



UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION I
970 BROAD STREET
NEWARK, NEW JERSEY 07102

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Metropolitan Edison Company
Attention: Mr. J. G. Miller, Vice President
P.O. Box 542
Reading, Pennsylvania 19603

Docket Nos. 50-239
50-320

Gentlemen:

We recently received information from the Florida Power & Light Company concerning an occurrence during preoperational testing of the Turkey Point 3 pressurized water reactor which may relate to the performance of steam line pressure relief valve headers in your facility.

This letter provides you with a copy of the body of a telegram sent to all operating reactors by cognizant Regional Offices of the Division of Compliance.

For your reactors which are not yet licensed to operate, no response to this letter is required of you. We will review this matter during our continuing inspection program.

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Very truly yours,

James P. O'Reilly
Director

Enclosure:
Body of Telegram

bcc: A. Giambusso, CO
L. Kornblith, CO
R. Engelken, CO
J. G. Keppler, CO
J. B. Henderson, CO(5)
DR Central Files ✓

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ENCLOSURE

BODY OF TELEGRAM TO LICENSEES OF OPERATING POWER REACTORS

WE RECENTLY RECEIVED INFORMATION FROM THE FLORIDA POWER & LIGHT COMPANY OF AN OCCURRENCE DURING PREOPERATIONAL TESTING OF THE TURKEY POINT 3 (W) PRESSURIZED WATER REACTOR THAT MAY RELATE TO PERFORMANCE OF THE STEAM SUPPLY SYSTEM AT YOUR FACILITY. THE INFORMATION IS AS FOLLOWS:

DURING HOT FUNCTIONAL TESTING OF THE UNFUELED REACTOR, THREE OF FOUR RELIEF VALVES WERE CATASTROPHICALLY EJECTED FROM TWO MAIN STEAM LINE HEADERS TO WHICH THEY WERE MOUNTED. THE FAILED HEADERS WERE 12-INCH DIAMETER, SPOOL PIECES FABRICATED BY THE DRAVO CORPORATION, MARIETTA, OHIO FROM SCHEDULED 60 (.562-INCH WALL THICKNESS) A106 GRADE B CARBON STEEL PIPE MANUFACTURED BY U.S. STEEL, LORAIN WORKS, LORAIN, OHIO, MOUNTED HORIZONTALLY 180° FROM EACH OTHER ON THE TWO SIDES OF THE MAIN STEAM LINE. THE HEADERS WERE HYDROSTATICALLY TESTED AT 1356 PSIG UNDER COLD CONDITIONS PRIOR TO HOT FUNCTIONAL TESTING. ON ONE SIDE OF THE MAIN STEAM LINE, THE FAILURE OCCURRED IN THE VICINITY OF THE HEAT-AFFECTED ZONE OF THE WELD WHICH JOINS THE RISER TO THE HEADER AND APPEARS TO BE LARGELY CONFINED TO THE 12-INCH HEADER. ON THE OTHER SIDE OF THE MAIN STEAM LINE, THE FAILURE APPARENTLY ORIGINATED IN A SIMILAR MANNER AND PROPAGATED THROUGH THE PIPE HEADER CAUSING CATASTROPHIC DAMAGE TO THE HEADER ASSEMBLY. THE SECONDARY SYSTEM WAS AT 990 PSIG AND 545°F AND THE PRIMARY SYSTEM AT 2232 PSIG AND 546.6°F AT THE TIME OF THE HEADER FAILURE. THESE SYSTEMS HAD BEEN AT THEIR RESPECTIVE PRESSURES AND TEMPERATURES FOR NINE DAYS. NO TRANSIENT CONDITIONS WERE REPORTED TO

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HAVE EXISTED IN THESE SYSTEMS AT THE TIME OF FAILURE.

THE FAILED HEADER ASSEMBLIES EACH CONSISTS OF TWO VALVES MOUNTED VERTICALLY IN A DEAD-END 12-INCH DAIMETER PIPE PROJECTING AT A 90° HORIZONTAL ANGLE FROM THE MAIN STEAM LINE. THE TWO HEADERS ARE MOUNTED AT 180° TO EACH OTHER ON THE OPPOSITE SIDES OF THE MAIN STEAM LINE. THE HEADERS WERE DESIGNED TO MEET SECTION I OF THE ASME CODE BY THE BECHTEL CORPORATION.

FOR YOUR REACTORS WHICH ARE LICENSED TO OPERATE, IT IS REQUESTED THAT YOU PROVIDE THIS OFFICE WITHIN TEN DAYS, IN WRITING, AS TO WHETHER HEADERS AS DESCRIBED ABOVE WERE INSTALLED IN THE STEAM LINES OF YOUR FACILITY.

SHOULD YOU HAVE ANY QUESTIONS CONCERNING THIS MATTER, WE WILL DISCUSS THEM WITH YOU.

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