



Mine Safety Appliances Company • Evans City, Pennsylvania 16033  
January 4, 1985

MS 12  
PI

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

Attn: John E. Glenn, Ph.D., Chief  
Nuclear Materials Section B  
Division of Engineering and  
Technical Programs  
Re: CONTROL NO. 17391

Dear Sir:

In accordance with your request, we are pleased to submit the attached information you requested relative to our License renewal application describing W. Julian Carter's experience with Isotopes.

In 1961, W. Julian Carter, 252-30-7502 was trained and supervised by Mr. Sheridan J. Rodgers to use and safely handle the Radioactive Isotope  $I^{131}$ . He was conducting a fine particle Research program under a contract with the U. S. Army Chemical Corps, Contract DA-18-108-CML-611A and Elgin Air Force Base Contract AF08-635-3674 to determine the filtration efficiency of the 5-A glass fiber filter media for removing an aerosol. This work involved the use of Uranine dye and  $I^{131}$  as a tracer. A 5 foot long glass test chamber 12" diameter was constructed and the efficiency of the filter media was determined by collecting samples on aerosol samplers (Millipore Filters) and bubblers. The sizes were determined by electron Microscopy and found to be in the .025  $\mu$  size range. A Dautreband generator was used for the dispersion of the aerosols.

$I^{131}$  in 1 ml solution was obtained from the Oak Ridge National Laboratory, dilutions of the 150 Millicurie per ml solutions were made and specific activities of 4 Micro curies were determined using a Scintillator.

Reports describing this work have been prepared and can be obtained from the Contractor. Since the Contract was classified, our documentation has been destroyed.

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REG 1 LIC30  
37-00261-04 PDR

*W. Julian Carter*  
JAN 7 1985  
RECEIVED-REGION I  
Julian Carter  
Safety and RCRA Coordinator

/by

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Telephone: 412/538-3510

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JAN 07 1985