



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

January 16, 2008

Texas A&M University
Environmental Health & Safety Department
ATTN: Daniel I. Menchaca, CHP
Radiological Safety Officer
4472 TAMU
College Station, Texas 77843-4472

SUBJECT: LICENSE AMENDMENT

Please find enclosed Amendment No. 22 to License No. 42-09082-09. **This license amendment modifies License Condition 10 to reflect temporary job sites in offshore waters where the NRC maintains jurisdiction and removes the specific reference to research vessels. These activities are authorized aboard any licensee research vessel (R/V) or aboard other R/V under contract between Texas A&M and the ship's owner.**

The previous license amendment request dated June 25, 2007 (Control No. 471421) to remove the R/V Gyre from your license was voided because the decommissioning activities were conducted under the State of Texas' jurisdiction. As was explained in your response letter dated October 25, 2007, "the experiments onboard a research vessel that involved radioactive materials, were confined to the Rad Van. When not in use, the Rad Van was removed from the [research vessel] and kept on shore at the maintenance facility in Galveston." The NRC's jurisdictional waters begin at 9 nautical miles from the coastline of Texas, as stated in the definition of "Offshore Waters" that was published in the Federal Register (46 FR 50781) on October 15, 1981, a copy of which is enclosed. Additionally, beyond the continental shelf, the NRC has jurisdiction on the high seas, up to another country's jurisdiction. Therefore, the decommissioning activities performed by Texas A&M onboard the research vessel or on the Rad Van were conducted under the State of Texas' jurisdiction and not the NRC's jurisdiction.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14)(v). You should review the enclosed document carefully and be sure that you understand all conditions. If there are any questions, please contact me at 817-276-6552.

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 that can result from failure to comply with NRC requirements, you must conduct your radiation safety program according to the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate by 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. Notify NRC in writing of any change in mailing address.
3. By 10 CFR 30.36(d) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
 - a. When you decide to terminate all activities involving materials authorized under the license whether at the entire site or any separate building or outdoor area;
 - b. If you decide not to acquire or possess and use authorized material; or
 - c. When no principal activities under the license have been conducted for a period of 24 months.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;
 - b. Order byproduct material in excess of the amount, radionuclide or form authorized on the license;
 - c. Add or change the address(es) of use identified on the license; or
 - d. Change the name or ownership of your organization.

In addition, please note that NRC Form 313 requires the applicant, by signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant. Since the NRC also accepts a letter requesting amendment of an NRC license, the signatory for such a request should also be the licensee or certifying official rather than a consultant.

NRC will periodically inspect your radiation safety program. Failure to conduct your program according to NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may 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 NRC Enforcement Policy. The NRC Enforcement Policy is available on the following internet address: <http://www.nrc.gov/what-we-do/regulatory/enforcement/enforc-pol.pdf>.

The NRC no longer publishes the NRC Rules and Regulations loose leaf supplements. However, an electronic version of the NRC's regulations is available on the NRC Web site at www.nrc.gov. Additional information regarding uses of radioactive materials may be obtained on the NRC Web site at: <http://www.nrc.gov/materials/miau/mat-toolkits.html>. This site also provides a link to the new regulatory requirements toolbox involving naturally-occurring and accelerator-produced radioactive material (NARM).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document

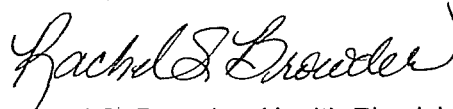
Texas A&M University

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Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel S. Browder". The signature is written in a cursive style with a large, looping initial "R".

Rachel S. Browder, Health Physicist
Nuclear Materials Licensing Branch

Docket: 030-01066
License: 42-09082-09
Control: 471624

Enclosure: As stated

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, 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.

<p style="text-align: center;">Licensee</p> <p>1. Texas A&M University Environmental Health & Safety Department</p> <p>2. 4472 TAMU College Station, Texas 77843-4472</p>	<p>In accordance with electronic mail dated January 10, 2008</p> <p>3. License number 42-09082-09 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date November 30, 2007</p> <hr/> <p>5. Docket No. 030-01066 Reference No.</p>
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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. Carbon-14	A. Any	A. 50 millicuries
B. Sulfur-35	B. Any	B. 20 millicuries
C. Calcium-45	C. Any	C. 100 millicuries
D. Cesium-134	D. Any	D. 1 millicurie
E. Hydrogen-3	E. Any	E. 100 millicuries
F. Phosphorus-32	F. Any	F. 50 millicuries
G. Phosphorus-33	G. Any	G. 10 millicuries
H. Neptunium-237	H. Any	H. 1 microcurie
I. Thorium-228	I. Any	I. 1 microcurie
J. Thorium-232	J. Any	J. 1 microcurie
K. Thorium-234	K. Any	K. 10 microcuries
L. Plutonium-240	L. Any	L. 1 microcurie
M. Plutonium-242	M. Any	M. 1 microcurie
N. Nickel-63	N. Foils	N. 60 millicuries
O. Cesium-137	O. Sealed sources (Isotope Products Model 225)	O. 40 millicuries total. Not to exceed 10 millicuries per source.
P. Europium-152	P. Sealed sources (Isotope Products Model GF-152)	P. 20 microcuries total. Not to exceed 10 microcuries per source.

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9. Authorized use:

- A. through M. Research and development as defined in 10 CFR 30.4. In vitro studies. Studies in animals are not authorized with the exception of the Northern Fur Seal Study listed in Condition 10.B.
- N. For use in gas chromatographs.
- O. For use in gamma ray attenuators and porosity evaluators to measure by transmission methods the density of ocean cores.
- P. For energy calibrations of NaI(Tl) detectors.

CONDITIONS

10. A. Licensed material may be used aboard any Texas A&M research vessel, or aboard other ships under contract between Texas A&M University and the ship owner for in vitro tracer studies at temporary job sites of the licensee in offshore waters where the U.S. Nuclear Regulatory Commission maintains jurisdiction. Licensed material may also be used at temporary job sites of the licensee anywhere in the United States where the U. S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States.

If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

- B. Hydrogen-3 (tritium) may be used for Northern Fur Seal in vivo studies in the Pribilof Islands, Alaska in accordance with letters dated June 16 and November 2, 2000.
11. Licensed material shall only be used by, or under the supervision of, individuals designated in writing by the Radiological Safety Committee, Michael Walker, Ph.D., Chairperson.
12. The Radiation Safety Officer for this license is Daniel I. Menchaca.
13. 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 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.
- 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 or detector cell received from another person shall not be put into use until tested.

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- 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 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.
- F. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50()(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 Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- G. 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.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
15. 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 Commission or an Agreement State to perform such services.
16. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
17. Licensed material shall not be used in or on human beings.

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18. A. 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 the foil temperature from exceeding that specified in the certificate of registration referred to in 10 CFR 32.210.
- B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside, unless the cells are used in a mobile laboratory situation in the field.
19. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
20. This license does not authorize disposal of licensed material at sea.
21. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific conditions of this license.
22. 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.
23. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
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 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 February 19, 1997
- B. Procedures received March 5, 1997
- C. Letter dated March 7, 1997
- D. Letter dated May 22, 1997
- E. Letter dated June 16, 2000 (ML003778626)
- F. Letter dated November 2, 2000 (ML003778626)
- G. Letter dated March 29, 2007 (ML071070139)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: January 16, 2008By: Rachel S. Browder, Health Physicist
Nuclear Materials Licensing Branch
Region IV
Arlington, Texas 76011

PART 150 • STATEMENTS OF CONSIDERATION

Moreover, simplified regulation between NRC and Agreement States is desirable in this area. Therefore, in response to the comments received, under §§ 31.6 and 150.20 new general licenses have been created for the offshore area. These are modified versions of the general license for activities on land. They allow persons operating in the offshore area to do so under the general licenses without having to apply for a specific license after the 180-day period.

The NRC-241 Form

As mentioned before, Louisiana questioned the need for Agreement State licensees (working in the offshore area under the NRC general license) to file NRC-241 forms, since similar forms are already filed with respect to its own inspections. The Commission wanted to extend this requirement (presently used on land with respect to general licensees) to the offshore area to enable it to track the activities of its general licensees in order to make its own inspections. After discussions with Louisiana, the Commission has decided to continue to allow that State to perform inspections for NRC in the defined offshore area under the previously-described 274i. Agreement and to update that Agreement. Additionally, after discussions with the other coastal Agreement States, the Commission has also decided to permit all these States to perform inspections for it under similar 274i. agreements.

In light of this development, the final rule now states that the Commission requires the filing of the NRC-241 form, unless the licensee provides to the Agreement State that issued the specific license timely notification of its offshore activities and that State is listed in the rule as agreeing to perform inspections for NRC under a 274i. agreement. Louisiana is the only State now listed in the rule because it already has the requisite agreement. The rule will contain a complete list as soon as the Commission has section 247i. agreements with the other coastal Agreement States. It is presently pursuing discussions with them toward that end. Thus, the issues of offshore inspection and of the use of the reporting forms have been resolved simultaneously by allowing Agreement States to perform inspections on NRC's behalf, thereby simplifying the Commission's regulatory efforts and avoiding dual reporting for the defined offshore area.

Definition of "Offshore Waters"

It should be noted that the rule defines "offshore waters" as "that area of land and water, beyond Agreement

States' Submerged Lands Act jurisdiction, on or above the U.S. Outer Continental Shelf" without specifying for each Agreement State the exact boundaries of these waters and the land area of the Shelf. The definition of offshore waters is designed to keep the proposed rule simple. Aside from the fact that it is not feasible to draw cartographic lines in any regulation, it is unnecessary to do so. The Supreme Court has decided the Federal-State dispute over the land areas of the Outer Continental Shelf and, as a matter of law, defined the necessary boundary lines. Further, as a practical matter, the three-mile limit is depicted generally on large-scale nautical charts of the United States published by the National Ocean Survey of the Department of Commerce.

In addition, in the cases of Texas and Louisiana cited before, the Supreme Court defined the necessary boundary lines as a matter of fact. Thus, in the case of Louisiana, for example, its jurisdiction over the seabed of the Shelf extends three nautical miles from its coastline; and, in the case of Texas, for example (and the same is true for Florida), as a technical legal matter having to do with its admission as a State of the Union, its jurisdiction over the seabed of the Shelf extends up to nine nautical miles from its coastline.

Thus, the definition in the proposed rule is intended to cover, in an understandable and simple fashion, the Commission's jurisdiction over persons operating beyond the Agreement States' normal three-mile jurisdictional limit, just described, and using byproduct, source, or special nuclear materials on things, such as oil rigs, attached to the seabed of the Outer Continental Shelf as well as the Commission's jurisdiction over persons using these materials in diving activities or on free-floating objects, such as lay barges and other vessels, in the waters above the seabed of the Shelf.

It should also be noted that the rule is focused on the Outer Continental Shelf area and not on the high seas beyond the Shelf. Thus, beyond the Outer Continental Shelf, NRC will continue, as has been the case historically, its licensing authority over certain kinds of persons, such as the Navy using nuclear material on naval vessels, while Agreement States will retain their authority over other kinds of persons, such as, for example, those using nuclear materials on State-chartered research vessels. In other words, the Commission acknowledges its present practice of regarding possession and use of nuclear materials on those high seas beyond the Shelf by certain citizens of

littoral States as also subject to those States' regulatory authorities. However, in light of the previous jurisdictional statement, the Commission reserves the right to alter or amend such practice at any time.

Paperwork Reduction Act

This final rule contains no new or amended requirements for recordkeeping, reporting, plans or procedures, applications or any other type of information collection.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and sections 552 and 553 of Title 5 of the United States Code, the following amendments to Title 10, Chapter I, Code of Federal Regulations, Parts 31 and 150, are published as a document subject to codification.

46 FR 50781

Published 10/15/81

Effective 10/15/81

10 CFR Part 150

NRC's Jurisdiction Over Persons Using Byproduct, Source or Special Nuclear Materials in Certain Offshore Waters; Corrections

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule; corrections.

SUMMARY: The Commission is publishing two minor corrections to its amendment regarding NRC's jurisdiction in certain offshore waters that appear in the Federal Register on September 3, 1981 (46 FR 44149).

EFFECTIVE DATE: October 15, 1981.

SUPPLEMENTARY INFORMATION: In a Federal Register notice published in September 1981 (46 FR 44149), in 10 CFR 150.20(b)(1) the clause beginning with "Provided, however" and the remainder of the paragraph were inadvertently omitted. Further, in 10 CFR 150.20(b)(3) the end mark should have been a semicolon.

46 FR 55085

Published 11/6/81

Effective 11/6/81

*Removal of Certain Information
Collection Requirements for Tritium*

See Part 30 Statements of Consideration