

MATERIALS LICENSE

Amendment No. 33

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

302115

Licensee

1. National Steel Corporation
Great Lakes Division
Industrial Hygiene Section
2. No. 1 Quality Drive
Ecorse, MI 48229

In accordance with letter dated
November 13, 1996

3. License Number 21-10459-01 is amended in
its entirety to read as follows:

4. Expiration Date September 30, 2004

5. Docket or
Reference No. 030-04891

6. Byproduct, Source, and/or
Special Nuclear Material

- A. Cesium-137
- B. Americium-241
- C. Americium-241
- D. Americium-241
- E. Cesium-137
- F. Americium-241

7. Chemical and/or Physical
Form

- A. Sealed sources
(Texas Nuclear Model
No. 570-57157C)
- B. Sealed sources
(Monsanto Research
Corp. Model
No. 27051)
- C. Sealed sources
(Industrial
Nucleonics Model
No. S-16)
- D. Sealed source
Amersham/Searle
Model AMN.17
- E. Sealed source
(Amersham/Searle
Model CDC.705)
- F. Sealed source
AccuRay Model S-16)

8. Maximum Amount that Licensee
May Possess at Any One Time
Under This License

- A. No single source to
exceed 100
millicuries
- B. No single source to
exceed 1,000
millicuries
- C. No single source to
exceed 1,000
millicuries
- D. No single source to
exceed 250
millicuries
- E. No single source to
exceed 12.5
millicuries
- F. No single source to
exceed 3,000
millicuries

260021

9702260129 970220
PDR ADOCK 03004891
C PDR

COPY

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

21-10459-01

Docket or Reference Number

030-04891

Amendment No. 33

- | | | |
|---|--|--|
| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that licensee may possess at any one time under this license |
| G. Americium-241 | G. Sealed source (Amersham Model AMC-19) | G. No single source to exceed 1,000 millicuries |
| H. Americium-241 | H. Sealed source (Berthold Dwg. No. P2611-100) | H. No single source to exceed 1,000 millicuries |
| I. Cesium-137 | I. Sealed Source (Kay-Ray/Sensall Source Series Model 7700-25) | I. One source not to exceed 25 millicuries |

9. Authorized Use:

- A. To be used in Texas Nuclear Model 5190 source holder for density measurement.
- B. To be used in Reuter Stokes Model RSS-811 safety ray system for roll monitoring.
- C. To be used in Industrial Nucleonics Model U-3 source holder for level measurement.
- D. and E. To be used in a Gamma Instruments Model 5080/87 Micro Moist Moisture/Density Gauge.
- F. To be used in AccuRay Model U-6 source holder for thickness measurement.
- G. To be used in Gamma Instruments GR-100 or Data Measurement Corporation Model AM-5 source holder for thickness measurements.
- H. To be used in a Berthold Model LB 6600Z source holder for moisture measurement.
- I. To be used in a Kay-Ray/Sensall Model 7062BP source holder for density measurement.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities at Zug Island, the 80" Hot Mill Plant, River Rouge, Michigan and the Main Plant in Ecorse, Michigan.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

21-10459-01

Docket or Reference Number

030-04891

Amendment No. 33

11. Licensed material shall be used by, or under the supervision of, Ken Townley, Richard Lowe, D. W. Gould, Michael Walls, Ronald Rosen, Carl Rogalski, Barry Davis, Robert Denback, Mitchell Golem, Chester Roaden, C. Brian Malley, Sharon Maki, Ronald Burnette, and Gary Howard.
12. Radiation Safety Officer: C. Brian Malley
13. A. (1) Each sealed source containing licensed material, other than Hydrogen-3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months; except those sealed sources as specified by the manufacturer and specifically authorized by the Commission or an Agreement State may be leak tested at intervals not to exceed three years. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak test when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
- C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch. The report shall specify the source involved the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. The licensee is authorized to collect leak test samples for analysis by Health Physics Associates or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened or removed from the source holders by the licensee.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

21-10459-01

Docket or Reference Number

030-04891

Amendment No. 33

15. Installation, initial radiation survey, relocation, removal from service, maintenance, and repair of devices containing sealed sources and installation, replacement, and disposal of sealed sources shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services.
16. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
17. The licensee shall operate each gauge within the manufacturer's specified temperature/environmental limits such that the shielding and shutter mechanism of the source holder is not compromised.
18. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
19. Notwithstanding Conditions 14. and 15., the licensee is authorized to perform gauge service operations in accordance with the representations and procedures outlined in letters dated July 30, 1990 and January 14, 1991.
20. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.
 - A. Applications dated February 21, 1989 and May 24, 1994; and
 - B. Letters dated July 30, 1990 (with attachments), January 14, 1991, April 9, 1991, December 2, 1992, April 22, 1993, November 13, 1996, January 9, 1997, and January 31, 1997.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 20 FEBRUARY 1997

By William P. Kuehbold
Nuclear Materials Licensing Branch, Region III

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03120
Status Code: 0
Fee Category: 3P
Exp. Date: 20040930
Fee Comments:
Decom Fin Assur Req'd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: NATIONAL STEEL CORP.
Received Date: 961209
Docket No: 3004891
Control No.: 302115
License No.: 21-10459-01
Action Type: Amendment

2. FEE ATTACHED

Amount: 300
Check No.: 654590

3. COMMENTS

Signed
Date

D. Hersey
12-11-96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered)

1. Fee Category and Amount: 3P \$300

2. Correct Fee Paid. Application may be processed for:

Amendment
Renewal
License

3. OTHER

Signed
Date

SC
12/13/96

DEC 18 1996

Log	DEC 5 III
Remitter	
Check No.	654590
Amount	\$300
Fee Category	3P
Type of Fee	AMD
Date Check Rec'd	12/13/96
Date Completed	
By:	SC

57
ms-15

1996 DEC 13 AM 8:47

November 13, 1996

United States Nuclear Regulatory Commission
Materials Licensing Division
Region III
801 Warrensville Road
Evanston, Illinois 60532 - 4351

Subject: **License Amendment** Request (NRC Material License No. 21-10459-01)

Sir:

National Steel Corporation, Great Lakes Division hereby requests an amendment to our current license (Amendment No. 32). If granted this will create Amendment No. 33.

The reason for the Amendment is to allow us to delete License Item I (*Promethium-147 / Sealed Source / Isotope Products Lab Model TC 2600 / No single source to exceed 900 microcuries*) from our current license.

Along with this we wish to add the following new Source to paragraph 6 of our license:

License Item 6

(Byproduct, Source, and/or Special Nuclear Material) : **Cesium - 137**

License Item 7

(Chemical and/or Physical Form) : **Sealed Source, Amersham CDC 80650**

License Item 8

(Maximum Amount that Licensee May Possess at Any One Time Under this License) :
25 millicuries

License Item 9

(Authorized Use)

To be used in a Kay-Ray / Model 7062 BP density measurement device of pulverized coal

This additional source will become item I.

RECEIVED

DEC 09 1996

REGION III

Pm: 12-6-96

302-115

Also, in reference to paragraph 11, please delete reference to Cecil Chalmers, John Beheler, John Comerzan, and Don Delozier from the paragraph. These people are no longer in a position that involves them with radiation activities.

Lastly, paragraph 21 subparagraph B references a letter dated January 14, 1991. Attachment 2 of that letter states that our Radiation Survey Meters will be calibrated every 6 months. The wording is as follows:

Calibration

"Each meter utilized for radiation survey will be calibrated every six (6) months and after servicing."

We would like to change the calibration frequency to every twelve (12) months and after servicing.

Enclosed is payment to the U.S. Nuclear Regulatory Commission in the amount of \$ 300.00 .

Please call me (313) 297-3711 or Fax (313) 297-2112

Sincerely,

C. Brian Malley, MS, CIH,CSP
Radiation Safety Officer

FEB 20 1997

C. Brian Malley, M.S., CIH
Radiation Safety Officer
National Steel Corporation
Great Lakes Division
Industrial Hygiene Section
No. 1 Quality Drive
Ecorse, MI 48229

Dear Mr. Malley:

Enclosed is Amendment No. 33 to your NRC Material License No. 21-10459-01 in accordance with your request.

Please note we have extended the expiration date of the license for five years in accordance with the regulations (10 CFR 30.36).

Also note, we have removed the license condition requiring decommissioning records because this requirement is in the regulations.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or

302115

- b. When the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;
 - b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
 - d. Change ownership of your organization.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements,

C. Malley

-3-

prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
William P. Reichhold
Nuclear Materials Licensing Branch

License No. 21-10459-01
Docket No. 030-04891

Enclosure: Amendment No. 33

DOCUMENT NAME: M:\03004891.CL7

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" =
Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII- <i>WPR</i>								
NAME	WPreichhold:brt								
DATE	02/20/97								

OFFICIAL RECORD COPY

Great Lakes Division
No. 1 Quality Drive
Ecorse, Michigan 48229
(313) 297-2100

Mr. Bill Reichhold
United States Nuclear Regulatory Commission
Region 3
801 Warrenville Road
Lisle, Illinois 60532 - 4351

January 31, 1997

Reference : **MAIL CONTROL No. 302115**

Dear Mr. Reichhold:

The following is our response to paragraph item 1 your "FAX" of 1/8/96 and telephone communications pursuant to that FAX.

You had asked for a copy of the "Disposal Certificate" for the Twin City Testing Betascope containing 900 microcurie of Promethium-147. As you recall we sent you that certificate (Attached). Upon receiving the document you called to inquire about the "source I.D. " on the certificate which listed Cd 109. I mentioned that I'd look into the discrepancy : Our license states Promethium but the disposal certificate lists Cadmium-109.

I called Twin City and spoke to Ms. Bridget Hawn ((716)692-8855. She confirmed that the Betascope that we returned was indeed a Cadmium-109 and was not a Promethium-147. Se also sent me documents showing that we're originally ordered and has supplied a Cadmium source.

So now we have a discrepancy- Here's what happened. Prior to purchasing the device we met with the Twin City representative who worked with us on the license application. He informed us that we'd be using a Promethium NOT a Cadmium source. So we asked for a amendment for Promethium. Apparently Twin City sent us a Cadmium source instead. They do indeed make a Promethium-147 source and a Cadmium-109 source. In the sales discussion the correct source must have gotten mixed up. So this apparently was an "Adnimistrative Oversight".

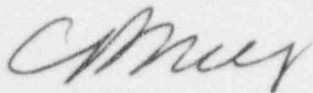
I hope this answers your questions. We no longer have any Twin City devices.

RECEIVED
FEB 07 1997
REGION III
FEB 07 1997

Pm: 2-4-97

Please contact me if you need additional information

Sincerely,

A handwritten signature in cursive script, appearing to read "C. Malley".

C. Brian Malley, MS, CIH
Radiation Safety Officer

Tel: (313) 297 - 3711 FAX: (313) 297 - 2112

cc: Slater/Huck/Lowe

Mr. Bill Reichhold
United States Nuclear Regulatory Commission
Region 3
801 Warrenville Road
Lisle, Illinois 60532 - 4351

January 21, 1997

Reference : **MAIL CONTROL No. 302115**

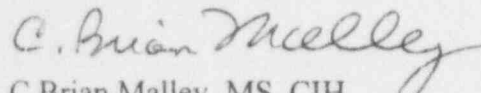
Dear Mr. Reichhold:

The following is our response to paragraph item 2 your "FAX" of 1/8/96.

Item 2. I contacted Mr. David Zabel , Application Specialist with Kay - Ray / Sensall. Mr. Zabel advised me that License Item 7 (Chemical and / or Physical Form) will be **one (1) Sealed Source, 7700 - 25 , Kay - Ray / Sensall Sealed Source Model # 7700 - 25.**

This should answer all your questions. Please contact me if you need additional information

Sincerely,


C. Brian Malley, MS, CIH
Radiation Safety Officer

Tel: (313) 297 - 3711 FAX: (313) 297 - 2112

RECEIVED
JAN 24 1997
REGION III

JAN 24 1997

Great Lakes Division
No. 1 Quality Drive
Ecorse, Michigan 48229
(313) 297-2100

January 9, 1997

Mr. Bill Reichhold
United States Nuclear Regulatory Commission
Region 3
801 Warrenville Road
Lisle, Illinois 60532 - 4351

Reference : **MAIL CONTROL No. 302115**

Dear Mr. Reichhold:

The following is our response to paragraph items 1 and 3 of your "FAX" of 1/8/96.

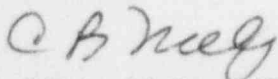
Item 1. The Twin City Testing betascope containing 900 microcurie promethium-147 was returned to the manufacturer - TwinCity Inc. in 1996. Attached (attachment 1) is a copy of our Disposal Certificate dated 8/30/96.

Item 3. At present we have 2 survey meters which are calibrated by a vendor every 6 months. These instruments are under the exclusive possession and use of myself (the RSO) and Mr. Richard Lowe the Industrial Hygiene Technician. Since they are under control of professional radiation safety staff there is no chance of damage without our knowledge, and the devices are controlled by highly professional, highly trained and educated personnel. If we think the unit has been damaged we immediately send it off for calibration. Based on this situation, I feel that annual certification is adequate. Moreover, over the past 8 years since I've been RSO we've never found the units to be out of calibration nor have we ever damaged the equipment without immediately knowing and submitting it for repair and re-calibration.

Item 4. RESPONSE TO FOLLOW

This is the data provided by the Vendor. I was extremely careful to record the data as they provided it. So, I'll have to get with the Vendor. I'll provide a response to this question within the next week.

Sincerely,



C. Brian Malley, MS, CIH
Radiation Safety Officer

RECEIVED
JAN 10 1997
REGION III

pm: 1-9-97

JAN 10 1997

CUSTOMER:

DATE: 8/30/96

PO# GL6P13323

Rad Services
2508 Forest Avenue
Two Rivers, WI 54241

D I S P O S A L C E R T I F I C A T I O N

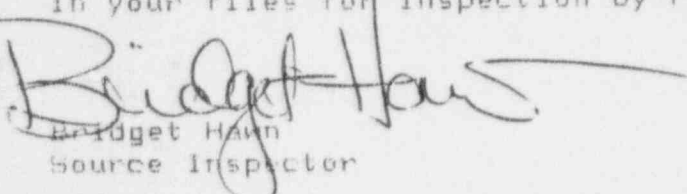
We certify that the radioactive source(s) listed below have been discarded in the manner prescribed by current laws and regulations covering radioactive waste disposal.

Results: S = Satisfactory U = Unsatisfactory

Source I.D.	Serial #	Date Purchased	Activity	Test Results
Cd109	D1427s	2/94*	S	(.005uCi

*Purchased by Great Lakes Steel Ecorse, MI

No other certification is to be implied. Therefore, the above source(s) has/have not been released to the customer. Retain this certification in your files for inspection by regulatory agencies.


Bridget Hawn
Source Inspector

Visit us on the Internet at <http://www.industry.net/asoma>

Twin City Incorporated - 795 Wurlitzer Dr - North Tonawanda, NY - Phone 716 692-8855 - Fax 716 692-3265
A Division of ASOMA Instruments, Inc. - 11675 Jollyville Rd - Austin, TX - Phone 512 258-6608 - Fax 512 331-9123



October 3, 1996

Mr. C. Brian Malley, Radiation Safety Officer
National Steel Corporation, Great Lakes Division
1 Quality Drive
Ecorse, MI 48229-1794

Dear Mr. Malley:

Enclosed is a copy of the Disposal Certificate received from ASOMA-TCI for the disposal of one Cd-109 source (Serial No. D1427s). Place this documentation in your records as proof that the material was disposed of properly for any future NRC audits.

If we can be of any further help in this or any other matter, please contact us.

Sincerely,

A handwritten signature in cursive script that reads 'Jacky Ann Pierce'.

Jacky Ann Pierce
Sales and Marketing Coordinator

Enclosure



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

December 16, 1996

Charles Brian Malley
Radiation Safety Officer
National Steel Corporation
Great Lakes Steel Division
Industrial Hygiene Section
No. 1 Quality Drive
Ecorse, MI 48229

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE
(Letter Dated 11/13/96)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License ☒ Amendment ☐ Renewal
☐ Termination ☐ Auth User (Amendment not required)
☐ Other _____

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

Mail Control No. 302115
License No. 21-10459-01