PDR

INEL
Idaho National Engineering Laboratory

March 2, 1987

Mr. Charles R. Nichols
Mail Stop P-700
PEICSB
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

TRANSMITTAL OF TER DOCUMENTING EG&G IDAHO'S REVIEW OF RETS-RELATED REPORTS FOR THE OCONEE NUCLEAR STATION - SIM-19-87

Dear Mr. Nichols:

Seven copies of the subject Technical Evaluation Report (TER) are transmitted herewith under the provisions of Task 3 of FIN A6808, "Selected Operating Reactors Issues Program III." Also enclosed is a set of photo prints of all the figures.

The enclosed TER documents EG&G Idaho's review of Radiological Effluent Technical Specifications (RETS)-related reports for the Oconee Nuclear Station. A draft TER was provided earlier for your review and comment and was found to be acceptable. In preparing this TER we evaluated the 1985 reports against the requirements of the Oconee Nuclear Station RETS as amended through Amendment No. 125, dated July 1, 1984.

The following is a brief summary of deficiencies in the reports and observations concerning the reported data:

1. The problem of buildup of radiocesium in the environment (Lake Hartwell) does not seem to be very well supported by the 1985 release and environmental data, since the dose we got in a back-of-the-envelope calculation using the environmental data is less than the dose calculated from the release data. There also seems to be an inconsistency in the Oconee treatment of this, since the dose from effluent data reported in the semiannual report is much larger than the same dose reported in the annual environmental report.

2. In the environmental report, Oconee shows LLDs equal to the LLDs required in their technical specifications, but they report ranges of activity in environmental samples much below the stated LLDs. The data imply actual LLDs much lower than those reported. Some of the environmental data are ambiguous. A discussion of this is included in Section 2.7.1 of the TER. (Their reporting of mean values and ranges based on "detectable" measurements does not fully account for the ambiguous results reported.)



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3. The radionuclides Nb-97 and Sr-92 reported to have been released in 1983 are almost certainly due to erroneous identification (because of their short half-lives). These did not appear in the 1984 and 1985 reports as major contributions like in 1983, so they apparently corrected the error.

4. Releases of Fe-55 in liquid effluents in 1984 (23%) and 1985 (25%) is a significant departure from the releases reported in 1983. Fe-55 is also reported as the primary release of particulates in gaseous effluents in 1984 (95%). Also, Sb-125 is reported as accounting for 40% of releases in liquid effluents compared to none or near none in 1983 and 1984.

The reason for these unusual releases was not explained in the effluent release reports. Possibilities for explaining the sudden appearance of these radionuclides in the reports include start of analysis for pure beta emitters (in the case of Fe-55), and/or unusual operating conditions such as decontamination of steam generators, etc. Start of analysis for pure betas does not account for the very large fraction of Fe-55 in gaseous effluents in 1984 compared to 1985. (There is also a possibility of mis-identification in the case of the large amount of Sb-125 reported released in 1985.)

Sincerely,

F. B. Simpson
Project Manager

EHM:jd

Enclosure:
As Stated

cc: M. Carrington, NRC
G. L. Jones, DOE-ID
J. O. Zane, EG&G Idaho, Inc. (w/o Enclosure)