

**memorandum**

06.21.93

MO.9

DATE: JUL 28 1986

REPLY TO  
ATTN OF: NE-23SUBJECT: Commercial Facilities Used by National Lead Company of Ohio in Support  
of FMPC OperationsTO: Robert E. Lynch  
Procurement and Contracts  
Division, AD-42  
Oak Ridge Operations Office

The Division of Facility and Site Decommissioning Projects (DFSD) is responsible for managing the Department's Formerly Utilized Sites Remedial Action Program (FUSRAP). The purposes of FUSRAP are (1) to identify facilities formerly operated for or by the Manhattan Engineer District (MED) and Atomic Energy Commission (AEC) which may have been radioactively contaminated as a result of these operations, (2) to determine if the facilities require remedial action, and (3) where DOE has authority, to conduct the remedial action. Authority for remedial action under FUSRAP is derived from the Atomic Energy Act of 1954, as amended, and in some specific cases from congressional direction. The program is limited to only those sites that have been released from DOE control and for which no other DOE program or office has authority.

As part of this program, DFSD has identified 83 subcontractors and vendors that did work involving the processing or handling of radioactive material for the National Lead Company of Ohio (NLO) in support of the DOE Feed Materials Production Center (FMPC) located near Fernald, Ohio. NLO is a DOE prime contractor. The subcontracts and purchase orders referred to above were entered into under authority provided in NLO's contract with the AEC. The original AEC contract is now identified as DOE Contract No. AC05-76OR01156. It is my understanding that this contract is now terminated but has not been closed out.

When an active contract exists under which radiological characterization and any required remedial action can be accomplished, it is the Department's policy to conduct the necessary actions under that contract. In this regard, I am forwarding the attached material for your consideration and initiation of appropriate action to determine the need for and to conduct remedial action, if such is required to comply with the current radiological standards.

The initial information concerning NLO subcontractors and vendors that did work involving radioactive materials in support of the FMPC was provided by NLO in a letter dated October 12, 1976 (Enclosure 1). Subsequent record searches were conducted to identify additional sites that might have been used and to obtain the information necessary to determine the potential for residual radioactive contamination that might still be present on the properties where work under these subcontracts and purchase orders was carried out.

The findings derived from these record searches support our belief that there is a potential for contamination at several of the sites and that, with the few exceptions discussed below, there is liability under terms of the contract for action necessary to insure compliance with current radiological standards. In general, the findings that are the principal cause for concern are:

- a. Widespread use of commercial subcontractor and vendor facilities by NLO to perform work involving the processing or handling of radioactive material was verified. In many instances, the work was performed by NLO personnel using subcontractor/vendor facilities and equipment.
- b. Although an extensive health and safety program is indicated, very little radiological data is available to assess the potential for residual radioactive contamination that might exceed today's standards.
- c. Some of the radiological data that is available and information obtained from former AEC and NLO personnel indicate that, even though sites were decontaminated at the completion of operations, residual contamination would probably exceed current standards, particularly at those sites that performed extensive metal fabrication work with uranium and thorium metals.

A summary of major findings from records assembled to date is provided in Attachment 2.

Information on 65 of the 83 subcontractors and vendors referred to above is provided in Attachments 3 and 4. The remaining 18 were also AEC prime contractors considered under FUSRAP or were licensed by the AEC, thus under the jurisdiction of the Nuclear Regulatory Commission.

Attachment 3 provides a summary of the information assembled to date on 53 of the 65 subcontractors and vendors identified therein. Attachment 4 contains information on the 12 remaining sites identified in the NLO letter, Attachment 1, for which no additional information has been found relative to support of FMPC operations.

As indicated above, I am referring these formerly utilized sites for your consideration and appropriate action under the contract with the National Lead Company of Ohio in accordance with current Departmental policy. The documentation from which the information provided herewith was obtained will be made available upon request.

If you require additional assistance or would like to discuss the possibility of accomplishing the necessary radiological characterization and cleanup under FUSRAP, please contact me at FTS 233-4716.

NE-23  
DeLaney

7/25/86

Ed  
Edward G. DeLaney, Director  
Division of Facility and Site  
Decommissioning Projects  
Office of Nuclear Energy

#### 4 Attachments

cc:  
Office of Defense Waste and  
Transportation Management, DP-12  
R. Berube, EH-24  
D. Monti, EH-23

bcc:  
Aerospace

NE-20 RF  
NE-23 RF  
DeLaney RF  
NEG (4)

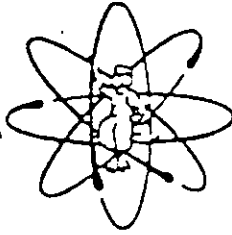
NE-23:EDeLaney:ph:353-4716:7/25/86:IBM:204/71:3.2.3.2

CONTRACT # AT(50-1)-1156

ENCLOSURE 1

NATIONAL LEAD COMPANY OF OHIO  
A SUBSIDIARY OF NL INDUSTRIES, INC.

P. O. BOX 39158



CINCINNATI, OHIO 45239

PHONE: AREA CODE: 513-738-1151

OCT 12 1976

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Mr. H. D. Fletcher, Director  
Uranium Enrichment Operations Division  
Oak Ridge Operations Office  
U. S. Energy Research & Development Adm.  
P. O. Box 5  
Oak Ridge, Tennessee 37830

Dear Mr. Fletcher:

ERDA RESURVEY PROGRAM

Ref.: Letter, Fletcher to Audia, 9/27/76, same subject

Per your request, we have reviewed our contract files, in addition to other sources, for the names of companies who have performed work at our request. It does not include material shipped from here on a production order from the AEC or ERDA.

Identification as to type of agreement and type of work is listed. The dates are only guidelines and may not include every time material was processed.

Very small test samples (such as contaminated  $MgF_2$ ) were sent out for possible sale to various companies. They are also excluded.

If you desire other information, please let us know.

Sincerely,

A handwritten signature in dark ink, appearing to read "S. F. Audia". The signature is written in a cursive style with a long, sweeping underline.

S. F. Audia  
Manager

CEP/rhg

Attachment

cc: W. J. Adams                      C. E. Polson  
      H. D. Fletcher  
      W. J. Grannen                  Central Files  
      L. M. Levy  
      R. C. Heatherton

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✓ sites already done by DOE

PROCESSORS OF RADIOACTIVE MATERIALS - WORK REQUESTED BY NLO

<u>COMPANY NAME AT TIME OF REQUEST</u>	<u>LOCATION</u>	<u>APPROX. DATE</u>	<u>CODE</u>
✓ Allegheny-Ludlum Steel Corp. (4)	Watervliet, N. Y.	3/52	PM ✓
American Machine & Foundry (4)	<u>Brooklyn, N. Y.</u>	10/52, 7/53,	TM ✓
Landis Machine Tool Co. (2)	Waynesboro, Pa.	9/52	TM ✓
Bethlehem Steel Corp. (Lackawanna) (4)	Buffalo, N. Y.	2/52	PM ✓
Besley - Wells (2)	S. Beloit, Wisc.	5/53	TM ✓
Dorr Corp. (Door Oliver) (2)	Westpoint, Conn.	1/55	TO ✓
Oregon Bureau of Mines (3) <i>is the same as U.S.</i>	Albany, Oregon	10/54 - 6/55	PM ✓
Superior Steel Co. (2)	<u>Carnegie, Pa.</u>	12/55-1/57	PM
Atlas Steels, Ltd., (2)	Welland, Ont.	2/57, 11/57	TM ✓
Armour Research Foundation (1)	Chicago, Ill.	9/57	TO ✓
Albacraft Laboratories (1)	Oxford, Ohio	3/57	PM ✓
Chambersburg Engr. Co. (2)	Chambersburg, Pa.	3/57	TM ✓ O/F
Knoxville Iron Co. (1), (2)	Knoxville, Ky.	10/57 - 10/58	* ✓
Podbeilniac Corp. (2)	Chicago, Ill.	2/57	TC ✓
Associated Aircraft Tool & Mfg. Co. (1)	Hamilton, Ohio	2/56 - 3/57	PM ✓
Magnus Metals (1)	Cincinnati, Ohio	12/57, 3/58	TM ✓
Simonds Saw & Steel Co. (1)	Lockport, N. Y.	7/52 - 7/57	PM ✓
Watertown Arsenal (3)	Watertown, Mass.	11/57	TM ✓
Vitro Rare Metals Co. (1)	<u>Cannonsburg, Pa.</u>	8/54-8/56	PO
Ohio State University (1)	Columbus, Ohio	12/56, 5/59	TCC -
Tube Reducing Corp. (2)	Wallington, N.J.	1/58	TM ✓
American Bearing Corp. (1)	Indianapolis, Ind.	7/58	TM ✓
Ajax-Magnethermic Corp. (2)	Youngstown, Ohio	10/58, 11/61	TM ✓
Westinghouse Electric (2)	<u>Bloomfield, N. J.</u>	5/58, 6/59	TM
Oregon Metallurgical Corp. (1)	Albany, Oregon	11/58	PM ✓

<u>COMPANY NAME AT TIME OF REQUEST</u>	<u>LOCATION</u>	<u>APPROX. DATE</u>	<u>CODE</u>
U. S. Steel, Nat'l Tube Div. (2)	McKeesport, Pa.	4/59, 2/60	TM ✓ 0
Sutton, Steele and Steele (2)	Dallas, Texas	11/59	TM ✓
North Carolina State College (1)	Chapel Hill, N. C.	1958 <i>3/21</i>	TO ✓ <i>3.21</i>
Hunter Douglas Plt. of Bridgeport Brass (2)	Riverside, Calif.	8/59	TM ✓ 0
Bridgeport Brass Co. (4)	Adrian, Mich.	2/59	PM ✓
Petrolite Corp. (2)	St. Louis, Mo.	9/59	TOC ✓ <i>0/F</i>
Heald Machine Co. (2)	Worcester, Mass.	3/60, 5/60	TM ✓
Dubois Chem. (2)	Cincinnati, Ohio	5/60	TM ✓
Pioneer Division, Bendix Aviation (2)	Davenport, Iowa	6/60; 9/60	TC ✓
American Machine & Metals, Inc. (2)	E. Moline, Ill.	5/60	TO ✓
Stauffer Metals, Inc. (2)	Richmond, Calif.	4/61	TM ✓
Ithaca Gun Co. (2)	Ithaca, N. Y.	9/60, 8/61 11/61	TM ✓ 0
R.W. LeBlond Mach. Tool Co. (2)	Cincinnati, Ohio	11/61	TM ✓ 0
American Mfg. of Texas (2)	Ft. Worth, Tex.	7/61, 8/61, 8/62; 4/63	TM ✓ 0
Leason Works (2)	Rochester, N. Y.	10/61	TM ✓
Good Machinery & Chem. Corp. (2)	Nitro, W. Va.	1962	TOC ✓
Oliver Corp. (2)	Battlecreek, Mich.	4/62	TO ✓ 0
Attelle Memorial Inst. (4)	Columbus, <u>Ohio</u>	12/62	TM
National Lead Co., Nuclear Division (2)	Albany, N.Y.	7/62	TM
University of Florida (1)	Gainesville, Fla.	10/63 - 11/69	TM ✓ <i>0 100</i>
Cincinnati Milling Machine (2)	Cincinnati, OHIO	10/63	TM ✓
New England Lime Co. (2)	Canaan, Conn.	6/63	TOC ✓
I. Hayes, Inc. (2)	Cranston, R. I.	1/64	TM ✓
Charles Taylor & Sons (2) <i>W.C. S. S. S.</i>	Cincinnati, Ohio	8/64, 1/65	TO ✓ <i>0/F</i>

<u>COMPANY NAME AT TIME OF REQUEST</u>	<u>LOCATION</u>	<u>APPROX. DATE</u>	<u>CODE</u>
Southern Research Institute (1)	Birmingham, Ala.	12/64, 9/65	TM ✓ <i>SK</i>
University of Denver Research Institute (1)	Denver, Colo.	2/65	TM ✓ <i>SK</i>
New England Materials Lab., Inc. (2) (also called Teledyne Mat. Res.)	Medford, Mass.	1/65; 4/67	TM ✓ <i>SK</i>
Tocco Heat Treating Co. (2)	Cleveland, Ohio	4/67; 2/68	TM ✓
Fenwal, Inc. (2)	Ashland, Mass.	5/67; 11/67	TC ✓
Robbins & Myers Co. (2)	Springfield, Ohio	1975	TOC <i>SK</i>

- CODE: P = PRODUCTION QUANTITIES  
T = TEST QUANTITIES  
C = CONTAMINATED MATERIAL (TBP, MgF<sub>2</sub>, SLUDGE)  
M = RADIOACTIVE METAL  
O = OTHER THAN METAL (RADIOACTIVE) (UF<sub>4</sub>, ThO<sub>2</sub>)  
\* = CONTAMINATED SCRAP IRON
- (1) = Sub-Contract  
(2) = Purchase Order  
(3) = Interagency Agreement  
(4) = Prime AEC Contract

29. Magnus Brass Manufacturing  
533 Reading Road  
Cincinnati, OH

December 1954-December 1955 - Performed machining and related services under Subcontract No. S-129. Machined over 200 ingots into billets. Subcontract (on file) contains release provision indemnifying NLO and the Government.

Magnus Metals Division of NLO  
1029 West 7th Street  
Cincinnati, OH

December 1955-December 1957 - Facility location and subcontractor name change. Work continued under same subcontract. This is one of two subcontractors known to have provided FMPC production support. NLO trip reports describe some of the decontamination activities. However, information on the radiological condition at both facilities at the time work on the subcontract was terminated is limited. The subcontract under which this work was performed contains a provision providing indemnification of NLO and the Government against claims arising as a result of work performed under the subcontract..

30. Medart Company  
St. Louis, MO

3-8 November 1952 - Conducted test machining (turning) operations on uranium bar at their St. Louis plant. Operations appear to be acceptance testing of a Medart built machine. Analytical data sheets showing the results of air monitoring during the tests are the only documents found. Measurements indicate considerable potential for contamination. No information has been found that would indicate that the site was decontaminated.

31. Mitts-Merrel Company  
Saginaw, MI

28 June 1956 - Reduced thorium metal chunks to small particle size pieces in a Hog Grinder. Results of air dust monitoring, the only information found, indicates considerable potential for contamination.

32. National Tube Division  
U.S. Steel Corporation  
Christy Park Works  
McKeesport, PA

1959 and 1960 - Contractual arrangements to conduct tests involving the piercing of normal uranium billets by a three roll Assel Mill process are unknown. An NLO trip report dated 21 March 1961 indicates that test operations were conducted 14-23 April and 26 April-1 May 1959. Tests were also conducted 17-26 February 1960. A total of 24 normal uranium billets were used in the latter test. A total of 19 tests were conducted during the experiment. According to the trip report, the site was successfully decontaminated except for several pieces of equipment