

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

35 JAN 4 9:19 AM December 28, 1984

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT
50-327/84-34 AND 50-328/84-34 - RESPONSE TO VIOLATION

The subject OIE inspection report dated November 21, 1984 from D. M. Verrelli to H. G. Parris cited TVA with one Severity Level V Violation. Enclosed is the response to the item of violation in the subject inspection report. The delay in submittal of this response was discussed with Steve Weise of your staff on December 21, 1984.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. A. Domer

J. A. Domer
Nuclear Engineer

Enclosure

cc (Enclosure):

Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

8502010499 850123
PDR ADOCK 05000327
G PDR

ENCLOSURE

RESPONSE - NRC-OIE INSPECTION REPORT
NOS. 50-327/84-34 AND 50-328/84-34

Items 327, /84-34 and 328/84-34

10 CFR 20, Appendix A, footnote d-2(b) requires that the removal efficiency of air purifying respirator filters be determined with a thermally generated 0.3 micrometer dioctyl phthalate (DOP) test.

Contrary to the above, air dispersed corn oil was used to determine the removal efficiency of air purifying respirator filters before reuse.

This is a Severity Level V violation (Supplement IV).

1. Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

2. Reason For the Violation if Admitted

In 1980, the TVA Industrial Safety Staff recommended that the use of dioctyl phthalate (DOP) for quantitative fit testing (QNFT) be suspended, based on a December 5, 1980 U.S. Department of Energy (DOE) memorandum. This DOE memorandum stated that a preliminary report by the National Toxicology Program presented evidence that DOP is carcinogenic. The DOE memorandum also recommended that the use of DOP be suspended until additional health hazards could be assessed, and recommended that a substitute material be used. At this time, the Sequoyah Health Physics Section purchased new equipment and began performing the QNFT using a refined corn oil aerosol.

A March 1984 National Institute for Occupational Safety and Health (NIOSH) report, entitled "Alternatives to DI-2-Ethylhexyl Phthalate ("DOP") Respirator Quantitative Fit Testing," also concluded that DOP is a potential carcinogenic. The NIOSH report also recommends that refined corn oil is the best substitute for DOP in QNFT.

Further, on August 28, 1981, NRC issued IE Information Notice No. 81-26, Part 2: Use of the Chemical DOP. In this IE Notice NRC states, "For quantitative respirator fit testing, even though human exposures are very small during these tests, it would be prudent, at least for now, to discontinue the use of DOP and to substitute an available, less potentially hazardous test agent for these tests. Corn oil, as recommended by the test equipment manufacturers, is acceptable for this use."

Based on the above referenced reports indicating DOP as a potential carcinogenic, the TVA industrial safety staff additionally recommended that DOP no longer be used for determining the removal efficiency of air purifying respirator filters. The decision was based on unknown amount or effect of DOP being entrained in the respirator filters after testing.