in environmental media due to plant origin indicate the likelihood of public exposure in excess of 5% of those that would result from continuous exposure to the concentration values listed in Appendix B, Table II of 10 CFR 20, estimates shall be presented of the likely resultant exposure to individuals and to population groups and assumptions on which estimates are made.

6.9.3 NONROUTINE REPORTS

A report shall be submitted in the event that (a) the radiological monitoring programs are not substantially conducted as described in Section 4.11; or (b) an unusual or important event occurs from plant operation that causes a significant environmental impact or affects a potential environmental impact. Reports shall be submitted within 30 days.

6.9.4 SPECIAL REPORTS

a. Special reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable referenced specification:

Area	Specification Reference	
Prestressing, Anchorage, Liner and Penetration Tests	4.5.4 4.5.5	90 Days After Completion of the Test*
Primary System Surveillance Evaluation and Review	4.3	Five Years

*A test is considered to be complete after all associated mechanical, chemical, etc, tests have been completed.

b. Bimonthly status reports on the program to improve the reliability of the paths to prevent post-LOCA boron precipitation shall be submitted to the Division of Operating Reactors until completed.

TABLE 6.9-1

Environmental Radiological Monitoring Program Summary d/

Name of Facility _____ Docket No _____

Location of Facility _____ Reporting Period _____

(County, State)

Helium or Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analyses Performed		Lower Limit of Detection a/ (LLD)	All Indicator Locations Mean b/ Range b/	Location With Highest Annual Mean Name Distance and Direction	Mean b/ Range b/	Control Locations Mean b/ Range b/	Number of Nonroutine Reported Measurements
Air Particulates (pCi/m^3)	β	416	0.003	0.08 (200/312) (0.05-2.0)	Middletown 5 miles 340°	0.10 (5/52) (0.06-2.0)	0.08 (8/104) (0.05-1.40)	1
	γ	32						
	^{137}Cs		0.003	0.05 (4/24) (0.03-0.13)	Smithville 2.5 miles 160°	0.08 (2/4) (0.03-0.13)	<LLD	4
	^{140}Ba		0.003	0.03 (2/24) (0.01-0.08)	Podunk 4.0 miles 270°	0.05 (2/4) (0.01-0.08)	0.02 (1/8)	1
	^{89}Sr	40	0.002	<LLD	-	-	<LLD	0
	^{90}Sr	40	0.0003	<LLD	-	-	<LLD	0
Fish pCi/kg (dry weight)	γ	8						
	^{137}Cs		80	<LLD	-	<LLD	90 (1/4)	0
	^{134}Cs		80	<LLD	-	<LLD	<LLD	0
	^{60}Co		80	120 (3/4) (90-200)	River Mile 35 Podunk River	See Column 4	<LLD	0

a/ Nominal Lower Limit of Detection (LLD) as defined in HASL-300 (Rev 8/73), pp D-08-01, 02 and 03.

b/ Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses.

c/ Nonroutine reported measurements are defined in Section 6.9.3.2.

d/ Note: The example data are provided for illustrative purposes only.

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 plant 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. Reportable Occurrences.

d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.

e. Records of changes made to the procedures required by Specification 6.8.1.

f. Records of radioactive shipments.

g. Records of sealed source leak tests and results.

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

6.10.2 The following records shall be retained for the duration of the Plant 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 monthly 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 designed for a limited number of transients or cycles.

f. Records of reactor tests and experiments.[1]

g. Records of training and qualification for members of the Plant staff.[1]

h. Records of inservice 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 meetings of the PRC and NSB.

l. Records of monthly facility radiation and contamination surveys.

m. Records for environmental qualifications which are covered under the provisions of Paragraph 6.14.

n. Records of the service lives of all hydraulic and mechanical snubbers listed on Tables 3.20.1 and 3.20.2 including the date at which the service life commences and associated installation and maintenance records.

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, 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.[2] 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

[1]Effective as of December 31, 1982.

[2]Health Physics personnel or personnel escorted by Health Physics personnel 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.

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 periodic radiation surveillance at the frequency specified by the Radiation Work Permit.

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 (> 1000 mrem/hour) and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or the Plant Health Physicist.

6.13 FIRE PROTECTION INSPECTION

6.13.1 An independent fire protection and loss prevention inspection shall be performed annually utilizing either qualified offsite licensee personnel or an outside protection firm.

6.13.2 An inspection by an outside qualified fire consultant shall be performed at intervals no greater than 3 years.

6.14 ENVIRONMENTAL QUALIFICATION

a. 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 DPR-20 dated October 24, 1980.

b. By no later than December 1, 1980, complete and auditable 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.

6.15 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:

a. Provisions establishing preventive maintenance and periodic visual inspection requirements, and

b. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

6.16 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:

a. Training of personnel,

b. Procedures for monitoring, and

c. Provisions for maintenance of sampling and analysis equipment.