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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Reply to a Notice of Violation
Docket No. 03005302
License No. 29-04236-01

Dear Sir or Madam,

In February of 2006, after our RSO Al Zirkes quit, I was asked to assume the additional duties of RSO. I performed the first 6 month test for Source leakage on time using some notes that Al had left behind. During the December 4, 2006 Safety Inspection I realized that I had not conducted the next required 6 month test. I was also informed that Alpha emitting sources are to be tested at 3 month intervals and the leak test must be capable of detecting the presence of 0.005 microcurie of alpha and beta radiation.

On December 28, 2006 I preformed leak test efficiency Test on our system for Alpha, Beta and Gamma Sources. The results were positive (Please see pages 2 and 3). I then conducted the leak test and found no evidence of leakage.

I have marked my yearly desk calendar for the required leak test dates so I will not forget to perform the testing on time.

Sincerely,

Norman Bischoff, RSO

CC Betsy Ullrich U.S. NRC Region 1

IE07

The system used for Leak Test Analysis consists of alpha, beta and gamma standards, whose calibrations are certified to NIST whose accuracy is +/- 5% or better.

Each Standard is placed into the Leak Test Geometry and the net efficiency for 0.005 microcuries is determined.

If this efficiency is equal to or greater than background fluctuations at the 95% confidence level (i.e., two (2) standard deviations of the background), the system can detect removable contamination of 0.005 microcuries.

The following sample calculations are for sources in the Leak Test Geometry:

A: Gamma Radiation

Current activity of Cs-137 source = 0.00459 µCi

Actual Source counts = 346 cpm

Background counts = 8 cpm

$$\text{Net Source counts} = \frac{(\text{Gross} - \text{Bkg})}{\text{Current activity}} \times 0.005 = (346-8) = \frac{338}{0.00459} \times 0.005$$

$$= 368$$

(Square root of Background) x 2 = ($\sqrt{8}$) = 2.83 x 2 = 5.7

Since 368 is greater than 5.7, this Leak Test Geometry system can detect removable

Gamma contamination of 0.005 microcurie.

B: Alpha Radiation

Current activity of Pu-239 source = 0.006427 µCi

Actual Source counts = 2250 cpm

Background counts = 8 cpm

$$\text{Net Source counts} = \frac{(\text{Gross} - \text{Bkg})}{\text{Current activity}} \times 0.005 = (2250-8) = \frac{2242}{0.006427} \times 0.005 = 1744$$

(Square root of Background) x 2 = ($\sqrt{8}$) = 2.83 x 2 = 5.7

Since 1744 is greater than 5.7, this Leak Test Geometry system can detect removable

Alpha contamination of 0.005 microcurie.

C: Beta Radiation

Current activity of Sr-90 source = 0.01039 µCi

Actual Source counts = 4328 cpm

Background counts = 8 cpm

Net Source counts = $\frac{\text{(Gross - Bkg)}}{\text{Current activity}}$ x 0.005 = (4328-8) = $\frac{4320}{0.01039}$ x 0.005 =2079

(Square root of Background) x 2 = ($\sqrt{8}$) = 2.83 x 2 = 5.7

Since 2079 is greater than 5.7, this Leak Test Geometry system can detect removable

Beta contamination of 0.005 microcurie