

MATERIALS LICENSE

Amendment No. 17

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.

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<p>Licensee</p> <p>1. Allied-Signal Incorporated</p> <p>2. P. O. Box 1057 101 Columbia Road Morristown, New Jersey 07962</p>		<p>In accordance with the application dated September 30, 1996,</p> <p>3. License Number 29-00040-10 is amended in its entirety to read as follows:</p>	
		<p>4. Expiration Date September 30, 2003</p>	
		<p>5. Docket or Reference No. 030-11981</p>	
<p>6. Byproduct, Source, and/or Special Nuclear Material</p> <p>A. Any byproduct material with atomic numbers 3 through 83 with half-lives less than or equal to 120 days</p> <p>B. Hydrogen 3</p> <p>C. Carbon 14</p> <p>D. Phosphorus 32</p> <p>E. Nickel 63</p> <p>F. Cadmium 109</p> <p>G. Iron 55</p> <p>H. Iron 55</p> <p>I. Americium 241</p>	<p>7. Chemical and/or Physical Form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Any</p> <p>E. Foils or plated sources</p> <p>F. Sealed sources</p> <p>G. Sealed sources</p> <p>H. Sealed sources</p> <p>I. Sealed sources</p>	<p>8. Maximum Amount that Licensee May Possess at Any One Time Under This License</p> <p>A. Not to exceed 20 millicuries per radionuclide and 2 curies total</p> <p>B. 200 millicuries</p> <p>C. 50 millicuries</p> <p>D. 50 millicuries</p> <p>E. Not to exceed 15 millicuries per source and 90 millicuries total</p> <p>F. Not to exceed 45 millicuries per source and 50 millicuries total</p> <p>G. Not to exceed 45 millicuries per source and 45 millicuries total</p> <p>H. Not to exceed 20 millicuries per source and 20 millicuries</p> <p>I. Not to exceed 10 millicuries per source and 10 millicuries total</p>	

9. Authorized use

- A. through D. Research and development as defined in 10 CFR 30.4.
- E. For use in gas chromatographs.
- F. and G. For possession and use in Kay Ray, Accuray, Ohmart, LFE or Texas Nuclear devices which have been evaluated and approved for licensing purposes under a license issued by the Nuclear Regulatory Commission or an Agreement State.
- H. and I. For use in a Panametrics, Inc. Panalyzer 4000 gauging device.

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PDR ADOCK 03011981  
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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

29-00040-10

Docket or Reference Number

030-11981

Amendment No. 17

CONDITIONS

10. Licensed material may be used only at licensee's facilities at 101 Columbia Road, Morristown, New Jersey and Allied-Signal-EMS, Metglas Products, 6 Eastmans Road, Parsippany, New Jersey.
11. A. Licensed material shall be used by, or under the supervision of, individuals designated by the licensee's Radiation Safety Committee, Paul E. Stidham, Chairman.  
B. The Radiation Safety Officer for this license is Paul E. Stidham.
12. Licensed material shall not be used in or on human beings.
13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
14. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three 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 three months.  
C. In the absence of a certificate from a transferor indicating that a leak 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 radioactive 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

29-00040-10

Docket or Reference Number

030-11961

Amendment No. 17

- F. 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, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five 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 or detector cell involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by 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.
15. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
16. Maintenance, repair, cleaning, replacement and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the U. S. Nuclear Regulatory Commission or an Agreement State to perform such services.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. This license does not authorize commercial distribution of licensed material.
19. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
20. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
21. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days for decay-in-storage before disposal in ordinary trash, provided:
- A. Waste to be disposed of in this manner shall be held for decay a minimum of ten half-lives.
- B. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

29-00040-10

Docket or Reference Number

030-11981

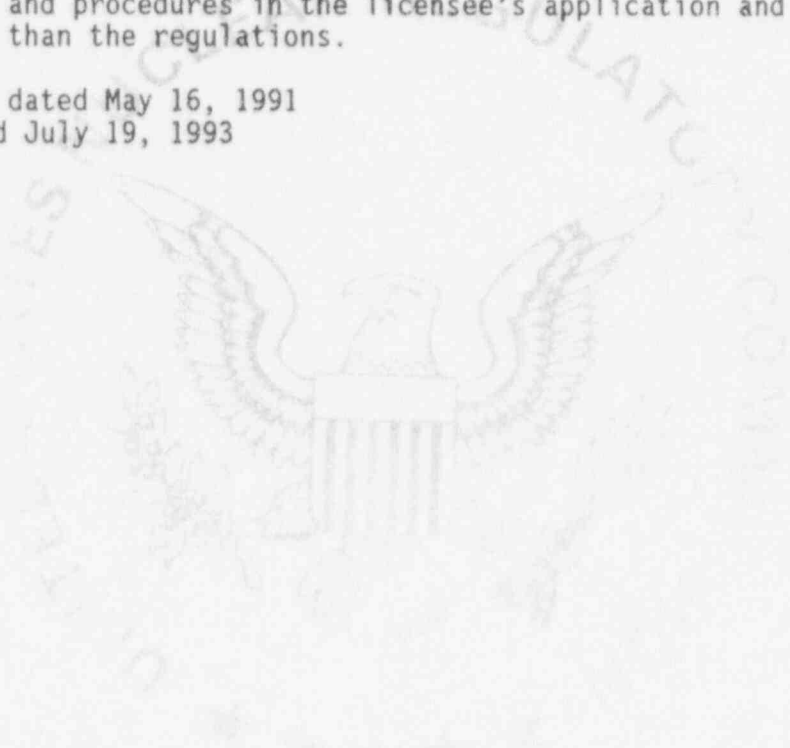
Amendment No. 17

C. A record of each such disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

22. 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 May 16, 1991

B. Letter dated July 19, 1993



DEC 10 1996

Date \_\_\_\_\_

For the U.S. Nuclear Regulatory Commission

Original Signed By:

By

John D. Kinneman

Nuclear Materials Safety Branch  
Region I

King of Prussia, Pennsylvania 19406

DEC 10 1996

Paul E. Stidham  
Manager  
Health, Safety and Environment  
Allied-Signal Incorporated  
P.O. Box 1057  
101 Columbia Road  
Morristown, NJ 07962

Dear Mr. Stidham:

This refers to your license amendment request. Enclosed with this letter is the amended license. Please note that as part of this amendment, in accordance with 10 CFR 30.36, effective February 15, 1996, the expiration date of your license has been extended by a period of five years. The new expiration date is stated in Item 4 of the license.

Your amended license (Amendment 17) is written in a format that incorporates current regulatory requirements and NRC policy. It includes the following deletions/additions/revisions of certain conditions that appeared in Amendment 16 of your license:

- (1) Condition 14 is deleted. This condition is not necessary because you are not authorized to possess or use titanium tritide or scandium tritide foils.
- (2) Condition 15 is deleted. This condition is no longer necessary because of the changes in 10 CFR Part 20.
- (3) Condition 20 is deleted. This condition is no longer necessary because an operating waste disposal site is available to licensees. At such future time as access to a waste disposal facility becomes unavailable, you must apply for an amendment to your license requesting authorization for interim waste storage.
- (4) Three new conditions (17, 18 and 19) are added to your amended license.
- (5) Conditions 15 and 21 are revised versions of conditions 13 and 18, respectively, that appeared in Amendment 16 of your license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

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**ML 10**



P. Stidham  
Allied-Signal Inc.

-2-

Thank you for your cooperation.

Sincerely,

Original Signed By:  
John D. Kinneman

John D. Kinneman, Chief  
Nuclear Materials Safety Branch 2  
Division of Nuclear Materials Safety

License No. 29-00040-10  
Docket No. 030-11981  
Control No. 123763

Enclosure:  
Amendment No. 17

DOCUMENT NAME: R:\WPS\MLTR\L2900040.10

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/enci "E" = Copy w/ attach/enci "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI	N			
NAME	SLodhi		JKinneman				
DATE	10/16/96		10/21/96		10/ /96		10/ /96

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AlliedSignal Inc.  
P.O. Box 1057  
Morristown, NJ 07962-1057

030-11981

September 30, 1996

United States Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406-1415

Re: NRC Materials License No. 29-00040-10  
Docket No. 030-11981  
AlliedSignal, Inc., Morristown, NJ

Dear Sir or Madam:

This letter is to inform you of a minor change to the above referenced license. Condition 11.A. of the license indicates that the Chairman of the Radiation Safety Committee is E. J. Freeman. Mr. Freeman has now retired from AlliedSignal and Mr. Paul E. Stidham will assume his responsibilities as Chairman, Radiation Safety Committee in addition to his current responsibilities as Radiation Safety Officer. Condition 11.B. of the license which stipulates that Mr. Paul E. Stidham is the Radiation Safety Officer will therefore remain unchanged. Additional copies of Mr. Stidham's qualifications are not enclosed since these have been submitted to and approved by the NRC with the original license application.

Also, it is my understanding that the qualifications of new or additional individuals serving on the Radiation Safety Committee do not need to be sent to the NRC for approval as long as records of the individual's qualifications are maintained in our files for review during future NRC inspections.

If you have question or require additional information, I may be reached at (201) 455-5465.

Sincerely,

Paul E. Stidham  
Manager, Health, Safety and Environmental

22 OCT -3 12:25

RECEIVED

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123763

OCT - 3 1996

# LICENSE FEE REQUIREMENTS

LICENSE FEE AND DEBT COLLECTION BRANCH  
DIVISION OF ACCOUNTING AND FINANCE  
OFFICE OF THE CONTROLLER  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

ALLIEDSIGNAL, INC.  
ATTN: PAUL E. STIDHAM  
MANAGER, HEALTH, SAFETY & ENVIRONMENTAL  
P.O. BOX 1057  
MORRISTOWN, NJ 07962-1057

## TYPE OF ACTION

- ☐ NEW LICENSE  
☐ RENEWAL OF LICENSE  
☒ AMENDMENT TO LICENSE

REQUESTED DATE

9-30-96

LICENSE NUMBER

29-00040-10

CONTROL NUMBER

123763

## I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) listed below in accordance with Section 170.31 of the enclosed Federal Register notice. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
3L	\$	\$	\$ 660.00
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$

FEE(s) DUE \$ 660.00  
PAYMENT RECEIVED \$ 0.00  
AMOUNT DUE \$ 660.00

- ☒ Your request was received without the prescribed application fee.
- ☐ We received your Check No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_. Payment of the additional fee noted above is required.
- ☐ Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2).
- ☐ Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a).

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

## II. FEE NOT REQUIRED

- ☐ Enclosed is Check No. \_\_\_\_\_ which accompanied your request. The fee is not required because:
- ☐ We received your Check No. \_\_\_\_\_ in payment of the fee.
- ☐ The Licensing staff has informed us that your request is to be considered as a continuation of your request dated \_\_\_\_\_, Control No. \_\_\_\_\_.
- ☐ Your request was combined, prior to review, with your request, Control No. \_\_\_\_\_.

## III. CHECK RETURNED

- ☐ Enclosed is Check No. \_\_\_\_\_ which was returned to us by the bank for:
- ☐ INSUFFICIENT FUNDS
- ☐ ACCOUNT CLOSED
- ☐ OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

## IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

- ☐ License No. \_\_\_\_\_, Amendment No. \_\_\_\_\_, issued on \_\_\_\_\_, was issued without the required fee being collected. The fee required is noted in Section I of this form.
- ☐ The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section I of this form. Refer to Section 170.31 and Footnote 1(d)(2).
- ☐ Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section I of this form.

SIGNATURE -- LICENSE FEE ANALYST

LFDCB

LFDCB

BRENDA BROWN (301-415-6055)

BB/BA  
10/16/96

Distribution:

Region I LFARB R/F  
Pending OC/DAF R/F  
BBrown OC/DAF S/F (LF-3.2.7)

DATE

10-16-96



BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)  
INFORMATION FROM LTS  
-----

PROGRAM CODE: 03610  
STATUS CODE: 0  
FEE CATEGORY: 3L  
EXP. DATE: 20030930  
FEE COMMENTS: -----  
DECOM FIN ASSUR REQD: N  
.....

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED  
APPLICANT/LICENSEE: ALLIED-SIGNAL INC.  
RECEIVED DATE: 961003  
DOCKET NO: 3011981  
CONTROL NO.: 123763  
LICENSE NO.: 29-00040-10  
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: -----  
CHECK NO.: -----

3. COMMENTS

SIGNED Rebecca J. Brown  
DATE 10/5/96

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

1. FEE CATEGORY AND AMOUNT: 3L 8660

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:  
AMENDMENT -----  
RENEWAL -----  
LICENSE -----

3. OTHER -----  
-----

SIGNED -----  
DATE -----

Log	<u>Oct 3 1996</u>
No.	<u>0113957</u>
Int	<u>8660</u>
Fee Category	<u>3L</u>
Amount of Fee	<u>ARM</u>
Check Rec'd	<u>11/2/96</u>
Date Completed	<u>11/2/96</u>
By	<u>RL</u>