



**Duquesne Light**

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Director of Nuclear Regulatory Commission  
U. S. Nuclear Regulatory Commission  
Attn: D. G. Eisenhut, Director  
Division of Licensing  
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, License No. DPR-66  
10CFR50.44(c)(3)(iii), Reactor Coolant System  
Vents and NUREG-0737 Item II.B.1

Gentlemen:

NUREG-0660 and 0737 provided NRC guidance for the design and installation of Reactor Coolant System Vents. On December 2, 1981, the final rule presenting Interim Requirements Related to Hydrogen Control was published in the Federal Register (46 FR 58484). Included in this final rule was the requirement to provide improved operational capability to maintain adequate core cooling following an accident through the installation of high point vents for the reactor coolant system (RCS) by the end of the first scheduled outage of sufficient duration beginning after July 1, 1982. The installation of this system has been completed and our procedures for operation of the system were submitted via Duquesne Light Company letter dated December 7, 1982. Correspondence describing the Reactor Coolant Gas Vent System has been provided to the NRC via NUREG-0578 and 0737 correspondence dated 6/26/80, 7/1/81, 5/11/82 and 3/29/83.

The Beaver Valley Power Station, Unit No. 1 is presently completing work activities associated with the third refueling outage which is the first outage of sufficient duration after July 1, 1982. At this time, the Reactor Coolant Gas Vent System (RCGVS) is not operable and will not be operable by the end of this refueling outage. In accordance with 10CFR50.12(a), a specific exemption is hereby requested from 10CFR50.44(c)(3)(iii) to have an operable system following this outage. There are two reasons for not having an operable system; (1) not having NRC authorization for use of the vent (2) the solenoid operated vent valves installed in our system have demonstrated an operational anomaly which requires resolution prior to declaring the system ready for operation. This anomaly was discovered during low pressure operation of this system. This system is manually isolated and de-energized during power operation.

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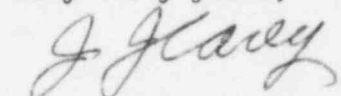
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The pressurizer was at 300 psig with a steam bubble and the RCGVS was being used to depressurize the RCS by venting to the pressurizer relief tank (PRT). The RCGVS was initially lined up as shown on Figure 1. The vent path was through SOV-RC-103B and SOV-RC-104. When SOV-RC-104 was closed, SOV-RC-103A opened. It is postulated that while venting to the PRT, all the piping downstream of the restricting orifice is nearly at PRT pressure of 5 psig, since most of the pressure drop is across the restricting orifice. The low pressure at the inlet of SOV-RC-103A allows any water or high pressure steam in the bonnet above the disc to bleed off through the pilot orifice (see Figure 2). When SOV-RC-104 is shut, pressure in the lines builds up to 300 psig and this pressure is applied to the inlet and outlet of SOV-RC-103A, and forces the valve open. These valves were manufactured by the Target Rock Corporation (model number 80B-001-1). This unexpected valve operation has been discussed with the Target Rock Corporation and the exact cause and steps necessary to correct this situation are currently under review.

It is our intent to resume operation from this refueling outage with the RCGVS isolated from the RCS by the manually operated isolation valves until this problem can be resolved. It is requested that a scheduler exemption be granted from 10CFR50.44 to have an operable system following this outage. It is expected that the cause of this valve misoperation and the necessary actions to be taken to correct for this condition can be completed during the fourth refueling outage presently scheduled for February 1985. This would be the next outage of sufficient duration to make any necessary modifications to the system.

Since we do not have approval to operate the system during power operation or accident conditions pending your review of the procedures and no design basis accident necessitates its use, we believe this exemption should be granted on an interim bases until this problem can be adequately reviewed and resolved.

Very truly yours,



J. J. Carey  
Vice President, Nuclear

cc: Mr. W. M. Troskoski, Resident Inspector  
U. S. Nuclear Regulatory Commission  
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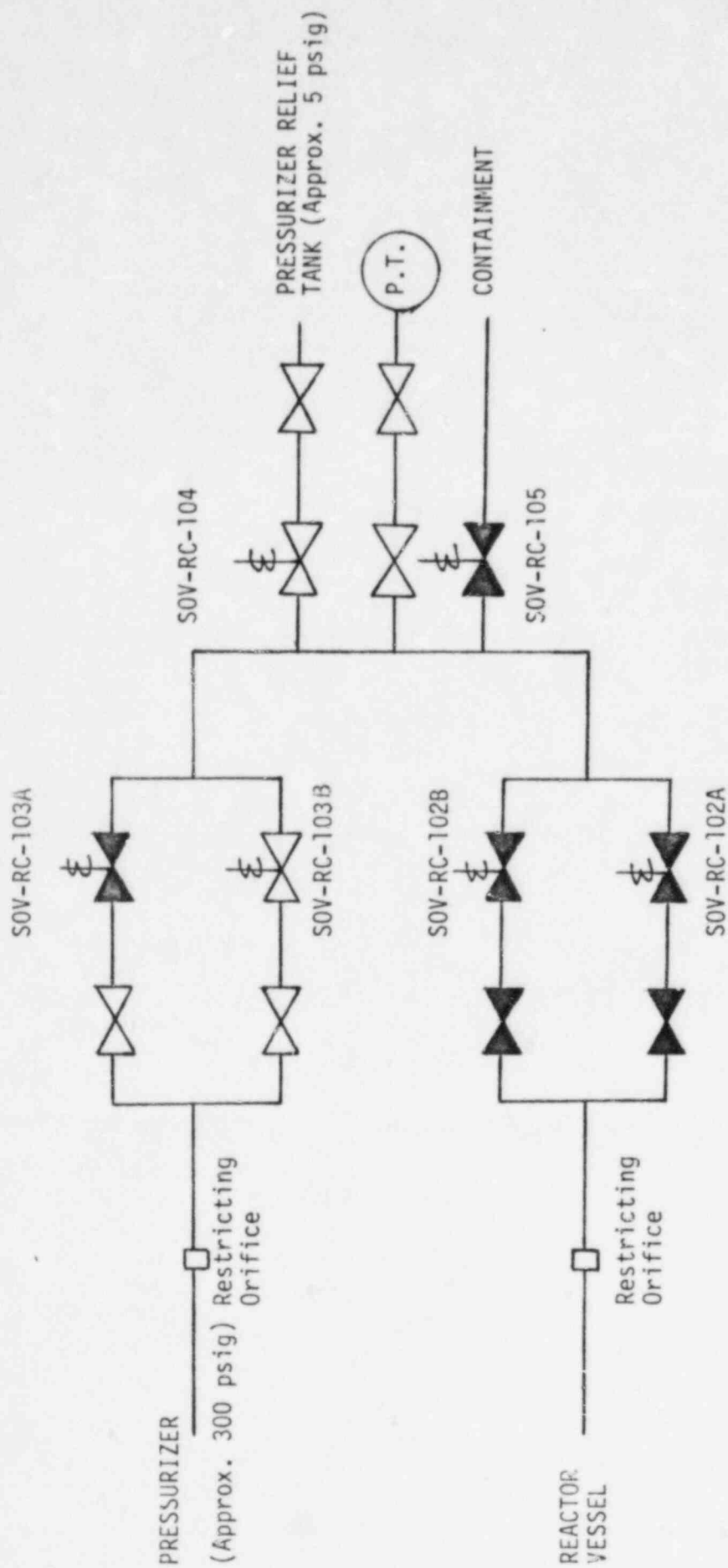


FIGURE 1  
REACTOR COOLANT GAS VENT SYSTEM

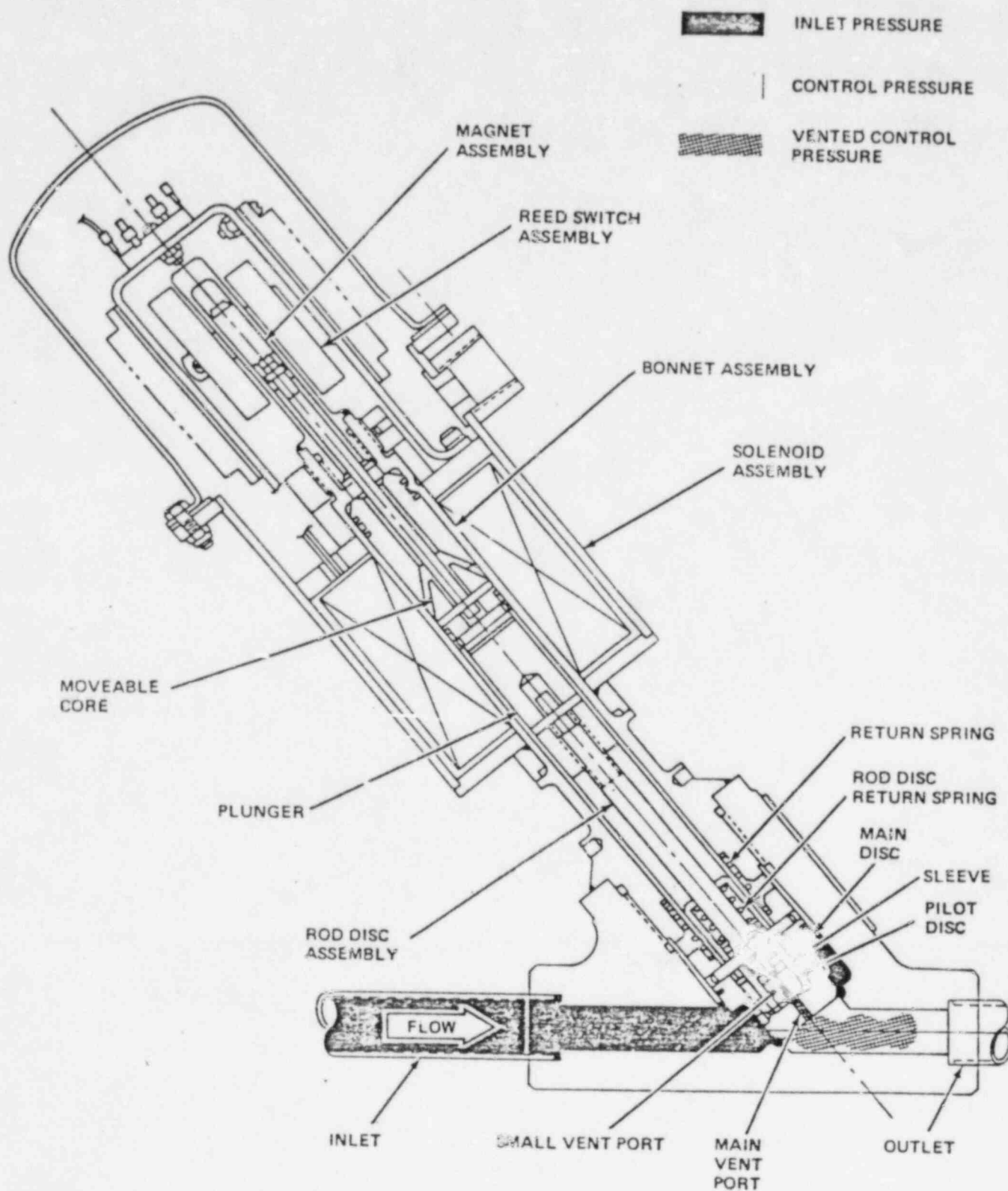


FIGURE 2  
TARGET ROCK SOLENOID OPERATED VALVE