

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
631 PARK AVENUE  
KING OF PRUSSIA, PENNSYLVANIA 19066

EA-81-23

*[Handwritten signatures and initials]*

Cocket No. 40-672

03 FEB 1981

MEMORANDUM FOR: Dudley Thompson, Director, Division Enforcement and Investigation Staff, IE  
FROM: Boyce H. Grier, Director, Region I  
SUBJECT: PROPOSED ENFORCEMENT ACTION FOR NUCLEAR METALS, INCORPORATED (FOI)  
Reference: Inspection Report No. 40-672/80-04 (15000046/80-95)

The referenced report for the inspection of Nuclear Metals Incorporated activities concerned with an identified instance of failure to meet NRC and DOT requirements for a shipment of radioactive waste to the Richland, Washington burial site, is attached. The NRC inspector at the Nuclear Engineering Company's Richland, Washington burial site observed that one drum (No. 58) was leaking a green fluid from the top ring of the drum onto the floor of the trailer. This constitutes noncompliance with 49 CFR 173.392(c)(1) which states that materials must be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation. Contamination surveys conducted by the NRC inspector and Nuclear Engineering Company representatives indicated 500-1000 dpm/100 cm<sup>2</sup> (beta-gamma) and 100 dpm/100 cm<sup>2</sup> (alpha) on the drum and the floor of the trailer.

On the basis of the above we recommend the issuance of the enclosed enforcement letter and Notice of Violation and Proposed Imposition of Civil Penalty amounting to \$5,000 to Nuclear Metals Incorporated.

The proposed enforcement action and civil penalty are in accordance with the memorandum from D. Thompson to the Regional Directors "Interim Enforcement Practices" dated October 30, 1980, and are consistent with the "Interim Enforcement Policy" published in the Federal Register 45 FR 66754 (October 7, 1980).

*James M. Allan*  
Boyce H. Grier  
Director

Enclosures:

1. Proposed Enforcement Letter with Appendix A, Notice of Violation and Proposed Imposition of Civil Penalty to Nuclear Metals, Inc.
2. Evaluation Sheet for Imposition of Civil Penalty on Nuclear Metals, Inc.
3. Office of Inspection and Enforcement Report: No. 40-672/80-04 (15000046/80-95)

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Dudley Thompson

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03 FEB 1981

cc w/encl:

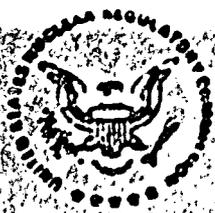
R. C. DeYoung, DD

H. Thornburg, Director, DSRSI

L. Higginbotham, Chief, RSB/DSRSI

T. Brockett, EI Staff (5 copies)

A. Grella, DSRSI



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
431 PARK AVENUE  
KING OF PRUSSIA, PENNSYLVANIA 19406

PROPOSED

Docket No. 40-672

Nuclear Metals, Inc.  
ATTN: Mr. W. B. Tuffin  
President  
2229 Main Street  
Concord, Massachusetts 01742

Gentleman:

This refers to the unannounced inspection conducted by W. M. Grayson of our Region V office on November 20, 1980 of a shipment of radioactive waste shipped from your facility in Concord, Massachusetts to the Nuclear Engineering Company, Richland, Washington burial site.

The inspection consisted of a review of shipping papers, placarding, marking and labeling requirements, radiation measurements, selective contamination surveys and examination of the packages and tractor-trailer by the inspector.

Based on the results of this inspection, it appears that certain of your activities were not conducted in full compliance with NRC requirements because of a breakdown of your quality assurance program as set forth in the Notice of Violation enclosed herewith as Appendix A. Management controls regarding the development of written procedures for the routine preparation of waste packages for shipment to the burial site were contained in an Immediate Action Letter to you dated August 7, 1980.

In view of the circumstances surrounding this activity, we are proposing a civil penalty in the amount of Five Thousand Dollars (\$5,000) for the items of noncompliance set forth in Appendix A. You are required to respond to this letter, and in preparing your response should follow the instructions specified in Appendix A.

Your written reply to this letter, combined with our findings from our continuing inspection program, will be considered in determining whether any further enforcement action, such as modification, suspension or revocation of the license, is appropriate.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,

Victor Stallo, Jr.  
Director  
Office of Inspection and Enforcement

Nuclear Metals, Inc.

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Enclosure:  
Appendix A, Notice of Violation and  
Proposed Imposition of Civil Penalties

APPENDIX A

NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY

Nuclear Metals Incorporated  
Concord, Massachusetts  
License No. SMB-179

Docket No. 40-672

As a result of an inspection conducted on November 20, 1980 at the Nuclear Engineering Company, Richland, Washington burial site, of a shipment of radioactive waste shipped from your facility in Concord, Massachusetts on November 12, 1980, this office proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954 as amended (42 USC 2282, P.L. 96-295), and 10 CFR 2.205, in the amount set forth below for the following violations:

10 CFR 71.5(a) requires that NRC licensees comply with the applicable packaging and transportation requirements of the Department of Transportation (DOT) in 49 CFR Parts 170-189.

1. 49 CFR 173.392(c)(1) requires that packaged shipments of low specific activity (LSA) materials transported in exclusive use vehicles must be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation.

Contrary to the above, on November 12, 1980, the licensee delivered LSA radioactive material to a carrier for exclusive use vehicle transport in a package which was not a strong, tight package and leakage of radioactive liquid material occurred from Drum No. 58.

This is a Severity Level III violation (Supplement V.C.1) (Civil Penalty \$4,000).

2. 49 CFR 172.203(d)(1)(ii) requires that the shipping paper description for a shipment of radioactive material include a description of the physical and chemical form of the material.

Contrary to the above, on November 12, 1980, the licensee delivered LSA radioactive material to a carrier for transport without properly describing the physical form of the material in the shipping papers in that the material in Drum No. 58 was listed as solid and the material was liquid as well as solid.

This is a Severity Level III Violation (Supplement V.C.3.a) (Civil Penalty \$1,000).

Pursuant to the provisions of 10 CFR 2.201, Nuclear Metals, Incorporated is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply, including: (1) admission or denial of the alleged item(s) of noncompliance; (2) the reasons for the item(s) of noncompliance if admitted; (3) the corrective steps which have been taken and the results achieved; (4) corrective steps which will be taken to avoid further items of noncompliance; and (5) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

Nuclear Metals Incorporated may, within twenty-five days of the date of this Notice pay the civil penalty in the cumulative amount of Five Thousand Dollars (\$5,000) or may protest the imposition of the civil penalty in whole or in part by a written answer. Should Nuclear Metals Incorporated fail to answer within the time specified, this office will issue an order imposing the civil penalty in the amount proposed above. Should Nuclear Metals Incorporated elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may (a) deny the items of noncompliance listed in the Notice of Violation in whole or in part; (b) demonstrate extenuating circumstances; (c) show error in the Notice of Violation; or (d) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., giving page and paragraph numbers) to avoid repetition.

Nuclear Metals Incorporated's attention is directed to the other provisions of 10 CFR 2.205 regarding, in particular, failure to answer and ensuing orders; answer, consideration by this office, and ensuing orders; requests for hearings, hearings and ensuing orders; compromise; and collection.

Upon failure to pay any civil penalty due which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, the matter may be referred to the Attorney General and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Atomic Energy Act of 1954, as amended (42 USC 2282).

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Victor Stallo, Jr.  
Director, Office of Inspection  
and Enforcement

Dated at Bethesda, Maryland  
this \_\_\_ day of January 1981

EVALUATION SHEET FOR IMPOSITION OF CIVIL PENALTY  
ON NUCLEAR METALS, INCORPORATED, CONCORD, MASSACHUSETTS  
INSPECTION 40-672/80-04 (15000046/80-95)  
(November 20, 1980)

1. A shipment of low-level radioactive waste was received at the Richland, Washington burial site on November 20, 1980. A Region V NRC inspector and a state inspector examined the shipment and determined that one drum was leaking a green fluid from the top ring of the drum onto the floor of the trailer. Contamination wipes taken by NRC and NECo inspectors indicated 500-1000 dpm beta-gamma/100 cm<sup>2</sup> and 100 dpm alpha/100 cm<sup>2</sup>.

The State of Washington, upon finding the leaking drum, cancelled the burial permit and banned the licensee from use of the burial site until further notice, effective November 20, 1980. The leaking drum was held for examination by the licensee and the remaining drums were placed into the burial trench.

Violations identified in this event were:

1. The licensee delivered LSA radioactive materials to a carrier that were not in strong tight packages in that one of the packages in the shipment displayed liquid leakage.
2. The physical form of material waste was described to be solid when at least one package contained free standing liquid.
2. The violations (1, 2) concerning liquid leakage and package content description lasted up to 8 days before being detected at Richland, Washington.
3. Violation 1 involved leakage of liquid from a container due to a break in package integrity. This is Severity Level III per Supplement V.C.1.  
Violation 2 involved improper identification of the material form in that the material was listed as solid but liquid was also loaded into one of the containers. This is Severity Level III per Supplement V.C.3.a.
4. The severity level of the event was Severity Level III.
5. The licensee had some forewarning in this case in that in connection with an earlier inspection (civil penalty) our inspector verified that procedures were in place to assure that no package was shipped from the facility without having first been checked to assure that it contained no liquid.
6. The initial liquid leakage violation was observed by a Region V inspector, State of Washington and burial site personnel.

7. Upon notification of the event, the licensee immediately determined that the drums contained neutralized acid waste solutions which were not to be shipped to burial. New audit procedures were implemented that involved opening each drum to assure that it was properly prepared for shipment. The licensee also fenced in the drum staging area where drums are prepared for shipment to burial. The licensee has also established a team of auditors (drum inspectors) which will review waste packaging and shipping operations 24 hours each working day. The affected drum(s) were filled with vermiculite by NRC representatives and buried. These corrective actions should preclude shipping of unauthorized drums to burial in the future.
8. A civil penalty is recommended for this case.
9. This is a materials facility with a base civil penalty of \$4,000.
10. While the licensee recognized the potential for shipping liquid wastes from the facility as discussed in Step 5, it appears to be borderline for increasing the civil penalty on this basis.
11. On September 26, 1980, the licensee was issued a civil penalty for failure to adhere to a DOT requirement concerning radiation levels in the cab of tractor delivering radioactive waste materials to the Barmwell South Carolina burial site on June 18, 1980. The incident involved in the current action occurred on November 20, 1980 less than two months after the licensee was notified of the previous civil penalty action. Because of the apparent lack, on the part of the licensee, to adhere to DOT requirements on a continuing basis, it is recommended that the civil penalty be increased by 25% as an indication to the licensee that NRC will "deter future noncompliance through strong enforcement measures and expects improvement of licensee performance."
12. There was no self identification of the event by the licensee and no reduction in the penalty is applicable.
13. No reduction in the penalty should be considered for good faith by the licensee because of the apparent failure to institute an adequate quality assurance program for shipping following the previously identified civil penalty action.
14. Civil penalty calculation

Step 9	\$4,000
Step 10	zero
Step 11	1,000
Step 12	zero
Step 13	<u>1,000</u>
Total	\$5,000

15. Distribution of civil penalty

Violation 1	\$4,000
Violation 2	<u>1,000</u>
Total	\$5,000

16. The civil penalty is appropriate for this licensee's ability to pay.

Regional Contact: J. Roth (488-1207)