

FOIA 87-041



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 7, 1986

MEMORANDUM FOR: John Zwolinski, Director
BWR Project Directorate #1
Division of BWR Licensing

FROM: Gus C. Lainas, Assistant Director
for BWR
Division of BWR Licensing

SUBJECT: PILGRIM - PROPOSED TECHNICAL SPECIFICATION
CHANGES ASSOCIATED WITH ADDITION OF
ANALOG TRIP SYSTEM (TAC NO. 60936)

Plant Name: Pilgrim
Docket No.: 50-293
Licensing Status: OR
Responsible PD: PD #1/DBL
Project Manger: P. Leech
Review Branch: EICSB/DBL
Review Status: Complete

By letter dated February 27, 1986, Boston Edison Company requested approval of the Technical Specification changes associated with the addition of analog trip system. Based on our review of the licensee's submittal, we find the proposed changes to the technical specifications satisfy our requirements and are, therefore, acceptable. The enclosed safety evaluation report completes action on TAC 60936.

Enclosed is the SALP input for this review.

G. C. Lainas
Gus C. Lainas, Assistant Director
for BWR
Division of BWR Licensing

Enclosures:
1. SER
2. SALP

cc: See page 2

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PROPOSED TECHNICAL SPECIFICATION CHANGES ASSOCIATED WITH

ADDITION OF ANALOG TRIP SYSTEM

BOSTON EDISON COMPANY

PILGRIM

DOCKET NO. 50-293

1.0 INTRODUCTION

By letter dated February 27, 1986, Boston Edison Company requested a revision to the Technical Specification Tables, 4.1.1, 4.1.2, 4.2.A and 4.2.B associated with the addition of analog trip system. This change incorporates new minimum calibration and test frequencies for instrument channels. General Electric presented analog trip system to the NRC staff for licensing under topical reports NEDC-21617 and NEDO-21617-A. The staff reviewed and found acceptable analog transmitter/trip unit system (NEDO-21617-A) in its letter to General Electric dated June 27, 1978. The topical report provides a description of General Electric's proposed equipment to be utilized for certain engineering safeguard sensor trip inputs including inputs for the reactor protection system, emergency core cooling system and nuclear steam supply shut off systems. The proposed equipment replaces pressure, level or temperature switches with analog transmitter/trip unit combinations. This equipment then provides the equipment logic trip inputs of the switches.

2.0 EVALUATION

The Analog Transmitter/Trip Unit System (ATTUS), as stated above, is a replacement for the mechanical type sensor switches at the sensor level only. The ATTUS provides the input for the plant process parameters to the system logics for the reactor protection system, the primary containment isolation system and the core standby cooling system. Since the dual channel design (with two trip systems) of the reactor trip system is not being altered, the safe and reliable operation of the trip system is not compromised. The proposed technical specification changes would relax surveillance requirements for the analog transmitter without reducing system availability, accuracy and reliability below levels which existed before the analog trip system modification. The changes proposed would revise test and calibration frequencies by requiring analog transmitter calibration once per cycle during refuel outages. Calibration of analog trip units will be performed concurrent with functional testing. With this change, a daily instrument check is also required which will provide a degree of confidence of system operability that was not feasible with the mechanical switches and sensors. In addition, the licensee has provided a gross failure alarm with the analog trip system which annunciates sensor failure.

3.0 CONCLUSION

The staff has reviewed the proposed Technical Specification changes which reflect the addition of analog transmitter/trip unit system, and has concluded that they permit operation of this facility in a manner that is consistent with our requirements on previous applications and are, therefore, acceptable.