



Nuclear Research Corporation

DENVILLE NUCLEAR DIVISION

2 RICHWOOD PLACE
DENVILLE, NEW JERSEY 07834
TELEPHONE: (201) 627-4200

February 8, 1982

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Gentlemen:

Reference is made to Docket No. 70-00356, License No. SNM-331 and to the Inspection No. 81-01.

Background to the matter raised is as follows:

(1) The material, Pu-239 Chloride was handled in narrow neck vial and had a specific activity of 50 uCi/ml. Pu-239 is not volatile at room temperature. Neither bubbling nor aerosol formation operations were performed. In fact the entire operation consists of incorporating the Pu-239 in a quick setting resin matrix and depositing 800 or 8 micrograms on a plastic disc. This resulted in structures which are impervious to environmental degradation. These discs became part of the AN/UDM-7C Alpha Radiac Calibration Sets and were delivered for use by the Departments of the Army and Navy.

(2) The aforementioned material was handled in a fume hood vented to the outside by convection through a compound filter consisting of 2 DRICO filters with a Hollingsworth-Vose Type HE1022 filter sandwiched in between. The H-V HE1022 filter is 99.7% effective for particles larger than 0.3 microns.

(3) During first production runs, the HD-732/UD (NSN 4G 6665-00-361-1815), Air Particle Sampler, using the same H-V type filter used to collect samples for air monitoring. Surfaces were monitored using the AN/PDR-56 (NSN 226665-01-016-8267) Alpha monitor.

a) Air monitoring disclosed no airborne contamination. Analysis of the filters in the air out disclosed no contamination. This confirmed that no airborne contamination was generated during our production process.

b) Surface monitoring was conducted and records were kept.

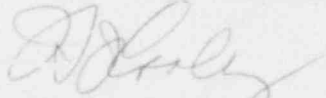
(4) During subsequent production runs surface contamination monitoring was performed and the records are on file and were always available for verification.

For the future, records of air monitoring using HD-732/UD will be kept (as described in (3) above for each usage even though air filters on the outlet disclose no contamination.

In view of the above, we feel that no violation occurred. However, we will now keep air monitoring records. Therefore, under any interpretation, full compliance is achieved now.

Very truly yours,

NUCLEAR RESEARCH CORPORATION
Denville Nuclear Division



H.J. Cooley
Division Manager

HJC/jl