

IL 0-05-2

John Herman



**Department of Energy**

Washington, DC 20585

FEB 17 1995

IL 0-05

The Honorable Richard M. Daley, Jr.  
121 N. LaSalle Street  
Chicago, Illinois 60602

Dear Mayor Daley:

Secretary of Energy Hazel O'Leary has announced a new approach to openness in the Department of Energy (DOE) and its communications with the public. In support of this initiative, we are pleased to forward the enclosed information related to the former Morse Chemical Co. site in your jurisdiction that performed work for DOE or its predecessor agencies. This information is provided for your information, use, and retention.

DOE's Formerly Utilized Sites Remedial Action Program is responsible for identification of sites used by DOE's predecessor agencies, determining their current radiological condition and, where it has authority, performing remedial action to meet current radiological protection requirements. A conservative set of technical evaluation guidelines is used in these investigations to assure protection of public health, safety and the environment.

The DOE has studied the historical records of the former Morse Chemical Co. site and we have concluded that further investigations of the site are not necessary because of the limited scope of the activities performed there.

Even though additional involvement by DOE is not necessary at this site, we are prepared to respond to any concerns you may have.

If you have any questions, please feel free to call me at 301-427-1721 or Dr. W. Alexander Williams (301-427-1719) of my staff.

Sincerely,

A handwritten signature in black ink that reads "James W. Wagoner II".

James W. Wagoner II  
Director  
Off-Site/Savannah River Division  
Office of Eastern Area Programs  
Office of Environmental Restoration

Enclosures

cc:  
Chicago Athletic Association,  
Chicago, IL  
T. Ortziger, Illinois Department of  
Nuclear Safety



ILLINOIS

IL.0-05

Current Site Owner: Chicago Athletic Association  
8 South Michigan Ave.  
Chicago, IL 60603

Former name at site: Morse Chemical Co.  
8 South Michigan Ave.  
Chicago, IL 60603

Thomas Ortciger, Director  
Illinois Department of Nuclear Safety  
1035 Outer Park Drive  
Springfield, IL 62704

Mayor Richard M. Daley, Jr.  
121 N. LaSalle Street  
Chicago, IL 60602

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MR. DOWNING  
~~MR. RENTON~~  
③ Mrs. MMONNE (FILES)

Jerome T. Consiglio, Middlesex Sampling Plant  
Middlesex, New Jersey

July 2, 1954

W. G. Spelman, Special Assistant  
Division of Raw Materials, Washington

MONAZITE SAMPLES

SYMBOL: RM:WGB

This confirms my conversation with you yesterday regarding disposition of monazite samples which are being forwarded to you by USA - Emergency Procurement Service.

In accordance with request from Frank Huke, we arranged for the Emergency Procurement Service to send to Middlesex approximately 110 pounds of monazite, having four different origins, to be split up by you and sent to various concerns interested in processing the material. We understand that EPS has or will soon send the bulk samples to you.

When the material is received, please repackage and ship as follows:

	<u>NEI</u>	<u>BRAZIL</u>	<u>INDIA</u>	<u>DOMESTIC</u>	<u>TOTAL</u>
Lindsay Chemical Company 258 Ann Street West Chicago, Illinois	15				15
Morse Chemical Company 8 So. Michigan Ave. Chicago, Illinois	10	10	10	10	40
Rare Earths, Inc. Black Oak Ridge Rd. Wayne Township, N.J.	10	10	10		30
Vitro Corp. of America 261 Madison Avenue New York 16, New York		5			5
Crane Company 836 So. Michigan Ave. Chicago, Illinois Attn: Mr. Paul Kruesi Engineering Division	10			10	20

Jerome T. Consiglio

- 2 -

July 2, 1954

As I mentioned to you, responsibility for handling thorium acquisition through thorium nitrate has very recently been delegated to the Division of Raw Materials.

We understood from Frank Huke that he would, prior to June 30, instruct you regarding these samples, and our reason for calling was to amend the instructions to provide for samples to the Crane Company. As Frank Dowling is away from Oak Ridge for a few days, we checked with Dick Kirk regarding this matter, and he requested we pass this information directly to you.

cc: R. L. Kirk, Prod.  
Frank Dowling, OROO *MD*

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UNITED STATES  
ATOMIC ENERGY COMMISSION  
NEW YORK OPERATIONS OFFICE

ADDRESS REPLY TO:

MANAGER OF OPERATIONS  
U. S. ATOMIC ENERGY COMMISSION  
P. O. BOX 30, ANSONIA STATION  
NEW YORK 23, NEW YORK

AND REFER TO:

P:FH

LINDSAY  
RARE EARTHS  
CRANE  
MORSE  
MCW  
VITILLO  
BENDIX

File  
Thorium

In recent months we have discussed with representatives of your company our mutual interest in the production of thorium compounds. To date the discussions and planning have been preliminary in nature. We now should like you to consider making a specific proposal for the production of thorium compounds under the conditions described below.

The work has as its objective the production of thorium nitrate and is characterized by two aspects. We desire on the one hand to obtain thorium nitrate from a variety of AEC-owned sludges and residues, and on the other hand to obtain thorium nitrate from Government-owned monazite. In the latter case, we desire return of the rare earth content. More specific details are supplied below.

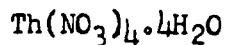
Inasmuch as this venture is "one time" in nature we desire that the contractor provide the necessary plants and equipment to accomplish the production task.

Furthermore, we do not wish to become involved in long term process development. Price calculation will be on a unit basis for the process work involved; i.e., not on a "cost plus" basis. In the case of the sludges and residues we desire the unit conversion price on a per pound thorium nitrate basis. In quoting on the monazite we desire the price per ton for breaking the sand, i.e., production of a thorium concentrate and rare earths in a form suitable for return to us, and the price per pound for refining the thorium concentrate to thorium nitrate.

Term - We desire to receive thorium nitrate as soon as possible consistent with completion of contract arrangements; delivery, f.o.b. contractor's plant, must begin no later than February, 1955 at a regular production rate. Production must be completed by December 31, 1956.

Thorium Nitrate Specifications

Product: Thorium Nitrate Tetrahydrate



ThO <sub>2</sub> Assay	46%	minimum
Rare Earth Oxides	0.005%	maximum
P <sub>2</sub> O <sub>5</sub>	0.010	
SiO <sub>2</sub>	0.010	
SO <sub>3</sub>	0.020	
Cl	0.010	
CaO	0.050	
MgO	0.050	
Fe	0.005	
Alkali Metals	0.100	
Soluble in water		

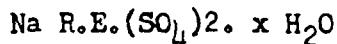
Desirable to keep total of other metallic ions less than 0.005%

Particle size - Coarse crystalline powder

Package - Fiber drum, sealed polyethylene bag liner, capacity about 150 lb., supplied by you.

Rare Earth Product Specifications

Product: Sodium Rare Earth Sulfate (double sulfate)



R <sub>2</sub> O <sub>3</sub> assay	45%	minimum
ThO <sub>2</sub>	0.25%	maximum
Moisture	1.0%	maximum

Particle size - Coarse crystalline powder

Package - Steel drums, supplied by you.

Yield

A return of 95% of thorium and 95% of the rare earths is expected and must be guaranteed when processing monazite. A return of 95% of the thorium is expected from sludges.

All materials involved in the process will be assayed by the contractor by methods mutually acceptable.

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B. Monazite

Tons	Contained Tons Th
7150	<u>384</u>

Consists of Domestic (Idaho), Brazilian, Indian, and Netherlands East Indian sand. Rare earths oxides are in the range of 50-60% and ThO<sub>2</sub> varies from about 3-8%.

All materials will be shipped f.o.b. contractor's plant. The residue materials are available for inspection and samples of residues and monazite may be obtained. We should like to make clear that the approximate percentage contents set forth for the raw materials above are in accordance with our present information but are not intended in any sense as a guarantee.

In proposing you may either select the sludges, the monazite, or a combination of both for processing. We desire an indication of interest from you upon receipt of this invitation. Your firm proposal is desired on or before June 21, 1954. It is understood, of course, that while proposed unit prices are the prime consideration, we necessarily reserve the right to consider other factors in determining whether an award to your company would be in the best interests of the Government.

We will be glad to discuss further details with you at any time.

Very truly yours,

H. B. Fry  
Manager