Met-Ed / GPU

Metropolitan Edison Company
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Writer's Direct Dial Number

December 18, 1979
GQL 1554

Director of Nuclear Reactor Regulation
Attn: R. W. Reid, Chief
Operating Reactors Branch No. 4
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Docket No. 50-289
License No. DPR-50
Nuclear Instrumentation Calibration

In a telephone conference call on November 28, 1979 among the NRC, Met-Ed and B&W, the NRC requested that a certified letter be submitted verifying that a once per shift surveillance of the nuclear instrumentation (NI) is sufficient to maintain the required calibration. It was further stated that an acceptable method of verifying this would be the review of one month of data, at steady state operation, with the results showing the NI's met the calibration criteria.

Per this request, the month of January, 1979, was selected at random. During this month, TMI-1 was operated at ~100% power. As indicated in the enclosure, a power range calibration check was performed once per shift. During the month the NI's met all the calibration criteria on every shift, except on two occasions. However, as indicated in the enclosure for these occasions the NI's were outside one of the criteria by only a very small percent.

Based on the information presented in the enclosure, we believe that a once per shift calibration check of the NI's is adequate to ensure that the power range amplifiers are properly calibrated.

Sincerely,

J. G. Herbein
Vice President-Nuclear Operations

JGH:DWR:tas

Enclosure

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METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER & LIGHT COMPANY

and

PENNSYLVANIA ELECTRIC COMPANY
THREE MILE ISLAND NUCLEAR STATION, UNIT 1

OPERATING LICENSE NO. DPR-50
DOCKET NO. 50-289

This letter is submitted in support of the Nuclear Regulatory Commission's verbal request concerning nuclear instrumentation calibration via telephone conference call of November 28, 1979, for Three Mile Island Nuclear Station, Unit 1. As a part of this request a "Summary of Operating Plant Data Showing Results of Once per Shift Nuclear Instrumentation Calibration Check" is attached. Further, all statements contained in this report have been reviewed and all such statements made and matters set forth therein are true and current to the best of my knowledge, information, and belief.

Metropolitan Edison Company

By _____
Vice President

Sworn and subscribed to me this 18 day of December, 1979.

_____
Notary Public

NOTARY PUBLIC

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ENCLOSURE

Summary of Operating Plant Data Showing Results of Once Per Shift Nuclear Instrument Calibration Check -

1. Per surveillance procedure 1302-1.1, Power Range Calibration (calibration check of all channels), a heat balance - neutron power check is performed once per shift.

2. In a random month (January 1979 in which TMI-1 was operated at 100% power) RPS channel calibration had to be performed only twice due to failure to meet one of the three acceptance criteria of 1302-1.1. The three acceptance criteria are:

    1. If the absolute value of the offset error is equal to or less than 3.5%, the out-of-core imbalance is properly calibrated,

    2. if the console indicators are within $\pm$ 2% of the heat balance power, the out-of-core total power is properly calibrated, and

    3. if the computer readout (Error Linear Power, ELP) is within $\pm$ 1% of the heat balance power, the out-of-core total power is properly calibrated.

3. For the calibrations which were performed per 3) above, the third criteria was the only one that was not met. In one case, ELP exceeded 1% by an average of 0.253% on all channels. In the second case ELP exceeded 1% by 0.05% on Channel C (UIT) only.