



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

April 3, 1981



Mr. Robert M. Quillin, CHP
Radiological Health Program
Director
Ohio Department of Health
246 North High Street
P.O. Box 118
Columbus, OH 43216

Dear Bob:

Thank you for your letter of February 19, 1981 which forwarded the results of environmental samples taken and analyzed by your Department.

We are unable to definitively explain the elevated tritium results, particularly November 19, 1980 samples taken from locations along the lakeshore in both directions from the plant. It is possible that the levels are accurate, and if so, they exceed by a factor of 100 the expected levels based on the lake diffusion model presented by Toledo Edison Company (licensee) in the Final Safety Analysis Report. The concentrations are .4% of the tritium level permitted by NRC Regulations contained in 10 CFR 20, Appendix B, Table II and about 50% of the annual average EPA drinking water standard.

Analysis of the licensee's samples taken from some of the same locations and for the same general period revealed levels ten times lower than those of your department. However, the two sets of data could be compatible given the nature of grab sampling and the differences in sample handling. The licensee collects weekly grab samples but only a quarterly composite is counted, whereas you count monthly grab samples. Unfortunately, you and the licensee did not arrange to split samples for comparison purposes.

On the other hand, your results may reflect bias arising from problems that can arise in tritium sampling, analysis, or both, although none could be identified in telephone discussions between members of our staff and yours.

During the week of March 9, 1981, Region III inspectors split water samples with the licensee for the Davis-Besse station. Argonne National Laboratory analyzed our samples and reported no detectable activity. The

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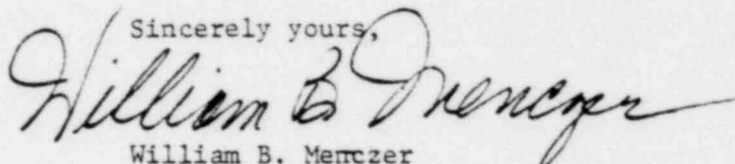
results of the analysis, which are incorporated into an NRC inspection report, will be forwarded to you when released later this month.

Again, these negative findings shed no light on the earlier results owing to the nature of grab sampling.

Because the levels involved are generally low from a public health standpoint, they do not necessitate immediate action on our part. We will continue to review the licensee's tritium sampling and will continue to take and split samples with the licensee at times and locations of our choice. Shutting down of your radiological program will preclude future comparison between us, you, and the licensees.

If you require further information regarding this subject, please let us know.

Sincerely yours,



William B. Merrizer
Regional State Liaison Officer

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