

**RAYTHEON****RAYTHEON COMPANY**

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April 4, 1980

Mr. Robert O. McClintock, Chief  
Materials Radiological Protection Section  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Ref: Inspection 040-01386/79-01

Dear Mr. McClintock:

Following my report to you dated October 22, 1979 on the referenced inspection, we have continued to monitor regularly for workplace thoria contamination. This has been done with both a gas proportional alpha counter and wipes for surface contamination during the intermittent operating periods.

Surface contamination has remained within acceptable limits after the replacement and/or decontamination of bench tops, floors and equipment. This I have twice verified personally with wipes, which were satisfactory with the exception of one piece of equipment. This was an electric turntable which defied successful cleaning and disposal has been completed.

Initial personal breathing zone samples were delayed because of scheduling difficulties caused by the intermittent nature of the thoria operations. For instance, the mixing room was used only four days during the period December 1979 - February 1980.

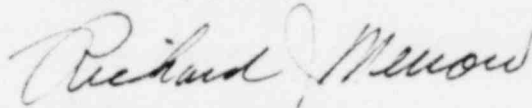
The December monitoring in the press and lathe area was disappointing. Sampling was conducted for airborne thoria on one of the nine operating days and showed contamination close to the maximum permissible level. However, this was for a staged operation, preplanned to extend over a full shift which is not normal.

Subsequent monitoring in January and February showed one sample in five slightly above the permissible airborne limits. Corrective engineering actions on the press room exhaust system have been made. Thoria is now stored in a new lead-line cabinet with a lock and vent.

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I trust that this report will assure you that operating management and radiation protection personnel of our Microwave and Power Tube Operation are continuing to maintain the radiation protection program as previously outlined to you.

Very truly yours,

A handwritten signature in cursive script that reads "Richard J. Merrow". The signature is written in dark ink and is positioned above the printed name and title.

Richard J. Merrow  
Occupational Safety and  
Health Director

RJM:ncm