# SAFETY EVALUATION

# MODIFICATION TO SAFETY

# INJECTION ACTUATION SYSTEM

# TROJAN NUCLEAR PLANT

## I. INTRODUCTION

The licensee Portland General Electric Company, in its submittal of June 6, 1979 proposed certain modifications to the safety injection actuation system logics for the Trojan Nuclear Plant in response to Item 3 of IE Bulletin 79-06A dated April 14, 1979.

Since the date of licensing until the issuance of IE Bulletin 79-06A safety injection was initiated, in addition to other parameters, based on coincident trip of one-of-three matched pairs of low pressurizer level and low pressurizer trips. Item 3 of IE Bulletin 79-06A directed all facilities using pressurizer water level coincident with pressurizer pressure for automatic initiating of safety injection to trip the low pressurizer level setpoint bistables so that when pressurizer pressure reaches the low setpoint, safety injection would be initiated regardless of the pressurizer level.

Because of the concern that this action has resulted in placing the Trojan Nuclear Plant in a condition (one-out-of-three trip) which is more susceptible to spurious actuation of the safety injection system, the licensee has proposed the following modifications and Technical Specification changes to alleviate this situation.

## II. EVALUATION

The proposed modification to the safety injection actuation system consists of removing the pressurizer level signal from each of the pressurizer level/pressure channel trips and converting the system to a two-out-of-three logic based on the pressurizer low pressure trips. The instrumentation logic receives pressurizer pressure signals from three pressure transmitters and initiates a safety injection actuation when two of the three signals reach the low pressure setpoint. This modification does not involve a change in the setpoint. These modifications will satisfy the requirements of IEEE 279-1971, and other applicable standards. The modifications will be implemented with the plant in the shutdown condition.

## III. CONCLUSION

Based on our review of the licensee's submittal, we conclude that the modifications to the safety injection actuation system logic satisfy the requirements of IEEE 279-1971 and that the associated change in Technical Specifications are correct; and therefore, are acceptable.