

2.0 LIMITING CONDITIONS FOR OPERATION
2.1 Reactor Coolant System (Continued)

2.1.7 Pressurizer Operability

Applicability

Applies to the status of the pressurizer and pressurizer heaters.

Objective

To specify minimum requirements pertaining to the pressurizer water volume and availability of heaters for accident conditions.

Specifications

- (1) The pressurizer shall be operable with at least 150 KW of pressurizer heaters, and pressurizer inventory shall be maintained in a range of level 40.5% to 69.2%.
 - a. With the pressurizer inoperable due to an inoperable emergency power supply to the pressurizer heaters either restore the inoperable emergency power supply within 72 hours or be in HOT SHUTDOWN within the following 12 hours. With the pressurizer otherwise inoperable, be in HOT SHUTDOWN within the following 12 hours. This is applicable for Modes 1 and 2.
 - b. With the pressurizer level outside the above range, either restore the level within the specified limits within 2 hours or be in HOT SHUTDOWN within the following 12 hours. This is applicable for Modes 1 and 2, except during monthly testing of the pressurizer level control circuit.

Basis

The requirement that 150 KW of pressurizer heaters and their associated controls be capable of being supplied electrical power from an emergency bus provides assurance that these heaters can be energized during a loss of offsite power condition to maintain natural circulation at HOT SHUTDOWN. Either diesel generator is equipped with 225 KW of heater capacity. Either diesel will fulfill the minimum requirements of this specification. The level should be maintained above the lower limit to prevent heater cutoff and the upper limit should not be exceeded to prevent going solid or reducing the effectiveness of the pressurizer sprays by immersion during an RCS swell transient.

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LIMITING CONDITIONS FOR OPERATION
Electrical Systems (Continued)

from either one of two diesel generators and off-site standby power via the unit auxiliary transformers.⁽¹⁾

The two emergency diesel generators on site do not require outside power for start up or operation.

Upon loss of normal and standby power sources, the 4.16 kV buses 1A3 and 1A4 are energized from the diesel generators. Bus load shedding, transfer to the diesel generator and pickup of critical loads are carried out automatically.⁽²⁾

When the turbine generator is out of service for an extended period, the generator can be isolated by opening motor operated disconnect switch DS-T1 in the bus between the generator and the main transformer, allowing the main transformer and the unit auxiliary power transformers to be returned to service.⁽³⁾

Equipment served by 4.16 kV and 480 V auxiliary buses and MCC's is arranged so that loss of an entire 4.16 kV bus does not compromise safety of the plant during DBA conditions. For example, if 4.16 kV bus 1A3 is lost, two raw water pumps, one low pressure safety injection pump, one high pressure safety injection pump, one auxiliary feedwater pump, two component cooling water pumps, two containment spray pumps and two containment air fans are lost. This leaves two raw water pumps, one low pressure safety injection pump, two high pressure safety injection pumps, one component cooling water pump, one containment spray pump and two containment air fans which is more than sufficient to control containment pressure below the design value during the DBA.

The total fuel oil engine base tank capacity of 550 gallons on each diesel is considered more than adequate since approximately 5 hours running time (worst case loading) is available before transfer of fuel oil from the 18,000 gallon underground storage tanks is mandatory. Two 13 gpm diesel oil transfer pumps per diesel, with each being fed from the diesel it is associated with, are available for transferring fuel oil from the storage tank to the day tanks. The 16,000 gallons in the storage tank in addition to the day tanks will provide diesel operation under the required loading conditions for a minimum period of 7 days should only one diesel be in operation. It is considered incredible not to be able to secure fuel oil from one of several sources in the vicinity of Omaha in less than three days under the worst of weather conditions.

One battery charger on each battery shall be operating so that the batteries will always be at full charge; this ensures that adequate d-c power will be available for all emergency uses. Each battery has one battery charger permanently connected with a third charger capable of being connected to either battery bus. The chargers are each rated

2.0 LIMITING CONDITIONS FOR OPERATION
2.18 Shock Suppressors (Snubbers)

Basis

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup or shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of a seismic, or other event, initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the snubber protection is required only during low probability events, an inoperable period of 72 hours is allowed for repairs or replacements and an inoperable period of two hours is allowed for surveillance.

Table 2-6(a) and (b) lists the snubbers that are on safety-related systems. The snubbers that are inside of the containment building are listed as "Inaccessible During Normal Operation" and would require a significant expenditure in man-rem to inspect on a periodic basis. Revisions may be made to Table 2-6(a) and (b) without prior notice provided that an engineering analysis justifies these changes.

Those snubbers listed as "Difficult to Remove for Functional Testing" are so listed because they are either:

- (1) rated at greater than 50,000 lbs. force,
- (2) inaccessible due to surrounding structures, or
- (3) located such that an excessive amount of time and effort would be required to remove them for testing.

3.0 SURVEILLANCE REQUIREMENTS

3.3 Reactor Coolant System, Steam Generator Tubes, and Other Components Subject to ASME XI Boiler & Pressure Vessel Code Inspection and Testing Surveillance

Applicability

Applies to in-service surveillance of primary system components and other components subject to inspection and testing according to ASME XI Boiler & Pressure Vessel Code.

Specifications

- (1) Surveillance of the ASME Code Class 1, 2, and 3 systems, except the steam generator tubes inspection, should be covered by ASME XI Boiler & Pressure Vessel Code.
 - a. In-service inspection of ASME Code Class 1, Class 2, and Class 3 components and in-service testing of ASME Code Class 1, Class 2, and Class 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler & Pressure Vessel Code, as required by 10 CFR Part 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i).
 - b. Surveillance of the reactor coolant pump flywheels shall be performed as indicated in Table 3-6.
 - c. A surveillance program to monitor radiation-induced changes in the mechanical and impact properties of the reactor vessel materials shall be maintained.⁽¹⁾ The specimen removal schedule shall be as indicated in Table 3-7.

(2) Surveillance of the Steam Generator Tubes

Each steam generator shall be demonstrated OPERABLE by performance of the following in-service inspection program.

a. Steam Generator Sample Selection and Inspection Methods

The in-service inspection shall be performed on each steam generator on a rotating schedule encompassing 300 tubes. Under some circumstances, the operating conditions in one steam generator may be found to be more severe than those in the second steam generator. Under such circumstances, the sample sequence shall be modified to inspect the steam generator with the most severe conditions.

3.0 SURVEILLANCE REQUIREMENTS
3.10 Reactor Core Parameters (Continued)

(6) Azimuthal Power Tilt (T_Q)

Whenever the core power is above 70% of rated power, the azimuthal power tilt shall be determined to be within its limits by calculating the tilt at least once every day using either:

- a. The excore detectors with at least four safety channels or two symmetric safety channels and two symmetric control channels operable, or
- b. The incore detectors with at least two strings of three rhodium detectors per full core height quadrant operable.

(7) DNB Parameters

- a. The cold leg temperature, pressurizer pressure, and axial shape index shall be verified to be within the limits of Section 2.10.4(5) at least once per shift.
- b. The reactor vessel coolant total flow rate shall be determined to be within its limit by measurement at least once per month.

3.0 SURVEILLANCE REQUIREMENTS

3.11 Environmental Radiological Monitoring

Applicability

Applies to routine testing of plant environs.

Objective

To establish a sampling program which will provide recognition of changes in radioactivity in the environs.

Specifications

(1) Collection of Environmental Samples

Environmental samples will be taken according to the following schedule:

TABLE 3-9

SAMPLE TYPES AND FREQUENCY

<u>Sample Class</u>	<u>Collection Frequency</u>	<u>Analysis Frequency</u>	<u>No. of Samples</u>	<u>Location</u>
Background Radiation				
Film or TLD	Q	Q	10	Fig. 2.10-1 thru 4 USAR
G-M Survey	Q	Q	15	Fig. 2.10-1 thru 4 USAR
Surface Water	W	M	4	Fig. 2.10-1 thru 4 USAR
Well Water	M	Q	4	Fig. 2.10-1 thru 4 USAR
Mud and Silt	A	A	1	Fig. 2.10-1 thru 4 USAR
Fish	A	A	6	Fig. 2.10-1 thru 4 USAR
Milk	W & Q	W & Q	3	Fig. 2.10-1 thru 4 USAR
Vegetation	A	A	6	Fig. 2.10-1 thru 4 USAR
Air Particulate	W & M	W & M	4	Fig. 2.10-1 thru 4 USAR
Wildlife	A	A	1	Fig. 2.10-1 thru 4 USAR
Precipitation	M & Q	M & Q	1	Fig. 2.10-1 thru 4 USAF
Soil	A	A	3	Fig. 2.10-1 thru 4 USAR
Cattle Feed	Q	Q	2	Fig. 2.10-1 thru 4 USAR

A = Annually M = Monthly Q = Quarterly W = Weekly

(2) Radioactivity Limits

The limits listed below and the sensitivities in Table 3-10 will be used for the samples listed in Table 3-9.

a. Air Particulate

When a gross beta count reveals radioactivity in excess of 10^{-12} $\mu\text{Ci/ml}$ or 1 pCi/m^3 , a gamma spectral analysis will be performed. A gamma spectral analysis will be carried out on monthly composite of the weekly samples. Iodine cartridges at air particulate stations will be analyzed for iodine-131 weekly.

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

- 5.1.1 The Manager - Fort Calhoun Station shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

5.2 Organization

- 5.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 5-1.

5.2.2 Plant Staff

The plant staff organization shall be as shown in Figure 5-2 and function as follows:

- a. The minimum number and type of licensed and unlicensed operating personnel required onsite for each shift shall be as shown in Table 5.2-1.
- 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 startup, scheduled reactor shutdown and during recovery from reactor trips.
- d. An Operator or Technician qualified in Radiation Protection Procedures shall be onsite 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 the operation.
- f. Fire protection program responsibilities are assigned to those positions and/or groups designated by asterisks in Figures 5-1 and 5-2 according to the procedures specified in Section 5.8 of the Technical Specifications.
- g. A fire brigade consisting of 5 members shall be maintained onsite at all times.[#] The fire brigade shall not include the minimum shift crew necessary for safe shutdown of the unit (2 members).

[#] 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.

5.0 ADMINISTRATIVE CONTROLS

- 5.5.1.7 b. Render determinations in writing with regard to whether or not each item considered under 5.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide immediate written notification to the Section Manager - Operations and the Safety Audit and Review Committee of disagreement between the Plant Review Committee and the Manager - Fort Calhoun Station; however, the Manager - Fort Calhoun Station shall have responsibility for resolution of such disagreements pursuant to 5.1.1 above.

Records

- 5.5.1.8 The Plant Review Committee shall maintain written minutes of each meeting and copies shall be provided to the Section Manager - Operations and Chairman of the Safety Audit and Review Committee.

5.5.2 Safety Audit and Review Committee (SARC)

Function

- 5.5.2.1 The Safety Audit and Review Committee shall function to provide the independent review and audit of designated activities in the areas of:
- a. nuclear power plant operation
 - b. nuclear engineering
 - c. chemistry and radiochemistry
 - d. metallurgy
 - e. instrumentation and control
 - f. radiological safety
 - g. mechanical and electrical engineering
 - h. quality assurance

Composition

- 5.5.2.2 The Safety Audit and Review Committee shall be composed of:

Chairman:	Division Manager - Quality Assurance and Regulatory Affairs
Member:	Assistant General Manager - Production Operations, Fuels, and QA&RA
Member:	Assistant General Manager - Electric Operations and Engineering
Member:	Division Manager - Engineering
Member:	Division Manager - Production Operations
Member:	OPPD Operations, Engineering, and Technical Support Staff
Member:	Qualified Non-District Affiliated Consultants as Required and as Determined by SARC Chairman

5.0 ADMINISTRATIVE CONTROLS

- 5.5.2.8 e. The Fort Calhoun Station Emergency Plan and implementing procedures at least once every twelve months.
- f. The Site Security Plan and implementing procedures at least once every twelve months.
- g. The Safeguards Contingency Plan and implementing procedures at least once every twelve months.
- h. Any other area of facility operation considered appropriate by the Safety Audit and Review Committee or the Assistant General Manager - Production Operations, Fuels, and Quality Assurance & Regulatory Affairs.

Authority

- 5.5.2.9 The Safety Audit and Review Committee shall report to and advise the Assistant General Manager - Production Operations, Fuels, and Quality Assurance & Regulatory Affairs on those areas of responsibility specified in Sections 5.5.2.7 and 5.5.2.8.

Records

- 5.5.2.10 Records of Safety Audit and Review Committee activities shall be prepared, approved and distributed as indicated below:
- a. Minutes of each Safety Audit and Review Committee meeting shall be prepared, approved and forwarded to the Assistant General Manager - Production Operations, Fuels, and Quality Assurance & Regulatory Affairs within 14 days following each meeting.
- b. Reports of reviews encompassed by Section 5.5.2.7 e, f, g, and h above shall be prepared, approved and forwarded to the Assistant General Manager - Production Operations, Fuels, and Quality Assurance & Regulatory Affairs within 14 days following completion of the review.
- c. Audit reports encompassed by Section 5.5.2.8 above shall be forwarded to the Assistant General Manager - Production Operations, Fuels, and Quality Assurance & Regulatory Affairs and to the responsible management positions designated by the Safety Audit and Review Committee within 30 days after completion of the audit.

5.5.3 Fire Protection Inspection

- a. An independent fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm. The audit and inspection program responsibility shall rest with the Safety Audit and Review Committee.
- b. An inspection and audit of the fire protection and loss prevention program by an outside qualified fire consultant shall be performed at intervals no greater than 3 years.

5.6 Reportable Occurrence Action

- 5.6.1 The following actions shall be taken in the event of a REPORTABLE OCCURRENCE:
- a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Specification 5.9.

DISCUSSION AND SIGNIFICANT HAZARDS
CONSIDERATION FOR ADMINISTRATIVE CHANGES

The intent of this application is to propose several revisions to the Fort Calhoun Station Technical Specifications. These revisions are administrative in nature and are described as follows:

- (1) The term "Hot Standby" used in Section 2.1.7 (Basis), page 2-16a, has been changed to "Hot Shutdown". This change was made to correct an inconsistency between the specification and the basis.
- (2) Technical Specification 2.7(1)(L), page 2-35, requires both diesel generators have full engine base day tanks with the reactor coolant above 300°F. The fuel capacity of an engine base day tank is 550 gallons. Gravity feeding the engine base day tank is a 300 gallon wall mounted auxiliary day tank which is filled from the main fuel oil tank by one of two (or both) fuel oil transfer pumps. The transfer pump(s) starts and stops from signals received via level controllers sensing high and low wall mounted auxiliary day tank levels. The basis section for the above Technical Specifications implies that 850 gallons of fuel oil is available to the diesel generator before transfer of fuel oil from the main tank is required. Because this value represents the total inventory of both the engine base day tank and the wall mounted auxiliary day tank, it does not accurately represent the inventory required in Technical Specification 2.7(1)(L) (full engine base day tank) as the wall mounted auxiliary day tank will not necessarily be full nor is it required to be full. The Technical Specification change to the basis section involves correctly designating the required fuel oil tank and changing the fuel oil capacity of that tank from 850 gallons to 550 gallons. The 5 hour running time does not need to be changed as it was calculated assuming only the inventory in the engine base day tank was immediately available.
- (3) A clarification was made to Section 2.18, "Shock Suppressors (Snubbers)", of the Technical Specifications. The sentence on page 2-74 describing which snubbers are listed as "Inaccessible During Normal Operation" was changed to avoid the implication that there are snubbers within containment which are accessible during operation (i.e., would not require a significant expenditure in man-remS to inspect on a periodic basis).
- (4) During initial preparation of the Fort Calhoun Station's upcoming 120-month inservice inspection program, it was determined that certain parts of the Technical Specifications should be reworded to better reflect the program and affected equipment. The intent of this proposed Technical Specification change on page 3-21 is to better designate

which plant systems are covered by the ASME XI Boiler & Pressure Vessel Code. This will be accomplished by a more general description of these systems (i.e., ASME Code Class 1, 2, and 3 systems instead of "reactor coolant system"). Please note the systems covered by the new description were already included in the inservice inspection program; therefore, this change is only administrative in nature.

- (5) Incorrect tables were being referenced on pages 3-63b and 3-64 of the Technical Specifications. These discrepancies, in Sections 3.10(7)a. and 3.11(2), were corrected. Also, changes were made in Section 3.11(1), Table 3-9, to include all four figures on which the data is displayed. This more accurately denotes the use of the four figures as a set.
- (6) Technical Specifications 5.2.1 and 5.2.2(f), on page 5-1, reference Figure 5-1A. Figure 5-1A was deleted in Amendment No. 60 and is no longer part of the Technical Specifications. Therefore, reference to this figure has been deleted.
- (7) Several changes were made on pages 5-5 and 5-8 to reflect a change in a management position title. "Environmental & Regulatory Affairs" has been changed to "Quality Assurance & Regulatory Affairs".

Pursuant to 10 CFR 50.92, the following significant hazards considerations have been made regarding the above 7 proposed changes:

- (1) Will the change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The above 7 proposed changes to the Technical Specifications are administrative in nature. The operability or surveillance requirements of safety systems have not been affected nor has the design of any safety system been changed. The only effect the above changes will have will be to clarify the Technical Specifications to allow for better understanding.
- (2) Will the change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. The proposed changes to the Technical Specifications are administrative in nature. They do not create a possibility of a new or different kind of accident from any accident previously evaluated.

- (3) Will the change involve a significant reduction in a margin of safety?

No. The proposed changes are administrative in nature and do not change the operability requirements, surveillance requirements or designs of safety systems; therefore, the margin of safety could not be reduced.

DISCUSSION AND SIGNIFICANT HAZARDS CONSIDERATION
FOR CHANGES TO THE AUDIT FREQUENCY OF THE
SITE SECURITY PLAN, THE SAFEGUARDS
CONTINGENCY PLAN, AND THE EMERGENCY PLAN
(GENERIC LETTERS 82-17 AND 82-23)

Technical Specifications 5.5.2.8(e) and (f) require audits of the Fort Calhoun Station Emergency Plan, Site Security Plan, and implementing procedures at a frequency of once every two years. Sections 50.54(t), 73.55(g)(4), and 73.40(d) of Title 10, Code of Federal Regulations require review of the Emergency Plan, Site Security Plan, and Safeguards Contingency Plan, respectively, at least once every 12 months. In response to NRC Generic Letters 82-17 and 82-23, which noted the inconsistency, the proposed changes will modify the Technical Specifications and bring them into conformance with the rule. Because the Fort Calhoun Site Security and Safeguards Contingency Plans are separate entities, an additional paragraph, (g), was added to avoid confusion and ensure compliance.

Pursuant to 10 CFR 50.92, the following significant hazards considerations have been made:

- (1) Will the change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The above proposed changes to the Technical Specifications will not involve a significant increase in the probability or consequences of an accident previously evaluated. The change only increases the audit frequency of the above plans. The intent of these plans is to decrease the probability (Safeguards Plan) and the consequences (Emergency Plan) of an evaluated accident; therefore, the increased attention provided these plans by this change will better ensure their effectiveness.

- (2) Will the change create the possibility of a new or different type of accident from any accident previously evaluated?

No. The proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated. The change does not alter operability requirements, surveillance requirements, or designs of safety systems nor does it require new designs or operability and surveillance requirements which need to be analyzed with regard to this consideration.

- (3) Will the change involve a significant reduction in a margin of safety?

No. The change will not involve a significant reduction in a margin of safety. As discussed in item (1) of these considerations, an increase in audit frequencies could only increase safety margins.

JUSTIFICATION FOR FEE CLASSIFICATION

The proposed amendment is deemed to be Class II, within the meaning of 10 CFR 170.22. It is administrative in nature, has no safety or environmental significance, and does not involve a significant hazards consideration.

The portion of the proposed amendment concerning increasing the audit frequency of the Emergency Plan, Safeguards Contingency Plan, and Site Security Plan was deemed by the Commission to be exempted from a fee requirement as stated in Generic Letters 82-17 and 82-23.