



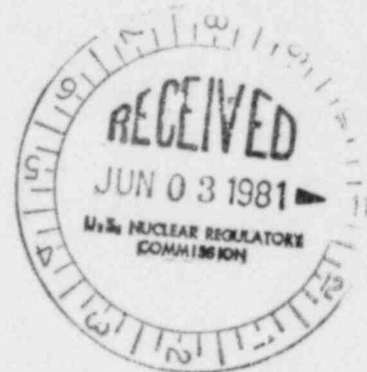
**Consumers
Power
Company**

General Offices: 212 West Michigan Avenue, Jackson, MI 49201 • (517) 788-0550

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June 1, 1981

Director, Nuclear Reactor Regulation
Att Mr Dennis M Crutchfield, Chief
Operating Reactors Branch No 5
US Nuclear Regulatory Commission
Washington, DC 20555



DOCKET 50-155 - LICENSE DPR-6 -
BIG ROCK POINT PLANT - SAFETY CONCERNS
ASSOCIATED WITH PIPE BREAKS IN THE BWR
SCRAM SYSTEM

NRC letter dated April 10, 1981 provided NRC evaluation of the above subject and requested both a generic and plant specific evaluation of its conclusions and recommendations. The concerns expressed in this evaluation appear to be two-fold. These are the abilities to provide reactor core cooling and to contain reactor water inside primary containment. In presentation of this subject to the Advisory Committee on Reactor Safeguards (ACRS) Subcommittee on Reactor Operations on March 10, 1981, Mr C Michelson, NRC, noted that the safety concerns associated with pipe breaks in the BWR scram systems are applicable to General Electric (GE) Mark I and II containment designs.

Consumers Power Company has reviewed the NRC letter dated April 10, 1981 and its attachments to determine its applicability to Big Rock Point (BRP). Our review indicates that the design and location of the BRP scram system make the concerns presented by Mr C Michelson not applicable to BRP. The following facts substantiate this conclusion:

- 1) BRP was constructed in the early 1960's using a containment design that doesn't include a suppression pool (ie, basically a PWR type containment) and that does contain the entire hydraulic portion of the scram system, except for the suction line to the control rod drive (CRD) pumps. Therefore, the BRP design is not susceptible to pipe breaks in the scram system that result in loss of reactor water from containment. Postulated scram system pipe breaks are bounded by previous Emergency Core Cooling System (ECCS) analyses.
- 2) The location of ECCS components at BRP eliminates the environmental effects concern resulting from scram system pipe breaks. The ECCS water supply is provided by the fire system which is supplied by pumps external to containment. Post Incident recirculation flow for the ECCS is also provided by pumps and a heat exchanger external to containment. In addition, all of the ECCS electrical components

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Mr Dennis M Crutchfield, Chief
Big Rock Point Plant
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located inside of containment are required to meet Electrical Equipment Qualification requirements (reference: Consumers Power letters dated October 31, 1980 and January 30, 1981).

- 3) In the 18 years operation of BRP, no indications or occurrences of scram system pipe breaks have been identified. This history agrees with the GE conclusion that scram system piping failures have a low probability of occurrence.

GE letter MFN-091-81 dated April 30, 1981 from Glenn G Sherwood to Darrell Eisenhut, NRC indicates that the safety concerns associated with pipe breaks in the BWR scram system is not applicable to BWR 6 Mark III designs. We have discussed this conclusion with GE and have ascertained that the same conclusion of non-applicability applies to BRP for essentially the same reasons.

Consumers Power has concluded based on the above that the safety concerns associated with pipe breaks in the BWR scram system are not applicable to Big Rock Point. Therefore, this letter provides our response to both the generic and plant specific evaluation requests of NRC letter dated April 10, 1981.

David P Hoffman (Signed)

David P Hoffman
Nuclear Licensing Administrator

CC Director, Region III, USNRC
NRC Resident Inspector - Big Rock Point

CONSUMERS POWER COMPANY
Big Rock Point Plant

Response to NRC letter dated April 10, 1981

Docket No 50-155
License No DPR-6

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended, and the Commission's Rules and Regulations thereunder, Consumers Power Company submits our response to NRC letter dated April 10, 1981 entitled, "Safety Concerns Associated With Pipe Breaks In The BWR Scram System". Consumers Power Company's response is dated June 1, 1981.

CONSUMERS POWER COMPANY

By R B DeWitt (Signed)
 R B DeWitt, Vice President
 Nuclear Operations

Sworn and subscribed to before me this 1st day of June 1981.

 Helen I Dempski (Signed)
 Helen I Dempski, Notary Public
 Jackson County, Michigan
My commission expires December 14, 1983

(SEAL)