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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL EXPOSURE RESEARCH LABORATORY
Research Triangle Park, NC 27711

Office of
Research and Development

February 28, 2017

Licensing Assistance Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

CERTIFIED MAIL
70081140000250838502

Supporting Information for NRC Form 313 and NRC Form 314 || 2017.

Dear License Reviewer:

03008631

The purpose of this letter is to request an amendment to radioactive materials license No. 32-14048-04. The United States Environmental Protection Agency located at Research Triangle Park, North Carolina (EPA-RTP) would like to remove license condition number 6.E. from our current license. This license condition pertains to the possession of mill tailings (byproduct material defined in 10 CFR Part 40.4) used for research and development as defined in 10 CFR 30.4 including animal studies.

Background

Uranium mill tailings listed under Condition 6.E. were formerly used at the previous EPA facility Environmental Research Center (ERC) located at 86 T.W. Alexander Drive for radon research activities. This use ceased prior to the move from that location to the present location at 109 T.W. Alexander Drive and the completion of a Final Status survey of this facility conducted during CY 2003. Attached for you review, are copies of 1) the letter dated July 24, 2003 from the U.S. NRC releasing the EPA/ERC building formerly located at 86 T.W. Alexander Drive for unrestricted release, and 2) copies of shipping manifests of the ultimate disposal of the remaining uranium mill tailings (a completed NRC form 314, Certificate of Disposition of Materials is also attached). Please understand the delay between the time the Final Status survey of the ERC building was conducted with the subsequent release of the ERC building for unrestricted use (June 2003) to the time when the mill tailings were shipped for ultimate disposal (June 2004) did not cause another location to be impacted. During January 2003, the mill tailings were removed from the ERC building and packaged in proper shipping containment. The shipping container was moved to EPA's former licensed location at the Reproductive Toxicology Facility (2525 Hwy 54, RTP, NC) where the material was stored in the decommissioning contractor's secured

REC RG 1 0307 17 AM 0557

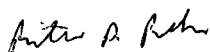
593169

storage trailer in the facility parking lot until the shipment to Envirocare of Utah during June 2004.

Respectively, we request Condition 6.E. be removed from the license.

Please contact me if you need any additional information regarding this license amendment request at 919-541-0550.

Sincerely,



Ritchie D. Buschow
Radiation Safety Officer
National Exposure Research Laboratory
Immediate Office, Safety, Health and
Environmental Management and Facilities

Enclosure: [1] NRC Form 313; dated 02.28.2017. [2] NRC Form 314; dated
02.28.2017. [3] Copies of shipping manifests
cc: Dr. Michael F. Hughes, Chair, Radiation Safety Committee, MD B105-03
Todd W. Baker, Director, Safety, Health and Environmental Management and
Facilities MD D343-02
Material License File
Reading File



APPLICATION FOR MATERIALS LICENSE

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollections.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW. *AMENDMENTS/RENEWALS THAT INCREASE THE SCOPE OF THE EXISTING LICENSE TO A NEW OR HIGHER FEE CATEGORY WILL REQUIRE A FEE.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN,
SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING,

SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
1600 E. LAMAR BOULEVARD
ARLINGTON, TX 76011-4511

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER 32-14048-04
- C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

U.S. Environmental Protection Agency
109 T.W. Alexander Drive
Mail Code D343-02
Research Triangle Park, NC 27711

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

U.S. Environmental Protection Agency
109 T.W. Alexander Drive
Research Triangle Park, North Carolina

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Ritchie D. Buschow

BUSINESS TELEPHONE NUMBER
(919) 541-0550

BUSINESS CELLULAR TELEPHONE NUMBER
(919) 368-9384

BUSINESS EMAIL ADDRESS
buschow.ritchie@epa.gov

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (Fees required only for new applications, with few exceptions*)
(See 10 CFR 170 and Section 170.31)

FEE CATEGORY 3.L. AMOUNT ENCLOSED \$ 0.00

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE

Ritchie D. Buschow, Radiation Safety Officer

SIGNATURE

DATE

02-28-2017

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
APPROVED BY				DATE	



**CERTIFICATE OF DISPOSITION
OF MATERIALS**

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE NAME AND ADDRESS

U.S. Environmental Protection Agency
109 T.W. Alexander Drive
Research Triangle Park, NC 27711

LICENSE NUMBER

DOCKET NUMBER

LICENSE EXPIRATION DATE

A. LICENSE STATUS (Check the appropriate box)

- This license has expired. This license has not yet expired; please terminate it.

B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

1. No radioactive materials have ever been procured or possessed by the licensee under this license.
 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:
 a. Transfer of radioactive materials to the licensee listed below:

- b. Disposal of radioactive materials:

1. Directly by the licensee:

2. By licensed disposal site:

3. By waste contractor:

U.S. DOE in care of WESKEM, LLC, ETPP, Oak Ridge TN 37831 to Envirocare, Inc. Clive, UT

- c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

C. SURVEYS PERFORMED AND REPORTED

1. A radiation survey was conducted by the licensee. The survey confirms:
 a. the absence of licensed radioactive materials
 b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.
 2. A copy of the radiation survey results:
 a. is attached; or b. is not attached (Provide explanation); or c. was forwarded to NRC on: _____ Date
 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and
 a. The results of the latest leak test are attached; and/or b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS
Ritchie D. Buschow	Radiation Safety Officer	(919) 541-0550	buschow.ritchie@epa.gov

Mail all future correspondence regarding this license to:

Ritchie D. Buschow

C. CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE	SIGNATURE	DATE
RITCHIE D. BUSCHOW, RSO	<i>Ritchie D. Buschow</i>	02-28-2017

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

July 24, 2003

U.S. Environmental Protection Agency
ATTN: Todd W. Baker
Radiation Safety Officer
Environmental Research Center
Research Triangle Park, North Carolina 27711

SUBJECT: TRANSMITTAL AND EXPLANATION OF AMENDMENT TO LICENSE
NO. 32-14048-04 (REFERENCE: MAIL CONTROL NO. 260916; DOCKET
NO. 030-08631)

Dear Mr. Baker:

Enclosed please find Amendment No. 41 to your NRC materials license. Changes to the license are printed in **BOLD** typeface.

This amendment removes the EPA/ERC Technical Center located at 86 T.W. Alexander Drive as an authorized place of use based on the results of your final status survey and the NRC's confirmatory survey. We have no further radiological concerns with this building and it is suitable for unrestricted release.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify this office (ATTN: Ms. Janice Kirby at 404-562-4719) so that we can provide appropriate corrections and answers.

In accordance with 10 CFR 2.790 of NRC's "Rules of Practice," a copy of this letter and Enclosure 1 will be available electronically for public inspection in NRC's Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Orysia Masnyk Bailey".

Orysia Masnyk Bailey, Health Physicist
Division of Nuclear Materials Safety

Enclosures: 1. Amendment No. 41
License No. 32-14048-04
2. NRC Form 313



**STRAIGHT BILL
OF LADING
SHORT FORM
NOT
NEGOTIABLE**

CARRIER: TAG transport

Shipper No: **4057-02-0001**

Carrier No: DOT 642202

Page 1 of 2

Date: 06/25/04

Purchase / Customer Order No:

Received, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier agrees to carry to its usual place of delivery, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. The shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Consignee: Clive Disposal Site Interstate 80 Exit 49 Clive Disposal Site Clive, Ut. 84029	Shipper: US DOE in care of WESKEM, LLC ETTP Oak Ridge, TN 37831 US EPA, Office of R&D 109 T.V. Research Triangle Park, NC Site:
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Route: Direct	Trailer No.: 4803	Tractor No.: TCF08
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No. Pkgs.	HM	Description of Material	Weight (Kgs.)	Class	ERG	Subject to section 7 of conditions of applicable Bill of Lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges. N/A Signature of the Consignor
1	X	Radioactive material, LSA, n.o.s., 7, UN2912, LSAII [see note 1]	97	7	162	
Total Weight (Kgs)			97			If freight charges are to be pre-paid, write or stamp here "TO BE PREPAID". N/A

Remarks: [Note 1]: Weights, isotopes and activities per container are listed on page 2 of 2. Total Weight: 213.8447 lbs. Total Activity: 4.85MBq	NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property: The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding: N/A \$ _____ per _____ (unit) SS741 Reference TBD
--	--

Additional information: Primary Emergency Response – Chem-Tel at (800)225-3924 Technical Contact Tammy Taylor at (865)385-3839 Emergency response guide number: UN2912: 162	Label(s) applied: none Markings: Radioactive-LSA Placard(s) required: Radioactive
--	---

Transportation hereunder is for the U.S. Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are to be reimbursed by the U.S. Government, pursuant to cost reimbursable contract number NA

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation.	This shipment is for the U.S. Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are assignable to, and shall be reimbursed by the U.S. Government and is subject to the terms and conditions set forth in the standard form of the U.S. Government Bill of Lading and to any available special rates or charges. YES () NO (x)
---	---

Shipper: US EPA Office of R&D Contract: Per: Print: Tammy Taylor Signature: for US EPA Date: 06/25/04	The additions on the face hereof and to the terms and conditions are hereby noted: Carrier: TAG Transport Print: Per: 6-25-04 Date: For: US EPA
--	--

Bill of Lading:

4057-02-0001 - Continuation page

BOL Page/ Line #	Barcode	RQ	DOT Description	Activity (MBq)	No. of Cont. (s)	Type of Cont.(s)	Total wt. Kg	EPA Waste Code(s)	ERG No.	Envirocare Shipment #
1/1	Mill Tailings		Radioactive Material, LSA, n.o.s., 7, UN2912 (Th230,Ra226) LSAII	4.85	1	DM	97	NONE	162	4057-02-0001
TOTAL				4.85	1		97			

Load Verified by *Jimmy Lytle* Date *12/25/04*

Load Verified by _____ Date _____

INSTRUCTIONS REGARDING CONTROLS FOR RADIOACTIVE SHIPMENTS
CONSIGNED AS EXCLUSIVE USE (SOLE USE OR FULL LOAD)

Transporter: TAG Transport

Trailer No. 4803

Signature: _____ Date 6/25/2004

Manifest # 4057-02-0001

These written instructions are provided to the carrier named on the shipping papers for the above referenced shipment and are to be maintained with said shipping papers. It is the carrier's responsibility to ensure that these instructions are conveyed to its driver(s) and administrative personnel, as appropriate, for the duration of the movement to final destination.

1. Maintain exclusive use of this vehicle for the duration of the movement. No other freight is to be loaded with this shipment except as directed by the consignor.
2. All loading/unloading of freight in this shipment shall be carried out under the direction of the consignor/consignee and performed by personnel having radiological training and resources for safe handling of the consignment.
3. The carrier is to move this shipment without delay, but in accordance with the legal statutes of transit jurisdictions.
4. Stops enroute are to be minimized to the extent practical and limited to accepted safe haven areas. WESKEM must approve stops in excess of ninety-six hours.
5. The carrier is to take positive steps enroute and during necessary stops to segregate this shipment from other freight, buildings, and personnel, so as to minimize potential exposures.
6. The carrier is to make periodic inspection of equipment, load, and placarding at appropriate intervals enroute to ensure maintenance of shipment safety controls.
7. To the maximum extent practical, the carrier, when movement is by highway, is to use interstate or limited access divided highways and avoid high density urban areas, especially where circumferential interstate highways are available to allow avoidance of travel through the highest populated portion of an urban area.

SPECIAL HANDLING INSTRUCTIONS

1. If provided, by highway, the carrier's driver(s) is to maintain visual contact with escort(s) and obey all traffic signs.
2. Radiation surveys enroute will be made only with acceptable monitoring devices and the consignor or consignee will be notified of the survey and who performed it. Radiation surveys taken at destination by authorized personnel of the consignee will be provided to the carrier on request, or the carrier will be notified if there are contamination levels that would warrant taking the conveyance out of service.
3. Each motor vehicle used for transporting Radioactive Materials under Exclusive Use conditions in accordance with 173.427 shall be surveyed with radiation detection instruments after each use. The carrier should ensure the vehicle has met the Department of Transportation (DOT) Return to Service Limits in 49 CFR 173.443(c).
4. The carrier is to take the appropriate emergency response actions should an accident or spill occur enroute. The carrier will make notification as indicated on accompanying shipping papers in the event of a delay, accident, or other emergency enroute.
5. The carrier is to comply with the requirements of DOT 49 CFR 397 Subpart D, "Routing of Class 7 (Radioactive) Materials".

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel, and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Low radiation hazard when material is inside container. If material is released from package or bulk container, hazard will vary from low to moderate. Level of hazard will depend on the type and amount of radioactivity, the kind of material it is in, and/or the surfaces it is on.
- Some material may be released from packages during accidents of moderate severity but risks to people are not great.
- Released radioactive materials or contaminated objects usually will be visible if packaging fails.
- Some exclusive use shipments of bulk and packaged materials will not have "RADIOACTIVE" labels. • Placards, markings, and shipping papers provide identification.
- Some packages may have a "RADIOACTIVE" label and a second hazard label. The second hazard is usually greater than the radiation hazard; so follow this Guide as well as the response Guide for the second hazard class label.
- Some radioactive materials cannot be detected by commonly available instruments.
- Runoff from control of cargo fire may cause low-level pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Uranium and Thorium metal cuttings may ignite spontaneously if exposed to air (see Guide 136).
- Nitrates are oxidizers and may ignite other combustibles (see Guide 141).

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, and control of fire and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. • Stay upwind. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
 - Move containers from fire area if you can do it without risk.
 - Do not move damaged packages; move undamaged packages out of fire zone.
- Small Fires**
- Dry chemical, CO₂, water spray or regular foam.
- Large Fires**
- Water spray, fog (flooding amounts).
 - Dike fire-control water for later disposal.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Cover liquid spill with sand, earth or other noncombustible absorbent material.
- Dike to collect large liquid spills.
- Cover powder spill with plastic sheet or tarp to minimize spreading.

FIRST AID

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

UN2912

FORM 540		Envirocare of Utah, Inc.		5. SHIPPER - NAME AND FACILITY US EPA, Office of R&D 109 T.W. Alexander Drive Room D330M, Mail Code D343-02 Research Triangle Park, NC		SHIPPER I.D. NUMBER 4057-02-0001		7. FORM 540 AND 540A FORM 541 AND 541A FORM 542 AND 542A ADDITIONAL INFORMATION		8. MANIFEST NUMBER (Use this number on all continuation pages) 4057-02-0001							
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		1. EMERGENCY TELEPHONE NUMBER (800) 255-3924		Utah Generator Site Access Permit No. NA		SHIPMENT NUMBER 4057-02-0001		PAGE 1 OF 1 PAGE(S) 1 PAGE(S) None PAGE(S) None PAGE(S)		CONTACT Shipping and Receiving TELEPHONE (Include Area Code) 435-884-0155							
ORGANIZATION CHEM_TELL		2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		6. CARRIER - Name and Address Tag Transport 2818 Roane State Hwy Harrison, Tn 37748		9. CONSIGNEE - Name and Facility Envirocare of Utah Clive Disposal Site Interstate 80, Exit 49 Clive, UT 84029		DATE							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number *****		EPA MANIFEST NUMBER		CONTACT Gary Kindrick		EPA I.D. NUMBER TNR00003111		SIGNATURE - Authorized consignee acknowledging waste receipt		10. CERTIFICATION							
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				SIGNATURE - Authorized carrier acknowledging waste receipt <i>[Signature]</i> 6-25-04		SHIPPING DATE 06/25/2004		TELEPHONE (Include Area Code) (865)882-0457		This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
Radioactive Material, LSA, n.o.s., 7, UN2912		N/A		N/A		Solid / Oxide		Ra-226 Th-228 Th-230 Th-232 Unat		4.8542E+00 1.3119E-01		LSA-II		97.6987 KGS; 0.21 M3		mill tailings	
FOR CONSIGNEE USE ONLY				20. TERMS AND CONDITIONS													
<input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input type="checkbox"/> No Violations Detected on this Shipment				A. HAZARDOUS MATERIALS: Generator represents & warrants that Waste Material ___ is (or) <input checked="" type="checkbox"/> is not a hazardous waste as defined in 40 CFR 261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate land-disposal restriction notice and/or certification as required by 40 CFR 268.1. B. TITLE: Upon acceptance at the disposal site by Envirocare of Utah, Inc., and all appropriate regulatory authorities, title to the Waste Material which conforms to Generator's representations herein shall thereupon transfer from Generator and be vested in Envirocare of Utah, Inc. C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and Envirocare of Utah Inc.'s facility license. D. INDEMNIFICATION: Generator agrees to indemnify Envirocare of Utah, Inc., its officers, employees and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform in all material respects to the data supplied on the (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST), or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.													

FORM 541 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste	Envirocare of Utah, Inc.	1. MANIFEST TOTALS SPECIAL NUCLEAR MATERIAL (grams)				2. MANIFEST NUMBER 4057-02-0001	
	NUMBER OF PACKAGES/ DISPOSAL CONTAINERS:	NET WASTE VOLUME	NET WASTE WEIGHT	U-233	U-235	Pu	Total
	1	m3 0.2100	kg 59.1230	NP	NP	NP	NP
		ft3 7.4161	gm 0.0652				
	ACTIVITY						
	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	(kg)	2.0323E-03
MBq	4.8542E+00	NP	NP	NP	NP	(kg)	2.0323E-03
mCi	1.3119E-01	NP	NP	NP	NP	(tons)	2.2402E-06
						SHIPMENT ID NUMBER 4057-02-0001	

DISPOSAL CONTAINER DESCRIPTION				PHYSICAL DESCRIPTION				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER				18 WASTE CLASSIFICATION: AS-Class A Stable AU Class A Unstable B Class B C Class C				
5 CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6 CONTAINER DESCRIPTION <small>(See Note 1 & Note 1A)</small>	7 VOLUME <small>(m3) (ft3)</small>	8 WASTE AND CONTAINER WEIGHT <small>(kg) (ton)</small>	9 SURFACE RADIATION LEVEL <small>(mSv/hr) (mrem/hr)</small>	10 SURFACE CONTAMINATION <small>(MBq/100 cm2) (dpm/100cm2)</small>		11 WASTE DESCRIPTOR <small>(See Note 2 & Note 2A)</small>	12 APPROXIMATE WASTE VOLUME(S) IN CONTAINER <small>(m3) (FT3)</small>	13 SOLIDIFICATION OR STABILIZATION MEDIA <small>(See Note 3)</small>	14 CHEMICAL DESCRIPTION <small>CHEMICAL FORM/ CHELATING AGENT</small>	15 WEIGHT % <small>CHELATING AGENT IF > 0.1%</small>		15. RADIOLOGICAL DESCRIPTION <small>INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT</small>			
					ALPHA	BETA-GAMMA							RADIONUCLIDES			
mill tailings/	4	0.2100 7.4161	97.6787 0.1077	<5.0000E-03 <5.0000E-01	<3.8740E-06 <2.2000E+02	<3.6740E-05 <2.2000E+03	39 0.2100 7.4161	100 100	Oxide/NP	NP	Ra-226 Th-228 Th-230 Th-232 Unat Subtotal Total Source	1.26855E+03 2.18499E+00 7.88271E+02 3.80565E+00 1.58213E+02 4.8542E+00 4.8542E+00 2.0323E-03	2.7750E+00 4.7360E-03 1.7200E+00 8.3250E-03 3.4610E-01 4.8542E+00 4.8542E+00 2.0323E-03	7.5000E-02 1.2800E-04 4.6486E-02 2.2500E-04 9.3540E-03 1.3119E-01 1.3119E-01	AU	
Shipment Totals		0.2100 7.4161	97.6787 0.1077								Source	[2.0323E-03 kg]	4.8542E+00 1.3119E-01			

Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks the numerical code must be followed by "OP."

1. Wooden Box or Crate	9. Demineralizer
2. Metal Box	10. Gas Cylinder
3. Plastic Drum or Pail	11. Bulk, Unpackaged Waste
4. Metal Drum or Pail	12. Unpackaged Components
5. Metal Tank or Liner	13. High Integrity Container
6. Concrete Tank or Liner	19. Other. Describe in Item 6, or additional page
7. Polyethylene Tank or Liner	
8. Fiberglass Tank or Liner	

Note 1A: Bulk Packaging Description Codes. (Choose one code as may be applicable.)

A. Gondola
B. Intermodal
C. End-Dump
D. Roll-off
E. Seavan

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal	29. Demolition Rubble	38. Evaporator Bottoms/Sludges/Concentrates
21. Incinerator Ash	30. Cation Ion-exchange Media	39. Compactible Trash
22. Soil	31. Anion Ion-exchange Media	40. Noncompactible Trash
23. Gas	32. Mixed Bed Ion-exchange Media	41. Animal Carcass
24. Oil	33. Contaminated Equipment	42. Biological Material (except animal carcass)
25. Aqueous Liquid	34. Organic Liquid (except oil)	43. Activated Material
26. Filter Media	35. Glassware or Labware	44. Sealed Source Device
27. Mechanical Filter	36. Sealed Source Device	45. Other. Describe in item 11, or additional page
28. EPA or State Hazardous	37. Paint or Plating	

NOTE 2A: Specific Waste Descriptions (Choose all applicable codes.)

G. Dewatered
H. Solid
I. Combustible
J. Non Combustible
K. Air Filtration Filters
L. Asbestos

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "S," and the media vendor and brand name must also be identified.

In Item 13, Code 100=NONE REQUIRED.

90. Cement	94. Vinyl Ester Styrene
91. Concrete	99. Other. Describe (encapsulation) in item 13, or additional page
92. Bitumen	
93. Vinyl Chloride	100. None Required

**UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT**

For Manifest # 4057-02-0001
Envirocare of Utah, Inc.

<u>Isotope</u>	<u>Total Activity</u>		
	<u>(MBq)</u>	<u>(mCi)</u>	<u>(Ci)</u>
Ra-226	2.7750E+00	7.5000E-02	7.5000E-05
Th-228	4.7360E-03	1.2800E-04	1.2800E-07
Th-230	1.7200E+00	4.6486E-02	4.6486E-05
Th-232	8.3250E-03	2.2500E-04	2.2500E-07
Unat	3.4610E-01	9.3540E-03	9.3540E-06

Tcl # 4803

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		Envirocare of Utah, Inc.		5. SHIPPER - NAME AND FACILITY US EPA, Office of R&D 109 T.W. Alexander Drive Room D330M, Mail Code D343-02 Research Triangle Park, NC		SHIPPER I.D. NUMBER 4057-02-0001 <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR		7. FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) FORM 541 AND 541A 1 PAGE(S) FORM 542 AND 542A None PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) 4057-02-0001							
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (800) 255-3924		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		Utlah Generator Site Access Permit No. NA		SHIPMENT NUMBER 4057-02-0001		9. CONSIGNEE - Name and Facility Envirocare of Utah Clive Disposal Site Interstate 80, Exit 49 Clive, UT 84029		CONTACT Shipping and Receiving TELEPHONE (Include Area Code) 435-884-0155 DATE 6/29/04							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "Yes," provide Manifest Number *****		5. CARRIER - Name and Address Tag Transport 2818 Roena State Hwy Harriman, Tn 37748		EPA I.D. NUMBER TNRR00003111 SHIPPING DATE 06/25/04 TELEPHONE (Include Area Code) (865)882-0457 DATE 6-25-04		SIGNATURE - Authorized consignee acknowledging waste receipt <i>[Signature]</i>		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transport and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
Radioactive Material, LSA, n.o.s., 7, UN2912		N/A		N/A		Solid / Oxide		Ra-226 Th-228 Th-230 Th-232 Unat		4.8542E+00 1.3119E-01		LSA-II		97.6987 KGS; 0.21 M3		mill tailings	
FOR CONSIGNEE USE ONLY <input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input type="checkbox"/> No Violations Detected on this Shipment				20. TERMS AND CONDITIONS A. HAZARDOUS MATERIALS: Generator represents & warrants that Waste Material ___ is (or) ___ is not a hazardous waste as defined in 40 CFR 261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate land-disposal restriction notice and/or certification as required by 40 CFR 268.1. B. TITLE: Upon acceptance at the disposal site by Envirocare of Utah, Inc., and all appropriate regulatory authorities, title to the Waste Material which conforms to Generator's representations herein shall thereupon transfer from Generator and be vested in Envirocare of Utah, Inc. C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and Envirocare of Utah Inc.'s facility license. D. INDEMNIFICATION: Generator agrees to indemnify Envirocare of Utah, Inc., its officers, employees and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform in all material respects to the data supplied on the (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST), or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.													



ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

Name and Address of Applicant and/or Licensee Ritchie D. Buschow Radiation Safety Officer U.S. Environmental Protection Agency 109 T. W. Alexander Drive Mail Code D343-02 Research Triangle Park, North Carolina 27711	Date March 09, 2017
	License Number(s) 32-14048-04
	Mail Control Number(s) 593169
	Licensing and/or Technical Reviewer or Branch Commercial, Industrial, R&D, and Academic Branch

This is to acknowledge receipt of your: Letter and/or Application Dated: February 28, 2017

The initial processing, which included an administrative review, has been performed.
 Amendment Termination New License Renewal

There were no administrative omissions identified during our initial review.

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Your application for a new NRC license did not include your taxpayer identification number. Please complete and submit NRC Form 531, Request for Taxpayer Identification Number, located at the following link: <http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>
 Follow the instructions on the form for submission.

The following administrative omissions have been identified:

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

Region I
U. S. Nuclear Regulatory Commission
Division of Nuclear Materials Safety
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713
(610) 337-5260, (610) 337-5313,
(610) 337-5398, (610) 337-5239