

Regulator,

File Cy.



Consumers Power Company

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

June 28, 1973

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

Re: Docket No 50-155
License No DPR-6

Dear Mr. O'Leary:

Mr. Donald J. Skovholt's letter of August 3, 1972 requested that we review our Big Rock Point facility to determine whether failure of any equipment, particularly the circulating water system, could cause flooding of critical equipment such as that which occurred recently at Quad Cities Unit 1. Our response to the Flooding of Critical Equipment letter (Sewell to O'Leary dated October 2, 1972) did not consider the equipment in the screenhouse. This inadvertent omission was observed by representatives of the Directorate of Regulatory Operations, Region III during an inspection conducted the week of May 14, 1973. This letter will address the oversight.

A review of the equipment shows that the shock wave caused by the valve closure failure mechanism that occurred at Quad Cities still does not exist at Big Rock Point and such a massive failure of the expansion joint is not considered credible.

Two motor-operated discharge butterfly valves are located downstream of the expansion joints and condenser circulating water pump (one each per loop). The starting sequence of the pump is such that when the discharge valve is opened approximately 33% of full open the pump starts. When the pump is tripped, the valve then closes requiring approximately 20 seconds to close. The valve can also be closed during pump operation by depressing the "close" push button at the Limitorque operator of the valve. However, a continuous depressing of the "close" push button is required to close the valve; but even then, when the valve is closed to less than 33% open, the pump trips automatically. Any effort to close the discharge valve during its pump operation with the handwheel is prevented by the Limitorque drive. Therefore, the pump cannot be operated with the discharge valve in the closed position.

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Mr. John F. O'Leary, Director
June 28, 1973

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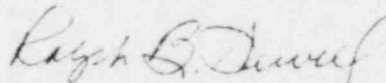
Even assuming that in some way the valve could be completely closed with the pump in operation, it is not considered credible that the expansion joint would fail since the design of the expansion joint (35 psig) is based on the shutoff head of the condenser circulating water pump (80 feet).

It should be noted also that in the Quad Cities case, the valves were hydraulic operated and the valve slammed shut during modifications to the system. At Big Rock Point, the valves are motor operated and move rather slowly. (Approximately 20 seconds to close.)

There is also an expansion joint in the 24" crosstie line but there are no valves downstream and, hence, a massive failure again is not considered credible.

To assure that a small leak does not develop (which could be assumed to propagate into a large break) an inspection program has been developed. The arrangement of condenser circulating water pump piping is such that the expansion joint cannot be removed and visually inspected without first removing the circulating water pump. Both of the discharge pump expansion joints were inspected and documented within the past year when the circulating water pumps were inspected. As a part of the preventive maintenance program, these expansion joints will be removed and inspected for possible replacement every five years. This coincides with the circulating water pump inspection interval. In addition, a visual inspection on the exterior side of expansion joints is being made with the routine inspection of pumps and packings that is presently being conducted at intervals of three times per week.

Yours very truly,



Ralph B. Sewell
Nuclear Licensing Administrator

RBS/ds

CC: BHGrier,
USAEC

FILE: _____

FROM: Consumers Power Company Jackson, Michigan 49201 Ralph B. Sewell		DATE OF DOC 6-28-73	DATE REC'D 7-2-73	LTR x	MEMO	RPT	OTHER
TO: John F. O'Leary		ORIG 1 signed	CC 39	OTHER	SENT AEC PDR _____ x _____ SENT LOCAL PDR _____		
CLASS	UNCLASS x	PROP INFO	INPUT	NO CYS REC'D 40	DOCKET NO: 50-155		

DESCRIPTION:
Ltr re our 8-3-72 ltr & their 10-2-72 ltr...
furnishing info inadvertently omitted fm
their ltr 10-2-73 re the failure of any
equipment, particularly the circulating
water system.....

ENCLOSURES:

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: Big Rock Point

FOR ACTION/INFORMATION 7-5-73 LB

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