68A1096 #280 MHS USGS

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 1065
Oak Ridge, Tennessee

December 6, 1960

Mr. R. C. Blair, Manager
Savannah River Operation Office
Atomic Energy Commission
P. O. Box A
Aiken, South Carolina

THRU: Mr. S. R. Sapirie, Manager, Oak Ridge Operations Office

Dear Mr. Blair:

This office is engaged in a project sponsored by the Atomic Energy Commission, Office of Isotope Development, in which we wish to "tag" a large volume of water to trace its underground movement.

We have concluded that hydrogen 3, as tritiated water, would be the best tracer material to use in this operation, and have written the project description on this basis. Also, approval from necessary authorities, (such as public health official, state agencies, AEC licensing and regulation), has been or is being obtained for the use of tritiated water as a tracer.

We will need approximately 250 curies of H_3 activity in the form of tritiated water, in a volume not greater than 250 liters (in other words, minimum concentration should be about 1 curie per liter). However, we could use concentrations as high as 100 curies per liter, dependent upon method of packaging. Also, chemical purity of the tritiated water is not a great problem, provided the impurities are not radioactive.

Would it be possible for us to obtain this tracer from your organization? If so, I would be happy to visit your office and discuss the matter in detail, including costs, shipment, and other pertinent data.

Arrangements were made in January 1961 for USGS to obtain this material by order to BRNL.

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I have discussed this subject in a general way with Mr. Dale Sandburg of your chemical processing branch, and he suggested that this "exploratory" letter be written before any further arrangements are made. I mentioned to Mr. Sandburg that we would appreciate an early reply, so that other arrangements could be made, if necessary, for the procurement of the tracer material. If you wish to phone us, we can be reached at the Oak Ridge Operation Office of AEC, extension 4761.

Very truly yours

Bernard J. Frederick

Bernard J. Frederick
Hydraulic Engineer

BJF/sw

cc: AEC, ORO (2)
B.A.C. Mid-Continent Area

OFFICE ▶
SURNAME ▶
DATE ▶

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