

ARIZONA



PUBLIC SERVICE COMPANY

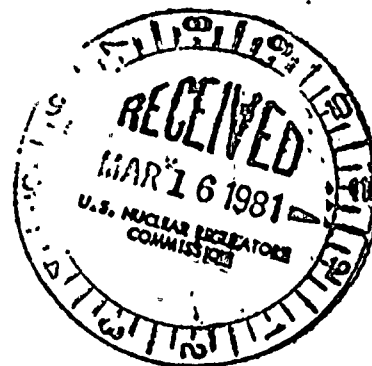
P. O. BOX 21666 • PHOENIX, ARIZONA 85036

February 9, 1981

ANPP-17257 - JMA/KEJ

Docket Nos. 50-528, 50-529, 50-530

Mr. R. H. Engelken, Director
Nuclear Regulatory Commission
Region V
1900 N. California Boulevard
Suite 202 Walnut Creek Plaza
Walnut Creek, California 94596



Subject: NRC I&E Bulletin No. 80-16
Potential Misapplication of Rosemount
Inc. Models 1151 and 1152 Pressure
Transmitters with Either "A" or
"D" Output Codes
File: 81-055-026

Reference: ANPP-16140 - JMA/WFQ dated August 11, 1980

Dear Mr. Engelken:

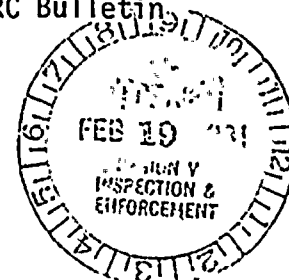
In the above referenced letter, ANPP reported that no Rosemount, Inc. Model 1151 and 1152 Pressure Transmitters were used in any safety-related applications on PVNGS. This response was based on a review of the Bechtel purchase orders, but a survey of the subtier suppliers was not conducted prior to providing these responses. However, during a subsequent review of the subject Bulletin done by Bechtel, Anchor Darling Valve Company was contacted and they verified usage of the Rosemount transmitters in safety-related equipment. As a result of this information, another detailed review was initiated to recheck all safety-related purchase orders for the possible application of Rosemount transmitters by the prime suppliers to Bechtel. The detailed review indicated that the subject transmitters are being used by three (3) suppliers of safety-related equipment. Those three suppliers are Atomics International, Anchor Darling, Inc., and Cooper Bessmer. Atomics International and Anchor Darling use the subject transmitters in Class IE applications. The application by Cooper Bessmer is not Class IE.

Atomics International is using the subject transmitters on the thermal hydrogen recombiners. An evaluation was made by Atomics International in response to the referenced NRC Bulletin. A Rosemount differential pressure transmitter is used on the recombiner in the flowmeter instrument loop. The anomalous operation reported in the referenced NRC Bulletin

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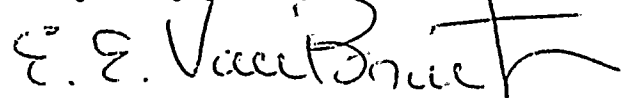
cannot occur for the transmitter application on the recombiners due to the range settings used in this case. The Rosemount Model 1152DP4A22 (Output Code "A") being used has range limits of 0 to 150 in. of water. The range setting for the transmitters used on the recombiners is 0 to 40 in. of water (maximum). According to Rosemount's evaluation, the ambiguous output does not occur until the over-pressure condition is 140% of the upper range limit of the transmitter, regardless of the span setting. Ambiguous transmitter output was also reported to occur if a reverse pressure condition should occur. A reverse pressure is not possible in the recombiner application. When the blower is not operating (i.e., providing a positive pressure differential), the differential pressure across the flow element is zero. Also, the recombiner has a low flow alarm which precludes the possibility of the operator not knowing when the flow (differential pressure) has decreased to a below-normal condition.

Anchor Darling Valve Company uses the subject transmitters in the hydraulic actuator package to provide a means to remotely monitor the accumulator (N₂) pressure. The nitrogen pressure can normally range from 2,500 psig to 5,000 psig. The pressure transmitters have all been calibrated for the range of 2,500 psig to 6,000 psig. For an ambiguous signal to occur, the high pressure would have to exceed 8,400 psig (6,000 x 140%) or the low pressure would have to be less than zero. Neither condition will occur on the A/DV hydraulic actuator if the actuator and transmitter calibrations are properly maintained.

We believe that with the information presented, the potential defect as described by the Rosemount 10 CFR Part 21 report would not impact or impair the intended function of the equipment being supplied since the intended applications are within the calibrated range of the transmitter. This report supplements and clarifies the original project disposition to the NRC IE Bulletin 80-16.

If any further information is needed, please feel free to contact us.

Very truly yours,



E. E. Van Brunt, Jr.
APS Vice President,
Nuclear Projects
ANPP Project Director

EEVBJr/KEJ/av

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