(4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;

(5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.

3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter 1: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is, subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

A. Maximum Power Level

Omaha Public Power District is authorized to operate the Fort Calhoun Station, Unit 1, at steady state reactor core power levels not in excess of 1500 megawatts thermal (rate power).

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 253 are hereby incorporated in the license. Omaha Public Power District shall operate the facility in accordance with the Technical Specifications.

C. Security and Safeguards Contingency Plans

The Omaha Public Power District shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: “Fort Calhoun Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan,” submitted by letter dated May 19, 2006.

2.0 **LIMITING CONDITIONS FOR OPERATION**

2.3 Emergency Core Cooling System (Continued)

(3) Protection Against Low Temperature Overpressurization

The following limiting conditions shall be applied during scheduled heatups and cooldowns. Disabling of the HPSI pumps need not be required if the RCS is vented through at least a 0.94 square inch or larger vent.

Whenever the reactor coolant system cold leg temperature is below 350°F, at least one (1) HPSI pump shall be disabled.

Whenever the reactor coolant system cold leg temperature is below 320°F, at least two (2) HPSI pumps shall be disabled.

Whenever the reactor coolant system cold leg temperature is below 270°F, all three (3) HPSI pumps shall be disabled.

In the event that no charging pumps are operable when the reactor coolant system cold leg temperature is below 270°F, a single HPSI pump may be made operable and utilized for boric acid injection to the core, with flow rate restricted to no greater than 120 gpm.

(4) Containment Sump Buffering Agent Specification and Volume Requirement

During operating Modes 1 and 2, the containment sump buffering agent baskets shall contain a volume of hydrated sodium tetraborate (NaTB) that is within the area of acceptable operation shown in Figure 2-3.

a. With the above buffering agent requirements not within limits, the buffering agent shall be restored within 72 hours.

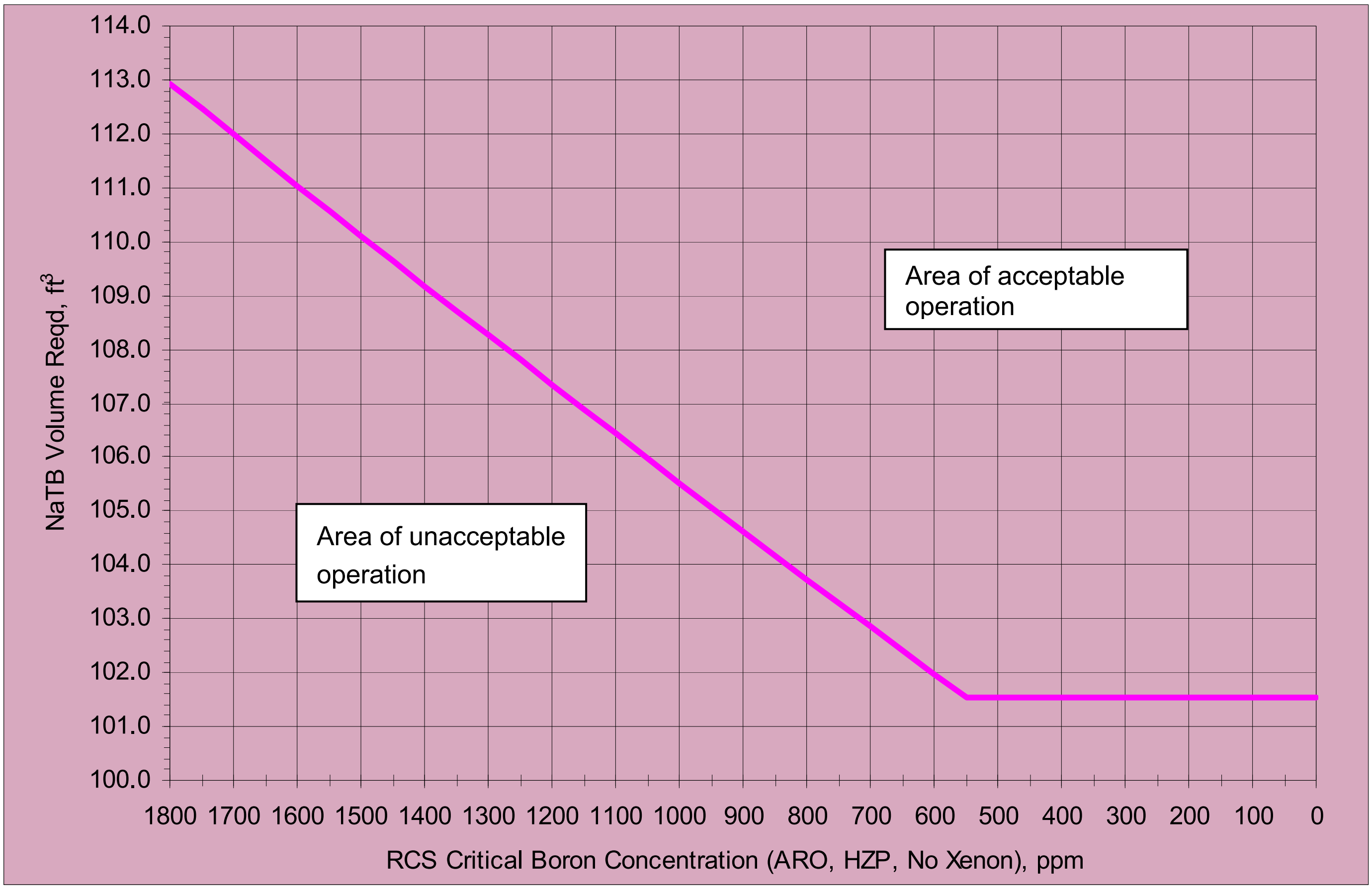
b. With Specification 2.3(4)a required action and completion time not met, the plant shall be in hot shutdown within the next 6 hours and cold shutdown within the following 36 hours.

Basis

The normal procedure for starting the reactor is to first heat the reactor coolant to near operating temperature by running the reactor coolant pumps. The reactor is then made critical. The energy stored in the reactor coolant during the approach to criticality is substantially equal to that during power operation and therefore all engineered safety features and auxiliary cooling systems are required to be fully operable.

2.0 **LIMITING CONDITIONS FOR OPERATION**
2.3 Emergency Core Cooling System (Continued)

Figure 2-3
NaTB Volume Required for RCS Critical Boron Concentration (ARO, HZP, No Xenon)



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3.0 **SURVEILLANCE REQUIREMENTS**

3.6 Safety Injection and Containment Cooling Systems Tests

Applicability

Applies to the safety injection system, the containment spray system, the containment cooling system and air filtration system inside the containment.

Objective

To verify that the subject systems will respond promptly and perform their intended functions, if required.

Specifications

(1) Safety Injection System

System tests shall be performed on a refueling frequency. A test safety feature actuation signal will be applied to initiate operation of the system. The safety injection and shutdown cooling system pump motors may be de-energized for this portion of the test.

A second overlapping test will be considered satisfactory if control board indication and visual observations indicate all components have received the safety feature actuation signal in the proper sequence and timing (i.e., the appropriate pump breakers shall have opened and closed, and all valves shall have completed their travel).

(2) Containment Spray System

a. System tests shall be performed on a refueling frequency. The test shall be performed with the isolation valves in the spray supply lines at the containment blocked closed. Operation of the system is initiated by tripping the normal actuation instrumentation.

b. At least every ten years the spray nozzles shall be verified to be open.

c. The test will be considered satisfactory if:

(i) Visual observations indicate that at least 264 nozzles per spray header have operated satisfactorily.

(ii) No more than one nozzle per spray header is missing.

d. Representative samples of Hydrated Sodium Tetraborate (NaTB) that have been exposed to the same environmental conditions as that in the mesh baskets shall be tested on a refueling frequency by:

3.0 **SURVEILLANCE REQUIREMENTS**

3.6 Safety Injection and Containment Cooling Systems Tests (Continued)

Operation of the system for 10 hours every month will demonstrate operability of the filters and adsorbers system and remove excessive moisture build-up on the adsorbers.

Demonstration of the automatic initiation capability will assure system availability.

Determination of the volume of buffering agent in containment must be performed due to the possibility of leaking valves and components in the containment building that could cause dissolution of the buffering agent during normal operation.

A refueling frequency shall be utilized to visually determine that the volume of buffering agent contained in the buffering agent baskets is within the area of acceptable operation based on the buffering agent volume required by Figure 2-3. A measured value or the Technical Data Book (TDB) II, "Reactivity Curves" may be used to obtain a hot zero power (HZP) critical boron concentration (CBC). The "as found" volume of buffering agent must be within the area of acceptable operation of Figure 2-3 using this HZP CBC value. Prior to exiting the refueling outage, visual buffering agent volume determination is performed to ensure that the "as-left" volume of buffering agent contained in the baskets is ≥ 112.9 ft^3. This requirement ensures that there is an adequate quantity of buffering agent to adjust the pH of the post-LOCA sump solution to a value ≥ 7.0 for HZP CBC up to 1800 ppm.

Testing must be performed to ensure the solubility and buffering ability of the NaTB after exposure to the containment environment. A representative sample of 1.39 to 1.42 grams of NaTB from one of the baskets in containment is submerged in 0.99 – 1.01 liters of water at a boron concentration of 2436 – 2456 ppm (equivalent to a RCS boron concentration of 1800 ppm - Figure 2-3) using boric acid. At a standard temperature of 115 – 125°F, without agitation, the solution must be left to stand for 4 hours. The liquid is then decanted and mixed, the temperature is adjusted to 75 – 79°F and the pH measured. At this point, the pH must be ≥ 7.0. The representative sample weight is based on the minimum required NaTB weight of 5418 pounds, less the quantity required to account for acidic radiolysis products (758 pounds), and maximum possible post-LOCA sump volume of 398,445 gallons, normalized to a 1.0 liter sample. At a manufactured density of 48.0 lb_m/ft^3, 5418 pounds corresponds to the minimum volume of 112.9 ft^3.

For dissolution testing, the boron concentration of the test water is representative of the maximum possible boron concentration corresponding to the maximum possible post-LOCA sump volume. The post-LOCA sump volume originates from the Reactor Coolant System (RCS), the Safety Injection Refueling Water Tank (SIRWT), the Safety Injection Tanks (SITs) and the Boric Acid Storage Tanks (BASTs). The maximum post-LOCA sump boron concentration is based on a cumulative boron concentration in the RCS, SIRWT, SITs and BASTs of 2446 ppm. The cumulative boron concentration is based on a maximum RCS HZP CBC with no Xenon at Beginning of Cycle conditions, SIRWT and SIT boron concentrations at maximum allowed values of 2,350 ppm and maximum BAST concentration of 4.5 % wt. Agitation of the test solution is prohibited since an adequate standard for the agitation intensity cannot be specified. The test time of 4 hours is necessary to allow time for the dissolved NaTB to naturally diffuse through the sample solution. In the post-LOCA containment sump, rapid mixing would occur, significantly decreasing the actual amount of time before the required pH is achieved. This would ensure achieving a pH ≥ 7.0 by the onset of recirculation after a LOCA.