



METROPOLITAN EDISON COMPANY SUBSIDIARY OF GENERAL PUBLIC UTILITIES CORPORATION

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November 20, 1973

Dr. D. F. Knuth  
Directorate of Regulatory Operations  
United States Atomic Energy Commission  
Washington, D. C. 20545

Dear Dr. Knuth:

Subject: Three Mile Island Nuclear Station  
Units 1 and 2  
Estimated Chemical Analysis  
Docket Nos. 50-289 and 50-320

You were notified on August 27, 1973 of a situation which could be considered reportable under 10CFR50.55(e)(1)(i), "Conditions of Construction Permits". This situation involved incomplete chemical analyses (phosphorus and sulfur) performed by Walworth/Aloyco Company on pressure boundary parts of stainless steel valves supplied for use on Three Mile Island.

Our letter of September 26, 1973, which responded to the AEC letter of September 14, 1973, outlined a program of corrective action which has now been completed.

CORRECTIVE ACTION:

1. Walworth/Aloyco located one hundred and fifty-eight (158) archive samples of heats of material for pressure boundary parts of stainless steel valves supplied for use on Three Mile Island Nuclear Station, Units 1 and 2.
2. Walworth/Aloyco had two independent laboratories test the samples for phosphorus and sulfur content. The first ten (10) archive samples were submitted to International Testing Laboratory, Inc., of Newark, New Jersey. Results of this analysis were reported on March 19, 1973 to Aloyco. The remaining one hundred and forty-eight (148) samples were analyzed at Carpenter Technology Corporation of Reading, Pennsylvania, and reported to Aloyco on October 10, 1973. These analyses were partially witnessed by representatives of Metropolitan Edison Company, Gilbert Associates, Inc., Babcock and Wilcox Company, and Walworth/Aloyco.
3. The results of the analyses have been independently reviewed by Walworth/Aloyco, Gilbert Associates, Babcock and Wilcox Company, and Metropolitan Edison Company.

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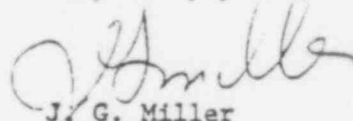
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4. All of the independent reviews concurred with the following:
- (a) The results of the analyses show that all samples are well within specification limits of 0.040% maximum for both phosphorus and sulfur.
  - (b) Aloyco has listed all heat numbers including those for which no samples are available. The heat numbers for which data is reported chronologically spans those heat numbers where samples are not available.
  - (c) From the availability of data from similar heats over the period in question and the low values of mean and standard deviation, it can be assumed at a very high confidence level that the phosphorus and sulfur content will not exceed the specified maximum content of 0.040%.

In conclusion, Metropolitan Edison Company has determined that there is sufficient statistical information available to indicate that although Aloyco did not perform actual chemical analyses of the heats in question, their foundry practice provided adequate control of the phosphorus and sulfur to keep them within the specification maximums and to establish confidence that all of the valves supplied by Aloyco had phosphorus and sulfur contents within the ASTM A-351 specification limits.

The results of these analyses are available at the Three Mile Island site for your review.

Very truly yours,



J. G. Miller  
Vice President

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cc:H. M. Dieckamp  
W. A. Verrochi

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