

**NINE MILE POINT NUCLEAR STATION
UNIT 1 - TECHNICAL SPECIFICATIONS
CONTENTS**

SECTION	DESCRIPTION	PAGE
1.0	Definitions	1
2.0	Safety Limits and Limiting Safety System Setting	
	<u>Safety Limits</u>	
	<u>Limiting Safety System Setting</u>	
2.1.1	Fuel Cladding Integrity	9
2.1.2	Fuel Cladding Integrity	9
2.2.1	Reactor Coolant System	23
2.2.2	Reactor Coolant System	23
3.0	Limiting Condition for Operation (LCO) and Surveillance Requirement (SR) Applicability	27
3.1.0	Fuel Cladding	28
	<u>Limiting Condition for Operation</u>	
	<u>Surveillance Requirements</u>	
3.1.1	Control Rod System	29
4.1.1	Control Rod System	29
3.1.2	Liquid Poison System	44
4.1.2	Liquid Poison System	44
3.1.3	Emergency Cooling System	50
4.1.3	Emergency Cooling System	50
3.1.4	Core Spray System	54
4.1.4	Core Spray System	54
3.1.5	Solenoid-Actuated Pressure Relief Valve	60
4.1.5	Solenoid-Actuated Pressure Relief Valve	60
3.1.6	Control Rod Drive Coolant Injection	62
4.1.6	Control Rod Drive Coolant Injection	62
3.1.7	Fuel Rods	65
4.1.7	Fuel Rods	65
3.1.8	High Pressure Coolant Injection	76
4.1.8	High Pressure Coolant Injection	76

AMENDMENT NO. 442, 182

3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

3.0.1 When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered operable for the purpose of satisfying the requirements of its applicable LCO, provided: (1) its corresponding normal or emergency power source is operable; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are operable, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied, the unit shall be placed in a condition stated in the individual specification.

In the event LCO requirements cannot be satisfied because of circumstances in excess of those addressed in the specification, the unit shall be placed in a condition consistent with the individual specification unless corrective measures are completed that permit operation for the specified time interval as measured from initial discovery or until the reactor is placed in an operational condition in which the specification is not applicable.

4.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

4.0.1 SRs shall be met during the applicable reactor operating or other specified conditions for individual LCOs, unless otherwise stated in the SR. Failure to meet a surveillance, whether such failure is experienced during the performance of the surveillance or between performances of the surveillance, shall be failure to meet the LCO. Failure to perform a surveillance within the specified frequency shall be failure to meet the LCO except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each SR shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 If it is discovered that a surveillance was not performed within its specified frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the surveillance. A risk evaluation shall be performed for any surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable specification(s) must be entered.

When the surveillance is performed within the delay period and the surveillance is not met, the LCO must immediately be declared not met, and the applicable specification(s) must be entered.

LIMITING CONDITION FOR OPERATION

3.3.3 LEAKAGE RATE

Applicability:

Applies to the allowable leakage rate of the primary containment system.

Objective:

To assure the capability of the containment in limiting radiation exposure to the public from exceeding values specified in 10 CFR 100 in the event of a loss-of-coolant accident accompanied by significant fuel cladding failure and hydrogen generation from a metal-water reaction.

To assure that periodic surveillances of reactor containment penetrations and isolation valves are performed so that proper maintenance and repairs are made during the service life of the containment, and systems and components penetrating primary containment.

Specification:

Whenever the reactor coolant system temperature is above 215°F and primary containment integrity is required, the primary containment leakage rate shall be limited to:

SURVEILLANCE REQUIREMENT

4.3.3 LEAKAGE RATE

Applicability:

Applies to the primary containment system leakage rate.

Objective:

To verify that the leakage from the primary containment system is maintained within specified values.

Specification:

- a. The primary containment leakage rates shall be demonstrated at test schedules and in conformance with the criteria specified in the 10 CFR 50 Appendix J Testing Program Plan as described in Specification 6.5.7.
- b. The provisions of Specification 4.0.2 are not applicable, and the surveillance interval extensions are in accordance with the 10 CFR 50 Appendix J Testing Program Plan.

TABLE 4.6.4-1

SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, that decision shall be made and documented before any inspection and shall serve as the basis upon which the next inspection interval for that category is determined.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use the next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval, but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B, but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C, but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

2. Shall become effective after the approval of the plant manager or a designee; and
3. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of, or concurrent with, the Radioactive Effluent Release Report for the period of the report in which any change in the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

6.5.2 Primary Coolant Sources Outside Containment

This program provides controls to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to levels as low as practicable. The systems include Core Spray, Containment Spray, Emergency Cooling, Shutdown Cooling, Reactor Cleanup, Vacuum Relief, Reactor Water Sampling, Containment Atmosphere Dilution (CAD) H₂O₂ Monitor, Drywell Containment Atmosphere Monitoring (CAM), Post Accident Sampling, Radioactive Gaseous Effluent Monitoring (RAGEMS) (the program requirements shall apply to the Post Accident Sampling System and RAGEMS until such time as administrative controls provide for continuous isolation of the associated penetration(s) or a modification eliminates the potential leakage path(s)), Offgas Effluent Stack Monitoring (OGESMS), and Post Accident Vent to Reactor Building Emergency Ventilation. The program shall include the following:

- a. Preventive maintenance and periodic visual inspection requirements; and
- b. System leak test requirements for each system at 24 month intervals.

The provisions of Specifications 4.0.2 and 4.0.3 are applicable to the 24 month frequency for performing system leak test activities.

6.5.3 Radioactive Effluent Controls Program

This program conforms to 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODCM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives >8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- j. Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190; and
- k. Limitations on venting and purging of the primary containment through the Emergency Ventilation System to maintain releases as low as reasonably achievable.

The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequencies.

6.5.4 Inservice Testing Program

This program provides controls for inservice testing of Quality Group A, B, and C pumps and valves.

- a. Inservice testing of Quality Group A, B, and C pumps and valves shall be performed in accordance with requirements for American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components specified in Section XI of the applicable ASME Boiler and Pressure Vessel Code Edition and Addenda, subject to the applicable provisions of 10CFR50.55a;
- b. The provisions of Specifications 4.0.2 and 4.0.3 are applicable to the normal and accelerated testing frequencies for performing inservice testing activities;
- c. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

6.5.5 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Main Condenser Offgas Treatment System and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

- a. The limits for concentrations of hydrogen in the Main Condenser Offgas Treatment System and a surveillance program to ensure the limits are maintained. Such limits shall be appropriate to the system's design criteria (i.e., whether or not the system is designed to withstand a hydrogen explosion); and
- b. A surveillance program to ensure that the quantity of radioactivity contained in all outside temporary liquid radwaste tanks that are not surrounded by liners, dikes, or walls, capable of holding tanks' contents and that do not have tank overflows and surrounding area drains connected to the Liquid Radwaste Treatment System is ≤ 10 Ci, excluding tritium and dissolved or entrained noble gases.

The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program surveillance frequencies.

6.5.6 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to the Bases without prior NRC approval provided the changes do not involve either of the following:
 1. A change in the TS incorporated in the license; or
 2. A change to the UFSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.
- d. Proposed changes that meet the criteria of 6.5.6.b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.5.7 10 CFR 50 Appendix J Testing Program Plan

- a. A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, entitled "Performance-Based Containment Leak-Test Program," dated September 1995 with the following exceptions:
 1. Type A tests will be conducted in accordance with ANSI/ANS 56.8-1994 and/or Bechtel Topical Report BN-TOP-1, and
 2. The first Type A test following approval of this Specification will be a full pressure test conducted approximately 70, rather than 48, months since the last low pressure Type A test.
- b. The peak calculated containment internal pressure (P_{ac}) for the design basis loss of coolant accident is 35 psig.
- c. The maximum allowable primary containment leakage rate (L_a) at P_{ac} shall be 1.5% of primary containment air weight per day.
- d. Leakage Rate Surveillance Test acceptance criteria are:
 1. The as-found Primary Containment Integrated Leak Rate Test (Type A Test) acceptance criteria is less than $1.0 L_a$.
 2. The as-left Primary Containment Integrated Leak Rate Test (Type A Test) acceptance criteria is less than or equal to $0.75 L_a$, prior to entering a mode of operation where containment integrity is required.
 3. The combined Local Leak Rate Test (Type B & C Tests including airlocks) acceptance criteria is less than $0.6 L_a$, calculated on a maximum pathway basis, prior to entering a mode of operation where containment integrity is required.
 4. The combined Local Leak Rate Test (Type B & C Tests including airlocks) acceptance criteria is less than $0.6 L_a$, calculated on a minimum pathway basis, at all times when containment integrity is required.
- e. The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the 10 CFR 50 Appendix J Testing Program Plan.

The provisions of Specification 4.0.3 are applicable to the 10 CFR 50 Appendix J Testing Program Plan.