

MATERIALS LICENSE

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 July 11, 1996
1. U.S. Department of Transportation Federal Aviation Administration		3. License number 35-07014-01 is amended in its entirety to read as follows:
2. P.O. Box 25082 Oklahoma City, Oklahoma 73125		4. Expiration date March 31, 2003
		5. Docket or Reference No 030-05917
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. Strontium-90	A. Sealed sources (Interex Model 844-28-1)	A. 1.5 millicuries in three 0.5 millicurie sources
9. Authorized use:		
A. Instrument check sources.		

CONDITIONS

10. Licensed material shall be used only at the licensee's facility located at Department of Transportation's Civil Aeromedical Institute Building, Oklahoma City, Oklahoma.
11. A. Licensed material shall be used by, or under the supervision of, Wallace Friedberg, Ph.D.
B. The Radiation Safety Officer for this license is Wallace Friedberg, Ph.D.
12. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
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.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

35-07014-01

Docket or Reference Number

030-05917

Amendment No. 27

- C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
- D. Sealed sources 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 transferred 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.
- E. The leak 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 in accordance with 10 CFR 30(b)(2), and the source shall be removed immediately 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 IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Radiation Safety and Safeguards. The report shall specify the source involved, the test results, and corrective action taken.
- F. The licensee is authorized to collect leak test samples for analysis by Suntrac Services, Inc. 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. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.
14. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

**MATERIALS LICENSE
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Amendment No. 27

15. 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. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
 - B. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate meter 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.
 - C. A record of each disposal permitted under this License Condition shall be retained for 3 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.
16. 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 U.S. 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 August 20, 1979
 - B. Letter dated September 11, 1990
 - C. Letter dated December 7, 1990
 - D. Letter dated October 6, 1993
 - E. Facsimile received October 18, 1993
 - F. Letter dated July 11, 1996

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUL 25 1996

By M. C. Hernandez
Christi Hernandez
Nuclear Materials Safety Section
Region IV
Arlington, Texas 76011



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

July 25, 1996

U.S. Department of Transportation
Federal Aviation Administration
ATTN: Wallace Friedberg, Ph.D.
P.O. Box 25082
Oklahoma City, Oklahoma 73125

SUBJECT: LICENSE AMENDMENT

Please find enclosed License No. 35-07014-01, Amendment No. 27. You should review this license carefully and be sure that you understand all conditions. If you have any questions, you may contact the reviewer who signed your license at 817-860-8217.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public which can result from failure to comply with NRC requirements, you must conduct your program involving radioactive 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: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Possess radioactive material only in the quantity and form indicated in your license.
3. Use radioactive material only for the purpose(s) indicated in your license.
4. Notify NRC in writing of any change in mailing address (no fee required if the location of radioactive material remains the same).
5. Request and obtain written NRC consent before transferring your license or any right thereunder, either voluntarily or involuntarily, directly or indirectly, through transfer of control of your license to any person or entity. A transfer of control of your license includes not only a total change of ownership, but also a change in the controlling interest in your company whether it is a corporation, partnership, or other entity. In addition, appropriate license amendments must be requested and obtained for any other planned changes in your facility or program that are contrary to your license or contrary to representations made in your license application, as well as supplemental correspondence thereto, which are incorporated into your license. A license fee may be charged for the amendments if you are not in a fee-exempt category.

6. Maintain in a single document decommissioning records that have been certified for completeness and accuracy listing all the following items applicable to the license:
 - Onsite areas designated or formerly designated as restricted areas as defined in 10 CFR 20.3(a)(14) or 20.1003.
 - Onsite areas, other than restricted areas, where radioactive materials in quantities greater than amounts listed in Appendix C to 10 CFR 20.1001-20.2401 have been used, possessed, or stored.
 - Onsite areas, other than restricted areas, where spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site have occurred that required reporting pursuant to 10 CFR 30.50(b)(1) or (b)(4), including areas where subsequent cleanup procedures have removed the contamination.
 - Specific locations and radionuclide contents of previous and current burial areas within the site, excluding radioactive material with half-lives of 10 days or less, depleted uranium used only for shielding or as penetrators in unused munitions, or sealed sources authorized for use at temporary job sites.
 - Location and description of all contaminated equipment involved in licensed operations that is to remain onsite after license termination.
7. Submit a complete renewal application with proper fee, or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.
8. Request termination of your license if you plan to permanently discontinue activities involving radioactive material.

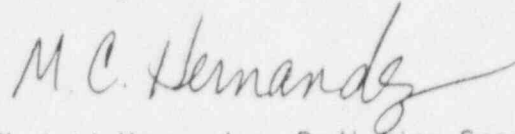
You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), 60 FR 34381, June 30, 1995.

U.S. Department of Transportation
Federal Aviation Administration

-3-

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "M. C. Hernandez". The signature is written in dark ink and is positioned above the typed name.

Christi Hernandez, Radiation Specialist
Nuclear Materials Licensing Branch

Docket: 030-05917
License: 35-07014-01
Control: 466132

Enclosures: As stated

JUL 25 1996

U.S. Department of Transportation
Federal Aviation Administration

-4-

DOCUMENT NAME: G:\NMLS.O\MCH\35-07014.MLC

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

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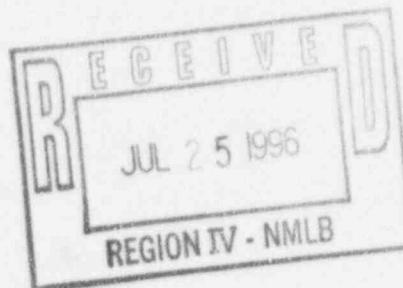
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Department
Transportation
Civil Aviation
Administration

Mike Monroney
Aeronautical Center

P.O. Box 25082
Oklahoma City, Oklahoma 73125



JUL 25 1996

Mr. Hernandez
Nuclear Regulatory Commission
An Plaza Drive, Suite 400
Houston, TX 76011

SUBJECT: Request to exclude phosphorus-32 from byproduct material
license 35-07014-01

Mr. Hernandez:

P-32 in our possession was disposed of by decay, as verified with a survey meter on
July 12, 1994. We have not received any P-32 since then.

Sincerely,

A handwritten signature in cursive script that reads "Bruce Friedberg".

Bruce Friedberg, Ph.D.
Regional Safety Officer, AAM-624

TOTAL P.02

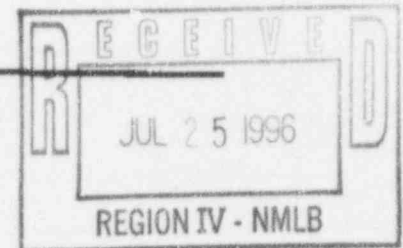
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Mike Monroney
Aeronautical Center

P.O. Box 25082
Oklahoma City, Oklahoma 73125

Facsimile Cover Sheet



To: Christie Hernandez
Company: U.S. Nuclear Regulatory Commission

Phone:
Fax: 817-860-8263

From: Wallace Friedberg, Ph.D.
Company: Radiation Safety Officer, AAM-610
Phone: 405-954-6276
Fax: 405-954-1010

Date: 7/25/96
Pages including this cover page: 2

Subject: Request to exclude phosphorus-32 from byproduct
material license 35-07014-01.

7/25/96
Original will follow in mail.
MCH.

CONVERSATION RECORD

DATE: July 19, 1996

NAME OF PERSON CONTACTED: Wallace Friedberg, Ph.D.
ORGANIZATION: Dept. Transportation, FAA, Oklahoma City, OK
TELEPHONE: 405-954-6276

LICENSE: 35-07014-01
DOCKET: 030-05917
CONTROL: 466132

SUMMARY: In order to compete the amendment requested by letter dated July 11, 1996, we need the following information: a statement describing the disposal or transfer of any P-32 possessed under the license.

Dr. Friedberg agreed to send such a statement. P-32 has been decayed-in-storage in accordance with license condition 15. Last disposal occurred in 1994. No shipments of P-32 have been received since the last disposal.

NAME OF PERSON DOCUMENTING CONVERSATION: Christi Hernandez 

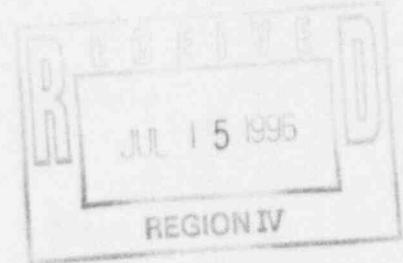


U.S. Department
of Transportation
**Federal Aviation
Administration**

Mike Monroney
Aeronautical Center

P.O. Box 25082
Oklahoma City, Oklahoma 73125

JUL 11 1996



U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011
Attention: Jacqueline D. Burks

Dear Ms. Burks:

I request that byproduct material license number 35-07014-01 be amended to exclude the possession and use of phosphorus-32 for use in in-vitro labeling studies.

Sincerely,

Wallace Friedberg, Ph.D.
Radiation Safety Officer, AAM-624

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