

MATERIALS LICENSE

Amendment No. 11

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, 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 April 6, 1992,	
1. Mine Safety Appliances Company		3. License number 37-00261-04 is amended in its entirety to read as follows:	
2. P. O. Box 429 Pittsburgh, Pennsylvania 15230		4. Expiration date June 30, 1995	
		5. Docket or Reference No 030-15060	
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	
A. Nickel 63	A. Foils or plated sources in detector cells	A. 1 curie	
B. Hydrogen 3	B. Foils or plated sources in detector cells	B. 2.5 curies	
C. Carbon 14	C. Sealed source (NEN)	C. 100 millicuries	
D. Americium 241	D. Sealed sources (Contained in Mine Safety Appliances Co. ion chamber detector cells)	D. Not to exceed 600 microcuries per source; total 60 millicuries	
E. Americium 241	E. Sealed sources (Institute for Research, Production, and Use of Radioisotopes, Prague, Czechoslovakia Model ANGX-50)	E. Not to exceed 90 millicuries per source and 270 millicuries total	
9. Authorized use			
A. and B. For use in gas chromatographs for sample analyses.			
C. For use in GCA respirable dust monitor.			
D. Storage only.			
E. Storage only.			

CONDITIONS

10. Licensed material listed in items 6.A. and 6.B. may be used only at the licensee's facilities on Mars-Evans City Road, Evans City, Pennsylvania and on Walden Road, Mars, Pennsylvania. Licensed material listed in items 6.C., 6.D., and 6.E. may be used only at the licensee's facilities on Walden Road, Mars, Pennsylvania.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

37-00261-04

Docket or Reference number

030-15060

Amendment No. 11

(Continued)

CONDITIONS

11. A. Licensed material shall be used by, or under the supervision of, Mary McGinley or C. A. Palladino.
- B. The Radiation Safety Officer for this license is Mary T. McGinley.
12. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed 3 years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. 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 or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen 3; or
 - (ii) they contain only a gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

37-00261-04

Docket or Reference number

030-15060

Amendment No. 11

(12. continued)

CONDITIONS

- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
14. Sealed sources containing licensed material shall not be opened.
15. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding that specified by the manufacturer.
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. Records of inventories shall be maintained for 5 years from the date of each inventory.
17. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

37-00261-04

Docket or Reference number

030-15060

Amendment No. 11

(Continued)

CONDITIONS

18. 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. Letter dated March 15, 1990
- B. Application dated April 25, 1990
- C. Letter dated April 6, 1992
- D. Letter dated September 1, 1992

For the U.S. Nuclear Regulatory Commission

Original Signed By:

Keith D. Brown, Ph.D

By

Nuclear Materials Safety Branch
Region I

King of Prussia, Pennsylvania 19406

Date

OCT 01 1992

OCT 01 1992

License No. 37-00261-04
Docket No. 030-15060
Control No. 116469

Mine Safety Appliances Company
ATTN: Mary T. McGinley
Radiation Safety Officer
P. O. Box 429
Pittsburgh, Pennsylvania 15230

Dear Ms. McGinley:

Please find enclosed an amendment to your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5093, so that we can provide appropriate corrections and answers. Note that the americium-241 sources listed in item 6.E. have been approved for storage only. We will approve use of the sources in the regiopulmotest, Model NA 3703 only after the source and device have been registered with the NRC or an agreement state.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you. This could include issuance of a notice of violation, or in case of serious violations, an 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, 10 CFR Part 2, Appendix C.

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Mine Safety Appliances Company -2-

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:
Keith D. Brown, Ph.D

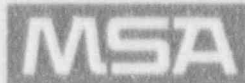
Keith D. Brown, Ph.D.
Nuclear Materials Safety Branch
Division of Radiation Safety
and Safeguards

Enclosures:

1. Amendment No. 11
2. Requirements for Materials Licensees
3. NRC Forms 3 and 313
4. 10 CFR Parts 2, 19, 20, 30 and 170


DRSS:RI
Brown/cmm

09/30/92



Mine Safety Appliances Company • P.O. Box 429 • Pittsburgh, PA 15230

Telephone: (412) 538-3510

September 1, 1992

030-15060

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

License Number: 37-00261-04

Mail Stop Number: 116469

PLEASE EXPEDITE AS SOON AS POSSIBLE.

Dear Mr. Brown:

Due to accelerated relocation of the Safety Products Division, the license activities shall be moved to a new main location with the existing location becoming a small extension.

Please add the following to our in-process amendment mail stop number 116469.

Section (1) Mine Safety Appliances
(2) P.O. Box 427
Pittsburgh, PA 15230

Section 7 - Change physical forms as follows:

A. Nickel - 63	foils or plated sources
B. Hydrogen - 3	foils or plated sources
C. Carbon - 14	sealed source
D. Americium - 241	sealed source

Section 9 - Change authorized uses

A. & B. for use in analyzers for sample analysis
C. for use in GCA dust monitor or analyzers for sample analysis.
D. Storage and/or use in regiopolmotest, Model NA 3703, used by licensee to test the device in a program which will not use either humans or animals and/or analyzers for sample analysis.

LOCATION: Mars-Evans City Road • Evans City, PA 16033

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SEP 02 1992

Section 10 - Change usage locations - distance between these locations is 10 miles.

Licensed material items 6A, 6B, 6C, 6D shall be used at the main location:

Mine Safety Appliances Company
Instrument Division
Walden Road - Cranberry Township
Mars, PA 16046

Licensed material items 6A and 6B shall also be used at the extension location:

Mine Safety Appliances Company
Research Division
R. D. 2 Mars-Evans City Road
Evans City, PA 16033

Section 11 - Change

- A. Licensed material shall be used by or under the supervision of Mary McGinley or C. A. Palladino.
- B. The Radiation Safety Officer for this license is Mary T. McGinley.

Section 12 - Correct errors - Should read:

- A (1) Any sealed source(s) or detector cell(s) specified in Item(s) 7A, 7B, 7C and 7D shall be tested.....

All other parts of license and previous amendments are the same.

In answering your phone request and regarding the Am-241 sources that are to be used with the regiopulmotest unit, I am supplying the following information:

The Am-241 sources will be stored in a locked room in the vehicle storage building. Keys for access will be controlled. Keys will be held by Mary McGinley and G. Haughey (Plant Safety). This area is designated (A); see enclosed drawing.

The work at the new main location will be on the second floor of building in the manufacturing applications lab. See (B) on enclosed drawing.

(3)

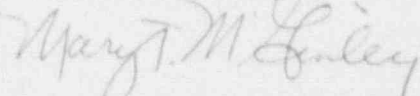
The Am-241 sources for the regiopulmotest unit will be kept in their shipping container and under lock until which time the registration is complete and they can be used. The shipping container will be leak-tested every six months and upon receipt.

For your information the Carbon-14 sources from the GCA-dust monitors have been disposed of through ADCO. However we want to leave that isotope on our license for future use. Enclosed find copy of disposal papers.

If you have any questions or need additional information, please call me (412) 538-3510, extension 4753.

Please address correspondence to Mine Safety Appliances Company, Box 429, Pittsburgh, PA 15230 until the move is complete.

Sincerely yours,



Mary T. McGinley, R.S.O.

attachments: license
floor plans
disposal papers

/pw

MATERIALS LICENSE

Amendment No. 10

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 9, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 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

1. Mine Safety Appliances Company

2. P. O. Box 429
Pittsburgh, Pennsylvania 15230In accordance with letter dated
February 21, 1990,3. License number 37-00261-04 is amended in
its entirety to read as follows:

4. Expiration date June 30, 1995

5. Docket or
Reference No. 40-150606. Byproduct, source, and/or
special nuclear material7. Chemical and/or physical
form8. Maximum amount that licensee
may possess at any one time
under this license

A. Nickel 63

A. Foils or plated sources
in detector cells

A. 1 curie

B. Hydrogen 3

B. Foils or plated sources
in detector cells

B. 2.5 curies

C. Carbon 14

C. Sealed source (NEN)

C. 100 millicuries

D. Americium 241

D. Sealed sources
(Contained in Mine
Safety Appliances Co.
ion chamber detector cells)D. Not to exceed 600
microcuries per source;
total 60 millicuries

9. Authorized use

A. and B. For use in gas chromatographs for sample analyses.

C. For use in GCA respirable dust monitor.

D. Storage only.

CONDITIONS

10. Licensed material shall be used only at the licensee's facility in Evans City,
Pennsylvania.11. A. Licensed material shall be used by, or under the supervision of, Joseph V.
Friel, Mary McGinley, or C. A. Palladino.

B. The Radiation Safety Officer for this license is Mary T. McGinley.

12. A(1) Any sealed source(s) or detector cell(s) specified in Item(s) 7.B, 7.D. and
7.H. shall be tested for leakage and/or contamination at intervals not to
exceed 6 months. Any source or detector cell received from another person
which is not accompanied by a certificate indicating that a test was performed
within 6 months before the transfer shall not be put into use until tested.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

37-00261-04

Docket or Reference number

030-15060

Amendment No. 10

(12. Continued)

CONDITIONS

- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source or detector cell is exempt from such leak tests when the source or detector cell contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any source or detector cell in storage and not being used need not be tested. When the source or detector cell 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 or detector cell 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 I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. 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. 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. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
14. Sealed sources containing licensed material shall not be opened.
15. 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.
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. Records of inventories shall be maintained for 2 years from the date of each inventory.
17. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 37-00261-04

Docket or Reference number 030-1506C

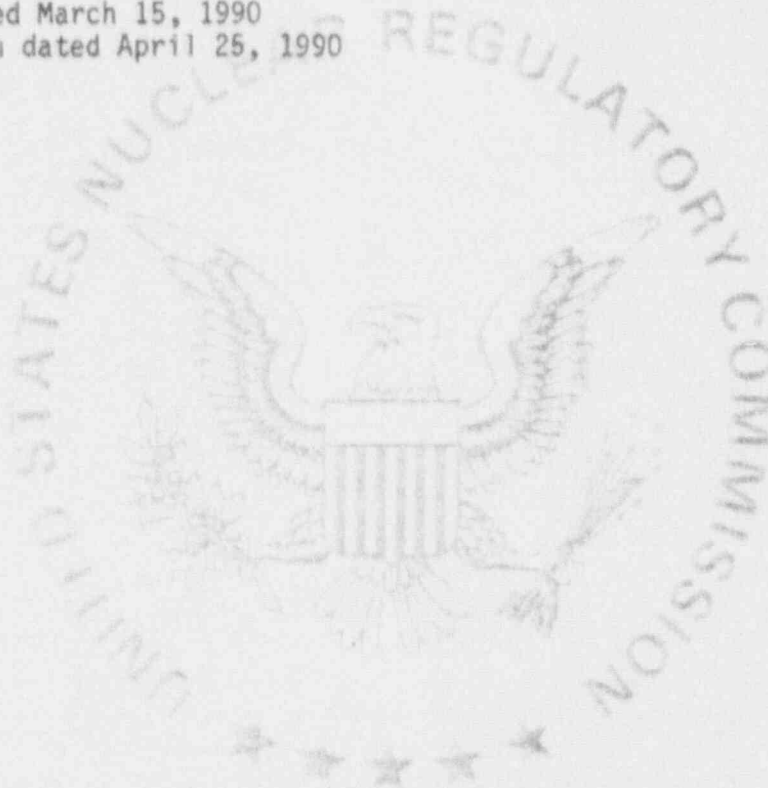
Amendment No. 10

(Continued)

CONDITIONS

18. 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. Letter dated March 15, 1990
- B. Application dated April 25, 1990



For the U.S. Nuclear Regulatory Commission

Date JUN 07 1990

By [Signature]
Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406

ADCO SERVICES, INC.

RADIOACTIVE WASTE SHIPMENT & D

REV. 1/92

GENERATOR # PAD 00432 2913

GENERATOR NAME INDIE SAFETY APPLIANCE

ADDRESS MRS EVANS CITY ROAD

CITY EVANS CITY

STATE PA2

ZIP 16033

CONTACT MARY MOGINLEY

PHONE 413-536-3510 x 4745

WASHINGTON PERMIT NO. _____

SHIPMENT # _____

SO. CAROLINA PERMIT NO. _____

EPA # _____

BILL DISPOSAL CHARGES TO _____

NAME _____

ADDRESS _____

CITY _____ ST _____

PURCHASE ORDER # PC00050281

COMPACT AP

MANIFEST NO.

92-0738

DATE 7/7/92

DISCLAIMER: Upon acceptance of shipment, the materials therein become the sole property of

ADCO SERVICES, INC.

(9) Item No.	(10) Container Type	(11) Container Volume (Cu. Ft.)	(12) Container Weight (Pounds)	(13) Physical Form (i.e. Solid)	(14) Waste Description (Limit 3) (See Note #1)	(15) Sorbent, Solidification, Stabilization Media (Limit 3) (See Note #2)	(16) Chemical Form / Chelating Agent (10CFR20.311)	(17) Radioisotope (10CFR20.311)
1	PALE	.68	25	Solid	2	98	URANYL ACETATE NATURAL URANIUM URANIUM OXIDE URANIUM NITRATE THALLIUM SULFATE	228 150 34 235 690
2	DM	4.01	50	Solid	2	98	SOURCES	614
3	DM	1.1	75	Solid	2	98	NITRATES IN CONCRETE	TH32 UE38

SHIPMENT TOTALS

VOLUME Cu. Ft.	TOTAL # OF PACKAGES	SOURCE MATERIAL Kgs	SPECIAL NUCLEAR MATERIAL (Grams)			
			U-233	U-235	PLUTONIUM	TOTAL
5.79	3					

SUPPLIES DELIVERED:

NOTE #1 - Waste Description Codes. Choose up to THREE. Select those which are predominant by volume. Use the most SPECIFIC Code(s) available.

CODE (Solids)	CODE (Semi Solids)
1. Dry Solid	12. Radioactive Organic Semi Solids
2. Dewatered Resins	13. Radioactive Bio-Degradable Semi Solids
3. Solidified Resins	14. De-Regulated Bio-Degradable Semi Solids
4. Compacted Dry Active Waste	15. De-Regulated Organic Semi Solids
5. Non-Compacted Dry Active Waste	16. Radioactive Organic Bulk Semi Solid
6. Treated Liquids	17. De-Regulated Organic Bulk Semi Solid
7. Solidified Liquids	18. Radioactive Bio-Degradable Bulk Semi Solid
8. Sorbed Aqueous Liquid	19. De-Regulated Bio-Degradable Bulk Semi Solid
9. Sorbed Non-Aqueous Liquid	20. CODE (Misc.)
10. Aqueous Liquids in Vials in Sorbent	21. Gas
11. Solidified Oil	22. Other
12. CODE (Biological)	
13. Biological (Non-Carcinogenic Waste)	
14. Animal Carcasses in Litter and Sorbent	

RECEIVED AT ADCO SERVICES, INC. ON: _____

NOTE #2 - Sorbent, Solidification, Stabilization Media Codes. CODE 98 = "NONE REQUIRED". Choose up to THREE. Select those which are predominant by volume. See disposal.

CODE (Sorption)	CODE (Sorption)	CODE (Sorption)	CODE (Solidification)
1. Florco X	21. Florco X	20. Petrosol	11. Dow Media
2. Speedi On	22. Opasol	30. Petrosol II	12. Concrete (Struc)
3. Celcon	23. Solid-A-Sorb	31. Aquasol	13. Dewatered Cust
4. Finor Dry/Superfines	24. Chemil 30	32. Aquasol II	14. Environments
5. Hi-Dri	25. Chemil 50	33. Safe-T-Sol	15. Aqueous (Gen)
6. Instant Dri	26. Chemil 3000	34. Safe-T-Sol	16. Aqueous (Gen)
7. Safe-T-Sorb	27. Dicapen HP250	35. Dicapen Decarb	17. Aqueous (Gen)
8. Safe-N-Dri	28. Dicapen HP500	36. Other Sorbent	18. Bitumen (ATI)
9. Florco		(Specify)	19. Chem-Nuclear

WASTE DISPOSAL MANIFEST

P.O. BOX 1129 • TINLEY PARK, IL 60477 312-429-1660

TOTAL FOR EACH CLASS		REPORTABLE QUANTITY NAME (If any)	PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
# OF PACKAGES	WEIGHT (POUNDS)			
3	150		Radioactive Material, fissile, n.o.s. - Radioactive Material	UN2918
			Radioactive Material, low specific activity, n.o.s. - Radioactive Material	UN2912
			Radioactive Material, n.o.s. - Radioactive Material	UN2982
			Radioactive Material, limited quantity, n.o.s. - Radioactive Material	UN2910
			Radioactive Material, special form, n.o.s. - Radioactive Material	UN2974
			Radioactive Material, instruments and articles - Radioactive Material	UN2911
			Uranyl Acetate (RD-5000/2270) - Radioactive Material	NA9180

Also Available On Aperture Card

(18) Activity	(19) Special Nuclear Material (Grams) (D.O.E. 241 Required)	(20) Source Material (Kilograms)	(21) Waste Form Class	(22) Stability Class	Radiation Levels mR / HR			(26) Transport Index	(27) Radioactive Class	(28) D.O.T. Label 49CFR173.444
					(23) Disposal Container Surface	(24) Reserved for ADO Use Only	(25) Disposal Container At 1 Meter			
Curies Millicuries 10CFR20.311										
			AU		.25		.04	.1		Radioactive - YELLOW
										Radioactive - YELLOW
										Radioactive -
										Radioactive -
										Radioactive -
			AU		.04		.01			Radioactive - WHITE
										Radioactive -
			FU		.04		.01			Radioactive - WHITE
										Radioactive -
										Radioactive -

ACTIVITY

ACTIVITY TOTALS	TRITIUM	C-14	Tc-99	I-129	ALL ISOTOPES
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries					SEE ABOVE

BY: _____

Site license for limitations on each media:

CODE (Solidification)	CODE (Stabilization)	CODE (Stabilization)
38: 100mm Grout	41: Asbest (General Electric)	47: LN Technologies Cement
39: Portland 1 and 2	42: Oakwood Blasting	48: Stock Equipment Center
40: Salt-T Set	43: AT & Waste Chem	49: Westinghouse-Helm
41: Other Solidification Media (Specify)	44: Chem-Nuclear Cement	Cement
	45: Concrete (2500 psi)	57: Other Stabilization Media (Specify)
	46: Dow Media (Vinyl Ester Styrene)	

Customer represents and warrants that data set forth in the Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Generator Signature

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Authorized Signature

Title

9302110 450-01



PAVED AREA

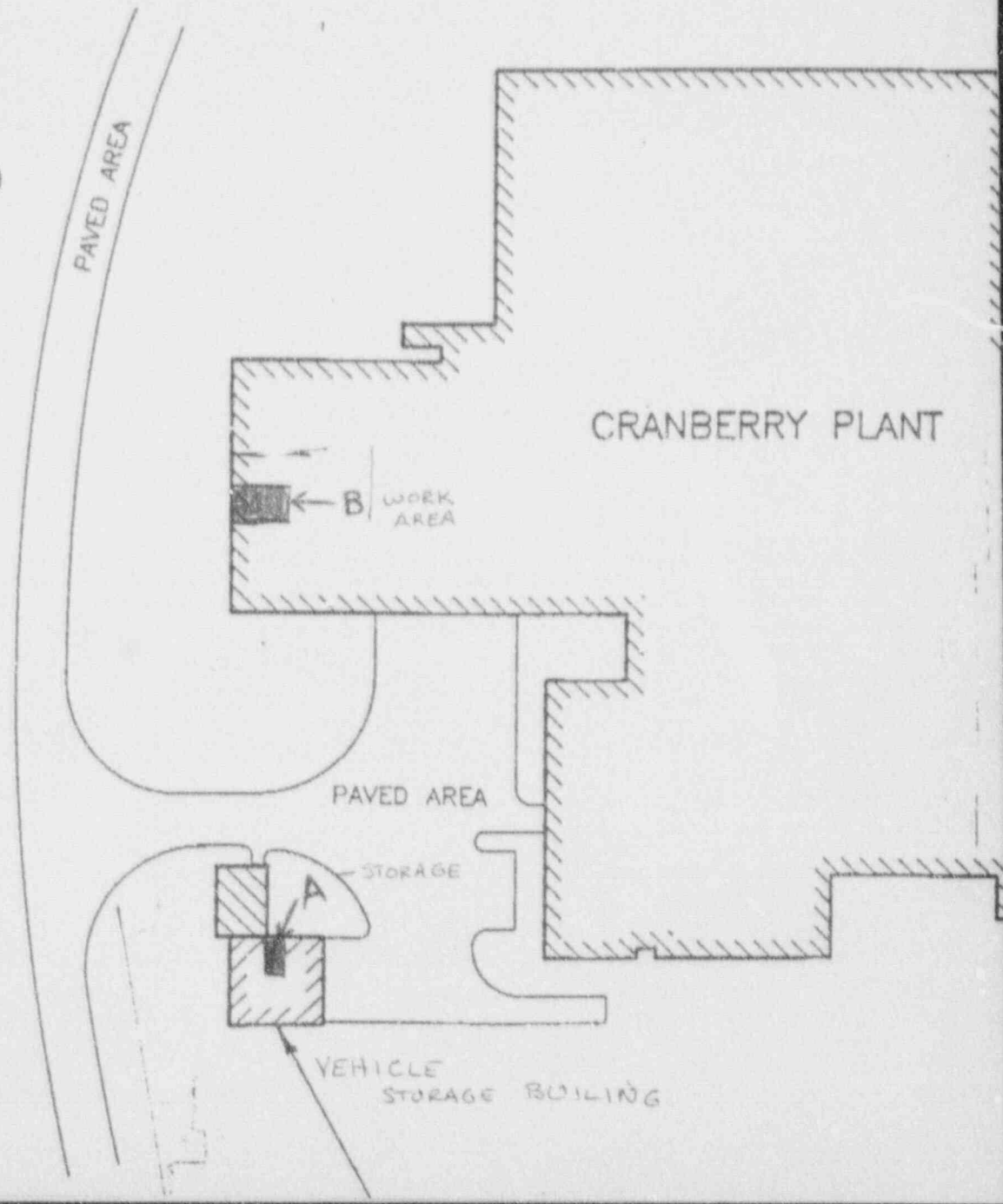
CRANBERRY PLANT

← B | WORK AREA

PAVED AREA

STORAGE

VEHICLE STORAGE BUILDING

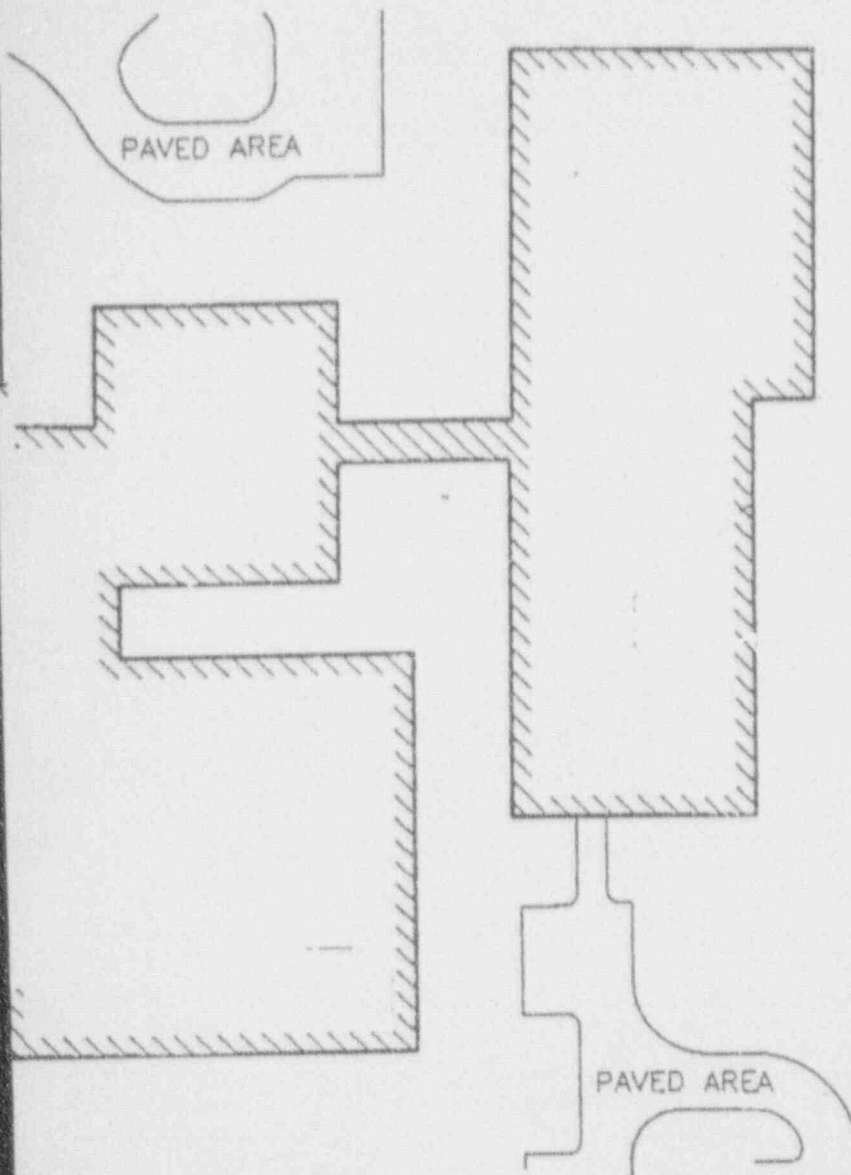


AUG 31 '92 9:58

FROM SA INSTRUMENT DIV.

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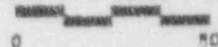
LAYOUT
FOR PLANT.



SI
APERTURE
CARD

Also Available On
Aperture Card

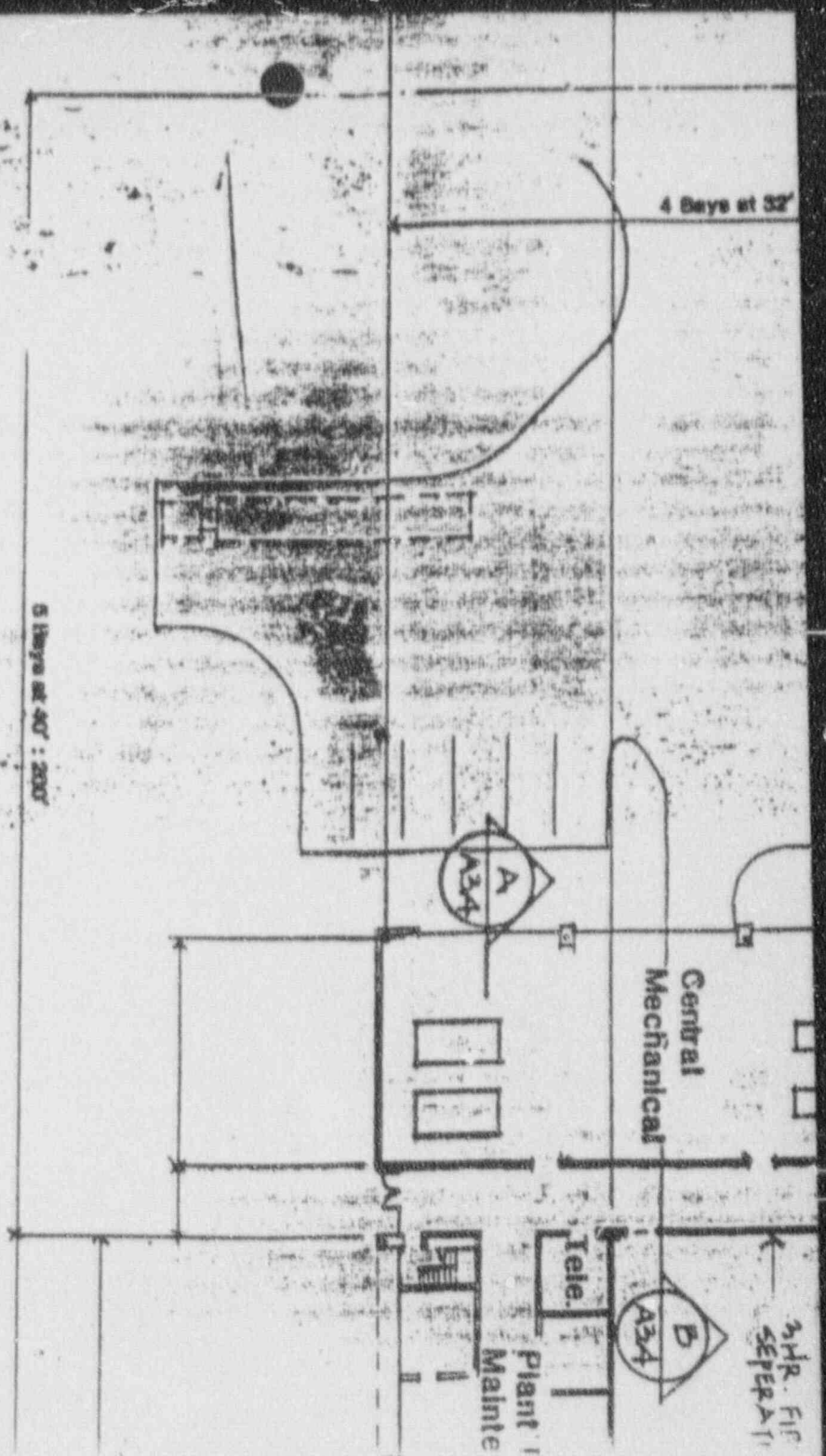
APPROXIMATE SCALE - FT

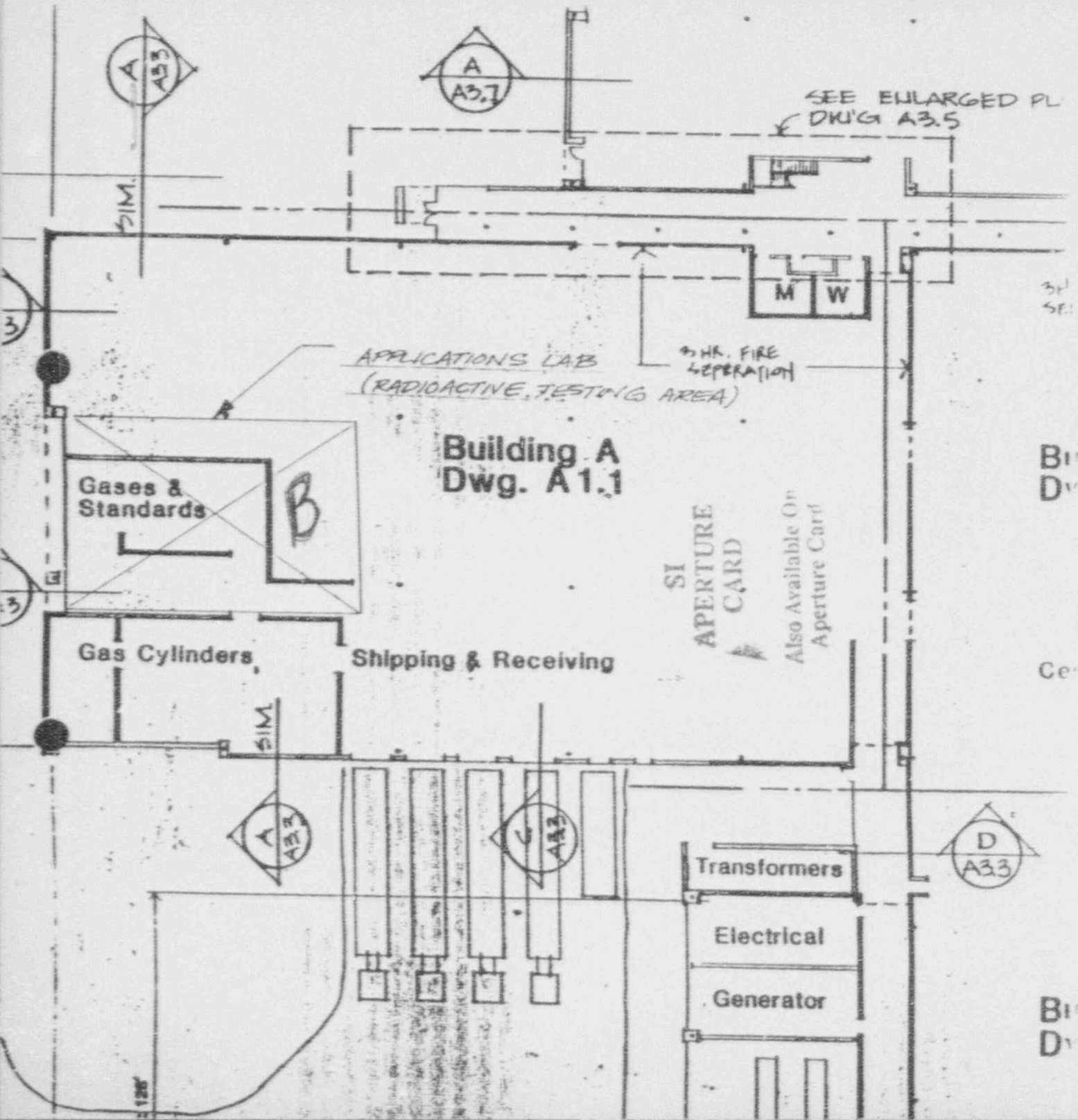


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REVISION	DATE	DESC

9302110450-03





9302110450-4

116469

OFFICIAL RECORD COPY ML 10



Mine Safety Appliances Company • P.O. Box 429 • Pittsburgh, PA 15230
Telephone: (412) 538-3510

MS 16

Q7

030-15060
37-00261-04

May 29, 1992

Keith Brown
MAIL CONTROL NO. 116469
475 Allendale Road
King of Prussia, PA 19406

Dear Mr. Brown,

As per our phone conversation on May 28, 1992, enclosed you will find a copy of the building diagram. The Americium-241 sources will be locked in storage area #124 in building 46. This is a document storage vault with restricted access. The room will have signs posted and the area inside the room will be labelled at site of storage.

The sources will be leak tested before shipment and receipt. They will also be leak tested before being placed in service.

Use of sources will be limited to authorized personnel only, as called out in our license.

A copy of the Maryland license is also enclosed.

A copy of the source registration application will be sent under separate cover. If you do not receive it within a week please call me.

If you have any questions or desire additional information please call me at (412) 538-3510, extension 4753.

Thanking you in advance.

Sincerely yours,

Mary T. McGinley
Radiation Safety Officer

enclosure

12:21 2-NOV 92

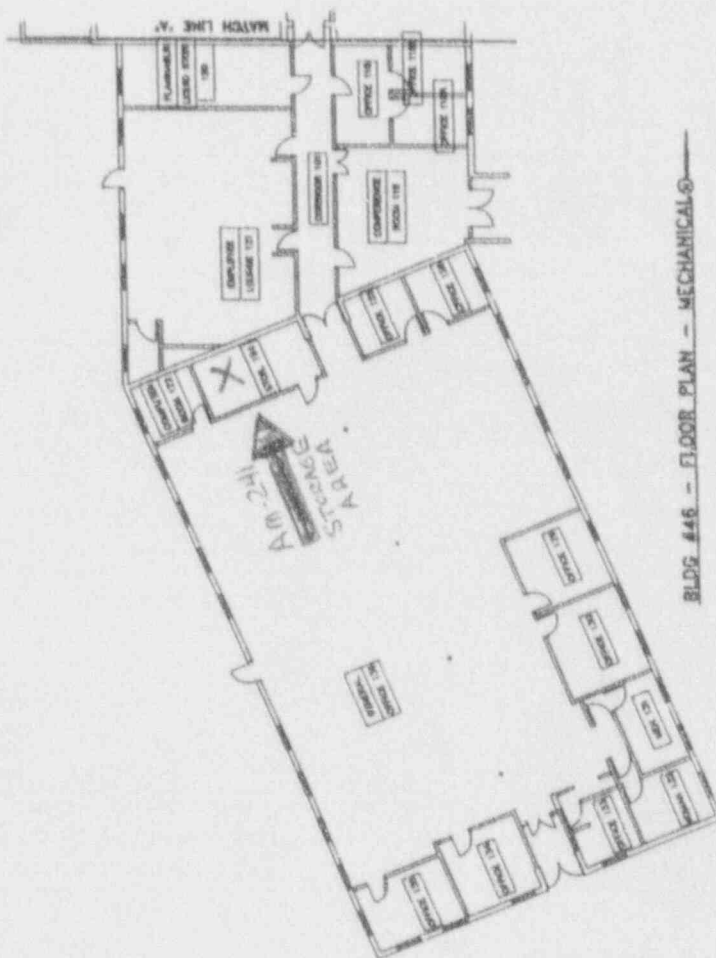
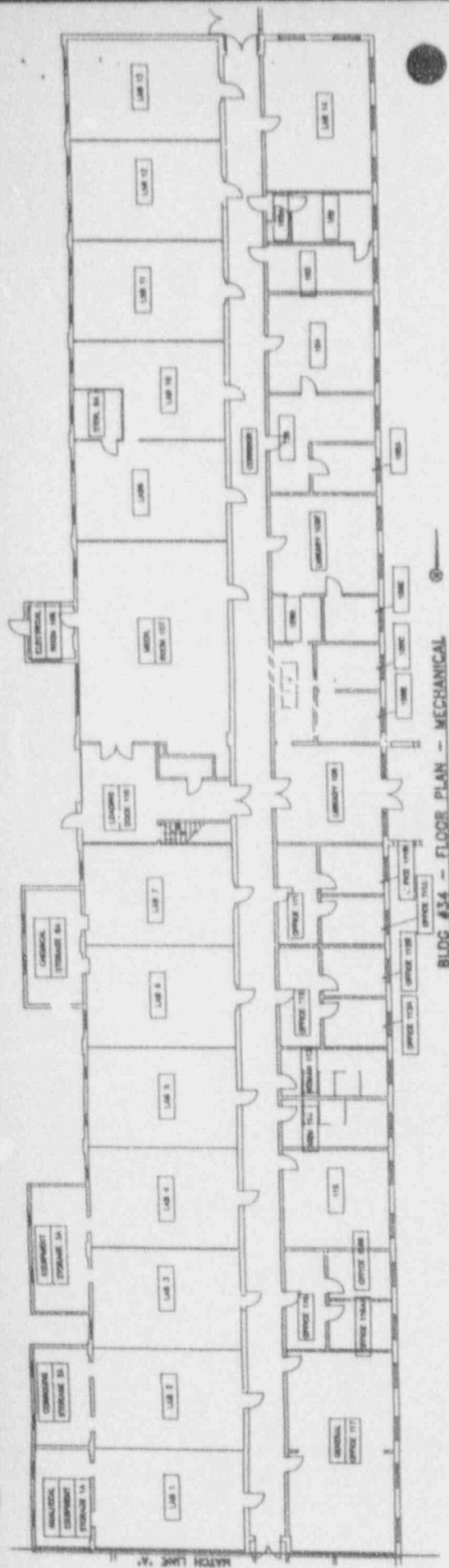
RECEIVED-REGION I

116469

JUN 02 1992

LOCATION: Mars-Evans City Road • Evans City, PA 16033

OFFICIAL RECORD COPY ML 10





DEPARTMENT OF THE ENVIRONMENT
ASSISTANT SECRETARIAT FOR
TOXICS, ENVIRONMENTAL SCIENCE AND HEALTH
CENTER FOR RADIOLOGICAL HEALTH
RADIOACTIVE MATERIAL LICENSE

Page 2 of 3 pages

Supplementary Sheet

License No. MD-05-107-01

Amendment No. NEW

CONDITIONS

10. The authorized place of use is the licensee's address stated in Item 2.
11. A. The radiation protection program shall be under the supervision of Paul Bachman.
B. Radioactive material shall be used by, or under the supervision of Paul Bachman.
12. The licensee shall comply with provisions of Part D, "Standards for Protection Against Radiation" and Part J, "Notices, Instructions and Reports to Workers; Inspections" of the Maryland Regulations 26.12.01.01 "Regulations for Control of Ionizing Radiation".
13. A. Each sealed source containing radioactive 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 6 months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, the sealed source shall not be put into use until tested. If there is reason to suspect that a sealed source might have been damaged, or might be leaking, it shall be tested for leakage before further use.
B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of a device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate.
C. Records of leak tests shall be kept in units of microcuries and maintained for inspection by the Department.
D. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Administrator, Center for Radiological Health, 2500 Broening Highway, Baltimore, Maryland 21224 describing the equipment involved, the test results, and the corrective action taken.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date _____

ADMINISTRATOR, CENTER FOR RADIOLOGICAL HEALTH



DEPARTMENT OF THE ENVIRONMENT
ASSISTANT SECRETARIAT FOR
TOXICS, ENVIRONMENTAL SCIENCE AND HEALTH
CENTER FOR RADIOLOGICAL HEALTH
RADIOACTIVE MATERIAL LICENSE

Page 3 of 3 pages

Supplementary Sheet

License No. MD-05-107-01

Amendment No. NEW

CONDITIONS CONT'D

- E. Test for leakage and/or contamination shall be performed by Radiation Service Organization, Inc. or by other persons specifically authorized by the Department, the U.S. Nuclear Regulatory Commission or another Agreement State to perform such services.
14. Sealed sources containing radioactive material shall not be opened.
15. operations involving handling of the radioactive source during insertion and/or removal shall only be performed by the Radiation Safety Officer and witnessed by the General Manager.
16. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material authorized by this license in accordance with statements representations, and procedures contained in application dated July 12, 1989 and letters with attachments dated July 18, 1989 and July 21, 1989. COMAR 26.12.01.01 "Regulations for Control of Ionizing Radiation" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date August 1, 1989

CRF/amc

Robert H. Fletcher
ADMINISTRATOR, CENTER FOR RADIOLOGICAL HEALTH



DEPARTMENT OF THE ENVIRONMENT
ASSISTANT SECRETARIAT FOR
TOXICS, ENVIRONMENTAL SCIENCE AND HEALTH
CENTER FOR RADIOLOGICAL HEALTH
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-05-107-01

Amendment No. 02

Catalyst Research
Division of Mine Safety Appliances Company
3706 Crondall Lane
Owings Mills, Maryland 21117

In accordance with letter dated July 31, 1990 Radioactive Material License Number MD-05-107-01 is amended to read:

Item 8A: Two sources; 86.2 millicuries each

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date August 7, 1990

Robert H. Fletcher
ADMINISTRATOR, CENTER FOR RADIOLOGICAL HEALTH

IRF/amc

DER-L1 (supp.) (3/88)

DEPARTMENT OF THE ENVIRONMENT
ASSISTANT SECRETARIAT FOR
TOXICS, ENVIRONMENTAL SCIENCE AND HEALTH
CENTER FOR RADIOLOGICAL HEALTH
RADIOACTIVE MATERIAL LICENSE

License No. MD-05-107-01

Supplementary Sheet

Page 1 of 1 pages

Amendment No. 03

Catalyst Research
Division of Mine Safety Appliances Co.
3706 Crondall Lane
Owings Mills, Maryland 21117

In accordance with letter dated September 18, 1990 Radioactive Material License Number
MD-05-107-01 is amended to read:

Condition 11:

11. A. The radiation protection program shall be under the supervision of Alan A. Schneider,
Ph.D.
- B. Radioactive material shall be used by, or under the supervision of Jeffrey Sigl,
Ph.D.

September 21, 1990

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Roland H. Fletcher
ADMINISTRATOR, CENTER FOR RADIOLOGICAL HEALTH

amc *GR7*
(supp.) (3/88)



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-05-107-01

Amendment No. 04

Catalyst Research
Division of Mine Safety Appliances Company
3706 Crendall Lane
Owings Mills, MD 21117

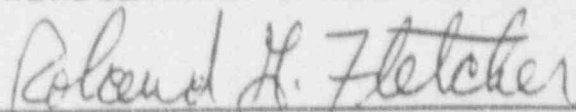
In accordance with letter dated March 1, 1991 Radioactive Material License Number
MD-05-107-01 is amended to read:

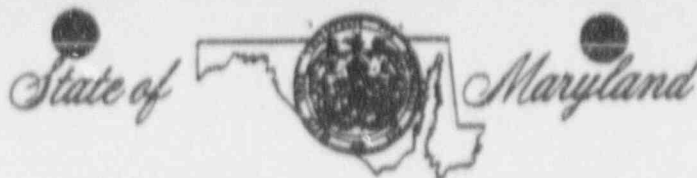
Item 8A: Three sources, each 86.2 millicuries
Distribution of source requested is authorized.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date April 1, 1991

CRF/amc


ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-05-107-01

Amendment No. 05

Catalyst Research
Division of Mine Safety Appliances Company
3706 Crondall Lane
Owings Mills, Maryland 21117

In accordance with letter dated August 20, 1991, Radioactive Material License Number MD-05-107-01 is amended to read:

CONDITION 11A:

11.A. The radiation protection program shall be under the supervision of Jeffrey Sigl, Ph.D.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date August 29, 1991
CRF/dpw

CWBSanta, Jr
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

BR



CATALYST RESEARCH

A DIVISION OF MINE SAFETY APPLIANCES COMPANY

MEMORANDUM

TO: File

FROM: Jeff Sigl

Re: Sealed Source Serial Number Discrepancy

The sealed ^{241}Am source received from Tesla (invoice date 6/5/89) bears serial number 8587. There is a discrepancy between the serial number on the sealed source itself, which is 8587, and the serial number on the accompanying certificate of sealed source, which bears serial number 8646.

CERTIFICATE
of sealed radioactive source

Nr. 265-89-20-3320

Radioisotope ^{241}Am
Chemical form ANGX 50
Activity 3,29 GBq to the date X/89
Production number and mark 8654

Low energy gamma source with ^{241}Am ; photon output 60 keV
 $4,53 \cdot 10^7 \text{ s}^{-1} \text{ sr}^{-1}$

Sealing technique for radioactive source welded in steel capsule

Overall dimensions of the sheath of source $\varnothing 12 \text{ mm}$, height 6 mm

Material and total screenage stainless steel total wall thickness 0,8 mm
thickness of window 0,3 mm

Dimensions and placing of radioactive material cell

The capsule contain silver shield with active enamel

Type and results of leakage and surface contamination tests

Immersion and wipe test with negative result

Note ISO C-64344 class

Consigned to Mine safety appliances, C.O. PITSBURG, USA

Prague 20.10.1989

chief of department

CERTIFICATE
of sealed radioactive source

Nr. 264-89-20-3320

Radioisotope ^{241}Am

Chemical form ANGX 50

Activity 3,43 GBq to the date X/89

Production number and mark 8651

Low energy gamma source with ^{241}Am ; photon output 60 keV
 $4,72 \cdot 10^7 \text{ s}^{-1} \text{ sr}^{-1}$

Sealing technique for radioactive source welded in steel capsule

Overall dimensions of the sheath of source $\varnothing 12 \text{ mm}$, height 6 mm

Material and total screenage stainless steel total wall thickness 0,8 mm
thickness of window 0,3 mm

Dimensions and placing of radioactive material cell

The capsule contain silver shield with active enamel

Type and results of leakage and surface contamination tests

Immersion and wipe test with negative result

Note ISO C-64344 class

Consigned to Mine safety appliances, C.O. PITSBURG, USA

Prague 20.1C.1989

chief of department

CERTIFICATE
of sealed radioactive source

Nr. 141-89-20-3320

Radioisotope ^{241}Am

Chemical form ANGX 50

Activity 3.19 GBq to the date VI/1989

Production number and mark 8646

Low energy gamma source with ^{241}Am ; photon output 60 keV
 $4.39 \cdot 10^7 \text{ s}^{-1} \text{ sr}^{-1}$

Sealing technique for radioactive source welded in steel capsule

Overall dimensions of the sheath of source $\varnothing 12 \text{ mm}$, height 6 mm

Material and total screenage stainless steel total wall thickness 0.8 mm
thickness of window 0.3 mm

Dimensions and placing of radioactive material cell The capsule No. CS 8587

The capsule contain silver shield with active enamel

Type and results of leakage and surface contamination tests

Immersion and wipe test with negative result

Note ISO C-64344 class ~~condemned~~

Consigned to Mine safety appliances Co. Pittsburg, USA

Prague

chief of department

ČSTAV PŘI VÝKUM.
VÝROB. A VYUŽITÍ RADIOISOTOPŮ
RAD. JVA 1, PRAHA 10 - HOŠTIVÁŘ
6

CONVERSATION RECORD

TIME

1:40 p.m.

DATE

5/28/92

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Mary McGinley

ORGANIZATION (Offic. descr. Surges. etc.)

Mine Safety Appliance Co.

TELEPHONE NO.

(412) 538-3510

x 4753

SUBJECT

Receiving sources from Maryland

SUMMARY

Test

Ms. McGinley will send the following:

- 1) Description of how the sources will be stored at Evans City facility
- 2) Material for registration of the source

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Keith D. Brown

Keith D. Brown

5/28/92

ACTION TAKEN

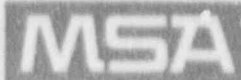
OFFICIAL RECORD COPY ML 10

116469

SIGNATURE

TITLE

DATE



030-15060

Mine Safety Appliances Company • P.O. Box 429 • Pittsburgh, PA 15230

Telephone: (412) 538-3510

LICENSE NO. 37-00261-04

April 6, 1992

United States Nuclear Regulatory Commission Region 1
Nuclear Materials Safety Section B
475 Allendale Road
King of Prussia, PA 19406

Gentlemen:

The purpose of this letter is to request an amendment to material
License No. 37-00261-04.

Please expedite these changes due to a division of MSA in Owings
Mill, Maryland closing and its relocation to Pittsburgh, Pa.

The material at present is controlled under Maryland License No.
MD-05-107-01.

Section 6 - Increase possession limit as follows.

Section 6D - Americium-241

Section 7D - Sealed source (MSA ion chambers) (Institute for
research, production, and use of radioisotopes, Prague,
Czechoslovakia, Model ANGX-50.

Section 8D - Not to exceed 86.2 millicurie each, total 300
millicurie.

Section 9D - Storage and/or use in regiopulmotest, Model NA 3703,
for regional lung function diagnostic examinations of humans but
used by licensee to test the device in a program which will not use
either humans or animals.

Log	April 12
Remitter	
Check No.	552145
Amount	\$ 2.00
Fee Category	30
Type of Fee	AND
Date Check Rec'd	4/30
Date Completed	4/14/92
By:	[Signature]

11:11 APR 10 1992

RECEIVED-REGION 1

116469

APR 10 1992

LOCATION: Mars-Evans City Road • Evans City, PA 16033

OFFICIAL RECORD COPY ML 10

I. PROCEDURES FOR THE SAFE USE OF THE REGIOPULMOTEST

- A. The regiopulmotest is a diagnostic device for examination of regional lung function. MSA will use the device on an engineering test program.

NO TESTING OR RESEARCH WILL BE DONE USING HUMANS OR ANIMALS.

- B. The regiopulmotest will only be operated in areas of MSA's facility in Evans City as approved by the RSO.
- C. A radiation safety survey will be conducted of the radiation levels around the vicinity of the device when it is first made operational. The shutter/diaphragm mechanism will also be inspected for proper operation along with indicator lights showing the shutter position.
- D. The ²⁴¹Am source will be removed and stored in its original shipping container during maintenance which requires dismantling of the stand.
- E. Avoid the radiation beam during exposures (i.e., when shutter is open).
- F. A warning sign "CAUTION RADIATION AREA" will be posted if the doors or entrances leading to any operational device.

The expected exposure rates from an unshielded source at 30 cm (1 ft) are approximately 20 mR/h.

II. DOSIMETRY

- A. Whole body exposures will be evaluated with film badges or TDL's on a monthly exchange basis. If needed, direct reading ionization chamber dosimeters will be used for short durations (e.g., visitors).
- B. Doses to the extremities will be evaluated with TLD ring badges when necessary. These will also be exchanged monthly.

III. DISPOSAL OF RADIOACTIVE MATERIALS

No waste disposal is anticipated under the scope of this license. Should the source become obsolete, return to the manufacturer will be attempted. If this is not possible, the source will be disposed of by transfer to a licensed reprocessing or disposal facility. The services of a licensed radioactive waste broker such as ADCO may be employed.

IV. OTHER PROCEDURES

A. Instructions to ancillary personnel.

All personnel visiting or frequenting any portion of the restricted area will receive instructions concerning hazards of the area, appropriate responses to warning, and their responsibility to report violations.

The extent of these instructions shall be commensurate with potential radiological health protection problems in the restricted area.

B. Physical security of the restricted area.

The access to the restricted area will have locked doors or will have another suitable barrier to prevent entry by unauthorized personnel. The main entrance, or access will be attended when not closed and locked.

Visitors will be escorted when in restricted areas and personnel have the right to challenge unfamiliar persons as to their identity and reasons for being in restricted areas.

V. PROCEDURES FOR INSTALLATION/REMOVAL OF ^{241}Am SOURCES IN REGIOPULMOTEST DEVICES

A. Pre-Inspection of the source Box

1. Remove the back of the source box.
2. Rotate the "stepper" and remove it from the source box.
3. Remove packing material from the source box.
4. Check the operation and movement of the diaphragm and the shutter.

B. Transfer of Sealed Source from Shipping Container to Source Box

1. Inspect the package wipe test results. MSA's limit for external contamination is 20 dpm/100cm² (alpha).
2. Sources that have not been leak tested within the past 6 months must be leak tested at this time.
3. Open the package and using forceps carefully pick up and insert the source into the source holder.
4. Replace the "stopper" removed previously.

5. Close and LOCK the box. The source must always be kept in a locked container. The RSO will hold the keys to this lock.
6. Conduct a radiation survey and record the results. The survey report must be provided to the RSO.
7. Close the shipping container and mark with an "EMPTY" label. Store the container for possible re-use.

C. Removal Procedures

1. Remove the source from the source box in the reverse order of the installation procedures.
2. Store the source only in its original shipping container.
3. Label the shipping container "CAUTION RADIOACTIVE MATERIAL".
4. Label the source box "EMPTY".
5. Survey the package and record the results. The survey report must be filed with the RSO.

VI. STORAGE OF SOURCE MATERIAL

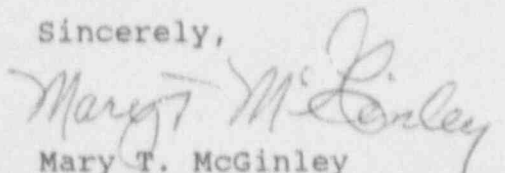
Storage of source material not in use will be in a secure area with access to authorized personnel only.

All other sections of the license will remain the same.

Enclosed find the fee for amending license classification 3P of \$380.00.

If there are any question or any additional information is needed please contact me at (412) 538-3510, extension 4745.

Sincerely,


Mary T. McGinley
Radiation Safety Officer

116469

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 03123
STATUS CODE: 0
FEE CATEGORY: 3P
EXP. DATE: 19950630
FEE COMMENTS: 3M & 3N DEL 6/9/90
DECOM FIN ASSUR REQD: N
=====

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: MINE SAFETY APPLIANCES CO.
RECEIVED DATE: 920410
DOCKET NO: 3015060
CONTROL NO.: 116469
LICENSE NO.: 37-00261-04
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: \$380.00
CHECK NO.: 250445

3. COMMENTS

SIGNED
DATE

M. A. Berlin
4/15/92

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1 1)

1. FEE CATEGORY AND AMOUNT: 3P \$380

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT ✓
RENEWAL -----
LICENSE -----

3. OTHER -----

SIGNED
DATE

B. B. B. B.
4/15/92