

SNUPPS

Standardized Nuclear Unit  
Power Plant System

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Nicholas A. Petrick  
Executive Director

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SUBJ: IE Bulletin No. 80-05

Mr. Boyce Grier  
Director, Region I  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Docket Nos.: STN 50-482, STN 50-483, STN 50-485, STN 50-486

Dear Mr. Grier:

This letter is submitted in response to the subject IE Bulletin for the SNUPPS Utilities, Kansas Gas and Electric Company, Union Electric Company, and Rochester Gas and Electric Corporation.

The design of systems that contain low pressure or holdup tanks and that can be valved to contain primary system water has been reviewed as directed by Bulletin 80-05. The results of this review indicate that damage to the tanks due to vacuum conditions is precluded by either 1) design provisions for withstanding a full vacuum or 2) the use of suitable vent connections.

The following systems were included in the review:

- a. Reactor Coolant
- b. Chemical and Volume Control
- c. Borated Refueling Water
- d. High Pressure Coolant Injection
- e. Gaseous Radwaste
- f. Liquid Radwaste
- g. Solid Radwaste
- h. Boron Recycle

The specific incidents at Trojan and Rancho Seco were reviewed to determine if similar events could occur at a SNUPPS plant. The Trojan incident involved damage to a CVCS (recycle) holdup tank caused by pressure regulator failure. The SNUPPS recycle holdup tanks do not depend on pressure regulators to compensate for level variations, but rather

*Boo/s, 10*

use a diaphragm to prevent escape of radioactive gases and absorption of atmospheric gases. The tank gas space is vented to the Radwaste Building HVAC.

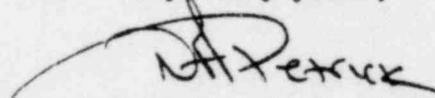
The failure of pressure regulators, as occurred at Trojan, could cause a vacuum to be drawn on the SNUPPS volume control tank. To preclude damage, this tank is designed to withstand full vacuum conditions.

Damage to the reactor coolant drain tank (RCDT) similar to that which occurred at Rancho Seco cannot occur at a SNUPPS plant because the SNUPPS RCDT is designed to withstand a pressure differential in excess of full vacuum. In addition, the SNUPPS spent resin storage tank, gas decay tanks, demineralizers, and pressurizer relief tank are capable of withstanding a full vacuum without damage.

The remaining tanks in the SNUPPS design (e.g. floor drain, waste hold-up, laundry and hot shower tanks) are designed to operate at atmospheric pressure. Damage to these tanks from an over- or under-pressure condition is precluded by the use of suitable vent connections.

The outside tanks, i.e. the refueling water storage and reactor makeup water storage tanks, are also atmospheric tanks. These tanks are insulated and heated to prevent freezing and subsequent vacuum conditions upon pump drawdown of the tank.

Very truly yours,



Nicholas A. Petrick

RLS/jdk

cc: Mr. James G. Keppler, Director, Region III, USNRC  
Mr. Karl V. Seyfrit, Director, Region IV, USNRC  
Mr. Victor Stello, Jr., Director, Office of Inspection and Enforcement, USNRC, Washington, D.C. 20555