



**NUCLEAR METALS, INC.**

ms-16  
94

1 July 1994

United States Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

**ATTENTION:** Mr. John Kinneman, Chief  
Site Decommissioning Section  
Division of Radiation Safety and Safeguards

**REFERENCE:** Mail Control Nos. 117006 and 113010

**SUBJECT:** Response to Demand For Information letter dated 21 June 1994

Dear Mr. Kinneman,

040-08866

This correspondence constitutes our reply to your Demand For Information (DFI) letter to Nuclear Metals, Inc. (NMI) dated 21 June 1994 concerning decommissioning financial assurance for the Company's facility

We are providing the following attachments pursuant to Section III of the DFI for your review.

- ATTACHMENT 1:** Overview and compliance with financial responsibility for providing financial assurance for potential decommissioning cost as required by 10 CFR 40.36.
- ATTACHMENT 2:**  
(Section III, parts A, B) Financial institution contacts made regarding obtaining long-term financing or alternatively appropriate letter/line of credit instruments.
- ATTACHMENT 3:**  
(Section III, part C) Discussion of steps taken and correspondence with the Government regarding Government responsibility for decommissioning at NMI.
- ATTACHMENT 4:**  
(Section III, parts D, E, F) NMI financial information including the most recent audited balance sheet, most recent profit and loss statement and federal tax returns for 1991-1993.
- ATTACHMENT 5:** Revised Standby Trust Agreement (STA) based on request for modification in your letter dated 2 March 1994.

NMI has worked in a diligent and straight forward manner to provide financial assurance to the NRC as required by 10 CFR 40.36. NMI continues to strive to satisfy all of our compliance obligations and respond fully to other requests made by the NRC. We stand committed to satisfying all NRC rules and regulations relative to safe and beneficial use of radioactive materials.

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2229 Main Street, Concord, Massachusetts 01742 (508) 369-5410

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Due to the intensely competitive business environment in which NMI competes, we request that all attachments be withheld from public disclosure based on our accompanying application and affidavit enclosed herein. We have marked all attachments as "COMPANY PRIVATE" and request that all information contained within be kept confidential.

We have made a substantial effort to be as thorough as possible in response to your DFI. We will provide additional information as it becomes available.

NMI is a small business and while financially strong does not have the financial resources available to larger corporations. Also, we are excluded from providing self assurance by the criteria established in 10 CFR 40.36. In essence, the rules which govern self assurance are discriminatory to small businesses and establish financial hurdles that are difficult, if not impossible, for a small business to overcome. For example, NMI meets the balance sheet ratio for self assurance but does not have a bond rating due to the size of the Company and consequently cannot be considered for self assurance.

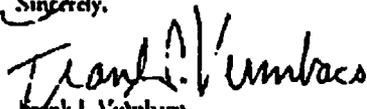
NMI has and continues to provide high quality product made from depleted uranium (DU) primarily to the Government, and to a lesser extent, to commercial customers. Our commitment to defense is unwavering and we are proud of the products produced that support our Nation's defense as well as the medical and commercial markets we service.

The Company is confident that the attached documentation and explanations will prove satisfactory in response to your DFI. It is NMI's view that we have provided financial assurance for the portion of potential decommissioning costs that are the responsibility of the Company. If I can be of further help, clarification of data provided is needed or you require additional information please let me know.

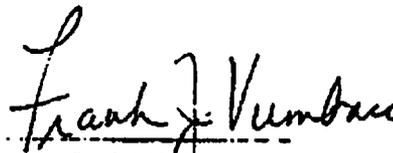
NMI stands ready to meet with NRC's regional representatives to discuss the information contained in this correspondence.

As a reminder, NMI will be on plant shutdown from 5 July through 15 July 1994.

Sincerely,

  
Frank J. Vumbaco  
Vice President, Health and Safety

*I, Frank J. Vumbaco, Vice President of Health and Safety, do hereby swear under the pains and penalties of perjury that this response is true and accurate to the best of my knowledge.*

  
Frank J. Vumbaco



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF  
  
NUCLEAR METALS, INC.  
  
CONCORD, MASSACHUSETTS

License Nos: SM9-179  
SUB-1452

Docket Nos: 040-00672  
040-08866

**APPLICATION TO WITHHOLD FROM PUBLIC DISCLOSURE  
MATERIAL IN RESPONSE TO DEMAND FOR  
INFORMATION RELATING TO DECOMMISSIONING FUNDING PLAN**

Pursuant to 10 C.F.R. § 2.790(b), Nuclear Metals, Inc. ("NMI") hereby applies to keep confidential its Response to demand for Information ("Response") regarding NMI's Decommissioning Funding Plan ("DFP"). In support hereof, NMI submits the enclosed Affidavit of Frank J. Vumbaco. The material and basis for withholding are more particularly described below.

**DESCRIPTION OF MATERIAL**

On or about June 21, 1994, NMI received a Demand for Information from the NRC. The request seeks information regarding (1) NMI's efforts to obtain financial assurance for decommissioning costs and (2) NMI's finances. NMI in response has furnished non public material including federal tax returns and information regarding negotiations with the U.S. Army.

**BASIS FOR WITHHOLDING**

The information provided by NMI contains "trade secrets or privileged or confidential commercial or financial information" as defined in 10 C.F.R. § 2.790. NMI meets the

following five part test for withholding from public disclosure this DFP information.

- (1) Whether the information has been held in confidence by its owner;
- (2) Whether the information is of a type customarily held in confidence by its owner and whether there is a rational basis therefor;
- (3) Whether the information was transmitted to and received by the Commission in confidence;
- (4) Whether the information is available in public sources;
- (5) Whether public disclosure of the information sought to be withheld is likely to cause substantial harm to the competitive position of the owner of the information, taking into account the value of the information to the owner, the amount of effort or money, if any, expended by the owner in developing the information, and the ease or difficulty with which the information could be properly acquired or duplicated by others.

1 The information is held in confidence by NMI

NMI has held the information in the Response in confidence and has shared (1) information from the negotiations only with the Army and (2) the tax returns only with the IRS.

2 NMI has customarily and for a rational basis held this information in confidence

NMI is a publicly held company in a very competitive market with another contractor with the Army. As a publicly held company, NMI has customary and legally mandated methods of releasing financial information such as annual reports and SEC filings. NMI does not, as a matter of course, disclose commercial information or trade secrets because of

competitive pressures.

3. NMI has transmitted the information in confidence

NMI has marked the Response for Confidential Treatment.

4. The information is not available from public sources

NMI is not aware of any public source from which any third party can obtain the information. It is NMI's understanding that the Army has treated the negotiations as confidential as has the IRS treated tax returns.

5. Public disclosure of the information may result in serious harm to NMI

Disclosure of trade secrets and commercial information will harm NMI with respect to its competitive position. First, the other contractor which manufactures depleted uranium kinetic energy penetrators for the Army could become privy to negotiations with the Army and learn confidential information about tax returns. In sum, a competitor may figure out various details such as NMI's costs of doing business which it could apply in competitive bidding for Army contracts.

Disclosure of financial information may also harm NMI by revealing information which is not in a form for disclosure to investors. NMI complies with very specific federal securities laws in disclosing financial information upon which the investing public relies. The type of financial information on tax returns are so sensitive by their nature that companies only disclose them under controlled circumstances. NMI believes that the release of this information may result in inappropriate reliance by the investing public.

In addition, it is in the public interest that NMI exchange in a candid manner this type of sensitive information with NRC staff. Future submissions may contain more information

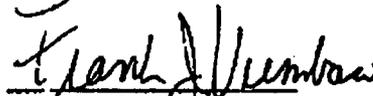
of a sensitive nature. Also, the public interest will suffer if one competitor in bidding for government contracts obtains an unequal advantage.

max. public protection would chill the openness of disclosure to the NRC with little, if any, countervailing public benefit.

#### CONCLUSION

For these reasons, NMI requests that the Response to Demand for Information be kept from public disclosure.

NUCLEAR METALS, INC.



By Frank J. Vimbaco  
Vice President  
Health & Safety

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF  
  
NUCLEAR METALS, INC.  
  
CONCORD, MASSACHUSETTS

License Nos: SMB-179  
SUB-1452

Docket Nos: 040-00672  
040-08866

**AFFIDAVIT OF FRANK J. VUMBACO  
IN SUPPORT OF APPLICATION TO WITHHOLD FROM PUBLIC DISCLOSURE  
MATERIAL IN RESPONSE TO DEMAND FOR INFORMATION  
RELATING TO DECOMMISSIONING FUNDING PLAN**

1. Frank J. Vumbaco, do hereby depose and state as follows:

1. I am Vice President for Health and Safety at Nuclear Metals, Inc. ("NMI")
2. NMI is a publicly-held corporation based in Concord, Massachusetts and is a holder of two licenses issued by the Nuclear Regulatory Commission ("NRC") NMI's securities are registered with the Securities and Exchange Commission and are traded through NASD.
3. Among its activities, NMI manufactures depleted uranium kinetic energy penetrators for the United States Army.
4. NMI is engaged in confidential discussions with the Army regarding decommissioning costs.
5. NMI has treated the information contained in the Army discussions as trade secrets or privileged or confidential commercial or financial information. NMI has also

treated the information in its federal tax returns as trade secrets or privileged or confidential commercial or financial information

6. NMI has held the information shared during Army discussions in confidence and has shared it only with the Army in confidence. NMI has held the information contained on federal tax returns in confidence and has shared the returns only with the IRS.

7. NMI does not as a matter of course disclose commercial information or trade secrets because of competitive pressures.

8. Disclosure of trade secrets and commercial information will harm NMI with respect to its competitive position. The other manufacturer of depleted uranium kinetic energy penetrators for the Army may potentially have access to information from Army discussions and tax returns regarding NMI while NMI will not have similar access to information regarding its competitor.

9. Disclosure of financial information on tax returns may also harm NMI by revealing information which is not in a form for disclosure to investors. The type of financial information on tax returns which NMI does not ordinarily disclose publicly. The release of this information may result in inappropriate reliance by the investing public.

Signed under the pains and penalties of perjury this 1st day of July, 1994.

NUCLEAR METALS, INC.

  
\_\_\_\_\_  
Frank J. Vumbaco

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**NUCLEAR METALS, INC.**

*Submission in response to*  
**U.S. Nuclear Regulatory Commission**  
**Demand For Information**

1 July 1994

**ATTACHMENT 1**

~~COMPANY PRIVATE~~

**OFFICIAL RECORD COPY**

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~~CONFIDENTIAL~~  
~~REDACT~~

**ATTACHMENT 1:**

**OVERVIEW AND COMPLIANCE WITH FINANCIAL RESPONSIBILITY FOR PROVIDING FINANCIAL ASSURANCE FOR POTENTIAL DECOMMISSIONING COST AS REQUIRED BY 10 CFR 40.36.**

NMI has provided financial assurance consistent with 10 CFR 40.36 for potential decommissioning of its facility. The need for NMI to provide financial assurance has, in the opinion of management, been satisfied by the \$750,000 line of credit established under the Standby Trust Agreement through State Street Bank and Trust. [The total cost of decommissioning the NMI facility has been indicated to be \$13.7 million, however, the portion of the \$13.7 million that NMI would be responsible for remediating would be approximately \$550,000 or 4% of the total cost of decommissioning. The remaining \$13.1 million represents Government-owned equipment or material for which the Government would have decommissioning responsibility.] Attached is a table summarizing these relationships. The Army has set precedent at four commercial facilities (National Lead, Aerojet, Olin and Honeywell) to decommission plant and facilities, a settling pond and test sites that have been contaminated with GFM. All costs were handled by the Army on a case-by-case basis without prior written commitments of an open ended nature.

As a practical matter, NMI cannot provide private financial assurances for the Government's costs of decommissioning.

At NMI, there is a combination of Government- and Company-owned equipment as well as a holding basin, which are contaminated with DU. In addition, there are inventories, which are categorized as Government Furnished Material (GFM). All of these categories are predominately the responsibility of the Government. DU has in the past and continues to be supplied to the Company as Government-owned material in support of U.S. Government Programs. The Government does not relinquish title to its material. The material used for all production volumes of Government contracts of DU penetrators has been GFM. Attached is the relevant page from a typical purchase order that defines the GFM to be used in the manufacture of DU penetrators. NMI is simply paid to process the material from one form to another. The Government retains ownership and responsibility for the material and NMI is required to manage the Government's property in accordance with FEDERAL ACQUISITIONS REGULATION (FAR) reference 52.245-2 entitled "Government Property" that is attached for your review.

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~~CONFIDENTIAL~~

~~REDACT~~

Title to Government property remains with the Government as evidenced at FAR 52.245-2, section (c), which states, "The Government shall retain title to all Government-furnished property." As such, title of the residual materials from Government Furnished Material rests with the U.S. Government. All Government property at NMI is managed in strict accordance with all applicable FAR and customer imposed regulations, as well as our internal procedures. NMI is audited by various U.S. Government entities under direction of the Defense Logistics Agency (DLA) to insure compliance with Section 45 of the Federal Regulations that pertains to Government Property Control Systems. Attached for your review is a copy of the DLA's 3 June 1993, approval of NMI's Property Control System for Government-owned material.

In an effort to satisfy the NRC's needs to establish financial assurance for potential decommissioning we have initiated discussions with the Army to formally identify the Government's responsibility for remediating the facility. We have elected to separate the decommissioning issue into the distinct categories of Government-owned equipment, holding basin, inventories and the remainder of Company-owned equipment and facility.

In the case of Government-owned equipment, NMI has just completed, under a facilities contract, the removal and decontamination of specific Government-owned equipment that is no longer needed for production. The contract value to NMI for dismantling packaging and shipping this Government-owned equipment totalled \$240,000. [It should be noted that our initial proposal which included burial cost of the equipment totalled \$866,120.] The Government elected to provide transportation and burial directly to reduce its overall cost. This clearly demonstrates that Government-owned equipment will be decommissioned when no longer needed by the Government.

The holding basin has been the subject of detailed, lengthy discussions with the Government, which are described in detail in Attachment 3 of this correspondence.

The inventories at NMI are on a value-added basis. The majority of DU is and has been Government-owned and cannot be used by the Company for purposes other than Government contracts. As a result, inventories of Government-owned DU do not represent potential disposal liabilities to the Company. In addition, DU continues to be used in munitions, tank armor, counterweights, numerous shielding applications and in other various markets. DU will continue to have diverse applications for the future. In the event of decommissioning, the inventories at NMI would in the opinion of management have value to the Government and would be transferred to other licensed facilities for processing or storage. In the event that disposal is deemed more appropriate, the Government would be responsible for all costs.

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The remaining aspect of our potential decommissioning is Company-owned equipment and facilities which are contaminated by material which continues to be owned by the Government. In the event that decommissioning became required the Government would be responsible for the costs of removing their material from our equipment and facility. This would result in the removal of all DU and would not result in financial liability for the Company. At present, the Company has not initiated discussions with the Government on providing written notice of their responsibility for the costs associated with this activity. It continues to be the Company's intention to participate in ongoing DU work for the Government and private industry and certainly expects to continue operations for the foreseeable future. The Company has, upon request, on several occasions identified the approximate costs of decommissioning the facility to the Army. The Army has indicated the costs are as expected and the Army has verbally advised the Company that they intend to re-solicit our potential decommissioning costs at the end of the calendar year. Enclosed is NMI's response to the 20 May 1993 Army request for decommissioning estimates. We will be asked to update our 17 June 1993 proposal which is enclosed. The Company plans to respond to the Army's request for updated cost information separately from the holding basin. We believe that to initiate discussions on this aspect of decommissioning would only slow down the basin resolution and would thus be inconsistent with quickly establishing the assurances for remedial costs needed for obsolete facilities.

The National Defense Authorization Act of Fiscal Year 1994 requires that the Secretary of the Army provide Congress a report regarding its environmental cleanup liability at commercial DU penetrator producers if the Army downselects from two producers to one. This report has not been submitted to Congress. The fiscal 1995 National Defense Authorization Act directs the Secretary of the Army to provide this report to Congress by 1 February 1995. Copies of the National Defense Authorization Acts for both years are enclosed.

The Company is currently preparing to quote on a multiyear Army large caliber production contract before the end of July. This work represents the entire domestic penetrator production requirements for the next four years based on current Government forecasts of intended procurements. The contract is expected to be awarded in early 1995 to one of the two domestic suppliers and consequently has put NMI in an even more aggressive competitive environment than usual. Enclosed are the pertinent pages of the solicitation and related correspondence between Congressman Meehan and the Army regarding the downselect of one supplier of DU penetrators. The Army has given verbal assurances that the downselect will result in Army decommissioning of the losing company facility. While NMI is committed to winning this contract, the Army's assurances of quickly providing decommissioning money to the downselected company will clearly demonstrate the Government's intention to provide financial assurance for both penetrator manufacturer's decommissioning costs.

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**ATTACHMENT I**

**ENCLOSURE:**

- A. Initial proposal and subsequent contract for disposal of DU contaminated Government equipment**
- B. Compliance with Financial Responsibility**
- C. FAR clause 52.245-2**
- D. Defense Logistics Agency Government Property Control System Certification**
- E. Typical purchase order verification of DU furnished as GFM**
- F. National Defense Authorization Act for Fiscal Year 1995**
- G. National Defense Authorization Act for Fiscal Year 1994**
- H. NMI response to Army solicitation for decontamination/disposal**
- I. Army solicitation for decontamination/disposal costs dated 15 April 1993 and 20 May 1993**
- J. Army letter to Congressman Meehan concerning multiyear buy**
- K. Army solicitation for fiscal year 1995-1998 for DU penetrators**

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**NUCLEAR METALS, INC.**  
20 January 1994

**CONFIDENTIAL**

**REDACT**

Ms. Melanie Johnson/AMSMC-PCA-WF(R)  
Department of the Army  
U.S. Army Armament, Munitions and  
Chemical Center  
Rock Island, IL 61. J

**Subject: Disposal of Contaminated Equipment**

**Reference:** 1). Consolidated Facilities Contract DAAA09-90-E-0013  
2) NMII letter of 14 December 1992

Dear Ms. Johnson:

Pursuant to our recent discussions regarding the eventual disposal of obsolete Government Equipment that is contaminated with Depleted Uranium (DU) supplied to NMI as GFM, NMI hereby submits our updated proposal for such disposal. Please find below a listing of certain Government Equipment and its associated cost for disposal at a licensed burial site. Since our 1992 request, we have added other obsolete equipment to this list. DU penetrator requirements have been drastically reduced, hence the larger amount of obsolete equipment. In many cases, the most economical avenue for disposal is metal melting vs. land burial.

Item	Description	Gov't ID No.	Cost to Dispose
1.	Vapor Degreaser #1	DAAK10-83-C-0283-10	\$14,193
2.	Metal Stacking Frames	DAAK10-79-C-0383-16(1-30) -86(1-30), -87(1-60)	\$29,437
3.	Stacking Boxes	DAAK10-79-C-0383-60(1-80)	\$6,755
4.	Mxx Muellers (#4-#7)	DAAK10-79-C-0383-75-78	\$205,135
5.	Mill & Center Lathe	DAAK10-81-C-0323-10	\$60,810
6.	J&L Lathe #5	DAAK10-83-C-0283-5	\$10,253
7.	Mori Selkie (#11&#12)	DAAK10-79-C-0383-11 & -12	\$57,256
8.	Water Saver Cooling Tower		\$10,289
9.	J&L Lathe #1	DAAK10-80-C-0323-5(1)	\$45,483



**NUCLEAR METALS, INC.**

AMCCOM/M. Johnson

20 January 1994

Page 2

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Item	Description	Gov't ID No.	Cost to Dispose
10.	J&L Lathe #2	DAAK10-81-C-0323-5(2)	[ \$45,483 ]
11.	J&L Lathe #3	DAAK10-83-C-0283-3	[ \$45,483 ]
12.	J&L Lathe #4	DAAK10-83-C-0283-4	[ \$45,483 ]
13.	Norton Grinder	F13657-76-C-0531-2	[ \$27,769 ]
14.	Platform Trucks	DAAK10-79-C-0383-22	[ \$2,671 ]
15.	CI Hayes Aging Furnace	DAAK10-79-C-0383-5	[ \$75,146 ]
16.	Storage Containers(30)	DAAK10-79-C-0383-25	[ \$12,572 ]
17.	Storage Containers(30)	DAAK10-79-C-0383-58	[ \$12,572 ]
18.	30" Optical Comparator	DAAK10-81-C-0323-2	[ \$5,768 ]
19.	14" Deltronic Comparator	DAAK10-83-C-0283-23	[ \$938 ]
20.	14" Deltronic Comparator	DAAK10-83-C-0283-24	[ \$938 ]
21.	Marvel Cut-off Band Saw	DAAK10-79-C-0383-2	[ \$29,992 ]
22.	Mori Seiki Lathe #3	DAAK10-79-C-0383-80	[ \$28,271 ]
23.	Mori Seiki Lathe #4	DAAK10-79-C-0383-82	[ \$28,271 ]

Our total cost proposal also considers disposal of a small amount of Government equipment, (Item nos DAAK10-83-C-0276-2,4,5,6 and 12-15; DAAK10-84-C-0087-1), residing at our South Carolina facility (As can be seen from the updated cost summary presented, the costs associated with this effort exceed \$800,000. If AMCCOM is able to expedite funding of this effort, the Government will save approx. \$50K in costs associated with burial rate increases effective 1 July 1994.) We would request that these funds be provided on an expedited basis as other waste disposal costs can change suddenly. Our proposal may be considered firm for 60 days. Although a cost summary is enclosed, a complete SF-1411 Cost Package will be forthcoming within a few days.

**PROPRIETARY TO  
NUCLEAR METALS, INC.**

NUCLEAR METALS, INC.  
GOVERNMENT EQUIPMENT  
FEB-JULY 1, 1964 COSTS  
COST SUMMARY

1/31/64

**CONFIDENTIAL**  
REF

	HOURS	RATE	DOLLARS
<b>ENGINEERING, QUALITY &amp; SUPPORT</b>			
DEPT. 200 ENGINEERING & PROGRAM	--	\$ 30.87	\$ --
DEPT. 200 RESEARCH & DEVELOPMENT	--	30.81	--
DEPT. 270 QUALITY	--	18.20	--
DEPT. 272 COMPLIANCE	133	14.00	1,861
DEPT. 200 PROGRAM ADMINISTRATION	--	--	--
<b>TOTAL ENGINEERING</b>	<u>133</u>		<u>1,861</u>
<b>MANUFACTURING</b>			
DEPT. 200 FABRICATION	--	14.65	--
DEPT. 201 MELT AND CAST	--	16.75	--
DEPT. 240 MACHINING ENGINEER	--	33.74	--
DEPT. 241 MACHINING SHOP	--	18.00	--
DEPT. 242 CNC MACHINING	--	17.04	--
DEPT. 250 PACKAGING	--	--	--
DEPT. 260 WASTE PROCESSING	370	18.96	6,907
<b>TOTAL MANUFACTURING</b>	<u>370</u>		<u>6,907</u>
<b>FACILITIES</b>			
DEPT. 200 FACILITIES ENGINEERING	--	20.91	--
DEPT. 201 FABRICATION SERVICES	952	18.54	17,940
DEPT. 200 ELECTRICAL SERVICES	--	--	--
<b>TOTAL FACILITIES</b>	<u>952</u>		<u>17,940</u>
<b>TOTAL ENGINEERING LABOR \$</b>			1,861
<b>TOTAL MANUFACTURING LABOR \$</b>			6,907
<b>TOTAL FACILITIES LABOR \$</b>			17,940
ENGINEERING O/R @	224.74		4,188
MANUFACTURING O/R @	470.74		27,802
FACILITIES O/R @	176.44		21,487
<b>MATERIAL</b>		18,022	
<b>SUBCONTRACT/SERVICES</b>		--	
<b>PROCUREMENT</b>			18,022
PROCUREMENT O/R @	2.0%		480
MATERIAL HANDLING @	10.0%		1,848
EQUIPMENT			--
EQUIPMENT HANDLING @	4.0%		--
OTHER MATERIAL CHARGES			400,160
<b>SUBTOTAL</b>			<u>891,748</u>
GENERAL ADMINISTRATIVE @	10.7%		118,844
<b>TOTAL COST</b>			<u>720,582</u>
<b>PROFIT</b>	15.0%		108,044
<b>COST OF MONEY</b>			6,472
<b>TOTAL</b>			<u>\$ 835,098</u>

**PROPRIETARY TO  
NUCLEAR METALS, INC.**

**NUCLEAR METALS, INC.  
GOVERNMENT EQUIPMENT  
POST-JULY 1, 1994 COSTS  
COST SUMMARY**

**CONFIDENTIAL**  
*REDACTED*

	HOURS	RATE	DOLLARS
<b>ENGINEERING, QUALITY &amp; SUPPORT</b>			
DEPT. 800 ENGINEERING & PROGRAM	--	30.67	\$ --
DEPT. 804 RESEARCH & DEVELOPMENT	--	26.21	--
DEPT. 876 QUALITY	--	18.80	--
DEPT. 878 COMPLIANCE	133	14.00	1,861
DEPT. 806 PROGRAM ADMINISTRATION	--	--	--
<b>TOTAL ENGINEERING</b>	<u>133</u>		<u>1,861</u>
<b>MANUFACTURING</b>			
DEPT. 800 FABRICATION	--	14.85	--
DEPT. 801 MELT AND CAST	--	16.78	--
DEPT. 840 MACHINING WORKCELL	--	35.74	--
DEPT. 841 MACHINE SHOP	--	18.80	--
DEPT. 843 CNC MACHINING	--	17.04	--
DEPT. 846 PACKAGING	--	--	--
DEPT. 809 WASTE PROCESSING	370	16.80	6,207
<b>TOTAL MANUFACTURING</b>	<u>370</u>		<u>6,207</u>
<b>FACILITIES</b>			
DEPT. 800 FACILITIES ENGINEERING	--	20.01	--
DEPT. 801 FABRICATION SERVICES	962	18.84	17,940
DEPT. 800 ELECTRICAL SERVICES	--	--	--
<b>TOTAL FACILITIES</b>	<u>962</u>		<u>17,940</u>
<b>TOTAL ENGINEERING LABOR @</b>			1,861
<b>TOTAL MANUFACTURING LABOR @</b>			6,207
<b>TOTAL FACILITIES LABOR @</b>			17,940
<b>ENGINEERING O/E @</b>	235.2%		4,182
<b>MANUFACTURING O/E @</b>	470.7%		27,972
<b>FACILITIES O/E @</b>	175.4%		31,467
<b>MATERIAL</b>		18,022	
<b>SUBCONTRACT/SERVICES</b>		--	
<b>PROCUREMENT</b>			18,022
<b>PROCUREMENT O/E @</b>	3.8%		489
<b>MATERIAL HANDLING @</b>	10.8%		1,948
<b>EQUIPMENT</b>			--
<b>EQUIPMENT HANDLING @</b>	4.0%		--
<b>J/TYPE DIRECT COSTS</b>			<u>512,842</u>
<b>SUBTOTAL</b>			<u>628,148</u>
<b>GENERAL &amp; ADMINISTRATIVE @</b>	15.7%		123,184
<b>TOTAL COST</b>			<u>748,302</u>
<b>PROFIT</b>	15.0%		112,248
<b>COST OF PROFIT</b>			6,878
<b>TOTAL</b>			<u>\$ 867,428</u>

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT & CODE		DATE OF PAGE	
2. EFFICIENT DATE <b>06 MAY 1994</b>		3. PRODUCT NO. of contract	
NO OF AS ORDER		4. AMENDMENT BY (if other than Sec 4)	
ORDER NO. 911-91		CODE 02100A	
ORDER NUMBER 102-742-3015		405 JORDAN STREET BOSTON MA 02118-2136	

5. AND AFFIX TO CONTRACT (see spec. etc. copy, copy and of 5042)		6. AMENDMENT OF SOLICITATION NO.	
7. NO. OF CONTRACT		8. NO. OF CONTRACT	
9. NO. OF CONTRACT		10. NO. OF CONTRACT	

11. THIS FORM APPLIES TO AMENDMENTS OF CONTRACTS

By above article, a portion is amended on set forth in item 10. The hour and date specified for receipt of offers is already a set standard. Receipt of this amendment is to be the hour and date specified in the solicitation or as amended by one of the following methods:

(A) By completing the form, and retaining a copy of the amendments, (B) By acknowledging receipt of this amendment by a copy of the form or submission, or (C) By separate letter or telegram which includes a reference to the solicitation number, a copy of your acknowledgment to be received at the place designated for the receipt of offers prior to the hour and date specified in the solicitation or as amended. If a, copies of this amendment you desire to charge on or already existing, such charge may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and is received prior to the hour and date specified.

12. THIS FORM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS

13. MODIFY THE CONTRACT/ORDER NO AS SPECIFIED IN ITEM 10

14. THE CHANGE OF FORTY IN THIS IS ALSO MADE IN

15. THE ABOVE ARTICLE IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in pay) which application date only on form in the presence of the authority of the contract.

16. THE AMOUNT OF AMENDMENT IS BEING SET FORTH IN AMOUNT OF

17. DATE (month, day of execution and month)

18. THIS FORM APPLIES TO AMENDMENTS OF CONTRACTS

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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

CONTRACT ID CODE

PAGE OF PAGES

1. AMENDMENT/MODIFICATION NO. <b>7000</b>	2. EFFICIENT DATE <b>0327LJ</b>	4. RESPONSE/PURCHASE ID NO. <b>See Schedule</b>	3. PROJECT NO. OF CONTRACT <b>ACI</b>
ISSUED BY <b>MR ANCONI</b> <b>AMSC-744-70</b> <b>MELANIE JOHNSON 7309-782-3013</b> <b>WICK ISLAND, IL 61291-6100</b>	CODE <b>100</b>	5. AMENDED BY (if other than Item 4) <b>WANDA BERTON</b> <b>493 JENNIFER STREET</b> <b>WORTHEN MO 62218-2138</b>	CODE <b>112204A</b>
NAME AND ADDRESS OF CONTRACTOR (i.e., street, city, county, state and ZIP Code)		601	6A. AMENDMENT OF SOLICITATION NO.
<b>WHEELER METALS INC</b> <b>2330 MAIN STREET</b> <b>WHEELER</b> <b>WINDSOR MA 01742-3523</b>			<b>MR DAVID CHEN SUN 10</b>
		602	6B. MODIFICATION OF CONTRACT/ORDER NO.
			<b>MAA80700013</b>
			<b>MR DAVID CHEN SUN 10</b>
			<b>01 JAN 10</b>
CODE <b>17002</b>	FACTORY CODE		

II. THIS SECTION ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended or set forth in item 10. The hour and date specified for receipt of offers is extended.  is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:

(a) By completing items 9 and 10, and returning \_\_\_ copies of the amendments; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

ACCORDING AND APPROPRIATION DATA (if required)

See continuation sheet

III. THIS SECTION APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS

IF MODIFYING THE CONTRACT/ORDER NO. AS SPECIFIED IN ITEM 14.

(a) A. THE CHANGE ORDER IS ENTERED PURSUANT TO THE CONTRACT/ORDER NO. IN ITEM 14A. THE CHANGE SET FORTH IN ITEM 14B IS MADE BY \_\_\_\_\_

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PRESENT TO THE AGENCY OF FAB 48180A.

C. THE SUPPLEMENTAL AMENDMENT IS ENTERED INTO PURSUANT TO AGREEMENT OF: **28 USC 230a (C)(1)**

D. OTHER (Specify type of modification and authority)

IMPORTANT: Contractor  is not,  is required to sign this document and return copies to the issuing office.

DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by SIC section headings, including contractor/contract number where feasible.)

Except as provided here, all terms and conditions of the document referenced in Item 14 of this form shall remain unchanged and in full force and effect.

1A. NAME AND TITLE OF BUYER (Type or print) <b>WANDA BERTON</b> <b>MANAGER, CONTRACTS</b>	1A. NAME AND TITLE OF CONTRACTOR OFFICER (Type or print)		
1B. CONTRACTOR/ORDER NO. <b>MAA80700013</b>	1C. DATE ISSUED <b>5/6/94</b>	1D. STATE OF AMERICA <b>MO</b>	1E. DATE ISSUED
BY _____ (Signature of Contracting Officer)			

**CONTINUATION SHEET**

Delivery No. of Document Being Continued

Page

DAAGD-93-2-013

DEL. No. 1 70001

2 of 2

NAME OF GROUP OR COMPANY: **NUCLEAR METALS INC**

**SECTION A - SUPPLEMENTAL INFORMATION**

1. THE INVESTIGATION CONTRACTING AWARD OF SOLICITATION DAAGD-94-2-011 FOR PROJECT 63-70 FOR THE PREPARATION AND DELIVERY OF GOVERNMENT-OWNED EQUIPMENT (AS DESCRIBED IN ATTACHMENT 01) CONTRACTED WITH SUPPLIER BEAVER AND LOCATED AT NUCLEAR METALS, INC. FACILITY IN CHESTER, MASSACHUSETTS AND DANWELL, SOUTH CAROLINA.

2. WORK OF WORK 65-13 TASK 23 MAR 94 IS INCORPORATED AS ATTACHMENT 01. THE WILL COMPLY WITH THIS SCOPE OF WORK WHILE PERFORMING THIS WORK, AND A. AMENDMENT 01 TO SOW 65-93 DATED 05 MAY 94 (ATTACHMENT 02).

3. CJS 000441 SHALL BE COMPLETED BY 31 MAY 94.

4. AS A RESULT OF THE ABOVE THE TOTAL CONTRACT AMOUNT IS INCREASED BY \$240,000.00 FROM \$2,240,017.00 TO \$2,480,017.00.

5. ALL OTHER TERMS AND CONDITIONS OF THIS FACILITY CONTRACT REMAIN UNCHANGED AND IN EFFECT.

(End of correction 0007)

**CONTINUATION SHEET**

Reference No. of Document Being Cited

Page

DAAGD-40-2-0013

REQ. No.: F00001

1 of 1

Name of Order / Contractor: **INCLINE METALS INC**

ITEM ID	SERVICE/SERVICE	QUANTITY	UNIT	UNIT PRICE	AMOUNT									
00044	<p><b>SERVICES LINE ITEM</b>                      FROM: BLACKHOLE      ACN#: 40                      AND (P: 410000000000)</p> <p><b>SERVICE 1 - Supplies or Services and Delays/Extra</b>                      FROM: ELECTROACTIVE WHITE BIRFOCAL                      SECURITY CLASS: UNCLASSIFIED</p> <p><b>SERVICE 2 - Inspection and Acceptance</b>                      INSPECTION: CRISIS      ACCEPTANCE: CRISIS</p> <p><b>SERVICE 3 - Salaries or Performance</b></p> <table border="1" data-bbox="396 723 826 851"> <thead> <tr> <th>REL. CL.</th> <th>PER. COMP.</th> <th>QUANTITY</th> </tr> </thead> <tbody> <tr> <td>301</td> <td>SALES</td> <td>0</td> </tr> <tr> <td></td> <td></td> <td>\$ 24000.00</td> </tr> </tbody> </table>	REL. CL.	PER. COMP.	QUANTITY	301	SALES	0			\$ 24000.00				<p>\$ 24,000.00</p>
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**CONTINUATION SHEET**

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IND. No. 1-100000

1 of 1

Name of Owner or Contractor **NUCLEAR METALS INC**

**PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**

**SECTION 1 - LIST OF ATTACHMENTS**

**1. LIST OF ATTACHMENTS AND EXHIBITS**

Attachment/Exhibit ID	Title	Date	Number
Attachment C1	ASBESTOS PROJECT (615-93) SCOPE OF WORK	04/02/93	1PC
Attachment C1	ASBESTOS C1 TO ASBESTOS PROJECT (615-93) SCOPE OF WORK	04/02/93	1PC
Attachment C1	GENERAL INFORMATION FOR DELIVERIES TO THE CUSTOMER CONSOLIDATION RISK (ICF)		1PC

12 3 MAR 1964

AMCCOM PROJECT 865-93  
SCOPE OF WORK

Contaminated Manufacturing Equipment  
Located at the Nuclear Metals Incorporated Facility  
HQ, AMCCOM Project Number 65-93

1. DESCRIPTION OF WORK. To provide for the preparation and shipment of government owned manufacturing machinery contaminated with depleted uranium located at the Nuclear Metals Inc. (NMI) facilities in Concord, Massachusetts and Barnwell, South Carolina. NMI shall be responsible for making the transportation arrangements from the two NMI facilities to the Scientific Ecology Group (SEG) in Oakridge, Tennessee. The final disposition of this equipment will be handled via a separate AMCCOM contract with the Scientific Ecology Group (SEG).

a. The following is a listing with brief description of each piece of equipment covered by this scope of work (SQW):

DAAK10-83-C-0283-10	Vapor Degreaser #1	Concord, MA
DAAK10-79-C-0383-16	Stacking Frames	" "
DAAK10-79-C-0383-86	" "	" "
DAAK10-79-C-0383-87	" "	" "
DAAK10-79-C-0383-60	Stacking Boxes	" "
DAAK10-79-C-0383-75	Max Mueller #4	" "
DAAK10-79-C-0383-76	Max Mueller #5	" "
DAAK10-79-C-0383-77	Max Mueller #6	" "
DAAK10-79-C-0383-78	Max Mueller #7	" "
DAAK10-81-C-0323-10	Mill & Center Lathe	" "
DAAK10-83-C-0283-5	J&L Lathe #5	" "
DAAK10-79-C-0383-82	Mori Seiki Lathe #1	" "
DAAK10-79-C-0383-12	Mori Seiki Lathe #2	" "
DAAK10-79-C-0383-7a	Water Cooling Tower	" "
DAAK10-80-C-0323-5(1)	J&L Lathe #1	" "
DAAK10-81-C-0323-5(2)	J&L Lathe #2	" "
DAAK10-83-C-0283-3	J&L Lathe #3	" "
DAAK10-83-C-0283-4	J&L Lathe #4	" "
F33657-76-C-0531-2	Norton Grinder	" "
DAAK10-79-C-0383-22	Platform Trucks	" "
DAAK10-79-C-0383-5	Aging Furnace	" "
DAAK10-79-C-0383-25	30 ea Storage Containers	" "
DAAK10-79-C-0383-58	30 ea Storage Containers	" "
DAAK10-81-C-0323-2	30" Comparator	" "
DAAK10-83-C-0283-23	14" Comparator	" "
DAAK10-81-C-0283-24	14" Comparator	" "
DAAK10-79-C-0383-2	Cut-off Band Saw	" "
DAAK10-79-C-0383-80	Mori Seiki Lathe #3	" "

I.D. Number	Description	Location
DAAK10-79-C-0383-82	Mori Seiki Lathe #4	Concord, MA
DAAK10-83-C-0276	Electric Vibrator	Barnwell, SC
DAAK10-83-C-0276	Electric Vibrator	" "
DAAK10-83-C-0276	Electric Vibrator	" "
DAAK10-83-C-0276	Electric Vibrator	" "
DAAK10-83-C-0276	Electric Vibrator	" "
DAAK10-83-C-0276	Electric Vibrator	" "
DAAK10-83-C-0276	Taper Mandrel	" "
DAAK10-83-C-0276	Retort Vessel	" "
DAAK10-83-C-0276	Mandrel	" "
DAAK10-83-C-0276	Latch Assembly	" "
DAAK10-83-C-0276	Loading Cone/A	" "
DAAK10-83-C-0276	Base Plate	" "
DAAK10-83-C-0276	Hex	" "
DAAK10-83-C-0276	Latch Hinge	" "
DAAK10-84-C-0087	Steel Pot Furnace	" "
DAAK10-84-C-0087	Coolant Tanks	" "
DAAK10-84-C-0087	Transformer	" "
DAAK10-84-C-0087	Control Cabinets (2)	" "

b. The point of contact for AMCCOM is Mr. Mike Styvaert, (309) 782-0880. Each piece of equipment is to be disconnected, placed on a moving skid, wrapped in plastic and transported to the SEG facility in Oakridge, Tennessee. The contractor shall remove and properly dispose of all freon contained in equipment air conditioners and drain any liquid from each machine where applicable.

c. The contractor shall file a brief report of findings and any recommendations.

d. All operations must comply with all applicable federal, state, and municipal laws, rules and regulations including the Defense Appropriations Act as it pertains to the use of ozone depleting substances.

2. COORDINATION. The contractor will coordinate all project activities with the AMCCOM Project Officer, Mr. Mike Styvaert:

Headquarters, U.S. Army Armament, Munitions and  
 Chemical Command  
 ATTN: AMSMC-RW, (Mr. Mike Styvaert)  
 Rock Island, IL 61299  
 Commercial: (309) 782-0880  
 FAX: (309) 782-2988

3. **CONTRACTOR REQUIREMENTS FOR REGULATORY CONCERNS:** The contractor will obtain any permits or authorizations from federal, state, and municipal agencies as required. The contractor shall be responsible for all aspects of regulatory compliance. In accordance with the Defense Appropriations Act, the contractor, in performing the efforts as defined by this scope of work, shall in no way construe the government direction as supporting, suggesting, or directing the use of ozone depleting substances. The contractor shall specifically bid and perform all contractual efforts in compliance with this act.

4. **CONTRACTOR SUPPLIED FACILITIES, EQUIPMENT AND SUPPLIES.** All services, equipment, materials and supplies needed to perform this task will be supplied by the contractor.

5. **CONTRACTOR'S ON SITE RESPONSIBILITIES.** The contractor will make provisions to inspect the equipment and plan for removal and packaging efforts.

a. The inspection will determine if any repackaging or overpacking is required, any special processing or handling requirements.

b. Radiation surveys will be taken of the equipment prior to packaging to determine dose rate levels.

c. The contractor is responsible for making all utility disconnections.

d. The contractor shall ensure all fluids are drained from each piece of equipment. This will entail the use of; pressurized air to blow out any hydraulic lines or reservoirs; a pump to recover liquids from reservoirs; and/or physically puncturing reservoirs to ensure the liquids are drained. The contractor shall NOT use vermiculite or any other absorbent in the holding reservoirs as this material cannot be introduced in the SEG smelting furnace. Any fluids recovered by SEG (the smelting contractor) will be returned to NMI. Any contaminated recovered liquids are to be filtered and free released if possible. NMI shall immediately notify AMCCOM of any recovered liquids that cannot be filtered or otherwise treated at the contractors facility.

e. The equipment shall be palletized on wooden skids (of sufficient strength to allow for safe transport of the supported load). Each contaminated piece of equipment shall be surrounded with a shrink wrap plastic. The plastic should be acceptable for incineration at SEG; the contractor shall contact SEG to determine the required specifications. The plastic wrapped equipment shall then be banded to the wooden pallets and the entire package including the pallet is to be wrapped with a heavy weight plastic tarp. All seams are to be taped with duct tape.

f. Whenever possible the maximum weight of each package is not to exceed 20,000 pounds; maximum dimensions are not to exceed 80" high (including the pallet), 80" wide by 20' in length. It is understood the certain individual pieces of equipment will exceed these dimensions.

g. The contractor shall submit a written report of the findings, including the dose rate data and weight of each package, to AMCCOM within 10 working days after completion of the project.

h. The contractor will provide the vehicle(s) for the shipment(s) to the Scientific Ecology Group in Oakridge, Tennessee. Change out of driver, trailer or tractor enroute is prohibited. The vehicle(s) will be subject to inspection by the government. The government reserves the right to reject any vehicle or driver which, in the opinion of the government, does not meet the requirements of the Department of Transportation. The waste shall be imported into the state of Tennessee under NMI's Tennessee radioactive waste import permit.

6. PERSONNEL. As a minimum, the contractor will provide one project manager and an expert in the field of radiation health physics to inspect the material.

7. AMCCOM OVERSIGHT. The government reserves the right to make announced visits to either NMI installation for oversight of the efforts called out in this scope of work and to inspect the shipments and associated paperwork to the SEG facility in Oakridge, Tennessee.

8. TRANSPORT. The contractor will provide exclusive use vehicles for the shipments. Change out of driver, trailer or tractor enroute is prohibited. The vehicles will be subject to inspection by the government. The government reserves the right to reject any vehicle or driver which, in the opinion of the government, does not meet the requirements of the Department of Transportation. The contractor shall be responsible for obtaining the required import and transportation permits for the State of Tennessee.

9. REPORTS. The contractor will provide HQ, AMCCOM copies of all shipping documents and a summary of material quantities processed at the facility.

10. FINANCIAL. As a minimum, a cost to date will be provided at 80% expenditure.

11. SCHEDULE. The disconnection, packaging, preparation and transport effort for the Concord, MA equipment shall be completed no later than 31 May 94.

## Attachment 02

**AMENDMENT 01  
SCOPE OF WORK FOR  
PROJECT 65-93**

**Packaging, Crating, Handling and Transporting of Manufacturing Government-owned Equipment (GOE) Contaminated with Depleted Uranium (DU) and located at Nuclear Metals, Inc. (NMI), accountable under Facilities Contract DAAA09-90-E-0013.**

Scope of Work for Project 65-93 is amended to include transportation of non-metallic waste to the Defense Consolidation Facility (DCF) in Barnwell, South Carolina and to allow NMI to decontaminate the following equipment as proposed in their 04 April 1994 proposal:

Platform Trucks, 4 each, DAAK10-79-C-0383-22

Storage Containers, 30 each, DAAK10-79-C-0383-25

Storage Containers, 30 each, DAAK10-79-C-0383-58

30" Optical Comparator, 1 each, DAAK10-81-C-0323-2

14" Deltronic Comparator, 1 each, DAAK10-83-C-0283-23

14" Deltronic Comparator, 1 each, DAAK10-83-C-0283-24

2. Mr. Mike Styvaert, AMSC-IV (309-782-0880) will provide assistance to NMI for making shipments to the DCF. NMI will be prepare the necessary State and DCF paperwork to include the South Carolina (SC) Department of Health and Environmental Control (DHSC) Form 802, the SC DHSC Form 803, and the DCF Radioactive Shipment Manifest Form. The blank forms will be provided by AMCCOM. NMI shall follow the general shipping guidelines as provided at attachment 03 to modification P0006 to DAAA09-90-E-0013. NMI will provide the vehicle(s) for the shipment. Change out of driver, trailer, or tractor enroute is prohibited. The vehicle(s) will be subject to inspection by the Government. The Government reserves the right to reject any vehicle or driver which, in the opinion of the Government, does not meet the requirements of the Department of Transportation.

3. The waste must arrive at the DCF prior to 31 May 1994 to ensure disposal at the Barnwell, SC site prior to the 30 June 1994 closure date for out-of-compact waste.

DEPARTMENT OF THE ARMY  
HEADQUARTERS, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND  
ROCK ISLAND, IL 61299-6000

ply to ATTN: AMSMC-SFR

REQUIRED FOR >75 ft<sup>3</sup> OF  
WASTE, OR IF THE SHIPMENT  
CONTAINS >1.0 Ci of ACTIVITY.

GENERAL INSTRUCTIONS  
FOR SHIPMENTS TO THE DEFENSE CONSOLIDATION SITE (DCS)

This shipment requires the submission of the South Carolina DHEC 802 Prior Notification and Manifest Form. This form is included with your paperwork and requires completion of all blocks marked with an "X".

The paperwork to be completed for this shipment MUST include at least the following

- a. Completed Radioactive Shipment Manifest Form (RSM).
- b. Completed DHEC 802 Prior Notification and Manifest Form.
- c. Completed DHEC 803 Shipment Certification Form.
- d. Bill of Lading.
- e. All required certification statements.

*RECEIVED*

copies of the paperwork are to be distributed as follows:

- a. Attached to outside of a package (ORIGINALS).
- b. Provided to carrier (driver).
- c. Retained by shipper.
- d. Mailed to HQ, AMCCOM, ATTN: AMSMC-SFR.
- e. Mailed to Defense Consolidation Facility, P.O. Box 828, Barnwell, 29812.

*CONFIRMATION*

The copy of the completed DHEC 802 Form MUST be forwarded to arrive at the State of South Carolina at least 72 hours prior to the expected arrival of the shipment in the state. A copy must also be included with the shipment paperwork. Complete instructions and the address for the State of South Carolina are provided on the back of the form. THIS IS REQUIRED BY STATE LAW.

5. The DHEC 803 form MUST be completed by the shipper and carrier and forwarded with the shipment as part of the paperwork.

6. Shipper must make telephonic notification at least 48 hours prior to the shipment departing their installation to obtain a site clearance number. This is a final check to ensure your compliance with all Federal and State laws. This telephone notification MUST be made to:

- a. DCF: (803) 259-1119, Mr. Richard Thatcher and
- b. HQ, AMCCOM: DSN 793-5030, Ms. Charlotte Carpenter.

Assistance is available from HQ, AMCCOM: DSN 793-0338 or (309) 782-0318, Mr. Kelly Crooks, AMCCOM Health Physicist; or Mr. Mike Stewart, DSN 793-0880 or (309) 793-0880, AMCCOM Health Physicist.

All shipments should be made within 60 days of receipt of this letter. Please contact Ms. Carpenter if this time limit cannot be met.

NOTE: Ms. Carpenter's commercial number is (309) 782-5030.

Compliance with Financial Responsibility

1. Cost Breakdown

- [ \$5m ] Basin
- [ \$1m ] Government Equipment
- [ \$8m ] Facilities & Equipment

REDACTED

2. Responsibility

- a. Holding Basin - 96% - GFM
- b. Government Equipment - 100% - GFM
- c. Facilities & Equipment - 96% - GFM

CONFIDENTIAL

3. Compliance

- a. \$750K covers [4%] share [(\$550K)]
- b. Army = [ \$13.1m ]

4. Conclusion - Presently in Compliance

PART 52—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

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is not limited to purchase orders, and changes and modifications to purchase orders. The Contractor shall obtain the Contracting Officer's written consent before placing any subcontract for furnishing any of the work called for in this contract, except for purchase of raw material or commercial stock items.

(b) No subcontract placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement subcontracts shall not exceed the fee limitations in subsection 15.903(d) of the Federal Acquisition Regulation (FAR).

(c) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(d) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination (1) of the acceptability of any subcontract terms or conditions, (2) of the acceptability of any subcontract price or of any amount paid under any subcontract, or (3) to relieve the Contractor of any responsibility for performing this contract.

(End of clause)  
(R 7-901.10 1979 MAR)

**52.244-4 Subcontractors and Outside Associates and Consultants.**

As prescribed in 44.204(d), insert the following clause in fixed-price architect-engineer contracts:

**SUBCONTRACTORS AND OUTSIDE ASSOCIATES AND CONSULTANTS (APR 1984)**

Any subcontractors and outside associates or consultants required by the Contractor in connection with the services covered by the contract will be limited to individuals or firms that were specifically identified and agreed to during negotiations. The Contractor shall obtain the Contracting Officer's written consent before making any substitution for these subcontractors, associates, or consultants.

(End of clause)  
(SS 7-607.16 1965 JAN)

**52.244-5 Competition in Subcontracting.**

As prescribed in 44.204(e), when contracting by negotiation, insert the following clause in solicitations and contracts when the contract amount is expected to exceed the appropriate small purchase limitation in Part 13, unless—

(a) A firm-fixed-price contract, awarded on the basis of adequate price competition or whose prices are set by law or regulation, is contemplated; or

(b) A contract of the type and/or purpose identified in 44.204(c) and (d) is contemplated.

**COMPETITION IN SUBCONTRACTING (APR 1984)**

The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

(End of clause)  
(V 7-104.40 1962 APR)  
(V 1-7.202.30)  
(V 7-303.27)  
(V 7-402.29)  
(V 7-603.18)  
(V 7-605.37)  
(V 7-702.50)  
(V 7-703.43)  
(V 7-704.35)  
(V 7-1703.5)  
(V 7-1903.28)  
(V 7-1909.23)

**52.245-1 Property Records.**

As prescribed in 45.106(a), insert the following clause in solicitations and contracts when the conditions in 45.105(b) exist and the Government maintains the Government's official Government property records:

**PROPERTY RECORDS (APR 1984)**

The Government shall maintain the Government's official property records in connection with Government property under this contract. The Government Property clause is hereby modified by deleting the requirement for the Contractor to maintain such records.

(End of clause)  
(AV 7-104.24(g) 1967 AUG)

**52.245-2 Government Property (Fixed-Price Contracts).**

As prescribed in 45.106(b)(1), insert the following clause:

**GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989)**

(a) *Government-furnished property.* (1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property")

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at

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FEDERAL ACQUISITION REGULATION (FAR)

the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) *Changes in Government-furnished property.* (1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any—

- (i) Decrease or substitution in this property pursuant to subparagraph (b)(1) above; or
- (ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) *Title in Government property.* (1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the

provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract—

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon—

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first

(d) *Use of Government property.* The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) *Property administration.* (1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by

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## PART 52—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

52.245-2

the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) *Access.* The Government and all its designers shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) *Risk of loss.* Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) *Equitable adjustment.* When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for—

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) *Final accounting and disposition of Government property.* Upon completing this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property (including any resulting scrap) not consumed in performing this contract or delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property as may be directed or authorized by the Contracting

Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as the Contracting Officer directs.

(j) *Abandonment and restoration of Contractor's premises.* Unless otherwise provided herein, the Government—

(1) May abandon any Government property in place, at which time all obligations of the Government regarding such abandoned property shall cease; and

(2) Has no obligation to restore or rehabilitate the Contractor's premises under any circumstances (e.g., abandonment, disposition upon completion of need, or upon contract completion). However, if the Government-furnished property (listed in the Schedule or specifications) is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) *Communications.* All communications under this clause shall be in writing.

(l) *Overseas contracts.* If this contract is to be performed outside of the United States of America, its territories, or possessions, the words "Government" and "Government furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.  
(End of clause)

*Alternate 1 (APR 1984)* As prescribed in 45 106(b)(2), substitute the following paragraph (g) for paragraph (g) of the basic clause:

(g) *Limited risk of loss.* (1) The term "Contractor's managerial personnel," as used in this paragraph (g), means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of—

(i) All or substantially all of the Contractor's business;

(ii) All or substantially all of the Contractor's operation at any one plant or separate location at which the contract is being performed; or

(iii) A separate and complete major industrial operation connected with performing this contract.

(2) The Contractor shall not be liable for loss or destruction of, or damage to, the Government property provided under this contract (or, if an educational or nonprofit organization, for expenses incidental to such loss, destruction, or damage), except as provided in subparagraphs (3) and (4) below.

reserve for insurance (including any self-insurance fund or reserve) covering loss or destruction of, or damage to, Government property, except to the extent that the Government may have expressly required the Contractor to carry such insurance under another provision of this contract.

(9) In the event the Contractor is reimbursed or otherwise compensated for any loss or destruction of, or damage to, Government property, the Contractor shall use the proceeds to repair, renovate, or replace the lost, destroyed, or damaged Government property or shall otherwise credit the proceeds to or equitably reimburse the Government, as directed by the Contracting Officer.

(10) The Contractor shall do nothing to prejudice the Government's rights to recover against third parties for any loss or destruction of, or damage to, Government property. Upon the request of the Contracting Officer, the Contractor shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation (including the prosecution of suit and the execution of instruments of assignment in favor of the Government) in obtaining recovery. In addition, where a subcontractor has not been relieved from liability for any loss or destruction of, or damage to, Government property, the Contractor shall enforce for the benefit of the Government the liability of the subcontractor for such loss, destruction, or damage.

(R 7-104.24(c) 1978 SEP)  
(R 1-7.303-7(b))

*Alternate II (JUL 1985). As prescribed in 45.106(b)(3), substitute the following paragraphs (c) and (g) for paragraphs (c) and (g) of the basic clause:*

(c) *Title in Government property* (1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities, special test equipment, and special tooling (other than that subject to a special tooling clause) acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences, or when the Government has paid for it, whichever is earlier,

whether or not title previously vested in the Government.

(4) Title to equipment (and other tangible personal property) purchased with funds available for research and having an acquisition cost of less than \$5,000 shall vest in the Contractor upon acquisition or as soon thereafter as feasible; provided, that the Contractor obtained the Contracting Officer's approval before each acquisition. Title to equipment purchased with funds available for research and having an acquisition cost of \$5,000 or more shall vest as set forth in the contract. If title to equipment vests in the Contractor under this subparagraph (c)(4), the Contractor agrees that no charge will be made to the Government for any depreciation, amortization, or use under any existing or future Government contract or subcontract thereunder. The Contractor shall furnish the Contracting Officer a list of all equipment to which title is vested in the Contractor under this subparagraph (c)(4) within 10 days following the end of the calendar quarter during which it was received.

(5) Vesting title under this paragraph (c) is subject to civil rights legislation, 42 USC 2000d. Before title is vested and by signing this contract, the Contractor accepts and agrees that—

"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under this contemplated financial assistance (title to equipment)."

(g) *Limited risk of loss* (1) The term "Contractor's managerial personnel," as used in this paragraph (g), means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of—

(i) All or substantially all of the Contractor's business;

(ii) All or substantially all of the Contractor's operation at any one plant, laboratory, or separate location at which the contract is being performed, or

(iii) A separate and complete major industrial operation connected with performing this contract.

(2) The Contractor shall not be liable for loss or destruction of, or damage to, the Government property provided under this contract (or, if an educational or nonprofit organization, for expenses incidental to such loss, destruction, or damage), except as provided in subparagraphs (3) and (4) below.

(3) The Contractor shall be responsible for loss or destruction of, or damage to, the Government property provided under this contract (including expenses incidental to such loss, destruction, or damage)—

(i) That results from a risk expressly required to be insured under this contract, but only to the extent of the insurance required to be purchased and maintained, or to the extent of insurance actu-

ally purchased and maintained, whichever is greater;

(ii) That results from a risk which is in fact covered by insurance or for which the Contractor is otherwise reimbursed, but only to the extent of such insurance or reimbursement;

(iii) For which the Contractor is otherwise responsible under the express terms of this contract;

(iv) That results from willful misconduct or lack of good faith on the part of the Contractor's managerial personnel; or

(v) That results from a failure on the part of the Contractor, due to willful misconduct or lack of good faith on the part of the Contractor's managerial personnel, to establish and administer a program or system for the control, use, protection, preservation, maintenance, and repair of Government property as required by paragraph (c) of this clause.

(4) (i) If the Contractor fails to act as provided in subdivision (g)(v) above, after being notified (by certified mail addressed to one of the Contractor's managerial personnel) of the Government's disapproval, withdrawal of approval, or nonacceptance of the system or program, it shall be conclusively presumed that such failure was due to willful misconduct or lack of good faith on the part of the Contractor's managerial personnel.

(ii) Furthermore, any loss or destruction of, or damage to, the Government property shall be presumed to have resulted from such failure unless the Contractor can establish by clear and convincing evidence that such loss, destruction, or damage—

(A) Did not result from the Contractor's failure to maintain an approved program or system, or

(B) Occurred while an approved program or system was maintained by the Contractor.

(5) If the Contractor transfers Government property to the possession and control of a subcontractor, the transfer shall not affect the liability of the Contractor for loss or destruction of, or damage to, the property as set forth above. However, the Contractor shall require the subcontractor to assume the risk of, and be responsible for, any loss or destruction of, or damage to, the property while in the subcontractor's possession or control, except to the extent that the subcontract, with the advance approval of the Contracting Officer, relieves the subcontractor from such liability. In the absence of such approval, the subcontract shall contain appropriate provisions requiring the return of all Government property in as good condition as when received, except for reasonable wear and tear or for its use in accordance with the provisions of the prime contract.

(6) Upon loss or destruction of, or damage to, Government property provided under this contract,

the Contractor shall so notify the Contracting Officer and shall communicate with the loss and salvage organization, if any, designated by the Contracting Officer. With the assistance of any such organization, the Contractor shall take all reasonable action to protect the Government property from further damage, separate the damaged and undamaged Government property, put all the affected Government property in the best possible order, and furnish to the Contracting Officer a statement of—

(i) The lost, destroyed, or damaged Government property;

(ii) The time and origin of the loss, destruction, or damage;

(iii) All known interests in commingled property of which the Government property is a part; and

(iv) The insurance, if any, covering any part of or interest in such commingled property

(7) The Contractor shall repair, renovate, and take such other action with respect to damaged Government property as the Contracting Officer directs. If the Government property is destroyed or damaged beyond practical repair, or is damaged and so commingled or combined with property of others (including the Contractor's) that separation is impractical, the Contractor may, with the approval of and subject to any conditions imposed by the Contracting Officer, sell such property for the account of the Government. Such sales may be made in order to minimize the loss to the Government, to permit the resumption of business, or to accomplish a similar purpose. The Contractor shall be entitled to an equitable adjustment in the contract price for the expenditures made in performing the obligations under this subparagraph (g)(7) in accordance with paragraph (h) of this clause. However, the Government may directly reimburse the loss and salvage organization for any of their charges. The Contracting Officer shall give due regard to the Contractor's liability under this paragraph (g) when making any such equitable adjustment.

(8) The Contractor represents that it is not including in the price, and agrees it will not hereafter include in any price to the Government, any charge or reserve for insurance (including any self-insurance fund or reserve) covering loss or destruction of, or damage to, Government property, except to the extent that the Government may have expressly required the Contractor to carry such insurance under another provision of this contract.

(9) In the event the Contractor is reimbursed or otherwise compensated for any loss or destruction of, or damage to, the Government property, the Contractor shall use the proceeds to repair, renovate, or replace the lost, destroyed, or damaged Government property or shall otherwise credit the proceeds

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to or equitably reimburse the Government, as directed by the Contracting Officer

(10) The Contractor shall do nothing to prejudice the Government's rights to recover against third parties for any loss or destruction of, or damage to, Government property. Upon the request of the Contracting Officer, the Contractor shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation (including the prosecution of suit and the execution of instruments of assignment in favor of the Government) in obtaining recovery. In addition, where a subcontractor has not been relieved from liability for any loss or destruction of, or damage to, Government property, the Contractor shall enforce for the benefit of the Government the liability of the subcontractor for such loss, destruction, or damage.

52.245-3 Identification of Government-Furnished Property.

As prescribed in 45.106(c), insert the following clause, in addition to the clause at 52.245-2, Government Property (Fixed-Price Contracts), in solicitations and contracts when a fixed-price construction contract is contemplated under which the Government is to furnish Government property (i.e., railroad cars at a specified destination or f.o.b. truck at the project site. The contract Schedule shall specify the point of delivery and may include special terms and conditions covering installation, preparation for operation, or equipment testing by the Government or by another contractor.

IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY (APR 1984)

(a) The Government will furnish to the Contractor the property identified in the Schedule to be incorporated or installed into the work or used in performing the contract. The listed property will be furnished f.o.b. railroad cars at the place specified in the contract Schedule or f.o.b. truck at the project site. The Contractor is required to accept delivery, pay any demurrage or detention charges, and unload and transport the property to the job site at its own expense. When the property is delivered, the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the Contracting Officer. The Contractor shall also report in writing to the Contracting Officer within 24 hours of delivery any damage to or shortage of the property as received. All such property shall be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated in this contract.

(b) Each item of property to be furnished under this

clause shall be identified in the Schedule by quantity, item, and description.

(End of clause)

(R 7-603.28 1968 SEP)

52.245-4 Government-Furnished Property (Short Form).

As prescribed in 45.106(d), insert the following clause:

GOVERNMENT-FURNISHED PROPERTY

(SHORT FORM) (APR 1984)

(a) The Government shall deliver to the Contractor, at the time and locations stated in this contract, the Government-furnished property described in the Schedule or specifications. If that property, suitable for its intended use, is not delivered to the Contractor, the Contracting Officer shall equitably adjust affected provisions of this contract in accordance with the Changes clause when--

(1) The Contractor submits a timely written request for an equitable adjustment; and

(2) The facts warrant an equitable adjustment.

(b) Title to Government-furnished property shall remain in the Government. The Contractor shall use the Government-furnished property only in connection with this contract. The Contractor shall maintain adequate property control records in accordance with sound industrial practice and will make such records available for Government inspection at all reasonable times, unless the clause at Federal Acquisition Regulation 52.245-1, Property Records, is included in this contract.

(c) Upon delivery of Government-furnished property to the Contractor, the Contractor assumes the risk and responsibility for its loss or damage, except

(1) For reasonable wear and tear;

(2) To the extent property is consumed in performing this contract; or

(3) As otherwise provided for by the provisions of this contract.

(d) Upon completing this contract, the Contractor shall follow the instructions of the Contracting Officer regarding the disposition of all Government furnished property not consumed in performing this contract or previously delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property, as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as directed by the Contracting Officer.

(e) If this contract is to be performed outside the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed

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FEDERAL ACQUISITION REGULATION (FAR)

as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

(R 7-104.24(f) 1964 NOV)

**2.245-5 Government Property (Cost-Reimbursement, Time-and-Material, or Labor-Hour Contracts).**

As prescribed in 45.106(f)(1), insert the following clause:

**GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) (JAN 1986)**

(a) *Government-furnished property.* (1) The term "Contractor's managerial personnel," as used in paragraph (g) of this clause, means any of the Contractor's directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of—

(i) All or substantially all of the Contractor's business;

(ii) All or substantially all of the Contractor's operation at any one plant, or separate location at which the contract is being performed; or

(iii) A separate and complete major industrial operation connected with performing this contract

(2) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications, together with such related data and information as the Contractor may request and as may be reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(3) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(4) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either effect repairs or modification or return or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(5) If Government-furnished property is not deliv-

ered to the Contractor by the required time or times, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) *Changes in Government-furnished property.* (1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract or (ii) substitute other Government-furnished property for the property to be provided by the Government or to be acquired by the Contractor for the Government under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by this notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make such property available for performing this contract and there is any—

(i) Decrease or substitution in this property pursuant to subparagraph (b)(1) above; or

(ii) Withdrawal of authority to use property, if provided under any other contract or lease

(c) *Title.* (1) The Government shall retain title to all Government-furnished property.

(2) Title to all property purchased by the Contractor for which the Contractor is entitled to be reimbursed as a direct item of cost under this contract shall pass to and vest in the Government upon the vendor's delivery of such property.

(3) Title to all other property, the cost of which is reimbursable to the Contractor, shall pass to and vest in the Government upon—

(i) Issuance of the property for use in contract performance;

(ii) Commencement of processing of the property or use in contract performance; or

(iii) Reimbursement of the cost of the property by the Government, whichever occurs first

(4) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as per-



DEFENSE LOGISTICS AGENCY  
 DEFENSE CONTRACT MANAGEMENT COMMAND  
 DEFENSE CONTRACT MANAGEMENT AREA OPERATIONS, BOSTON  
 495 SUMMER STREET  
 BOSTON, MA. 02110-3128



DCMDM-GFAMN/A3 (RP (617) 451-4115/hc)

29 June 93

**SUBJECT: Government Property Control System Survey Summary**

Mr. Wilson B. Tuffin  
 President  
 Nuclear Metals, Inc.  
 2329 Main Street  
 Concord, MA 01742

Dear Mr. Tuffin:

The following represents a brief narrative of a test and evaluation of your company's system of property accounting and control. Specific finding and conclusions are set forth below.

Period of Survey: 24 June 1993

Types of Property Involved: Other Plant Equipment, Industrial Plant Equipment, Special Test Equipment, Special Tooling

Methods Used: Upon review, it was determined that the following categories of property control were applicable:

Property Management	Movement	Utilization
Acquisition	Storage	Maintenance
Receiving	Inventories	Subcontractor
Identification	Reports	Control
Records	Consumption	Disposition
		Contract Closeout

**CONCLUSIONS:** Based upon the survey, your system for the control of Government Property was found to meet the requirements of Section 45 to the Federal Acquisition Regulations. The Government is not precluded from questioning issues of costs within the system reviewed, notwithstanding the status of the contractor's system or the results of this review.

Sincerely,

*Roger Pelissier*  
 ROGER PELISSIER  
 Property Administrator

# Chamberlain

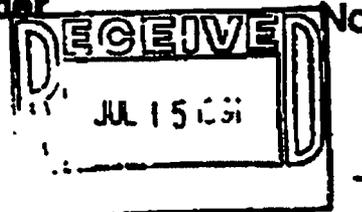
## Purchase Order

PAGE

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Chamberlain Manufacturing Corporation  
Waterloo Facility  
Telephone 319/291-1400  
Fax 319/291-1601

A Duchesne enterprise



THE ENTIRE NUMBER ABOVE  
MUST APPEAR ON ALL INVOICES  
PACKING SLIPS, CORRESPONDENCE,  
ETC. REFERENCED TO THIS  
ORDER.

ORDER DATE

6/14/91

ORDERED FROM 22790 NUCLEAR METALS, INC.  
2229 MAIN STREET

(unless otherwise directed)  
Ship To: Chamberlain Manufacturing Corporation  
580 Esther Street  
Waterloo, Iowa 50703

Invoice To: Chamberlain Manufacturing Corporation  
P.O. Box 2335  
Waterloo, Iowa 50704-2335

CONCORD

MA 01742

THIS IS A PRIORITY ORDER CERTIFIED FOR NATIONAL  
DEFENSE USE AND YOU ARE REQUESTED TO FOLLOW  
THE PROVISIONS OF THE DEFENSE PRIORITIES  
ACT, AS AMENDED, AND THE DEFENSE  
ALLOCATION SYSTEM REGULATIONS (15 CFR  
PART 300) NO APPLICABLE UNLESS A PRIORITY  
STATUS IS SHOWN.

THE ITEMS LISTED ARE EXEMPT FROM STATE  
SALES TAX AND SALES TAX EXEMPTION  
CERTIFICATE CONSUMER PERMIT 0-01-000001  
IF MARKED NO TAX IN LINE ITEM

REQUESTED - 8/01/91

PRIORITY RATING CONTRACT NUMBER SHIP VIA: UPS

FOB: SHIP POINT  
FREIGHT TERMS: SP

NOTE 1: SPECIFICATION MIL-P-70813(AR) dated  
28 February 1991 applies.

NOTE 2: UF6 will be provided on a government furnished  
basis (GFB) total quantity 351,756 lbs.

NOTE 3: INSPECTION Government Source Inspection (GSI) is  
required at your facility. Please notify the appropriate  
representative who services your plant.

NOTE 4: REQUIREMENTS All requirements specified in our  
proposal CRC 90-40 apply unless otherwise referenced in this  
order.

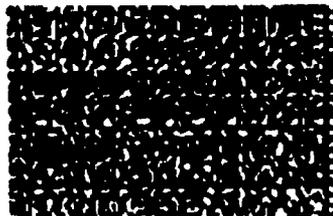
NOTE 5: MIL-Q-9858: This order is subject to MIL-Q-9858.  
An on site visit will be made to your plant if required to  
ensure effective quality requirements. Your calibration  
system must comply with MIL-STD-45662.

NOTE 6: CERTIFICATION Certification reflecting test  
results is required with each shipment. Certification must  
reference this purchase order number and quantity shipped.  
Each certification must be signed by an authority of your

\*\* CONTINUED NEXT PAGE \*\*

ACKNOWLEDGEMENT OF THIS  
ORDER SHOWING PRICES AND  
MATERIAL DATES MUST  
BE SENT TO US PROMPTLY  
LESS DELIVERY WILL BE  
MADE WITHIN 10 DAYS

THIS PURCHASE ORDER IS SUBJECT  
TO THE CONDITIONS SET  
FORTH ON THE REVERSE SIDE  
AND ATTACHMENT OF CRC FORM  
9811-2 APPLICABLE FOR GOVERNMENT  
CONTRACTS



SHIPMENTS WITHOUT PACKING  
SLIP MAY BE REFUSED.

CHAMBERLAIN MANUFACTURING CORPORATION

PHONE: 319 291-1400  
FAX: 319 291-1601

021

ORIGINAL

37

100th Congress  
2d Session

HOUSE OF REPRESENTATIVES

Report  
100-220

**NATIONAL DEFENSE AUTHORIZATION ACT  
FOR FISCAL YEAR 1986**

**REPORT**

OF THE

**COMMITTEE ON ARMED SERVICES  
HOUSE OF REPRESENTATIVES**

**H.R. 4801**

together with

**ADDITIONAL AND DISSENTING VIEWS**

*Including one dissent of the Congressional Budget Office*



May 22, 1985—Committed to the Committee of the Whole on the State of the Union and ordered to be printed

## ITEMS OF SPECIAL INTEREST

*120 millimeter tank ammunition*

The committee has learned that the Army plans to move the Load-and-Pack (LAP) operation for 120 millimeter tank ammunition from the Milan Army Ammunition Plant to another Army ammunition plant. The committee does not understand the rationale for this action and questions the cost-effectiveness of such a move.

Accordingly, the committee directs the Secretary of the Army to maintain the 120 millimeter tank ammunition LAP operation at the Milan Army Ammunition Plant until the Secretary certifies to the congressional defense committees that it would be cost-effective to perform this function elsewhere. Furthermore, the Secretary must wait until 30 days after making the certification to move the LAP operation.

*Depleted uranium ammunition*

In the statement of managers accompanying the conference report on the National Defense Authorization Act for Fiscal Year 1984 (Public Law 100-190; H. Rept. 100-867), the conference directed the Secretary of the Army to provide the congressional defense committees with a report regarding who would bear the responsibility for environmental remediation of a site owned and operated by a contractor who made depleted uranium tank ammunition if the Army terminates the contract. The committee has not yet received that report. The committee directs the Secretary to provide this report to the congressional defense committees by February 1, 1985.

*2.75" Hydra 70 rocket*

The budget request included \$107.0 million for procurement of 2.75" Hydra 70 rockets.

With the termination of the Advanced Rocket System (ARS) (discussed in Title II of this report), the committee believes that the Department of Defense needs to improve its current rocket to meet joint service requirements. The committee has learned that non-developmental warheads and hypervelocity motors are available and could be incorporated into the Hydra 70 system for all services.

Accordingly, the committee directs the Secretary of the Army to produce, and qualify for operational use, an improved rocket based on the Hydra 70 system as a successor to the ARS. This effort shall be undertaken as an engineering change proposal (ECP) to the current Hydra 70 rocket using non-developmental items. The Secretary is also directed to procure 2.75" rockets using competitive procedures that include consideration of the improved rocket. The committee recommends authorization of the amount requested.

*Provision of industrial facilities*

The budget request contained \$44.4 million for provision of industrial facilities for the ammunition industrial base in fiscal year 1985.

The committee is concerned about the munitions industrial base, the Army's management of the munitions accounts, war reserve, training ammunition requirements and the impact on national se-

1933 Congress  
1st Session

HOUSE OF REPRESENTATIVES

REPORT  
108-906

**NATIONAL DEFENSE AUTHORIZATION ACT  
FOR FISCAL YEAR 1934**

**R E P O R T**

OF THE

**COMMITTEE ON ARMED SERVICES  
HOUSE OF REPRESENTATIVES**

ON

**H. R. 2401**

together, with

**ADDITIONAL AND DISSENTING VIEWS**

(Including part estimate of the Congressional Budget Office)



JULY 24, 1933.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

## ITEM OF SPECIAL INTEREST

*Depleted uranium ammunition*

The Army uses depleted uranium in 106mm and 120mm tank ammunition production. The committee understands that there are two private contractors that currently manufacture depleted uranium penetrators but that, in view of declining requirements for such ammunition, only one contractor is likely to be maintained for future production. Because each of the existing contractors has government-furnished material and equipment that are contaminated with depleted uranium and that have also contaminated other contractor-owned material, each will require decontamination of such equipment and material at some point in the future.

In the event that there is a down-selection to one depleted uranium contractor, the committee is interested in learning whether the Army has determined that it has, or would accept contractually, any responsibility for cleaning up contamination at the contractor-owned site or sites where contracts are not extended. Accordingly, the committee directs the Secretary of the Army to provide a report on this subject to the congressional defense committees within 90 days after any such down-selection.

*Scan and destroy armor (SADARM) submunition*

The budget request contained \$41 million in RDT&E and \$77.7 million for procurement for the scan and destroy (SADARM) submunition program for fiscal year 1994.

The committee has learned that the Army suspended SADARM performance testing based on recent system performance and reliability test failures. As a result, the SADARM project manager has extended the engineering and manufacturing development schedule and delayed the low rate initial production decision until fiscal year 1994.

Accordingly, the committee recommends authorization of the amount requested for RDT&E and \$42.5 for procurement for fiscal year 1994. In addition, the committee understands that the revised Army program plan may require additional RDT&E funding for fiscal year 1994. If so, the committee recommends that the Secretary of the Army reprogram SADARM procurement funding to SADARM RDT&E.

*Swm ammunition*

The committee is concerned about reports that the Department of Defense is considering a plan to import Swm ammunition capable of piercing the best bulletproof vests available to civilian police forces in the United States. In light of past experience, the likelihood that Kevlar-piercing Swm ammunition would find its way into the hands of drug dealers and other criminals must be considered high. Congressional and Pentagon audits have documented thefts and illegal sales by and from military personnel in the past. The imported bullets would be likely to find a market in areas where automatic weapons and drive-by shootings have become common.

The committee finds the prospect of police officers facing criminals armed with these bullets alarming and believes the Department of Defense should consider carefully the possibility that this



**NUCLEAR METALS, INC.**

17 June 1993

REDACTED

Department of the Army  
U.S. Army Armament, Munitions and  
Chemical Command  
Rock Island, IL. 61299-6000

Attention: Ms. Melanie Johnson/AMSMC-PAI-FA

Subject: Budgetary Pricing, Facilities Planning for Large Caliber DU Penetrators

Reference: 1) Contract DAAA09-90-E-0013, Consolidated Facilities  
2) AMCCOM Letter of 15 April 1993  
3) AMCCOM Letter of 20 May 1993

Dear Ms. Johnson:

In response to the above referenced AMCCOM letter inquiries, NMI has prepared Rough Order of Magnitude pricing for various facilities planning efforts in accordance with the applicable Scopes Of Work. Our estimates are based on performing work in the most cost effective manner possible, including volume reduction of Low Level Radioactive Waste wherever possible. The following represents NMI's response to both AMCCOM requests:

Lay-Away Scope Of Work ROM Cost \$5,000,000

Process	Government Equipment		NMI Equipment	
	Labor Hours	Total Cost	Labor Hours	Total Cost
UF6-UF4	0	0	10,000	\$1,100K
UF4-Derby	0	0	7,000	\$800K
Derby-Rod	5,000	\$500K	10,300	\$1,100K
Rod-Machining	4,000	\$400K	9,000	\$850K
Inspect-Ship	1,000	\$100K	1,500	\$150K
<b>TOTALS</b>	<b>10,000</b>	<b>\$1,000K</b>	<b>37,500</b>	<b>\$4,000K</b>

Surveillance and Maintenance ROM Cost \$1,500,000 Year One

17 June 1993  
Response to AMCCOM Facilities Planning  
Page 2

~~CONFIDENTIAL~~

~~Plant Clearance-ROM Cost \$1,000,000~~

Disconnection:	\$500K
Prepare for Shipment:	\$1,750K
Transportation:	\$250K
Disconnection:	N/A
Facilities Restoration:	\$500K
Storage of Equipment:	N/A

~~REDACTED~~

Note: The above estimate assumes that all GFE is shipped from NMI.

~~Dismantle, Package, Transport-ROM Cost \$30,000,000~~

Government Owned Equipment:	\$20,000K
NMI Owned Equipment:	\$10,000K
TOTAL:	\$30,000K

NMI has attempted to be fully responsive to the Army's requests for Budgetary cost estimates. Should there be a need for any additional information or clarification relative to our response, please do not hesitate to contact us.

Very truly yours,



Donald T. King  
Manager, Contracts





DEPARTMENT OF THE ARMY  
HEADQUARTERS U.S. ARMY ARMAMENT MUNITIONS AND CHEMICAL COMMAND  
ROCK ISLAND ILLINOIS 61299-6000



April 15, 1993

OFFICE OF  
ATTENTION OF

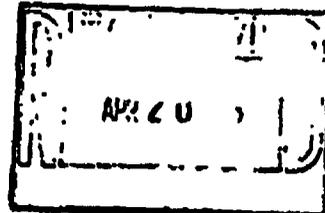
Facilities Branch

SOLICITATION FOR INFORMATION OR PLANNING PURPOSES (April 1984)

The Government does not intend award a contract on the basis of this solicitation or to otherwise pay for the information solicited except as provided in subsection 31.205-18, Bid and Proposal (B&P) costs, of the Federal Acquisition Regulation.

This solicitation is issued for the purpose of obtaining estimates of projected layaway, inspection, maintenance and protection costs and plant clearance.

Mr. Donald T. King  
Manager, Contracts  
Nuclear Metals, Inc.  
2229 Main Street  
Concord, Massachusetts 01742



Dear Mr. King:

Request Nuclear Metals, Inc. prepare budgetary estimates for work to be performed in accordance with the attached Scopes of Work (SOW) for Layaway; Surveillance, Maintenance, and Protection of Laid Away Equipment/Facilities and Plant Clearance. The SOWs will apply to the government-owned equipment (GOE) accountable under Facilities Contract DAAA09-90-E-0013.

It is requested that the estimates be broken out for each SOW and provided to this office no later than May 3, 1993.

No funding is available, or will be made available for any costs associated with providing these requested budgetary estimates.

For further information please contact Melanie Johnson, AMSMC-PAI-FA, (309) 782-3815.

Sincerely,

Robert C. Tedell  
Procuring Contracting Officer

Encl



DEPARTMENT OF THE ARMY  
HEADQUARTERS US ARMY ARMAMENT MUNITIONS AND CHEMICAL COMMAND  
8004 RAND KILGUS 81200-0000



MAILING  
SPECIFICATION

May 20, 1993

Commercial Facilities Branch

**SOLICITATION FOR INFORMATION OR PLANNING PURPOSES (April 1984)**

The Government does not intend award a contract on the basis of this solicitation or to otherwise pay for the information solicited except as provided in subsection 31.203-12, Bid and Proposal (B&P) costs, of the Federal Acquisition Regulation.

This solicitation is issued for the purpose of obtaining rough order of magnitude (ROM) estimates of dismantling, packaging, transport and disposal of equipment.

Mr. Donald T. King  
Manager, Contracts  
Nuclear Metals, Inc.  
2229 Main Street  
Concord, Massachusetts 01742

Dear Mr. King:

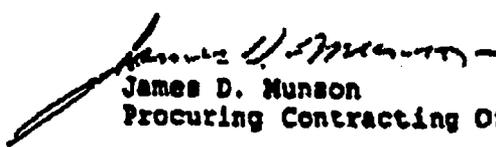
Request NMI prepare budgetary estimates for work to be performed in accordance with the attached Scope of Work (SOW) for Dismantling, Packaging, Transport and Disposal of contractor owned equipment and government-owned equipment (GOE) accountable under Facilities Contract DAAA09-90-E-0013, along with a complete equipment inventory listing.

It is requested that the estimates be broken out separately for government-owned and contractor-owned equipment and provided to this office no later than June 18, 1993.

No funding is available, or will be made available for any costs associated with providing these requested budgetary estimates. Requesting this information in no way indicates government liability for the clean up/disposal of this equipment or site remediation.

For further information please contact Melanie Johnson, ANSMC-PAT-PA, (309) 782-3815.

Sincerely,

  
James D. Munson  
Procuring Contracting Officer

Enc.1



DEPARTMENT OF THE ARMY  
OFFICE OF THE CHIEF OF LEGISLATIVE AFFAIRS  
THE ARMY HEADQUARTERS  
WASHINGTON, DC 20315

June 10, 1964



Honorable Martin T. Nathan  
House of Representatives  
Washington, D. C. 20515

Dear Congressman Nathan:

This replies to your letter to the Secretary of the Army concerning dual sources for depleted uranium (DU) penetrators for M23A2 120 millimeter (mm) tank cartridge.

Clin Ordnance is the prime contractor for M23A2 120mm tank ammunition subcontracts DU penetrator production. The Army directed the fiscal year (FY) 1964 production of DU penetrators be split 50/50 percent to place both DU suppliers at equal production rates in preparation for the planned winner-take-all FY 1965 multiyear procurement.

In the past, when requirements were sufficient to workload both producers at economical rates, dual sourcing the DU penetrator resulted in dramatic price reductions to the government. However, the Army's review of current and projected requirements along with the knowledge of the DU production base, has led us to conclude that there are insufficient quantities to support more than a single DU producer. Nevertheless, the Army plans to require that Clin submit their proposal for the multiyear (FY 1965-68) requirement based on both 100 percent of the DU penetrators with one source and a 50/50 percent split using both DU producers. Contract award will be based on the lowest overall cost solution to the government.

I trust this information assists you.

Sincerely,

*George T. Cradley*  
George T. Cradley LTC, U.S. Army  
Lieutenant Colonel, U. S. Army  
Chief, Special Actions Branch  
Congressional Inquiry Division

# WARNING

## **THIS CONTRACT INVOLVES HAZARDOUS MATERIAL**

**SEE SEPARATE HAZARDOUS COMPONENT SAFETY  
DATA STATEMENTS FOR TECHNICAL DATA  
AND SAFETY REQUIREMENTS**

(TITLE OF END ITEM AND IED IFO IIS ETC OR CONTRACT NUMBER)

Cartridge, M829A2, 120mm, APFSDS-T DAAA21-94-R-0043

### **FIRMS MUST HAVE ADEQUATE FACILITIES FOR HANDLING AMMUNITION, EXPLOSIVES,**

**or other unique military related dangerous material  
involved that could adversely affect personnel and  
property in the event of explosion, fire or exposure. Prior  
to contract award, the Government will thoroughly  
investigate the ability of prospective contractor to comply  
with safety requirements.**

**INFORMATION TO OFFERORS OR QUOTERS  
SECTION A - COVER SHEET**

1 SOLICITATION NUMBER

DAAA21 94-R-0043

2 (If any)

a SEALED BID

X b NEGOTIATED (M/F)

c NEGOTIATED (M/F)

**INSTRUCTIONS**

**NOTE THE AFFIRMATIVE ACTION REQUIREMENT OF THE EQUAL OPPORTUNITY CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.**

You are cautioned to note the "Equal Color of Non Segregated Facilities" in the solicitation. Failure to agree to the conditions on tender your reply corresponds to the terms of solicitations. No "G Awards of cost over \$25,000 which are no longer than the process of the Equal Opportunity clause.

"Fiduciary" are provided on the face and located at Standard Form 18 and Part 1 and 12 of Standard Form 33. All other conditions documents and Bureau of Form of Contents in the solicitation and should be reviewed for applicability.

See the provisions of the solicitation entitled either "Late Bids, Modifications of Bids or Withdrawal of Bids" or "Late Proposals, Modifications of Proposals and Withdrawal of Proposals."

When submitting your reply the envelope used must be clearly marked with the Solicitation Number as shown above and the date and time and date for bid opening or receipt of proposals in the solicitation document.

If NO RESPONSE is to be submitted detach this sheet from the solicitation complete the information requested on reverse side of this page, and mail NO ENVELOPE IS NECESSARY.

Quotes must be accurate and complete information as required by the solicitation including amendments. The penalty for making false statements is provided in 18 U.S.C. 1001.

3 ISSUING OFFICE (Complete mailing address, including Zip Code)

US ARMY ARDEC  
ATTN: SMCAR-PCW, BLDG 10  
PICATINNY ARSENAL, NJ 07806-5000

4 ITEMS TO BE PURCHASED (Brief description)

Cartridge, M829A2, 120mm, Armor Piercing, Pin Stabilizing, Discarding Sabot-Tracer (APFSDS-T).

5 PROCUREMENT INFORMATION (If and complete as applicable)

X a THIS PROCUREMENT IS UNRESTRICTED Restricted to Olin Corporation

b THIS PROCUREMENT IS A \_\_\_\_\_ TO BEY, ASIDE FOR ONE OF THE FOLLOWING (a) \_\_\_\_\_ when 1. of the Table of Contents in \_\_\_\_\_

(1) Small Business

(2) Labor Supply Area Concerns

(3) Grouped Small Business/Labor Area Concerns

6 ADDITIONAL INFORMATION

7 POINT OF CONTACT FOR INFORMATION

a NAME (Last, First, Middle Initial)

SYLVAIN, LOUIS J.

b ADDRESS (Include Zip Code)

US ARMY ARDEC  
ATTN: SMCAR-PCW, BLDG 10  
PICATINNY ARSENAL, NJ 07806-5000

c TELEPHONE NUMBER (Include Area Code and Extension) (AO COLLECT CALLS) (201) 724-3963

DD Form 1787-E, MAR 80

Previous editions are obsolete.

**SOLICITATION, OFFER AND AWARD** THIS CONTRACT IS A RATED ORDER UNDER DPAS, 49 CFR 3801

1 RATING: DO-A6 PAGE 01 158 PAGES

2 CONTRACT NO: 3 SOLICITATION NO: DAAA21-94-R-0043

4 TYPE OF SOLICITATION:  SEALED BID (SFB)  NEGOTIATED (NSP)

5 DATE ISSUED: 24 MAY 1994

6 REGULAR CONTRACT CASE NO:

7 ISSUED BY: U S. Army ARDEC ATTN: SHCAR-PCV-C Picatinny Arsenal, NJ 07806-5000

8 ADDRESS OFFER TO (if other than item 7):

NOTE: In sealed bid contracts "offer" and "offer" mean "bid" and "award"

9 Sealed offers - originals and 2 copies for opening the supplies or services in the Schedule will be received at the place specified in the Schedule and the necessary receipt in Building 10 until 4:00PM local time 03 AUG 1994

CAUTION - LATE Submissions, Modifications and Withdrawals See Section I, Paragraph No 52.214.7 or 52.215-10. All offers are subject to terms and conditions contained in the solicitation.

10 FOR INFORMATION CALL: A NAME: LOUIS J. SYLVAIN B TELEPHONE NO. (include area code and collect call): (201) 724-3965

11 TABLE OF CONTENTS

SEC	DESCRIPTION	PAGE(S)	SEC	DESCRIPTION	PAGE(S)
X A	SOLICITATION/CONTRACT FORM	1-2	X	CONTRACT CLAUSES	62-106
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X D	PACKAGING AND MARKING	21			
X E	INSPECTION AND ACCEPTANCE	22-30		REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	110-139
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X G	CONTRACT ADMINISTRATION DATA	36			
X H	SPECIAL CONTRACT REQUIREMENTS	37-61		EVALUATION FACTORS FOR AWARD	

OFFER (To be completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions of 52.214.16 Minimum Bid Acceptance Period

12 In compliance with the above, the undersigned agrees, if this offer is accepted within \_\_\_\_\_ calendar days (100 calendar days in case of offeror period as specified by the offeror) from the date of receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s) within the time specified in the schedule.

13 DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No 52.232-4)

10 CALENDAR DAYS 20 CALENDAR DAYS 30 CALENDAR DAYS CALENDAR DAYS

14 ACKNOWLEDGMENT OF AMENDMENTS (This offer acknowledges receipt of amendments to the SOLICITATION for offers and related draw and award and shall)

AMENDMENT NO	DATE	AMENDMENT NO	DATE

15A NAME AND ADDRESS OF OFFEROR: CODE: FACILITY: 15B NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print):

15C CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE

15E TELEPHONE NO. (include area code): 15D OFFER DATE:

AWARD (To be completed by Government)

16 ACCEPTED AS TO ITEMS NUMBERED: 17 AMOUNT: 18 ACCOUNTING AND APPROPRIATION:

19 AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:  10 U.S.C. 2304(d) ( )  41 U.S.C. 253(c) ( )

20 SUBMIT INVOICES TO ADDRESS SHOWN IN (if other than otherwise specified): ITEM:

21 ADMINISTERED BY (if other than item 7): CODE: 22 PAYMENT WILL BE MADE BY: CODE:

23 NAME OF CONTRACTING OFFICER (Type or print): 24 UNITED STATES OF AMERICA: 25 AWARD DATE:

Signature of Contracting Officer: 55

STANDARD FORM NO. 247 (1963)  
 GSA FPMR (41 CFR) 101-11.6  
 PREVIOUS EDITIONS ARE OBSOLETE

**CONTINUATION SHEET**

FORM NO. 302 (REV. 10-1-75)

DAAA21-94-R-0043

PAGE

3

158

UNIT OF QUANTITY OR CHARACTER

B.1

NSN	SUPPLIES-SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Cartridge, MB29A2, 120mm, APFSDS-T, Program Year 1, FY95	24,000	ea		
0001AA	Cartridge, MB29A2, 120mm, APFSDS-T, with Contractor Furnished Propellant (Multiyear)	24,000	ea	\$	\$
0001AB	Cartridge, MB29A2, 120mm, APFSDS-T with Government Furnished Propellant (Multiyear)	24,000	ea	\$	\$
0001AC	Cartridge, MB29A2, 120mm, APFSDS-T, with Contractor Furnished Propellant (Single Year Only)	24,000	ea	\$	\$
0001AD	Cartridge, MB29A2, 120mm, APFSDS-T with Government Furnished Propellant (Single Year Only)	24,000	ea	\$	\$
0002	Cartridge, MB29A2, 120mm, APFSDS-T, Program Year 2, FY96 (Multiyear)	24,000	ea		
0002AA	Cartridge, MB29A2, 120mm, APFSDS-T, with Contractor Furnished Propellant	24,000	ea	\$	\$
0002AB	Cartridge, MB29A2, 120mm, APFSDS-T, with Government Furnished Propellant	24,000	ea	\$	\$
0003	Cartridge, MB29A2, 120mm, APFSDS-T, Program Year 2, FY96 Option	6,000	ea		
0003AA	Cartridge, MB29A2, 120mm, APFSDS-T with Contractor Furnished Propellant	6,000	ea	\$	\$
0003AB	Cartridge, MB29A2, 120mm, APFSDS-T with Government Furnished Propellant	6,000	ea	\$	\$
0004	Cartridge, MB29A2, 120mm, APFSDS-T, Program Year 3, FY97 (Multiyear)	24,000	ea		
0004AA	Cartridge, MB29A2, 120mm, APFSDS-T, with Contractor Furnished Propellant	24,000	ea	\$	\$
0004AB	Cartridge, MB29A2, 120mm, APFSDS-T, with Government Furnished Propellant	24,000	ea	\$	\$
0005	Cartridge, MB29A2, 120mm, APFSDS-T, Program Year 3, FY97 Option	6,000	ea		

STANDARD FORM 28, JULY 1963  
 GSA GEN. REG. NO. 27  
 (48 CFR 101-11.6)  
 PREVIOUS EDITIONS ARE OBSOLETE  
 THIS FORM IS TO BE USED  
 ONLY FOR THE PURPOSES  
 SPECIFIED IN THE INSTRUCTIONS

**CONTINUATION SHEET**

NO. OF SUPPLIES OR SERVICES

DAAA21-94-R-0043

4 158

NAME OF AGENCY OR CONTRACTOR

8.1

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005AA	Cartridge, M829A2, 120mm, APFSDS-T, with Contractor Furnished Propellant	6,000	ea	\$ _____	\$ _____
0005AB	Cartridge, M829A2, 120mm, APFSDS-T, with Government Furnished Propellant	6,000	ea	\$ _____	\$ _____
0006	Cartridge, M829A2, 120mm, APFSDS-T, Program Year 4, FY98 (Multiyear)	21,500	ea		
0006AA	Cartridge, M829A2, 120mm, APFSDS-T, with Contractor Furnished Propellant	21,500	ea	\$ _____	\$ _____
0006AB	Cartridge, M829A2, 120mm, APFSDS-T with Government Furnished Propellant	21,500	ea	\$ _____	\$ _____
0007	Cartridge, M829A2, 120mm, APFSDS-T, Program Year 4, FY98 Option	6,000	ea		
0007AA	Cartridge, M829A2, 120mm, APFSDS-T, with Contractor Furnished Propellant	6,000	ea	\$ _____	\$ _____
0007AB	Cartridge, M829A2, 120mm, APFSDS-T, with Government Furnished Propellant	6,000	ea	\$ _____	\$ _____
0008	Data in accordance with DDForm 1423, Exhibit A	NOT SEPARATELY PRICED			

PART XV - Representations And InstructionsSECTION 1 - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS OR QUOTERS

L.24 In the event that a multiyear contract is awarded, the cancellation charges computed in accordance with FAR 52.217-2, "Cancellation of Items (APR 1984)", shall not exceed the amounts specified below:

<u>Cancellation Notice Issued Prior to Award</u>	<u>M829A2 Cancellation Ceiling</u>
Program Year 2	\$9,722,250
Program Year 3	\$6,381,450
Program Year 4	\$3,053,700

The contractor may propose alternate cancellation ceilings which would be subject to negotiations.

L.25 The Contractor's proposed unit prices shall be valid for a range of  $\pm 1,000$  cartridges from the identified deliverable quantities for each program year.

L.26 Environmental Cleanup - The contractor's price shall include the cost for cleanup at non-government test sites. The inclusion of this cost shall be closed ended such that the Government is not liable and will not be liable in the future for any cleanup during contract performance, or following contract completion.

L.27 Funding of each program year will occur in the second quarter of the applicable fiscal year.

L.28 Depleted Uranium (DU) Penetrator - The contractor shall solicit both DU penetrator producers, Aerojet Ordnance Tennessee and Nuclear Metals, Inc., for 40%, 60% and 100% of both the single year and multiyear quantities of penetrators required. The DU penetrator subcontractor award(s) shall be the same as the prime contract award as it relates to a single year or multiyear basis. The lowest overall DU penetrator (only) price to the government, combined 60%/40% or 100%, shall determine the subcontractor award(s).

Subcontractor delivery schedules shall be provided for all proposals. Cost or pricing data is required for the 60%/40% proposals.

Contracting officer approval of the DU penetrator subcontract(s) is required prior to award by the prime contractor.

~~COMPANY PRIVATE~~

**NUCLEAR METALS, INC.**  
*Submission in response to*  
**U.S. Nuclear Regulatory Commission**  
**Demand For Information**  
1 July 1994  
**ATTACHMENT 2**

OFFICIAL RECORD COPY

~~COMPANY PRIVATE~~

~~COMPANY PRIVATE~~

~~CONFIDENTIAL~~  
~~REDACT~~

**ATTACHMENT 2 (Section III, part A, B):**

**FINANCIAL INSTITUTION CONTACTS MADE REGARDING OBTAINING LONG-TERM FINANCING OR ALTERNATIVELY APPROPRIATE LETTER/LINE OF CREDIT INSTRUMENTS.**

The Company has approached our commercial bank, State Street Bank & Trust Co. (SSB) regarding the possibility of establishing a letter/line of credit of [approximately \$13 million.] SSB has been the Company's commercial bank for over twenty years and clearly understands all aspects of the Company's operation and currently participates in several long-term debt instruments of the Company. At present SSB provides the \$750 thousand letter of credit for decommissioning and a working capital line of credit to the Company. In discussions with Thomas Pyles, Vice President of Commercial Business we were informed that such an instrument was not possible given our size, the downward trend in sales and earnings, the lack of revenue streams that a waste project generates and the insufficient uncontaminated asset base available to secure such an instrument.

Subsequent to this review, NMI developed the enclosed presentation, highlighting the Company for potential long-term monies, to fuel expansion. This package was reviewed on 26 January '94 with [Kevin Kraska of Prudential Capital] and again on 10 March 1994 with [Senior Vice President Ralph C. Itri of Fleet Bank] for possible long-term financing. With both financial institutions, despite exciting growth opportunities the Company was unable to secure new long-term financing.

In addition, we have discussed the Company's needs and possible markets that NMI could approach for long-term financing with [Roderick Fletcher, Managing Director of State Street Boston Capital Corporation.] The focus of these discussions were on potential markets that NMI could pursue for long-term debt or additional lines of credit. His review of the Company's sales, earnings and cash flow performance, as well as debt markets and the potential loan value of assets from a lender's perspective indicated that the Company was not in a position, at this time, to approach any available markets for amounts of the magnitude required.

~~COMPANY PRIVATE~~

~~COMPANY PRIVATE~~

You also have asked us to describe other efforts to obtain long term financing or other financial assurance. NMI has and continues to explore acquisitions or mergers as a method of providing total financial assurances for decommissioning. The Company has actively looked for acquisitions by us or of us as a vehicle to achieve these goals. To date, this has been unsuccessful, however, the Company intends to continue to look for possible solutions through either mergers or acquisitions.

~~COMPANY PRIVATE~~

~~COMPANY PRIVATE~~

**ATTACHMENT 2 (Section III, part A, B)**

**ENCLOSURE:**

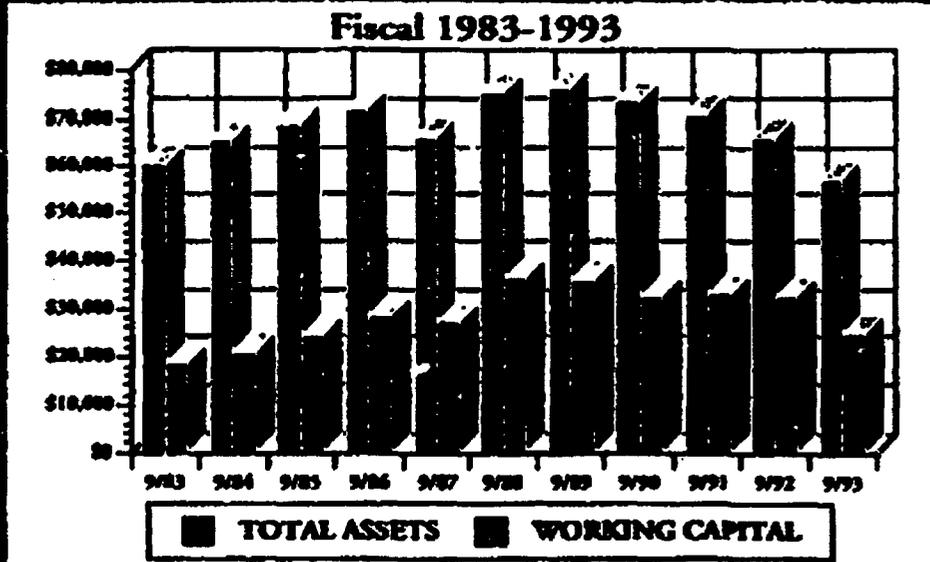
- A. NMI presentation used at Financial Institutions for long-term financing considerations

~~COMPANY PRIVATE~~

# Balance Sheet



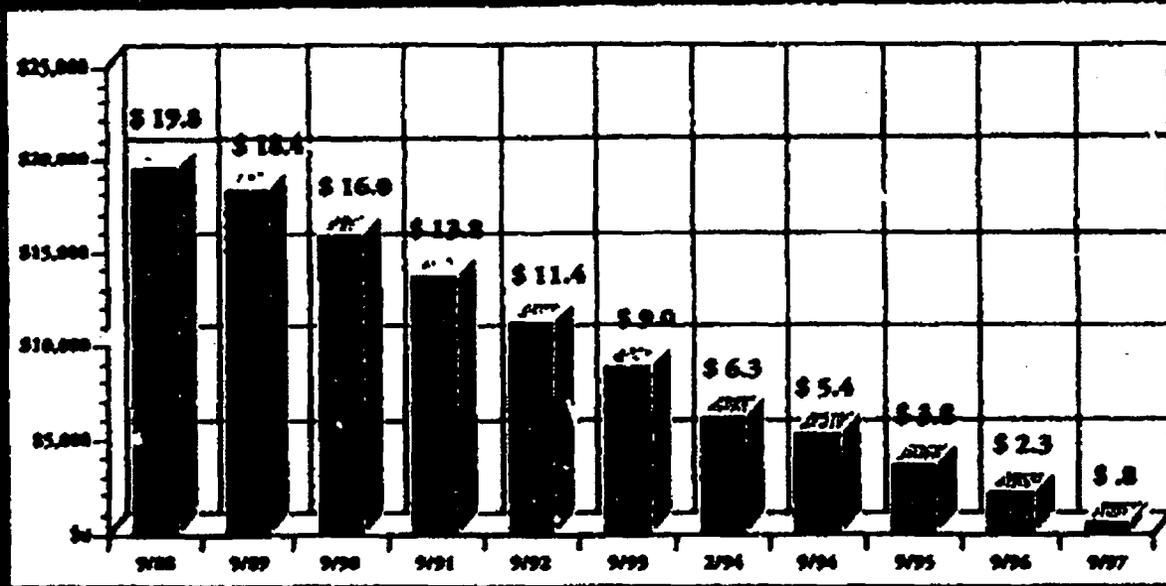
Assets	1993
Current Assets	\$23,800
Property, Plant & Equipment	1,200
Other Assets	1,000
<b>Total Assets</b>	<b>\$25,800</b>
<b>Liabilities &amp; Stockholder Equity</b>	
Current Liabilities	\$1,100
Deferred Taxes	1,000
Other Liabilities	1,000
Stockholder Equity	22,700
<b>Total</b>	<b>\$25,800</b>



# Debt Outstanding



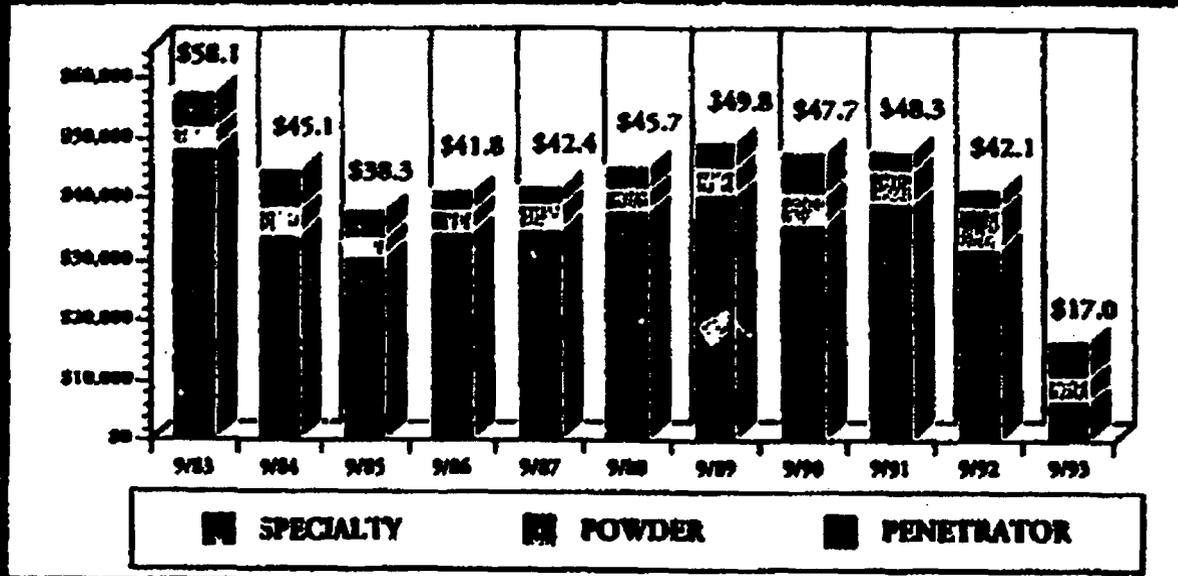
Fiscal 1988-1997



CONFIDENTIAL

# Sales by Product Segment

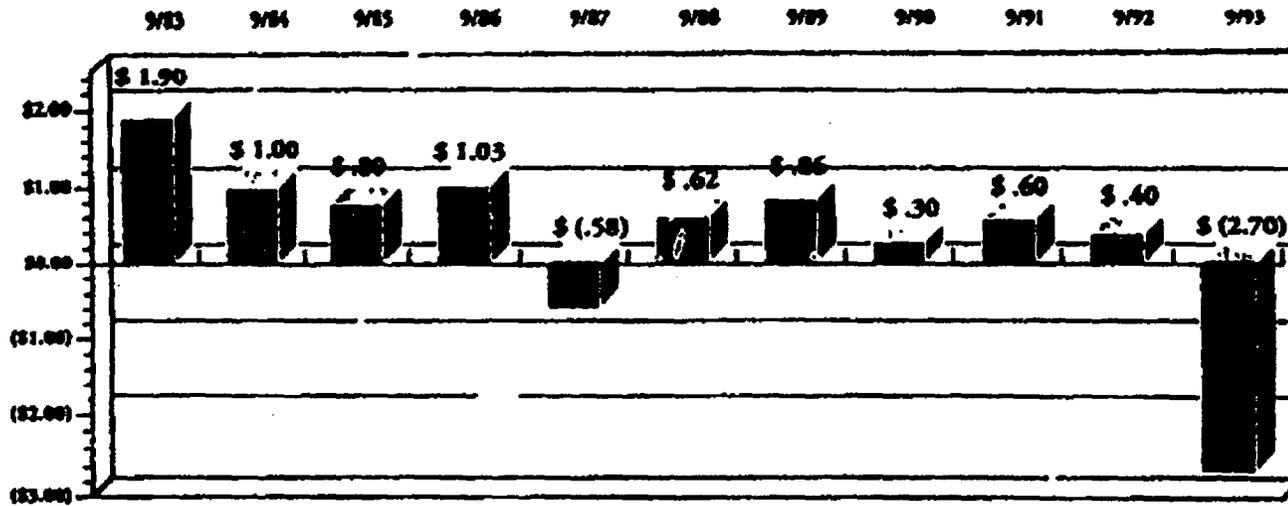
Fiscal 1983-1993



# Earnings Per Share



Fiscal 1983-1993

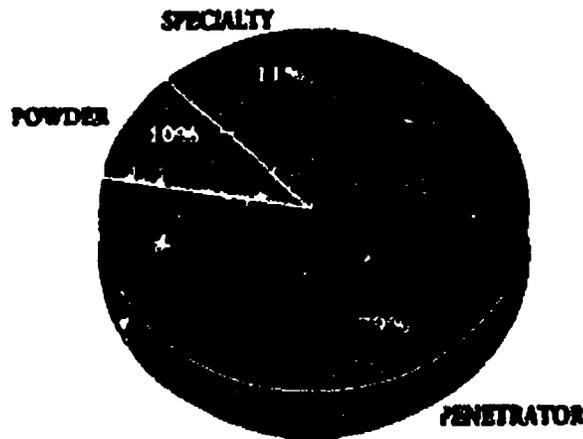


# Sales by Product Segment

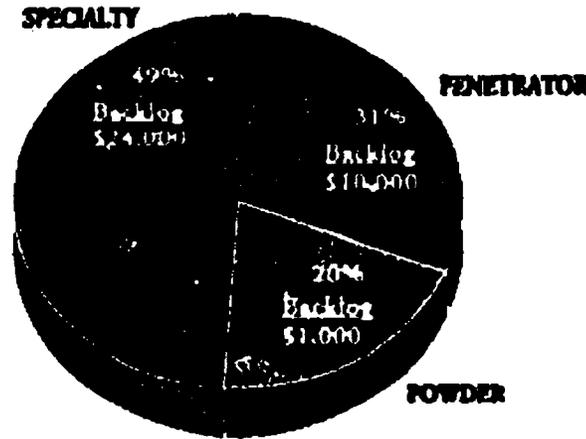
Fiscal 1983-1997



1983-1993



1994-1997



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# *This Is Our Business*



## • Depleted Uranium Penetrators

- Domestic Small and Large Caliber
- Foreign Military Sales
- Antitank Warheads

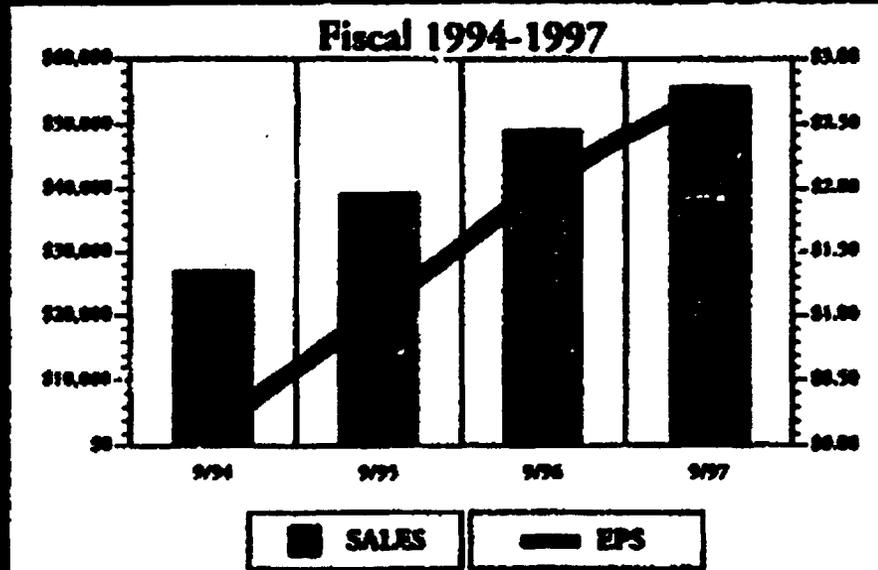
## • Metal Powders

- Biomedicine
- Electronic Packaging
- Photocopier and Computer Printers
- Aerospace
- Specialties

## • Fabricated Specialty Metal Products

- Beryllium Aluminum
- High Performance
- Transition Joints & Bearing Steel
- High Temperature
- Superconducting Wire
- DU Armor
- Commercial DU
- DOE Shipping Containers
- Environmental Restoration
  - UF<sub>6</sub> Conversion
  - Hydromet
  - DU Recycle
  - DU Recovery Equipment

# Sales and Earnings



CONFIDENTIAL

# Prudential Capital Group



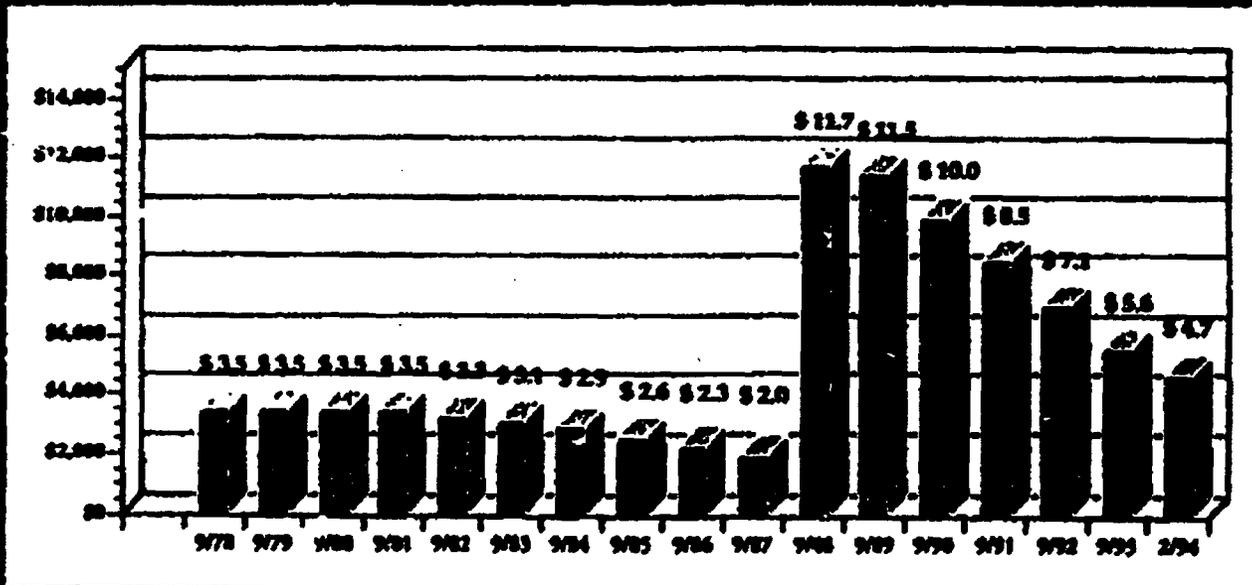
## FISCAL 1978 TO PRESENT

- Two loans totalling \$13.5 with a current balance of \$4.7
- Never a late payment
- Verbal waiver of restrictive payments covenant obtained in 1987 for stock buyback program
- Waiver for payment of dividend sought in January '91
- Issue - *lack of complete documentation on 1987 waiver*
- Prudential wishes to negotiate

CONFIDENTIAL

# Pru Outstanding Loan Balances

Fiscal 1978-1994



CONFIDENTIAL

# *Our Request*



- \$10 million over 10 years @ 7%

Replace Prudential

Fund emergency growth



CONFIDENTIAL

~~COMPANY PRIVATE~~

**NUCLEAR METALS, INC.**

*Submission in response to*  
**U.S. Nuclear Regulatory Commission**  
**Demand For Information**

1 July 1994

**ATTACHMENT 3**

~~COMPANY PRIVATE~~

OFFICIAL RECORD COPY

~~COMPANY PRIVATE~~

### **ATTACHMENT 3 (Section III, parts C)**

#### **DISCUSSION OF STEPS TAKEN AND CORRESPONDENCE WITH THE GOVERNMENT REGARDING GOVERNMENT RESPONSIBILITY FOR DECOMMISSIONING AT NMI.**

As noted in Attachment 1, the Company is pursuing the remediation of the holding basin and will be more actively pursuing the facility and equipment decommissioning costs as a separate matter.

The holding basin has been openly discussed with the Government. For a number of years, ending in 1985, the Company disposed of manufacturing-related depleted uranium waste and the associated spent acid and other residual materials by neutralizing with lime and discharging the neutralized mixture to a holding basin on its premises in Concord, Massachusetts. In 1986 the holding basin was covered with hypalon, an impervious material used to prevent rain and surface runoff water from leaching through the holding basin. The Company now uses a proprietary "closed loop" process that it developed to discontinue such discharges. The Company believes that both practices were and are in compliance with all applicable regulations.

The vast majority (approximately 96%) of the material in the holding basin is the by-product of manufacturing processes conducted by the Company under Government contracts using Government Furnished Material. This material continues to be Government-owned and the Government has a responsibility for remediation of the site. The Government has not committed in writing to fund any remediation costs, however there continues to be ongoing dialogue between the Company and the Army. The Army has not denied the Government's responsibility and has demonstrated a willingness to pay the costs of removal of the material from the holding basin. The Government has demonstrated a general practice of paying its portion of site remediation costs by funding these projects without a written commitment.

The Company has been pursuing two options for remediating the holding basin. During fiscal 1992 and 1993 the Company had been evaluating both the recycle/recovery option and burial option for remediating the holding basin material. During fiscal 1993 the Company informed NRC that based on evaluations and information collected, the Company preferred to pursue the recycle/recovery option. The Government has now identified the burial option as the preferred remediation method due to significantly lower costs to the Government.

~~COMPANY PRIVATE~~

## **RESPONSE TO LETTER FROM SECRETARY GILBERT DECKER**

### **BACKGROUND**

There are several statements in Secretary Decker's June 6, 1994 letter which require clarification

1. The letter incorrectly states that in 1983 AOT and NMI were both provided an opportunity to include cleanup costs as an allowable overhead expense on the next production contracts.

### **CLARIFICATION**

The situation in 1983 was quite different from today. AOT had a contaminated pond which was threatening to overflow into a nearby stream and was under considerable pressure from Federal and State regulatory agencies to immediately remediate this situation. NMI was in the process of developing recycling technology to stop discharges to its Holding Basin, which was permitted as a legal repository for spent acid and was not, and is not now, considered an immediate threat to the environment. It was logical and proper for the Army to participate in the cleanup of the pond at AOT but there was no urgency at that time to cleanup the Holding Basin at NMI nor was there an available technical alternative.

2. The letter incorrectly states that NMI declined this Army offer in order to gain the larger share of the next two production contracts.

### **CLARIFICATION**

NMI was never made an offer by the Army to clean up its Holding Basin as an overhead charge to production contracts. NMI was never told by the Army what was occurring with AOT's pond. We first learned about the AOT pond remediation at a briefing to the Army given by AOT well after the project was completed. Our records do indicate, however, that on more than one occasion in 1984 NMI sought financial assistance from the Army of approximately \$4.5 million for this purpose.

The following is a synopsis of the production contracts awarded during the time of the use of overhead charges as allowable expenses to cleanup the pond at AOT.

**105/120MM DU PENETRATOR AWARDS**

<b>FCM</b>	<b>FCM</b>	<b>FCM</b>
NMI 74,115 (105MM) \$22,405K	65,000 (105MM) \$12,338K	35,515 (105MM) \$8,879K
AOT 24,500 (105MM) Approx. \$10,500K	61,159 (105MM) <u>9,800 (120MM)</u> Approx. \$18,000K	93,662 (105MM) <u>11,535 (120MM)</u> Approx. \$22,000K

It must be noted that in FY'83 procurements were directed procurements. AOT was coming on line and did not have the capacity for larger buys. The first two years of competitive procurements were FY'84 and FY'85. These were presumably the years during which NMI profited from the larger shares of the production contracts. As shown above AOT received 64% of the total contract value during these two years. The larger share of the work and the profit did not go to NMI.

3. The letter incorrectly states that NMI is asking for a lump sum payment for cleanup of its Holding Basin.

**CLARIFICATION**

NMI has not asked for a lump sum payment for removal and disposition of the contents of the Holding Basin. After considerable effort to develop the best and most environmentally proper method for disposing of the contents, we proposed a project on June 22, 1993 to PBMA, with a copy to the PCO at AMCCOM, for demonstrating a recycling technology for cleanup of the Holding Basin over a five-year period. The resulting request by AMCCOM to evaluate alternatives resulted in the realization that removal and burial at Government rates was a viable alternative. This alternative would be accomplished over two fiscal years. AMCCOM also wanted to make the decision which alternative to choose (recycling or burial). NMI still awaits the Army's decision.

4. The letter incorrectly states that providing cleanup funding now to NMI, who profited from the larger share of these competitive production contracts, would be unfair to AOT.

#### **CLARIFICATION**

NMI believes cleanup of the pond at AOT was necessary at the time and the proper action by the Army. Regardless of the contractual method used to pay for the cleanup at AOT, the fact remains that the Army paid approximately \$7 million for cleanup at AOT. We wish we had been aware of this opportunity at the time and had been able to do the same. We are aware of, and have always supported, the efforts by the Army to provide a "level playing field". In projects of this sort the Army has always been meticulous about providing the same financial assistance to each contractor, as demonstrated when we received the recent Hydromet Project and in the recent equipment cleanup contracts. We believe that in fairness, assistance to NMI for the cleanup of the Holding Basin should be provided to maintain the "level playing field". Although times have changed, and it is not now possible to include such costs as a relatively minor overhead charge because of the greatly reduced value of procurements for penetrators, there are other means of providing for fairness in the required financial assistance.

#### **PROPOSED ACTION**

NMI is preparing an unsolicited proposal under an open Army facilities contract (DAAA09-90-E-0013) to remove the contents of the Holding Basin to our loading dock for transportation and burial by the Army at Government rates. This identical methodology was used quite successfully under this contract for cleanup and disposal of contaminated machine tools and equipment. This fixed price proposal will be for approximately \$3 million. The Army would independently contract for transportation and burial thus avoiding a possible large Massachusetts tax.

6/20/94



DEPARTMENT OF THE ARMY  
U.S. ARMY ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER  
PICATINNY ARSENAL, NEW JERSEY 07804-5000



REPLY TO  
ATTENTION OF

Procurement Directorate  
SMCAR-PCW-C

15 June 1994

Mr. Wilson D. Tuffin  
Nuclear Metals Incorporated  
2229 Main Street  
Concord, MA 01742

Dear Mr. Tuffin:

I have enclosed a copy of the letter sent by the Assistant Secretary of the Army (Research, Development and Acquisition) in response to Congressman Martin T. Meehan's inquiry on your behalf.

Your attention is specifically directed to the last paragraph on page two of the Assistant Secretary's letter in which he states the Army has never received a contract claim related to any costs for remediation of your basin. In the absence of a contract obligation or a claim, we have no basis for addressing this issue.

Should you desire to discuss those items in further detail I can be reached at (201)724-4269.

Sincerely,

  
Harry Santa  
Contracting Officer

Enclosure

SENT BY

2-6-94 15:28 : L.S ARMY UPN-1113-01 724 1195



OFFICE OF THE  
SECRETARY OF THE ARMY

DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
FOR ACQUISITION  
WASHINGTON, D.C. 20315-6000

8 JUN 1994



Honorable Martin T. Keahan  
House of Representatives  
Washington, D.C. 20510-3103

Dear Congressman Keahan:

This is in response to your letter of March 14, 1994, to Mr. George Duaneau, who was the Acting Assistant Secretary of the Army, on behalf of Nuclear Metals Incorporated (NMI) regarding environmental remediation of NMI's holding basin.

Olin is the system contractor for the NS19A2, the only Depleted Uranium (DU) munition currently being procured. As the prime contractor, Olin subcontracts the DU penetrator production. In the past, the DU production has been split between NMI and Aerojet Ordnance Tennessee (AOT) with the low bidder receiving the largest share of the production quantity. . . Both NMI and AOT have submitted bids to Olin for the fiscal year (FY) 1994 procurement quantity. A letter contract has been awarded to Olin based on a 50/50 split of DU penetrator production between NMI and AOT. Our intent was to retain both DU suppliers in preparation for the proposed FY 1995 multiyear procurement. We plan to require Olin to solicit both NMI and AOT for 60 percent, 60 percent and 100 percent of the single year (FY 1995) and the multiyear (FY 1995-98) quantities of DU penetrators. Subsequent to the prime multiyear versus single year contract decision (which the subcontracted items will mirror), the lowest overall cost solution to the Government, either the combined 60/60 percent or the 100 percent will be determined and the subcontract award(s) made.

Your letter refers to the precedent set by the cleanup undertaken by AOT. It is important to understand the nature of the contractual agreement which existed between the Army and AOT with respect to this issue. The government did not simply make a lump sum payment to AOT for cleanup costs it incurred at its facility, as apparently is now being requested by NMI. In 1983 AOT approached the government and expressed its desire to clean up its basin. The Army agreed that AOT could, if it chose to do so, include as part of its overhead rates to be charged on the next contracts, an agreed to percentage (72 percent) of the actual

-2-

remediation costs. At that time NMI was verbally offered the same opportunity to include cleanup costs in its overhead rates when it next bid on the production contracts. NMI declined the offer.

Because these higher rates were included as part of AOT's bids on the production contracts for FY 83 and FY 84, AOT was the high bidder. Consequently, AOT lost the larger shares of those two production contracts to NMI. Thus, the only contractual relationship which provided for any payment to AOT which would be deemed to be related to cleanup costs of its basin were the allowance of overhead rates which included such costs.

NMI's contracts to date contain no contractual agreement or responsibility on the part of the government to pay costs for remediation of the basin, nor do these contracts reflect any stated overhead rates which include cleanup costs. Even assuming that the government had the authority to make such a payment, to now provide a lump sum payment to NMI for remediation of its basin after NMI has benefited from the profit earned on the larger shares of the production buys would be unfair to AOT. Further, it would be offering NMI something far different from the arrangement the Army entered into with AOT. If NMI would now like to take advantage of the same arrangement as AOT, NMI can choose to treat cleanup costs as a business expense and include the cost in its overhead rates when it bids on the next production contract. This upcoming acquisition may well be the last production buy and as such may be the last opportunity for NMI to include in its proposed offer, as part of its overhead costs, an amount for cleanup of the basin.

It should be noted that to date NMI has not made any contract claims to the Army, on either past or existing contracts, related to any costs for remediation of the basin. To the extent that NMI is looking for some further contractual payments on any firm fixed price contracts or on contracts which have already been closed out, it is our position that there is no contractual basis for payment. With respect to any open, cost type contracts, if NMI were to present

SENT BY: . . .

5- 6-91 . 13:2d : U.S ARMY OPN-EXAS-201 724 1195

13 4 4

-3-

remediation costs related to that specific contract as a cost of doing business, the Army would consider those to the extent the costs being claimed were allowable, reasonable and allocable to a specific open cost type contract.

I recognize the importance of this issue and I believe the Army's approach will result in an equitable resolution.

Sincerely,



Gilbert F. Decker  
Assistant Secretary of the Army  
(Research, Development and Acquisition)

## **HOLDING BASIN INFORMATION PAPER**

- What is it:** A legal, licensed, temporary holding storage area for neutralized nitric acid after pickling copper jackets off extruded DU rods for penetrator applications.
- Is it a threat to the environment.** It is not an immediate threat since it is covered with an impervious hypalon cover and is surrounded by test wells to monitor the ground water. Yet, Local, State and Federal regulatory agencies require its removal.
- How can it be removed:** Two alternatives have been qualified:  
A. A recovery process to chemically separate the copper, lime and DU have been developed and patented by NMI. Basin material would be removed, shipped to CMI and recycled to yield high purity copper, UO<sub>3</sub> and gypsum suitable for commercial landfill. The cost would be \$11.4 million over four-five years.  
B. Direct burial at a Utah site which has already qualified the basin contents for bulk disposal. The cost for a Government project would be \$5 million in one year. The cost for NMI to bury would be \$10 - 20 million based on a higher commercial landfill cost and a huge State surcharge.
- What is the preferred approach:** The Army and NMI both prefer the direct burial approach to save money and time.
- What portion of the basin is the Government's responsibility:** 96% of the basin is directly attributed to U.S Government DU penetrator programs.
- What is NMI's contribution:** NMI has already spent \$8 million to develop alternative technologies, cover the basin, perform extensive ground water and air monitoring, develop recycling technologies, and qualify 40,000 lbs for bulk burial.
- What action is need now:** A letter response to Congressman Meehan acknowledging the Army's responsibility and a selection of which technical approach it wishes NMI to pursue (recycling or bulk disposal). This will allow NMI to file a detailed plan with the NRC on a timely basis.

May 1994

MARTIN T. MERIAN  
200 Capitol Building

100 Legislative Plaza  
Washington, D.C. 20540  
205 455-2105

MEMORANDUM  
FOR THE RECORD  
SUBJECT: [REDACTED]  
DATE: [REDACTED]  
BY: [REDACTED]

**Congress of the United States**  
**House of Representatives**  
Washington, DC 20515-2105

OFFICE OF THE CLERK  
U.S. HOUSE OF REPRESENTATIVES  
100 CAPITOL BUILDING  
WASHINGTON, D.C. 20540  
205 535-3000

March 14, 1994

Mr. George Dauman  
Acting Asst. Secretary Of The Army  
Research, Development & Acquisition  
Room 3B572  
The Pentagon  
Washington,, D.C. 20310

Dear Mr. Secretary:

I appreciate your interim reply of December 22, 1993 and your willingness to work with me to determine Army responsibility for environmental remediation of the holding basin located at Nuclear Metals, Inc. a constituent company located in Concord, Massachusetts.

As I stressed in my December 3 letter to you, a timely response from the Army is necessary so that remediation efforts can begin to satisfy the schedule for the Decontamination and Decommissioning (D&D) Plan required by the Nuclear Regulatory Commission and the Massachusetts Department of Environmental Protection.

From the documents I have reviewed, it seems clear to me that the Army, as the principal customer, has substantial liability for cleanup of the holding basin. From initiation of the program, the Army has been aware that the manufacture of depleted uranium (DU) penetrators was creating radioactive waste which would have to be remediated. In addition, a material used in the manufacture of the DU penetrators was government-furnished material (GFM). The Army has known all along that the neutralized acid from the penetrator manufacturing process, which contains uranium and copper, was stored temporarily in a permitted holding basin on site and would eventually have to be remediated.

The issues look straightforward to me. MMI produced DU penetrators for U.S. defense programs from GFM. The approved process resulted in radioactive waste, 98% of which was from defense programs. It is my understanding that precedent was established with the cleanup of a similar basin at Aerojet of Tennessee. In this case, remediation of the government's portion of the waste, approximately 73%, was paid for by the Army.

I am advised that the Commonwealth of Massachusetts has indicated

Mr. George Debus  
March 14, 1994  
Page 2

that the surcharge on waste for burial would not be levied if the U.S. government accepts responsibility for its portion of the waste. Therefore, I am requesting that the Army, as the principal user and single manager for conventional ammunition, accept contractual liability for environmental remediation of the MXI holding basin consistent with cleanup of the Aerojet basin.

MXI has discussed two alternative methodologies with the Army for remediation of the holding basin. Given the fact that Massachusetts will waive the burial charge if the waste is determined to be the responsibility of the U.S. government, it appears that burial is not only an environmentally sound solution but also one that is in the best interests of the taxpayer. There are, however, advantages accruing from the use of technology demonstration projects at other U.S. government sites that could make the Denver Process the most desirable alternative.

In order that MXI can submit a D&D plan on schedule and with acceptable financial assurances to the RMC, I would greatly appreciate being briefed as soon as possible on your plans to select the methodology to be used for remediation of the holding basin. Also, I would like your assurance that the Army will participate in the remediation of MXI's holding basin.

As you know, this issue is very important to me and I am willing to work with you to achieve an equitable resolution.

Sincerely,



Marty Meehan  
Member of Congress

mm/djm



DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
RESEARCH DEVELOPMENT AND ACQUISITION  
THE ARMY HEADQUARTERS  
WASHINGTON DC 20315-0001



OFFICE OF  
ATTENTION OF

22 DEC 1993

Honorable Martin T. Neenan  
House of Representatives  
Washington, D.C. 20510-2105

Dear Congressman Neenan:

This is an interim response to your letter of December 3, 1993, on behalf of Nuclear Metals, Incorporated (NMI) regarding environmental remediation of NMI's holding basin.

The Army is reviewing prior depleted uranium remediation efforts from a contractual liability viewpoint, including the prior Aerojet basin cleanup and the National Lead of Albany site.

The Army is also analyzing the viability of technology demonstration projects such as the Denver Process you mentioned as well as other approaches. These reviews are coming to conclusion, and will be presented to Mr. Walker and me for consideration early in the new year.

We are aware of the time sensitivity of NMI's basin remediation schedule and are making every effort to provide a timely decision. As I am sure you are, we are primarily interested in an environmentally sound solution which is in the best interest of the taxpayer.

Upon completion of our review, a more detailed response will be provided.

Sincerely,

George E. Dausman  
Acting Assistant Secretary of the Army  
(Research, Development and Acquisition)

MARTIN T. AMBILAN  
By Special Representative

100 MICHIGAN STREET, SUITE 2000  
WASHINGTON, D.C. 20002  
(202) 335-0711

CONSTITUTION  
ARTICLE I, SECTION 5  
REGULATIONS ON SENATE RULES AND PROCEEDINGS  
REGULATIONS ON HOUSE RULES AND PROCEEDINGS  
REGULATIONS ON SENATE  
HOUSE SERVICES  
REGULATIONS ON SENATE  
REGULATIONS ON HOUSE  
REGULATIONS ON SENATE  
REGULATIONS ON HOUSE

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-2185**

DISTRICT OFFICE  
100 MICHIGAN STREET, SUITE 2000  
WASHINGTON, D.C. 20002  
(202) 335-0711

100 MICHIGAN STREET, SUITE 2000  
WASHINGTON, D.C. 20002  
(202) 335-0711

100 MICHIGAN STREET, SUITE 2000  
WASHINGTON, D.C. 20002  
(202) 335-0711

December 3, 1993

Mr. G.R. Dausman  
Assistant Secretary of the Army  
Research, Development & Acquisition  
Room 2E672  
The Pentagon  
Washington, D.C. 22310

Dear Mr. Dausman:

As you may be aware, earlier this year I met with Mr. Lewis D. Walker, Deputy Assistant Secretary, Environment, to discuss my concerns regarding the Army's responsibility for environmental remediation of the holding basin located at Nuclear Metals, Inc (NMI) a constituent company located in Concord, Massachusetts. My purpose in writing to you is to express my personal interest in this subject and to thank you and Assistant Secretary Walker for your efforts to develop a program to assist in the cleanup of the NMI holding basin.

From subsequent meetings between NMI officials and Secretary Walker and his staff, it is my understanding that you will be making a determination as to the Army's role in remediation of NMI's holding basin. In making that decision, I would like to raise two points for your consideration. Precedent for NMI's request for government assistance for environmental remediation has already been established vis-a-vis the Army's financial assistance to NMI's competitor, Aerojet Ordnance Tennessee, for removal of their holding basin several years ago. It is my understanding the government also remediated a depleted uranium penetrator producer's site nearly ten years ago in the State of New York.

As you know, in June 1993 NMI submitted a cost-share technology proposal to demonstrate the Denver Process for the treatment and recycling of low-level radioactive neutralized acid in the holding basin. The Denver Process is applicable to similar holding basins containing neutralized acids and uranium at numerous DOD/DOE sites. At completion of the project, the government would receive the rights for the use of this technology. Although the NMI basin is not an immediate environmental hazard, state and federal regulators have mandated its removal on a schedule that requires a timely determination from your office.

Mr. G.B. Daugman  
December 3, 1993  
Page 2

Your efforts to assist in reaching an expeditious resolution to EMI's request for assistance to demonstrate the Denver Process so that environmental remediation can proceed on schedule would be greatly appreciated by me and my constituents. I would appreciate your cooperation in providing a timely response to this letter so that EMI can begin remediation early next year. This issue is extremely important to me and I look forward to working with you to achieve an equitable resolution.

Sincerely,



Matty Meenan  
Member of Congress

MM/djn

11/17/88

#### NMCI HOLDING BASIN REMEDIATION

NMCI's holding basin was created in 1958 when the Company moved to Concord, MA from the campus of MIT in Cambridge, MA. The basin was a licensed, permitted, legal depository for the neutralized acid which had been used in the pickling process to remove the copper jacket from cranked DU rods, as in done in the manufacture of penetrators for tank ammunition. No waste, other than neutralized acid, was collected in the holding basin.

NMCI's use of the holding basin to collect neutralized acids from commercial product has been very small. Of the neutralized acid present in the holding basin, 64% came from M3/120mm Army contracts, 27% from GAU-8, 5% from Palamx and 4% from NMCI's commercial work.

Before 1974, when GAU-8 production began at NMI, the holding basin contained only about 300 cubic yards of neutralized acid. Discharge stopped in 1985 when a closed loop pickling system, developed by NMI, began to be used. In 1985 the holding basin was covered to prevent migration of the contents. While the regulators have mandated its removal, the holding basin is not an immediate environmental hazard.

The DU in the holding basin is 96% the byproduct of the manufacture of penetrators for defense use for which the DU was government-furnished-material (GFM). Ownership of the bulk of the DU contaminated material in the basin remains with the government. However, since the waste is on NMI property and a small portion belongs to NMI, we believe both the government and NMI have a legal and ethical responsibility with respect to remediation.

NMI, in association with a subcontractor, IC Technologies, has developed a process, called the Denver Process, for the treatment of low-level radioactive waste, which is applicable to recycling of the neutralized acid in the holding basin. This process is applicable also to similar holding basins containing neutralized acids and uranium at numerous other DOE sites.

Recycling technology, such as the Denver Process, which results in usable products, is much preferred by the regulatory agencies when compared to moving the waste from one site to another for burial. These agencies are concerned about the possible long-term consequential liability issues inherent to buried contaminants.

NMI, by letter to the Production Base Modernization Agency (PBMA) dated 22 Jun 93, proposed a technology project to demonstrate the Denver Process by removing and recycling the neutralized acid in the holding basin on a cost shared basis. The project cost (government share) of \$11.4 million (over the next five years) represents 60% of the total closure cost. At completion of the project, the government would receive the rights for the use of this technology at other DOD/DOE sites.

Subsequent discussions with officials from PBMA resulted in a further review of previously studied alternatives in order to reduce costs. Removal of the material in the holding basin, hauling and burial at a low-level repository had been discarded previously as a more expensive alternative. A major cost was a ERM surcharge by the State of Massachusetts for their Site Selection/Entry Fee program which was legislated recently.

Based on precedent established in the closing of Veterans Arsenal, it was learned that this surcharge would not apply to wastes which are a U. S. Government responsibility. This reduced the cost of the burial alternative to \$1.2M under this condition, making it a least cost alternative.

The alternatives and supporting documentation are being studied by FEMA who will make recommendations by end Nov 93. HMI must submit a detailed D & D plan to State and Federal regulatory agencies by Jan 94. As this comprehensive plan, requiring 4-6 months to complete, must be based on the alternative selected, a decision is needed very soon to meet this schedule.

11/17/93

~~CONFIDENTIAL~~

**OFFICE MEMORANDUM**

**NUCLEAR METALS, INC.**

**TO: DISTRIBUTION**

**DATE: Nov. 03, 1993**

**FROM: R. E. QUINN**

**SUBJECT: MEETING WITH TOM McWILLIAMS - ARDEC - ON FRIDAY, 10/29/93**

I had a very good meeting with Tom regarding remediation of our holding basin. He thought the briefing package that answered his letter was outstanding.

I pointed out several things which had changed somewhat from his visit in September. First, the new NRC schedule showed the D&D plan submittal date as June 1994 with approval expected in December 1994. This gives the Army more time to put together a project and doesn't "paint the Army into a corner" on our recommendation to recycle at CMI. Second, I pointed out that the Massachusetts "tax" would not apply to the holding basin material since it would be under an Army contract and hence their responsibility. Tom said they talked with Watertown personnel earlier in the week and received confirmation that the MA tax wouldn't apply to NM's holding basin disposal to Utah. Third, I provided more detailed cost breakdown (m 12) comparing burial at Utah without the MA tax with recycle at CMI. Tom was pleased to see the cost breakdown and said they were already talking with AMCCOM, Rock Island on transportation costs at Government rates for burial in Utah. He thought the Army rate would probably be much better than our \$30/ft.<sup>3</sup> estimate; perhaps below \$10/ft.<sup>3</sup> He also thought that our transportation costs may be overstated. I told Tom our burial estimates assumed bagging the basin and stacking the bags in trucks. He has asked the AMCCOM folks to look into more cost effective transportation methods. He said they suggested looking at rail transportation as well as covered dump trucks.

On the recycle option, he asked if we would allow DOE, Oak Ridge, or Battelle, to provide an independent technical review of our Denver Process. I told Tom we would allow DOE, Oak Ridge but not Battelle.

Tom said we should expect another set of questions from a wider group of Army participants in another month or two. In the meantime, he has been assigned a task to lay out all the environmental costs for NMI and AOT for review in late November with Asst. Secretary George Dausman. The holding basin remediation will be a part of that presentation.

Tom was very happy that they had more time to work out a project with NMI so the Army could thoroughly evaluate all the alternatives and end up with a project that the Army fully participated in. His sense of being "painted into a corner" by NMI to go the recycle option has been resolved. He knows now we share the Army's interest in doing this job as quickly and as cost effective as possible while meeting all the regulatory requirements.

CC: W. B. Tuffin/Vice Presidents/G. Shinopulos



**NUCLEAR METALS, INC.**

MS66  
L-3

1 July 1993

040-08866

United States Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406

Attention: Mr. John Kinneman, Chief  
Research, Development and  
Decommissioning Section

Reference: License Nos. SMB-179 and SUB-1452

In response to your request and in keeping with the requirements of 10 CFR 40.36 Nuclear Metals, Inc. (NMI) is providing you with the following information pertaining to NMI plans for funding the decommissioning of activities under the two licenses referenced above.

Decommissioning Information

NMI has retained the services of an outside contractor to prepare a Preliminary Decommissioning Plan (PDP) for Licenses SMB-179 and SUB-1452. This plan and its associated documents is intended to provide the general framework for ultimate decontamination and decommissioning of NMI's Concord, Massachusetts facility. In as much that the Concord facility is currently operational and expected to remain so for the foreseeable future, this plan has been written to document NMI's current policies, goals and commitments regarding future decommissioning activities. It is a document which will be modified on an as needed basis (reviewed annually); to reflect changing conditions at the Concord facility. This document will remain at the company under the custody of the Radiation Protection Officer or his written designate.

Attached to this letter is decommissioning information excerpted from the PDP for the purpose of this funding plan submittal (Attachment 1). This attachment contains decontamination criteria, decommissioning assumptions and likely decommissioning activities to be undertaken at the time of facility license termination.

We have also included a Rough Order of Magnitude (ROM) decommissioning cost estimate (Attachment 2), based on information provided to the Government. This information is considered competition sensitive and NMI requests that NRC treat the material in Appendix 2 as Company Proprietary.

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2229 Main Street, Concord, Massachusetts 01742 (508) 369-5410

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Region I  
1 July 1993  
page two

### Decommissioning Strategy

The NMI strategy described in the PDP, indicates that decommissioning of DU facilities, i.e., production equipment, R&D areas, etc., will be a phased approach over time. As new processes and equipment evolve, older equipments and manufacturing lines will be removed and appropriately dispositioned commensurate with NMI's NRC licenses. This has been practice since operations began at NMI in 1958. The NMI site and remaining facilities will always be used for commercial and/or industrial purposes. The decommissioning goal for the NMI site will be the NRC Branch Technical Position, Option 1 Criterion for unrestricted use, until such time that this guidance is modified. A major portion of the radiologically contaminated equipment onsite is the property of the Government. It was provided as Government Furnished Equipment (GFE). NMI owned equipment and facilities used in DU manufacturing and R&D activities has been contaminated through the use and processing of Government Furnished Material (GFM). The Government never relinquished title to this material. The Government has asked NMI for ROM cost estimates for Lay-Away, Surveillance and Maintenance, Plant Clearance, and Dismantle, Package, Transport scenarios. NMI provided responses in June 1993.

NMI views itself as an industrial company continuing in existence as a licensee into the indefinite future. NMI's plant is continually being modernized by the disposition of outdated equipment and the installation of newer replacements. As an industrial plant, NMI is not a single aging asset inexorably moving towards the end of a useful life and an inevitable requirement of decommissioning. On the contrary, NMI is a continually evolving, continually renewed, production facility.

Decommissioning of NMI facilities is expected to be carried out after the removal of then existing radiologically contaminated processing and auxiliary equipment. The ultimate decommissioning of NMI (license termination) is viewed as an integrated change in mission by management as the future need of DU and/or other licensed materials declines or is substituted.

### Responsibility for Decommissioning Funding

The DU source material that NMI obtains originates from the Department of Energy (DoE) via transfer to the Department of Defense (DOD). In some cases NMI receive source material directly from DoE to perform work under DoE contracts. NMI receives its starting material on all its contracts as GFM.

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NMI does not take title to this GFM. NMI maintains accurate and government audited records of the movement of this material from the Government through NMI facilities and back to the Government. Only a very small amount (1%-2%) of NMI's depleted uranium work is commercial, i.e. non-government funded.

The Government has recognized this obligation and has asked NMI for ROM costs associated with past and ongoing DU operations from contractual activities at NMI. In response to letter requests from the Government in April and May 1993, NMI provided ROM cost estimates which included all equipment and facilities (GFE and NMI) which process GFM.

The NMI holding basin is not addressed in the PDP, since it has become subject to NRC oversight under the Sites Decontamination Management Plan (SDMP). NMI is well underway with final remediation plans for the holding basin and has submitted a request for Department of the Army facilitization funds to complete the project (letter submitted June 1993). The schedule plan for the holding basin remediation was submitted to the NRC in June 1992. NMI's decision to recycle or dispose basin contents is the subject of a separate letter to the NRC. NMI believes that this project will be completed well before final decontamination and decommissioning of NMI facilities takes place. NMI also expects that the U. S. Army will fully fund the remaining activities leading to the complete remediation of the holding basin.

There may be some costs for decommissioning associated with the small amount of commercial activities (see above) performed by NMI involving DU materials. NMI intends to cover these costs as routine business overhead expenses, as the need arises. The existing Standby Trust Agreement, executed by NMI in 1990, is viewed as adequate funding assurance for these activities. NMI will continue to maintain this Standby Trust Agreement until a final decision is made on the "Proposed Rule for Self Guarantee as an Additional Financial Assurance Mechanism" (58FR03515). At that time a decision will be made to continue the Standby Trust Agreement if necessary.

The NMI contact for questions pertaining to this letter and its enclosures is the undersigned.

Encl/

Sincerely,  
Frank J. Vumbaco  
Manager, Health and Safety

**Attachment 1**  
**Decommissioning Information**

**NUCLEAR METALS, INC**  
**CONCORD, MASSACHUSETTS**  
**DECOMMISSIONING INFORMATION**

**PREPARED FOR:**

**Nuclear Metals, Inc.**  
**Concord, Massachusetts**

**PREPARED BY:**

**Applied Consultants, Inc.**  
**Woburn, Massachusetts**

**June, 1993**  
**Project No 1063**

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## **1.0 DECOMMISSIONING INFORMATION**

### **1.1 Scope**

This Decommissioning information is provided to specify a general framework for ultimate decommissioning of the Nuclear Metals, Inc. Concord Massachusetts facility. Proposed decontamination criteria, activities and tasks to be accomplished, and assumptions used in development of this information are presented in the following sections.

### **1.2 Decontamination Criteria**

The proposed decontamination criteria are based on the NRC and ANSI guides and standards.

The Nuclear Metals, Inc. (NMI) proposed guides for decontamination comply with surface contamination levels which should limit external radiation exposure to less than ten mrem per year above the background. These guides are in keeping with proposed regulatory criteria and the concept of *As Low As Reasonably Achievable* (ALARA).

#### **1.2.1 Surface Contamination**

The specific decontamination criteria are taken from "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Material", prepared by the NRC. Table 1-1 presents acceptable surface contamination limits taken from this guide. The specifically applicable criteria are as follows:

- Removable contamination, determined by smearing with a dry filter 1,000 dpm/100 cm<sup>2</sup>, alpha and beta/gamma
- Average, based on a maximum area of 1 m<sup>2</sup> 5,000 dpm/100 cm<sup>2</sup>, alpha and beta/gamma
- Maximum, based on an area of not more than 100 cm<sup>2</sup> 15,000 dpm/100 cm<sup>2</sup>, alpha and beta/gamma.

The decontamination efforts will attempt to reduce contamination levels to ALARA.

### **1.2.2 External Gamma Exposure Rate**

The net residual external gamma exposure rate should be less than 10 mrem/year, or 5  $\mu$ R/hr above background, based on regulatory criteria and ALARA. The verification of this criteria will be based on gamma exposure rate measurements with calibrated micro R survey meters.

### **1.2.3 Dispersed Contamination**

Several agencies have issued guides or standards for concentrations of radionuclides dispersed in soil or other materials. The guidelines set forth in this Plan and those which are most applicable to the NMI facility are the Nuclear Regulatory Commission (NRC) guides for thorium or uranium from past operations (US81). Other guides include Department of Energy (DOE) guides for the release of sites (DOE85), and U.S. Environmental Protection Agency guidance. The NRC guidelines are the most conservative and will be adhered to in this effort. The NRC Option 1 criterion for completely unrestricted use specifies a limit of 35 pCi/g of depleted uranium (total of uranium-234, -235 and -238). This is based on potential radiation dose being equal to or less than those of the EPA proposed Federal Guidance for plutonium transuranics (US77).

The Option 1 criterion are for completely unrestricted land use and apply to material on the surface. Since the area and depth of material is not specified, the averaging specifications of the EPA for uranium mill tailings standard (US83) (i.e., average over 100 m<sup>2</sup> area and 15 cm depth) are considered to be acceptable.

**Table I-1  
Acceptable Surface Contamination Levels**

Nuclide <sup>1/</sup>	Average <sup>2,3,4/</sup>	Maximum <sup>3,5,6/</sup>	Removable <sup>2,5,6/</sup>
U-nat, U-235, U-238 and associated decay products	5,000 dpm α/100 cm <sup>2</sup>	15,000 dpm α/100 cm <sup>2</sup>	1000 dpm α/100 cm <sup>2</sup>
Transuramics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	100 dpm α/100 cm <sup>2</sup>	300 dpm α/100 cm <sup>2</sup>	20 dpm α/100 cm <sup>2</sup>
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1000 dpm α/100 cm <sup>2</sup>	3,000 dpm α/100 cm <sup>2</sup>	200 dpm α/100 cm <sup>2</sup>
Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except SR-90 and others noted above.	5,000 dpm β-γ/100 cm <sup>2</sup>	15,000 dpm β-γ/100 cm <sup>2</sup>	1000 dpm β-γ/100 cm <sup>2</sup>

- 1/ Where surface contamination by both alpha and beta-gamma emitting nuclides exists, the limits established for alpha and beta-gamma emitting nuclides should apply independently.
- 2/ As used in this table, "dpm" (disintegrations per minute) means the rate of emission by radioactive material as determined by counting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.
- 3/ Measurements of average contaminant should not be averaged over more than 1 square meter. For objects of less surface area, the average should be derived for each such object.
- 4/ The maximum contamination level applies to an area of not more than 100 cm<sup>2</sup>.
- 5/ The amount of removable radioactive material per 100 cm<sup>2</sup> of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.
- 6/ The average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/h at 1 cm and 1.0 mrad/h at 1 cm, respectively, measured through a 2 mm thick 7 milligrams per square centimeter areal absorber.

The specific criterion to be utilized is 35 pCi/g of uranium. For implementation, this will be applied as 30 pCi/g of U-238 (based on isotopic composition of DU). The criterion will be applied for average depth intervals of six inches (15 cm) as stipulated by the EPA in 40 CFR 192 (US83).

#### **1.2.4 Release of Waste Materials for Disposal by Sanitary Landfill**

All wastes from direct contaminated materials (e.g., scarification, metals, solids, powders and mixtures) will be packaged for disposal as low-level radioactive waste (LLW). However, structural material, pipe, and equipment that is not contaminated or that can be adequately cleaned will be released for disposal by sanitary landfill. Written documentation will be required for any materials to be released for unrestricted disposal. Workers will be instructed to maintain a written record of the origin of the waste and the measured levels of contamination. Materials that do not comply with the stated criteria will not be released.

#### **1.2.5 Release of Uncontaminated Facilities**

The disposition of uncontaminated equipment and facilities is not within the scope of this plan, provided that such facilities are verified to meet unrestricted release criteria.

#### **1.2.6 Records of the Decommissioning Procedures and Survey Results**

The records of any future decommissioning related activities such as procedures and radiation survey data will be preserved for the duration required by the current regulations at the time of decommissioning.

#### **1.2.7 Decommissioning Assumptions**

##### **Operational Life**

The NMI licensed activities and associated manufacturing conducted at the Concord, Massachusetts site are expected to continue into the indefinite

future. Facilities and manufacturing technology at NMI are in a state of continual modernization and change such that disposition of obsolete equipment and renovation of facility components are a dynamic process. Since NMI processes and facilities do not represent a single aging asset with a defined useful life, such as with a nuclear reactor complex, ultimate decommissioning of NMI cannot be viewed as a near term or an inevitable process.

At the time of ultimate decommissioning, NMI intends to utilize its own in-house staff for conduct of all decommissioning related activities. As an operational unit, the decommissioning will be managed in accordance with this plan and respective NRC licenses. It is envisioned that at this future time the company will shift its mode of operation from one of manufacturing to one of site decontamination and decommissioning. In the near term however, NMI will continue routine operations which ordinarily includes the need to decontaminate equipment, components, systems and structures as part of its operational life. This includes survey and free release of items not required to support current or future production and which meet the criteria for unrestricted use. NMI will also decontaminate portions of facilities or structures when it is determined that they are no longer required for processing radioactive materials and would be better suited for unrestricted use. These actions are normally conducted under the scope of NMI's existing licenses and are in keeping with generally accepted health physics practices. In addition, they are considered by NMI management to be prudent operational planning philosophies which, if integrated into operational life, will ultimately reduce the scope of any future decommissioning actions.

### Equipment

Much of the production equipment and machinery at the NMI site are the property of the U.S. Government or have been used to process Government Furnished Material (GFM). The primary GFM used at the NMI site has been depleted uranium. Given that all potentially radiologically contaminated equipment is either the property of the U.S. Government or has resulted from the processing of GFM, these materials

are not considered within the scope of this plan. The disposition of all such equipment is expected to occur during the operational life of the NMI site in a manner similar to that described above and which has historically been accomplished following product line phaseouts or modification. Hence, the baseline status for decommissioning activities assumes that all machinery that is not required to support decontamination activities will be removed prior to the initiation of any future site decommissioning. During the removal of equipment contaminated by GFM or equipment owned by the government, the equipment and equipment service utility drop lines (i.e., water, air, ventilation and electrical) will also be removed.

#### **Radioactive Material and Site Use**

NMI possesses two NRC licenses. These licenses provide for the use and possession of radionuclides other than DU, however NMI has not processed these materials nor does it intend to process these materials in the future. These radionuclides have been placed in the respective licenses to allow for future business opportunities. Should these materials ultimately be used at the NMI site the quantity will likely be limited and strictly controlled. The scope of this Plan only addresses those materials (i.e., depleted uranium) and contaminants discussed in the remainder of this document. If these circumstances change in the future, this Plan will be modified accordingly.

NMI throughout its history has not disposed of licensed material under the provisions of 10 CFR 20.304 and therefore no on-site burials have occurred.

The NMI site is zoned as a Limited Industrial Park and therefore structures remaining following decommissioning may be used only for commercial and/or industrial purposes.

#### **Holding Basin**

A portion of the NMI site is currently subject to decommissioning activities under the NRC SDMP program. This area is the formerly used holding

basin which is not considered within the scope of this Decommissioning Plan. This area of the NMI site will be decontaminated and surveyed well before cessation of NMI's site activities in keeping with commitments and schedules as set forth under the NRC SDMP program. The area may however be subject to additional survey requirements at the time of site decommissioning in accordance with the site's final status survey plan.

### **1.3 Decommissioning Activities**

#### **1.3.1 Radiological Assessment**

Survey efforts that will be applied to any future decontamination and decommissioning activities will vary according to the area's radiological status and history. The emphasis of any initial surveys performed will be to better define the extent of the decontamination effort required in each building or area. Additionally, as part of the radiation work permit program, prior to beginning of decontamination related activities, a pre-job survey will be conducted. Following completion of decontamination efforts, these areas will be surveyed in accordance with the final status survey plan to demonstrate that they meet the criteria listed in Table 1-1.

#### **1.3.2 Decontamination and Decommissioning Activities**

This section details the decontamination activities planned for the areas known to be within the scope of this project (Figure 1-1).

The areas found to be contaminated in excess of the criteria listed in Table 1-1, either through prior knowledge, radiological characterization or the surveys referenced above, will be decontaminated as required and will be surveyed in accordance with the final status survey plan to demonstrate that it meets the criteria listed in Table 1-1. The following further describes planned activities and tasks for various portions of the NMI site

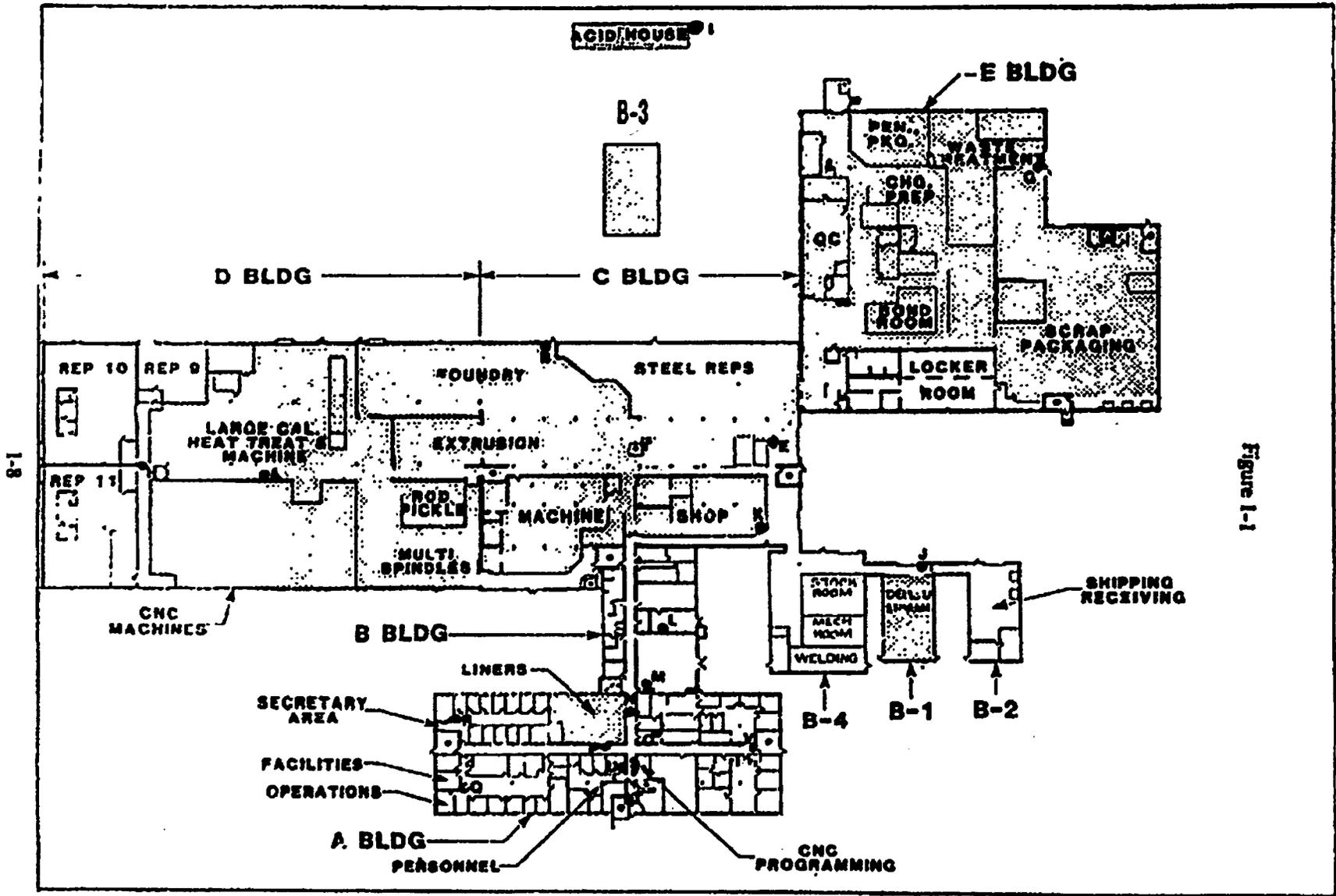


Figure 1-1

1-9

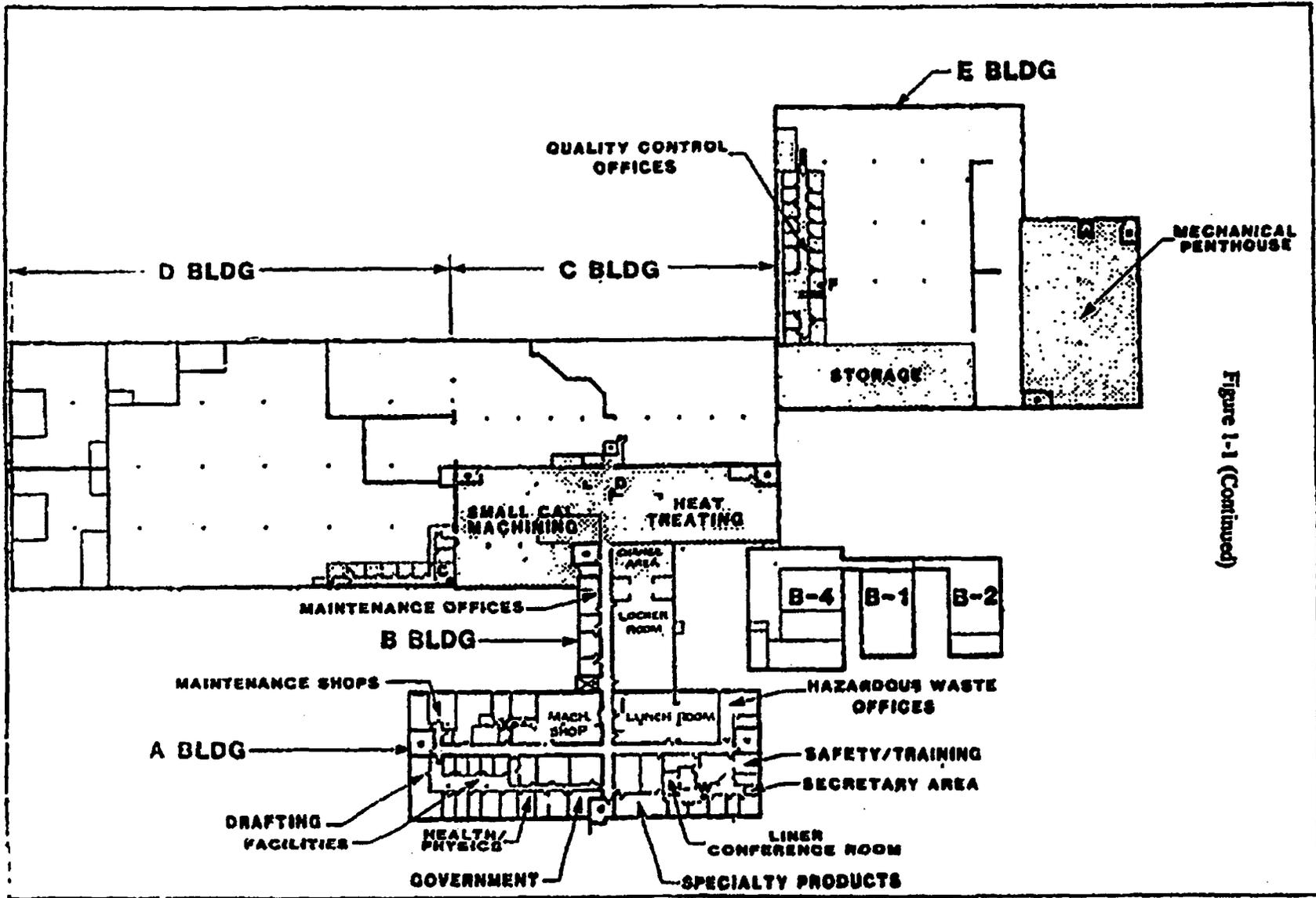


Figure 1-1 (Continued)

### **Interior Prefabricated Rooms or Offices**

These areas will be dismantled to allow for more efficient decontamination of the materials comprising the actual building and to assure better access to building structures during the final status survey. Removed materials containing residual radioactivity will be decontaminated and surveyed to demonstrate that they meet the criteria listed in Table 1-1. When survey results demonstrate that these criteria have been met, the materials will be free released and made available for unrestricted use.

### **Plumbing and Electrical Equipment**

This equipment will be removed as it becomes accessible. Removal of these items will allow improved access to building structures for decontamination and for the final status survey. Removed materials will be decontaminated and surveyed to demonstrate that they meet criteria listed in Table 1-1. When survey results demonstrate that these criteria have been met, the materials will be free released and made available for unrestricted use.

### **Ventilation Ductwork**

This will be removed when it is no longer required to maintain essential services. Removal of these items will allow better access to building structures for decontamination and the final status survey. Removed materials will be decontaminated and surveyed to demonstrate that they meet the criteria listed in Table 1-1. When survey results demonstrate that these criteria have been met, the materials will be free released and made available for unrestricted use.

### **Contaminated Subsurface Piping and Piping Connecting Buildings C, D, and E to the Tank House**

Piping will be removed from the ground and decontaminated. The septic system lines running from Buildings A and E to the septic tank and leach field will be surveyed at normal access points. If survey results meet the

values listed in Table 1-1, piping will be left in place. If survey results indicate contamination in excess of the values listed in Table 1-1, efforts will be made to decontaminate these in place. If decontamination efforts are not successful, the piping will be removed, decontaminated and surveyed to demonstrate that they meet the criteria listed in Table 1-1. When survey results demonstrate that these criteria have been met, the materials will be free released and made available for unrestricted use.

### **Structural Materials and Components**

These will be decontaminated as required to meet the criteria listed in Table 1-1. Materials and equipment remaining after cessation of manufacturing operations will be decontaminated to meet the criteria listed in Table 1-1 and may be removed from the facility. Floor and wall surfaces will be decontaminated to meet the criteria listed in Table 1-1. As much of the physical plant will be left intact as practicable. When survey results demonstrate that material, equipment, and structures meet the criteria listed in Table 1-1, they will be free released and made available for unrestricted use.

### **Pre-Engineered Metal (Butler) Buildings**

These have been used to store both packaged and unpackaged radioactive materials, any contamination present is expected to be of a low level. These buildings will be surveyed in accordance with the final status survey plan to demonstrate that they meet the criteria listed in Table 1-1 and decontaminated if required. When survey results demonstrate that these criteria have been met, the building will be free released and made available for unrestricted use.

### **External Surfaces of Buildings and Adjacent Ground Areas**

These areas may have been subject to storm water runoff and/or ventilation effluent fallout. These areas have been sampled as part of the environmental surveillance program and based on the results do not appear to be contaminated. They will be surveyed in accordance with the final

status survey plan to demonstrate that they meet the criteria listed in Table 1-1. When survey results demonstrate that these criteria have been met, they will be free released and made available for unrestricted use.

### **Roof Areas**

Potential contamination on the roof will be characterized after any decontamination or removal of ventilation systems has been accomplished. If these activities result in the need to decontaminate the roof, this area will be surveyed in accordance with the final status survey plan to demonstrate that it meets the criteria listed in Table 1-1. When survey results demonstrate that these criteria have been met, the area will be free released and made available for unrestricted use.

## 2.0 REFERENCES

- DOE85 U.S. Department of Energy, "Code of Federal Regulations Title 10 Part 712, (Washington, D.C.: U.S. DOE).
- US79 U.S. Nuclear Regulatory Commission, 1979, "Residual Radioactivity Limits for Decommissioning. Draft Report", Office of Standards Development, NUREG-0613, (Washington, D.C.: U.S. NRC).
- US81 U.S. Nuclear Regulatory Commission, 1981, "Standard for Uranium in Soils for Disposal or On-site Storage of Thorium and Uranium Wastes from Past Operations", Federal Register, Volume 46, No. 205, Pages 52061-52063; 1981, (Washington, DC: U.S. NRC).
- US82 U.S. Nuclear Regulatory Commission, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material", 1982, (Washington, D.C.: U.S. NRC).
- US89a U.S. Nuclear Regulatory Commission, "Technology, Safety and Cost of Decommissioning Reference Non-Fuel-Cycle Nuclear Facilities", NUREG/CR-1754, 1989, (Washington, D.C.: U.S. NRC).
- US89b U.S. Nuclear Regulatory Commission, "Standard Format and Content of Decommissioning Plans Under 10 CFR Parts 30, 40, 70, and 72", Regulatory Guide 3.65, 1989, (Washington, D.C.: U.S. NRC).
- US90a U.S. Nuclear Regulatory Commission, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72", Regulatory Guide 3.66, 1990, (Washington, D.C.: U.S. NRC).
- US90b U.S. Nuclear Regulatory Commission, "Residual Radioactive Contamination from Decommissioning", NUREG/CR-5512, 1990, (Washington, D.C.: U.S. NRC).
- US92 U.S. Nuclear Regulatory Commission. Standards for Protection Against Radiation. Washington, D.C.: U.S. Government Printing Office; Title 10, Code of Federal Regulations, Parts 20 and 40, revised as of January, 1992.
- US92c U.S. Nuclear Regulatory Commission, "Manual for Conducting Radiological Surveys in Support of License Termination", NUREG/CR-5849, 1992, (Washington, D C U.S. NRC)

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Attachment 2

ROM COSTS ASSOCIATED WITH VARIOUS  
DECOMMISSIONING ACTIVITIES

<u>ACTIVITY</u>	<u>COST</u>
LAY-AWAY SCOPE OF WORK ROM COST	\$ 5,000,000 (1)
SURVEILLANCE AND MAINTENANCE- ROM COST YEAR ONE	\$ 1,500,000 (1)
PLANT CLEARANCE-ROM COST	\$ 3,000,000 (*)
DISMANTLE, PACKAGE, TRANSPORT ROM COST	\$30,000,000 (1)
HOLDING BASIN REMEDIATION REMAINING COSTS	\$11,400,000 (2)

(1) COSTS TAKEN FROM NMI LETTER TO DEPARTMENT OF THE ARMY, ARMY  
ARMAMENT, MUNITIONS AND CHEMICAL COMMAND DATED 6/17/93.

(2) COSTS TAKEN FROM NMI LETTER TO DEPARTMENT OF THE ARMY,  
MODERNIZATION ACTIVITY, DATED 6/22/93

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