

TELEPHONE CONVERSATION RECORD**Licensee Name:** NASA/GSFC**Date:** 2/3/2003**Time:** 3 PM**License No.:** 19-05748-02**Docket No.:** 03004538**Control No.:**
Inspection 2002-002**Licensee Contact:** Ted Simmons, RPO**Telephone No:** 301.286.8482**NRC Contact:** Kathy Dolce Modes**Telephone No:** 610-337-5251**Subject:** Calibration of Survey Instruments

Summary: According to the RPO, the licensee implemented the survey meter calibration program as described in Appendix O of NUREG-1556, Volume 11. Page O-4 of Appendix O references Model Procedures for Calibrating Liquid Scintillation Counters, Gamma Counters, Gas Flow Proportional Counters, and Multichannel Analyzers. The licensee believes the Eberline SAC-4 (Scintillation Alpha Counter) and BC-4 (Beta Counter) are benchtop meters and are subject to this specific procedure. This procedure requires the use of a radioactive sealed source to approximate the geometry of the samples to be analyzed and approximate the same energy and type of radiation as the samples that the calibrated device will be used to measure. In addition, the calibration must produce readings within $\pm 20\%$ of the actual values over the range of the instrument. The licensee has obtained a copy of ANSI N323A-1997, "Radiation Protection Instrumentation Test and Calibration, Portable Survey Instruments." NASA/GSFC believes that based on the ANSI standard and Appendix O of NUREG-1556, Volume 11, they have met the basis for calibrating the benchtop survey instruments.

I asked why then at the time of the inspection, NASA/GSFC informed me that the instruments were sent out to the manufacturer for calibration. The RPO indicated that they used the wrong wording. The RPO indicated that Polly Miller, a HP, was experiencing a degradation in the performance of the instrumentation in regards to the alpha counting. The instruments were sent to the manufacturer for repair and not calibration. The RPO indicated that he has heard from the manufacturer and that the instruments are in need of repair to the electronics.

Action Required/Taken: Talk to Branch Chief to see if apparent violation remains or we should remove it.

Signature: Kathy Dolce Modes**Date:** February 7, 2006