

## APPENDIX A

General Electric Company  
Wilmington Manufacturing Facility  
Wilmington, North Carolina  
Docket No. 99900003/85-01

### NOTICE OF NONCONFORMANCE

During an inspection conducted June 24-28, 1985, the implementation of the Quality Assurance (QA) Program at General Electric's Wilmington Manufacturing Facility was reviewed. The Quality Assurance (QA) Program requirements are discussed in GE's Nuclear Energy Business Operations BWR Quality Assurance Program Description, NEDO-11209-04A, Revision 5. This program, which has been reviewed and approved by the Nuclear Regulatory Commission, includes activities associated with the fabrication of fuel bundles, channels and fuel assembly components manufactured at the Wilmington facility. Based on the results of this inspection, it appears that certain activities at the GE manufacturing facility were not conducted in accordance with commitments made to the NRC. These items are listed below.

1. Section 10, NEDO-11209-04A, Revision 4, dated December 31, 1982, "Inspection," requires, in part, that inspection of materials be performed in accordance with established procedures or instructions.

Section 12, NEDO-11209-04A, Revision 4, "Control of Measuring and Test Equipment," requires, in part, that calibration of test equipment be performed at specified intervals.

Wilmington Manufacturing Department (WMD), Chemet Laboratory Station Control Document Book W-5, "Nitrogen In UO<sub>2</sub> And Metallics," SCP No. 208, Revision 3, dated May 24, 1983, Section 1.0, requires that calibration curves be verified once per year or when required by calibration verification.

Contrary to the above, activities were not conducted in accordance with established procedures in that analyses conducted during the time period October 12, 1984, to November 1, 1984, to determine wet iron test results were calculated using outdated calibration values.

2. Section 12, NEDO-11209-04A, Revision 5, dated March 1, 1985, "Control of Measuring and Test Equipment," requires, in part, that items of test equipment be uniquely identified for traceability to their calibration test data.

Contrary to the above, items of test equipment are not uniquely identified to provide traceability to calibration test data in that both Beckman (DU-5) test instruments in the Chemet laboratory are labeled 201, and all wet iron test results entered in the computerized data system were identified as having been performed using instrument 201.

3. Section 12, NEDO-11209-04A, Revision 5, "Control of Measuring and Test Equipment," requires, in part, that instruments be of the proper type to verify conformance to established requirements, and that items of test equipment be uniquely identified for traceability to their calibration test data.

SCP No. 202, "Wet Iron," Revision 5, dated May 3, 1984, requires that calibration curve data be posted in the yellow work station book.

Contrary to the above, the calibration curve contained in the yellow work station book for the Beckman instrument was dated January 7, 1981, and was based upon calibration tests performed using a Beckman Model 25 instrument. The Beckman instruments currently used in the Chemet laboratory are both model DU-5.

4. Section 10, NEDO-11209-04A, Revision 5, "Inspection," requires, in part, that inspection of materials be defined and executed in accordance with established procedures or instructions.

GE Analytical Test Method No. 1.2.9.4, Revision 4, dated July 12, 1984, "Determination of Iron in Uranium Oxide and Uranyl Nitrate Solutions," requires in Step 7.7 that sample volumes be 200 ml.

Calibration and Operation Instruction (COI) No. 203, Revision 1, dated June 3, 1985, "Waste Water Analyses," requires that Steps 4.5.1.2 through 4.5.1.5 be repeated for sample analyses.

Contrary to the above, procedures were not adequately defined in that (1) Analytical Test Method No. 1.2.9.4 reflects analysis performed using a Brinkman instrument, however, this procedure is also conducted using a Beckman instrument which requires a 100 ml sample volume; and (2) COI No. 203 Step 4.3 contains references to nonexistent "Steps 4.5.1.2 through 4.5.1.5."

5. Section 5, NEDO-11209-04A, Revision 5, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be delineated, accomplished, and controlled by procedures and instructions.

Step 7.8 of GE Analytical Test Method No. 1.2.9.4, Revision 4, requires that technicians wait 30-45 minutes prior to measuring absorbance of samples.

Contrary to the above, during the inspection, the inspectors observed that technicians did not wait 30-45 minutes prior to measuring absorbance of samples. No wait period was observed by the technicians prior to measuring absorbance.

6. Section 5, NEDO-11209-04A, Revision 5, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be delineated, accomplished, and controlled by procedures and instructions.

Step 7.7 of GE Analytical Test Method No. 1.2.9.4, Revision 4, requires dilution to 200 ml with mix solution.

Calibration and Operating Instruction No. 203, Revision 1, dated June 3, 1985, "Waste Water Analyses," Step 4.3 "Sample Analysis" references (although incorrectly) Step 4.3.1.2. Step 4.3.1.2 requires that a 25 ml blank be prepared for subsequent absorbance measurement.

Contrary to the above, during the inspection, the inspectors observed that (1) technicians diluted to a 100 ml volume of mix solution instead of the 200 ml specified; and (2) technicians did not use a 25 ml blank during sample analysis.

7. Section 5, NED0-11209-04A, Revision 5, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be delineated, accomplished, and controlled by procedures and instructions.

Section 4.4.5 of GE Practices and Procedures No. 30-33, Revision 6, dated April 22, 1985, requires, in part, that corrections be made per approved methods including as a minimum, a single line through the incorrect entry so that it may still be read with the date and signature such that it is traceable to the person who made the change.

Contrary to the above, Chemet laboratory personnel used white-out on data forms rather than drawing a single line through incorrect data entries. White-out was used on the form to record "Rad Waste Composites & Miscellaneous Liquid Waste," CL 238, Revision 0, dated March 4, 1981, and on entries on page 3 of the "Rad Safety Book for PRM-43."