

## MATERIALS LICENSE

Amendment No. 32

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.

## Licensee

In accordance with letter dated  
October 18, 1996

1. Minnesota Mining & Manufacturing  
Company  
Health Physics Services
2. 3M Center  
Bldg. 220-3W-06  
P. O. Box 33283  
St. Paul, MN 55133-3283

3. License Number 22-00057-03 is amended in  
its entirety to read as follows:

4. Expiration Date September 30, 2002

5. Docket or  
Reference No. 030-049506. Byproduct, Source, and/or  
Special Nuclear Material7. Chemical and/or Physical  
Form8. Maximum Amount that Licensee  
May Possess at Any One Time  
Under This LicenseA. Any byproduct  
material with Atomic  
Nos. 1 through 83,  
inclusive

B. Americium-241

C. Americium-241

D. Polonium-210

A. Sealed, plated or  
foil sources (which  
have been evaluated  
and registered with  
the NRC or an  
Agreement State)B. Sealed sources (which  
have been evaluated  
and registered with  
the NRC or an  
Agreement State)C. Foil sources (NRD  
A-001 Series or other  
sources which have  
been evaluated and  
registered with the  
NRC or an Agreement  
State)D. Sources (NRD Models  
P-2001, P-2021,  
P-2031, P-2042,  
P-2051 and P-2061 or  
other NRD sources  
which have been  
evaluated and  
registered with the  
NRC or an Agreement  
State)A. No single source  
to exceed 5 curiesB. No single source  
to exceed 5 curiesC. No single source  
to exceed 200  
millicuriesD. No single source  
to exceed 324  
millicuries

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SUPPLEMENTARY SHEET**

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6. Byproduct, source,  
and/or special nuclear  
material

E. Polonium-210

F. Curium-244

G. Plutonium-238

7. Chemical and/or physical  
form

E. Sealed sources  
(Amersham Model PDM.  
1002 or PDM.1002 Hn  
Series or other  
Amersham sources  
which have been  
evaluated &  
registered with the  
NRC or an Agreement  
State)

F. Sealed sources (which  
have been evaluated  
and registered with  
the NRC or an  
Agreement State)

G. Sealed sources (Texas  
Nuclear Model  
570-57242B)

8. Maximum amount that  
licensee may possess  
at any one time under  
this license

E. No single source  
to exceed 200  
millicuries

F. No single source  
to exceed 500  
millicuries

G. Two sources not to  
exceed 30  
millicuries each

9. Authorized Use:

- A. through G. (1) For possession and use and sample analysis in level, thickness, density, fill/level measuring, static measuring devices and static elimination devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the U.S. Nuclear Regulatory commission or an Agreement State.
- (2) Possession and use incident to installation, relocation, maintenance, repair, and removal from service; installation and replacement of sealed sources; and instruction and training of individuals in the use of gauging/measuring devices that have been registered pursuant to Section 32.210 of 10 CFR Part 32 or equivalent Agreement State regulations described in letter dated May 15, 1996 as a service to customers.

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CONDITIONS

10. Licensed material shall be used only at 3M facilities anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of Licensed material.
11. Licensed material shall be used by, or under the supervision of 3M employees who have completed 3M's training program as described in application dated January 28, 1992, and who have been designated by the licensee's Corporate Radiation Safety Officer, Duane C. Hall.
12. 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 except 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 persons, 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 and Safeguard 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.

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- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
13. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.
  14. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.
  15. Sealed sources containing licensed material shall not be opened.
  16. This license does not authorize commercial distribution of licensed material.
  17. A. Installation, initial radiation survey of devices, relocation, maintenance, repair, and removal from service of the devices containing licensed material and installation, replacement, and disposal of sealed sources containing licensed material used in the devices shall be performed only by the device manufacturer, Duane C. Hall, Michael W. Hinz, Frederick B. Entwistle, John A. Bauhs, Deborah A. Loeser, Michael G. Cobian, Lori L. Breiner, Richard R. Hedlund or by other persons specifically authorized by the Commission or an Agreement State to perform such services.  
  
B. Installation, initial radiation survey of devices, relocation, maintenance, repair, and removal from service of the devices containing licensed material may also be performed by the "Site" Radiation Safety Officer. The Corporate Radiation Safety Officer shall maintain records of the designated "Site" Radiation Safety Officers.
  18. The licensee shall assure that the devices are tested for proper operation of the on-off mechanism and indicator, if any, at intervals not to exceed six months or at such other intervals as are specified by the manufacturer. The licensee shall maintain records of the results of these tests for a period of one year after the next required test is performed. These records shall show the date(s) of performance and results of these tests as well as the name of the individual performing the test.
  19. The licensee shall operate each gauge within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder is not compromised.

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20. The licensee shall conduct a physical inventory every six (6) months to account for all sealed, plated and foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of each sealed, plated and foil source and the date of the inventory.
21. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
22. A Health Physics audit as described in application dated January 28, 1992, shall be performed by Health Physics Services at each facility where licensed material is used, at a frequency not to exceed three years. Records of such audits shall be maintained for inspection by the Commission.
23. 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.
24. 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. Application dated January 28, 1992; and
  - B. Letters dated August 20, 1992, April 8, 1996, May 15, 1996 (with attachments), June 21, 1996, June 28, 1996, July 1, 1996, and October 18, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

*January 14, 1997*

By

*Patricia J. Reese*

Nuclear Materials Licensing Branch, Region III

**COPY**

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 1C 3N  
Exp. Date: 20020930  
Fee Comments: 3N ADDED 7/9/96  
Decom Fin Assur Req'd: N

R6

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: MINNESOTA MINING & MFG. COMPANY  
Received Date: 961028  
Docket No: 3004950  
Control No.: 301988  
License No.: 22-00057-03  
Action Type: Amendment

2. FEE ATTACHED

Amount: \*  
Check No.: \*

\* ADDL INFO  
301339-R6

3. COMMENTS

Signed D. Hersey  
Date 10-29-96

B. LICENSE FEE MANAGEMENT BRANCH (Check one: 01 is entered / /)

1. Fee Category and Amount: 3P 1C 3N

**FEE NOT REQUIRED**

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

Amendment ☒  
Renewal ☐  
License ☐

3. OTHER

Signed SC  
Date 11/4/96

NOV 07 1996

RECEIVED BY LFDCB	
Date	<u>Nov. 4, 1996</u>
Log	<u>NOV 2 III</u>
By	<u>SC</u>
Date Completed	<u>11/4/96</u>

1996 NOV -4 AM 9:23



October 18, 1996

U.S. Nuclear Regulatory Commission  
Region III  
801 Warrenville Road  
Lisle, IL 60532-4351Attn: Ms. Patricia J. Pelke  
Nuclear Materials Licensing Branch

Dear Ms. Pelke:

Subject: Control Number 01339 - 3M  
US NRC License Number 22-00057-03

In accord with the discussion between you and Michael G. Cobian of this office, this letter constitutes a submission of additional information in support of one of the requests contained in the license amendment request submitted by letter dated May 15, 1996. In particular, this information is in support of the request that persons identified as Radiation Safety Officers (RSOs) under 3M's Radiation Safety Program be granted the authority to perform "installation, initial radiation surveys relocation, maintenance, repair and removal from service" of devices containing licensed material. It is specifically not requested that RSOs be empowered to install, replace, remove or dispose of sealed sources contained within the licensed devices.

For identification of RSOs, see generally pages 5, 10 and 11 of the 3M Company Health Physics Manual for 3M Manufacturing Facilities in NRC Jurisdiction. This manual was submitted in support of the May 15, 1996 amendment request; up-dated version submitted on July 1, 1996 (document number of current version - - HPM010.B).

Per your discussion with Mr. Cobian, this requested grant of authority appears to have been inadvertently overlooked when amendment number 31 to the subject license was issued.

**RECEIVED***Continuation of 301339*  
**FEE NOT REQUIRED**

OCT 28 1996

REGION III

OCT 28 1996

*Pm: 10-22-96**301788*

## **Training**

Pertaining to training of RSO's, the May 15, 1996 letter states:

HPS provides training in radiation safety to the RSO for each facility at an appropriate level for the devices in use in the facility. Information on the training program for RSO's is provided on page 11 of Attachment 3. The course lecture and laboratory manuals for the two day training program given as initial training to each RSO is provided as Attachment 8. Information from device vendors is incorporated into the program. The program is updated annually to include the most current information.

[Attachment 3 is the Health Physics Manual.]

## **Empowerment Level**

It is our position that the described training provided to RSOs enables them, from a radiological perspective, to safely perform installation, initial radiation surveys, relocation, maintenance, repair and removal from service of devices containing licensed material. We trust upon review of the training program, the agencies' conclusion will concur.

In considering the requested grant of authority, please consider that the RSOs will only be dealing with devices that comply with the radiation safety specifications set forth in 3M Standard - OS & H, Manual 80, Volume 2, A-132, Ionizing Radiation Gauges and Devices (Appendix VII to the 3M Health Physics Manual). These specifications were specifically designed with the goal of minimizing exposures to personnel. Thus, the licensed devices with which the RSOs would be involved present quite low external radiation fields.

Please note that 3M's radiation safety program, as set forth in the 3M Health Physics Manual, currently states that the RSO responsibilities include the requested functions. Throughout the written program specifies that the RSO is not authorized to work directly with the source, such as removing the source, or removing the source block, etc. In all cases these actions are restricted under the radiation safety program to the 3M Health Physics Staff, device manufacturer's representatives or others specifically licensed to conduct such actions. For specific examples of the RSO being empowered to perform the requested actions, but is not permitted to work directly with the source, see the following sections of the 3M Health Physics Manual:

1. "Device Installation" starting at page 19
2. "Maintenance and Repair of Radiation Devices" starting at page 33



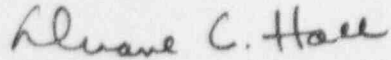
October 18, 1996

Page 3

3. "Relocation or Removal of Radiation Devices and Sources" starting at page 37
4. "Waste Disposal" starting at page 48

Thank you for consideration of this request.

Sincerely,

A handwritten signature in cursive script that reads "Duane C. Hall".

Duane C. Hall, Manager  
Health Physics Services

MGC:ckm

03Amend RSO Authority

JAN 23 1997

Duane C. Hall, Manager  
Minnesota Mining & Manufacturing  
Company  
Health Physics Services  
3M Center  
Bldg. 220-3W-06  
P.O. Box 33283  
St. Paul, MN 55133-3283

Dear Mr. Hall:

Enclosed is Amendment No. 32 to your NRC Material License No. 22-00057-03 in accordance with your request.

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.

Sincerely,

Original Signed By  
Patricia J. Pelke  
Nuclear Materials Licensing Branch

License No. 22-00057-03  
Docket No. 030-04950

Enclosure: Amendment No. 32

DOCUMENT NAME: M:\03004950.CL7

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" =  
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OFFICE	DNMS/RIII								
NAME	PJPelke:brt								
DATE	01/14/97								

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
801 WARRENVILLE ROAD  
LISLE, ILLINOIS 60532-4351

October 29, 1996

Duane C. Hall  
Radiation Safety Officer  
Minnesota Mining & Mfg. Company  
Health Physics Services  
Bldg. 220-3W-06, P. O. Box 33283  
3M Center  
St. Paul, MN 55133-3283

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE  
(Letter Dated 10/18/96)

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. 301988  
License No. 22-00057-03