UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

OMAHA PUBLIC POWER DISTRICT

DOCKET NO. 50-285

FORT CALHOUN STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 171
License No. DPR-40

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Omaha Public Power District (the licensee) dated May 8, 1995, as supplemented by letter dated July 11, 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 license 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.

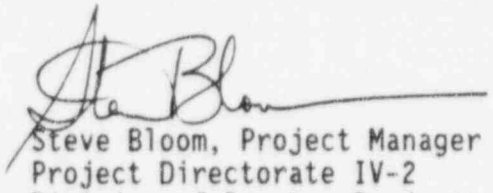
2. Accordingly, Facility Operating License No. DPR-40 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Facility Operating License No. DPR-40 is hereby amended to read as follows:

   B. Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 171, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: September 7, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 171

FACILITY OPERATING LICENSE NO. DPR-40

DOCKET NO. 50-285

Revise Appendix "A" Technical Specifications as indicated below. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE	INSERT
2-21	2-21
3-10	3-10
3-12a	3-12a
3-13	3-13
3-14	3-14
3-20	3-20
3-22	3-22
3-54	3-54
3-57	3-57

(2) Modification of Minimum Requirements

During power operation, the Minimum Requirements may be modified to allow one of the following conditions to be true at any one time. If the system is not restored to meet the minimum requirements within the time period specified below, the reactor shall be placed in a hot shutdown condition within 12 hours. If the minimum requirements are not met within an additional 48 hours the reactor shall be placed in a cold shutdown condition within 24 hours.

a. One low-pressure safety injection pump may be inoperable provided the pump is restored to operable status within 24 hours.

b. One high-pressure safety injection pump may be inoperable provided the pump is restored to operable status within 24 hours.

c. One shutdown heat exchanger and two of four component cooling water heat exchangers may be inoperable for a period of no more than 24 hours.

d. Any valves, interlocks or piping directly associated with one of the above components and required to function during accident conditions shall be deemed to be part of that component and shall meet the same requirements as listed for that component.

e. Any valve, interlock or piping associated with the safety injection and shutdown cooling system which is not covered under d. above but which is required to function during accident conditions may be inoperable for a period of no more than 24 hours.

f. One safety injection tank may be inoperable for a period of no more than one hour.

g. Level and/or pressure instrumentation on one safety injection tank may be inoperable for a period of 72 hours.

TABLE 3-2 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF ENGINEERED SAFETY FEATURES, INSTRUMENTATION AND CONTROLS

	Channel Description		Surveillance Function	Frequency		Surveillance Method
12.	Diesel Fuel Transfer Pump	a.	Test	M	a.	Pump run to refill day tank.
13.	SIRW Tank Low Level Signal	a.	Check	S	a.	Verify level indication between independent channels.
		b.	Test	Q	b.	A test pressure simulating the tank level is applied to each tank bubbler, one at a time.
		c.	Calibrate	R	c.	Known level signal applied to sensors and STLS logic verified.
14.	Safety Injection Tank Level and Pressure Instruments	a.	Check	S[5]	a.	Verify that level and pressure are within limits.

TABLE 3-2 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF ENGINEERED SAFETY FEATURES, INSTRUMENTATION AND CONTROLS

	Channel Description		Surveillance Function	Frequency		Surveillance Method
22.	Auxiliary Feedwater					
	a. Steam Generator Water Level Low (Wide Range)	a.	Check	S	a.	Compare independent level readings.
		b.	Calibrate	R	b.	Known signal applied to sensor.
	b. Steam Generator Pressure Low	a.	Check	S	a.	Compare independent pressure readings.
		b.	Calibrate	R	b.	Known signal applied to sensor.
	c. Steam Generator Differential Pressure High	a.	Calibrate	R	a.	Known signal applied to sensor.
	d. Actuation Circuitry	a.	Test	Q	a.	Functional check of initiation circuits.
		b.	Test	R	b.	System functional test of AFW initiation circuits.

NOTES: (1) Not required unless pressurizer pressure is above 1700 psia.
(2) CRHS monitors are the containment atmosphere gaseous radiation monitor and the Auxiliary Building Exhaust Stack gaseous radiation monitor.
(3) Not required unless steam generator pressure is above 600 psia.
(4) QP - Quarterly during designated modes and prior to taking the reactor critical if not completed within the previous 92 days (not applicable to a fast trip recovery).
(5) Not required to be done on a SIT with inoperable level and/or pressure instrumentation.

TABLE 3-3

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS

	Channel Description		Surveillance Function	Frequency		Surveillance Method
1.	Primary CEA Position Indication System	a.	Check	S	a.	Comparison of output data with secondary CEAPIS.
		b.	Test	M	b.	Test of power dependent insertion limits, deviation, and sequence monitoring systems.
		c.	Calibrate	R	c.	Physically measured CEDM position used to verify system accuracy. Calibrate CEA position interlocks.
2.	Secondary CEA Position Indication System	a.	Check	S	a.	Comparison of output data with primary CEAPIS.
		b.	Test	M	b.	Test of power dependent insertion limit, deviation, out-of-sequence, and overlap monitoring systems.
		c.	Calibrate	R	c.	Calibrate secondary CEA position indication system and CEA interlock alarms.
3.	Area and Post-Accident Radiation Monitors[1]	a.	Check	D	a.	CHANNEL CHECK
		b.	Test	Q	b.	CHANNEL FUNCTIONAL TEST
		c.	Calibrate	R	c.	Secondary and Electronic calibration performed at refueling frequency. Primary calibration with exposure to radioactive sources only when required by the secondary and electronic calibration. RM-091 A/B - Calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. Calibration for at least one decade below 1-R/hr. shall be by means of calibrated radiation source.

[1]Post Accident Radiation Monitors are: RM-063, RM-064, and RM-091A/B. Area Radiation Monitors are: RM-070 thru RM-082, RM-084 thru RM-089, and RM-095 thru RM-098.

TABLE 3-3 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS

	Channel Description		Surveillance Function	Frequency		Surveillance Method
4.	DELETED					
5.	Primary to Secondary Leak-Rate Detection Radiation Monitors (RM-054A/B, RM-057)	a.	Check	D	a.	CHANNEL CHECK
		b.	Test	Q	b.	CHANNEL FUNCTIONAL TEST
		c.	Calibrate	R	c.	Secondary and Electronic calibration performed at refueling frequency. Primary Calibration performed with exposure to radioactive sources only when required by the secondary and electronic calibration.
6.	Pressurizer Level Instruments	a.	Check	S	a.	Comparison of independent level readings.
		b.	Calibrate	R	b.	Known differential pressure applied to sensor.
		c.	Test	M	c.	Signal to alarm meter relay adjusted with test device to verify setting.
7.	CEA Drive System Interlocks	a.	Test	R	a.	Verify proper operation of all CEDM system interlocks, using simulated signals where necessary.
		b.	Test	P	b.	If haven't been checked for three months and plant is shutdown.

TABLE 3-5

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS

		Test	Frequency	USAR Section Reference
1.	Control Element Assemblies	Drop times of all full-length CEA's	Prior to reactor criticality after each removal of the reactor vessel closure head	7.5.3
2.	Control Element Assemblies	Partial movement of all CEA's (Minimum of 6 in)	Q	7
3.	Pressurizer Safety Valves	Set Point	R	7
4.	Main Steam Safety Valves	Set Point	R	4
5.	DELETED			
6.	DELETED			
7.	DELETED			
8.	Reactor Coolant System Leakage	Evaluate	D*	4
9.	Diesel Fuel Supply	Fuel Inventory	D	8.4
10a.	Charcoal and HEPA Filters for Control Room	1. In-Place Testing** Charcoal adsorbers and HEPA filter banks shall be leak tested and show $\geq$99.95% Freon (R-11 or R-112) and cold DOP particuiates removal, respectively.	On a refueling frequency or every 720 hours of system operation or after each complete or partial replacement of the charcoal adsorber/HEPA filter banks, or after any major structural maintenance on the system housing or following significant painting, fire or chemical releases in a ventilation zone communicating with the system.	9.10

* Whenever the system is at or above operating temperature and pressure.
** Tests shall be performed in accordance with applicable section(s) of ANSI N510-1980.

condition for refueling, each time the plant is placed in a cold shutdown condition for 7 days if testing has not been accomplished in the preceding 9 months, and prior to returning the valve to service after maintenance, repair or replacement work is performed.

b. Whenever the integrity of a pressure isolation valve listed in Table 2-9 cannot be demonstrated the integrity of the remaining valve in each high pressure line having a leaking valve shall be determined and recorded daily. In addition, the position of one other valve located in the high pressure line shall be recorded daily.

Basis

Undetected prolonged leakage of borated reactor coolant onto carbon steel sets up an unusual corrosion mechanism. Detection of this leakage at an early stage can best be accommodated directly after an outage and before startup. The inspection program specified in Specification 3.3(1) places major emphasis on the areas of highest stress concentration as determined by general design evaluation and experience with similar systems. The inspections will rely on non-destructive analysis methods utilizing up-to-date analyzing equipment and trained personnel. Volumetric inspection of the reactor pressure vessel is to be performed completely from the outside diameter. The testing techniques and acceptance criteria of Section XI of the ASME B&PV Code will be utilized, except where specific relief is granted by the Commission.

Reference

(1) USAR, Section 4.5.3

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. Undisturbed samples of Trisodium Phosphate Dodecahydrate (TSP) that have been exposed to the same environmental conditions as that in the mesh baskets shall be tested on a refueling frequency by:

that the spray piping and nozzles are open will be made initially by a smoke test or other suitably sensitive method, and at appropriate intervals thereafter. A single containment spray header flow rate of 3155 gpm of atomized spray is required to provide the containment response[3] specified in Section 2.4 of the Technical Specification: To achieve the 3155 gpm flow rate, no greater than ten (10) spray nozzles may be inoperable of which no more than one may be missing. Since the material is all stainless steel, normally in a dry condition, with no plugging mechanism available, retesting at appropriate intervals is considered to be more than adequate.

Other systems that are also important to the emergency cooling function are the SI tanks, the component cooling system, the raw water system and the containment air coolers. The SI tanks are a passive safeguard. In accordance with the specifications, the water volume and pressure in the SI tanks are checked periodically. The other systems mentioned operate when the reactor is in operation and are continuously monitored for satisfactory performance.

The in-containment air treatment system is designed to filter the containment building atmosphere during accident conditions. Both in-containment air treatment systems are designed to automatically start upon accident signals. Should one system fail to start, the redundant system is designed to start automatically. Each of the two systems has 100 percent capacity.[4]

High efficiency particulate air (HEPA) filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine to the environment. The laboratory carbon sample test results should indicate a radioactive methyl iodide removal efficiency of at least 85 percent. If the efficiencies of the HEPA filters and charcoal adsorbers are as specified, the resulting doses will be less than the 10 CFR Part 100 guidelines for the accidents analyzed.

Pressure drop across the combined HEPA filters and charcoal adsorbers of less than 6 inches of water will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter.

If significant painting, fire or chemical release occurs in a ventilation zone communicating with the system that could lead to the degradation of charcoal adsorbers or HEPA filters, testing will be performed to assure system integrity and performance.