



Consumers Power Company



General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

June 15, 1973

Mr. John F. O'Leary, Director
Directorate of Licensing
US Atomic Energy Commission
Washington, DC 20545

Re: Docket No 50-155
License No DPR-6
Proposed Technical
Specification
Change No 38

Dear Mr. O'Leary:

Transmitted herewith are three (3) executed and thirty-seven (37) conformed copies of a Request for Change to the Technical Specifications of License DPR-6, Docket No 50-155, issued to Consumers Power Company on May 1, 1964 for the Big Rock Point Plant.

This proposed change (No 38) modifies testing requirements associated with three valves and also incorporates several procedural changes as suggested by the AEC staff.

Yours very truly,

Ralph B. Sewell
Nuclear Licensing Administrator

RBS/map

CC: BHGrier, USAEC



2393

8101100821

CONSUMERS POWER COMPANY

Docket No 50-155

Request for Change to the Technical Specifications

Change No 38

License No DPR-6

For the reasons hereinafter set forth, the following changes to the Technical Specifications of License No DPR-6 issued to Consumers Power Company on May 1, 1964, for the Big Rock Point Plant are requested:

I. Changes

A. Section 3

Change Section 3.7(b) to read as follows:

"(b) At least once every twelve months, the following valves shall be tested for operability from both the manual and automatic modes of operation and, at the same time, shall be tested for leak tightness by means of a pressure test utilizing air or the normal working fluid at a pressure not less than 20 psig:

Main Steam Isolation (MO-7050)

*Main Steam Drain (MO-7065)

Clean-Up System Resin Sluice (CV-4091)

Reactor and Fuel Pit Drain Isolation (CV-4027 - CV-4117)

Reactor Enclosure Clean Sump Isolation (CV-4031 - CV-4103)

Reactor Enclosure Dirty Sump Isolation (CV-4035 - CV-4103)

All significant leaks revealed by these tests shall require repair of valve seals and retests.

Automatic controls and instrumentation associated with these valves shall be tested * approximately quarterly intervals; these tests may be conducted with a simulated signal or in such other manner as to obviate plant shutdown.

*Operability, automatic controls and instrumentation tests required only if valve is opened for use during operation."

B. Section 4

Change summary titled "Recirculating Valves, Each Loop" listed in Section 4.1.2(a) to read as follows:

<u>Location</u>	<u>Type</u>	<u>Mode of Operation</u>	<u>Size - Inches</u>	<u>Opening Rate Inches/Min</u>
Pump Suction	Gate	Motor	24	12
Pump Discharge	Gate	Motor	20	5
Pump Discharge Bypass Valve	Gate	Motor	5	12
Pump Discharge	Butterfly	Electrically Disabled and Locked in the Full Open Position"		

C. Section 6

Change Item 6.1.2 concerning recirculation line valve closure sensor and trip devices in the "Scram Setting and Tolerance" column to read as follows:

"Approximately 10 percent of full simultaneous closure of both discharge or both suction valves or any combination of both of these valves, one in each loop."

D. Section 7

1. Change Section 7.1.2 to read as follows:

"7.1.2 There shall be at least two operations personnel (one of whom shall be an AEC licensed operator) in the control room for start-up and shutdown of the plant. A second AEC licensed operator shall observe all control rod movements associated with critical approaches on start-up to ensure these control rod movements are performed in accordance with established control rod withdrawal procedures. There shall be at least one AEC licensed operator in the control room at other times during power operation and also during refueling. No licensed operator shall be required in the control room when reactor is in the cold shutdown condition as defined in Section 1.2.6. The minimum shift complement shall consist of a Shift Supervisor and two operations personnel."

2. Change Paragraph (a) of Section 7.2.1 to read as follows:

"(a) Written procedures for normal and emergency operations which may involve nuclear safety shall be prepared and issued prior to the initial start-up of the plant. The above procedures shall be reviewed and approved by responsible persons on the Plant Operating Staff and by appropriate representatives of the Company's General Office in Jackson. These procedures shall conform to the Technical Specifications. Copies of the Site Emergency Plan will be kept in the Control Room, Auxiliary Equipment Room, Information Center and the Company's General Office."

II. Discussion

A. Butterfly Valves

There is one reactor recirculating pump discharge butterfly valve located in each of the two primary system loops. In addition, there are also reactor recirculating pump isolation valves in each loop and on each side of the pumps. These isolation valves are gate-type valves. The butterfly valves were used to throttle flow such that thermal hydraulic data associated with different rates could be obtained during the Research and Development Program conducted during the initial operation of the Big Rock Point Plant. The butterfly valves were intended to serve no other purpose than to aid the Research and Development Program. (This is confirmed by Section 5.4.2.4 of the FHSR which states that these valves were installed to regulate pump discharge during the Research and Development Program but, if valve operation is no longer required, they may be made inoperative in the open position.) The valves have not been used since June 1964 and have been mechanically and electrically disabled in the open position.

Original plant design provided reactor trip devices such that if at approximately 10% of full simultaneous closure of both discharge or both suction valves, or simultaneous closure of the butterfly valves to the positions comparable to a 55% decrease in flow from full flow, or any closure combination of two of these valves, one in each loop, a reactor trip would occur. As the butterfly valves are disabled in the full open position, it is desirable to eliminate the trip testing requirements as delineated in

the Technical Specifications. These valves are located in a high radiation area and the needless trip testing requirements dictate unnecessary radiation exposure to plant personnel.

The valve operating motor has been disabled by electrically disconnecting the motor. Manual operation of the valve is prohibited by a chain and lock arrangement on the handwheel. Inadvertent valve closure due to mechanical failure of the valve has also been analyzed. The valve design is such that there is no net closing force exerted by the coolant on the valve disc. Therefore, it was concluded that it was highly unlikely that a mechanical failure would either allow or cause the valve to close. Even so, assuming the operating shaft were to break, or a key were to shear, or the closure of the valve could in some way occur, plant response would be no different than if the trip still existed. As the trip circuitry senses from the valve operator motor, a failure of the type described above would not be seen by the valve position indication. In either case, indications would be immediately available in the control room that flow had been reduced in a recirculating loop. In addition, even if the trip circuitry could have sensed this closure, the plant would not shut down automatically because the trip circuitry requires simultaneous flow blockage in both recirculating loops. In the event that recirculating flow is decreased (through inadvertent closure of a valve), the reactor power is reduced accordingly. In fact, in Procedure B29.4.1 of the Procedures Manual, it is stated that if power is to be reduced quickly it can be done by tripping a reactor recirculating water pump.

B. Main Steam Drain Valve

The main steam drain valve (MO-7065) is no longer used and is left in the closed position. It is no longer used because of repeated difficulties with the d-c motor operator and it was determined that no operating difficulties would exist if the valve were left closed permanently.

As this valve is classified as a containment isolation valve, necessary actuation circuitry is provided to shut this valve automatically if it is in the open position. Since this valve is left in the closed position, there is no need to test the valve for operability once every twelve (12) months. Provisions have been made in this proposed change to provide

testing in the unforeseen circumstance that it becomes necessary to use this valve in the future.

C. Operating Procedures

The change to Section 7.1.2 is proposed as requested by a member of the staff of the Directorate of Licensing to ensure that two qualified personnel are monitoring control rod motion during critical approaches. This change will reduce the probability of out-of-sequence control rod motion from occurring.

Consumers Power Company has always interpreted the requirements of Section 7.2.1(a) of the Technical Specifications as requiring General Office review and approval of plant procedures important to nuclear safety prior to initial plant start-up. Directorate of Regulatory Operations personnel pointed out that this section can also be interpreted as to require review of operating procedures revisions prior to any plant start-up. This proposed change inserts the word "initial" prior to "start-up" to clarify the interpretation of this section.

CONSUMERS POWER COMPANY

By R. A. Lamley
R. A. Lamley, Vice President

Date: June 15, 1973

Sworn and subscribed to before me this 15th day of June 1973.

Sylvia B. Ball
Notary Public, Jackson County, Michigan
My commission expires May 18, 1976