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NRC FORM 313	U, S.	NUCLEAR REGUL	ATORY C	MMISSION	APPROVED BY OM	B: NO. 3190-0120	1	EXPIRES: 7/3	1/1996
(5-1997) 10 CFR 30, 32, 33 34, 35, 38, 39 and 40 APPLICATI		Estimated burdan per response to comply with this information collection request: 7 hours. Submitted of the application is necessary to determine that the applicant is qualified and that adequate procedures said to protect the public health and address? Forward consents regarding burden estimate to the information and Records Menegement Branch (T-6 PS3), U.S. Nuclear Regulatory Commission, Visabington, DC 20655-0001, and to the Papareork Reduction Project (3150-0120), Office of Management and Budget, Weshington, DC 20503, NRC may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a currently velid OMB control number.							
INSTRUCTIONS: SEE THE APPLICATION, SEND TWO	APPROPRIATE COPIES OF TH	LICENSE APPLICA	TION GUI	DE FOR DET/	AILED INSTRUC	TIONS FOR CO	DMPLETING BELOW,	)	
APPLICATION FOR DISTRIBUTION C	F EXEMPT PRODUC	TTS FILE APPLICATIONS	WITH:	IF YOU ARE LOGATED IN:					
UNISION OF INCOSTRIAL AND MI OFFICE OF NUCLEAR MATERIALS U.S. NUCLEAR RÉGULATORY CO. WASHINGTON, DC. 2055-0001	ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNEBOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO: MITTERIAL & LICENSING SECTION					IN,			
ALL OTHER PERSONS FILE APPLIC. IF YOU ARE LOCATED IN:	ATIONS AS FOLLOW	VS:		U.S. NUCLEAR REGULATORY COMMISSION, REGION III 801 WARRENVILLE RD. LISLE IL. 805324351					
Connecticut, delaware, distri Massachusetts, new Hanpshir Rhode Island, or vermont, sen	A,	ALASKA, ARIZONA, ARKANSAS, CALIFORMEA, COLORADO, HAWAH, IDAHO, KANBAS, LOURSIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SIND APPLICATIONS TO:							
LICENSING ASSISTANT SECTION NUCLEAR MATERIALS SAFETY BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415				NUCLEAR MA U.S. NUCLEAF 611 RYAN PLA ARLINGTON, 1	TERIALS LICENSING REGULATORY CON ZA DRIVE, SUITE 40 X. 76011-8064	SECTION MISSION, REGION		r	
ALABAMA, FLORIOA, GEORGIA, KEI RICO, SOUTH CAROLINA, TENNESSI SEND ADDI MATINING YA	LLABAMA, FLÓRIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO NCO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEBT VIRGINIA,					03-375	33		
ATLANTA FEDERAL CENTÉR U. S. NUCLEAR REGULATORY COMMISSION, REGION 8 61 FORSYTH STREET, S.W., SUITE 23185				(45	-3/270 "	03121 -01)		0 C 3.1	REGIO
PERSONS LOCATED IN AGREEMENT MATERIAL IN STATES SUBJECT TO 1. THIS IS AN APPLICATION FOR ( A. NEW LICENSE B. AMENDMENT TO LICE	"STATES SEND APP U.S.NUGLEAR REGU "Check appropriate ite INSE NUMBER	Lications to the U.S. Slatory commission J m)	NUCLEAR RE	GULATORY CON S. 2. NAME AND M Colony 22222 A	IMISSION ONLY IF T AILING ADDRESS OF Construction	HEY WISH TO POS APPLICANT (Lincle) , Inc.	sess and use to Zp code)		; 
C. RENEWAL OF LICENS	E NUMBER			Powhata	an, VA 2313	way 9			
<ol> <li>ADORESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED 2333 Anderson Highway, Powhatan, VA 23139 and anywhere Colony Construction maintains jurisdiction for regulating the use of radioactive mate</li> </ol>			39 /e materi	als	4. NAM	LICATION Wes west	BE CONTACTE Utley 1@colony	paving.c	is com
UBMIT ITEMS 5 THROUGH 11 ON 8-1	2 X 11" PAPER. TH	E TYPE AND SCOPE OF I	NFORMATIO	TO BE PROVIDE	D IS DESCRIBED W	THE INCENSE APRI	CATION GUID	-1/00	Tax
RADIOACTIVE MATERIAL. a. Element and mass number, b. o which will be possessed at any	hemicai and/or physic one time.	al form; and a mainimum a		. PURPOSE(8)	FOR WHICH LICENS	SED MATERIAL WIL	L BE USED.	· <b>E</b> ,	
' INDIVIDUAL(\$) RESPONSIBLE FOR RADIATION SAFETY FROGRAM AND THEIR TRAINING EXPERIENCE.			R	5. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.					
FACILITIES AND EQUIPMENT.			1	10. RADIATION SAFETY PROGRAM.					
1. WASTE MANAGEMENT.			1	2. LICENSEE FE	ES (See 10 CPR 17) RY 3. P.	and Section 170.31	) ADUNT ICLOSED 5	1,400.00	
UPON THE APPLICANT. THE APPLICANT AND ANY OFFIC CONFORMITY WITH TITLE 10, CC CORRECT TO THE BEST OF THE WARNING: 16 U.S.C. SECTION 10	IAL EXECUTING THE IDE OF FEDERAL RE IR KNOWLEDGE ANI KM AGT OF JUNE 25,	S CERTIFICATION ON BE COLLATIONS, PARTS 30, i D BELIEF. 1948 62 STAT. 749 MAKE	44,05 THAT A HALF OF THE 32, 33, 34, 36, 58 IT A CRIMI	APPLICANT, NAI 36, 38 AND 40, AJ VAL OFFENSE TO	NILI REPRESENTAT NGD IN ITEM 2, CERT NG THAT ALL INFOR MAKE A WILLFULLY	IUNS MADE IN THIS FIFY THAT THIS API MATION CONTAINS ( FALSE STATEMEN	S APPLICATION IS F ID HEREIN IS T (T OR REPRES	I ARE BINDIN REPARED IN RUE AND ENTATION TO	
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PROVED BY	<u> </u>	5	DATE						

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NMSS/RGN1 MATERIALS-002

http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v8/form313.html

8/6/2007

### 5. RADIOACTIVE MATERIAL

- a. Element and mass number Cesium -137
- b. Chemical and/or physical form Sealed Source Troxler Dwg. 102112
- c. Maximum amount which will be processed at one time No Single Source to exceed 9 mc:

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

For measurement of physical properties of materials using the Model 4640 series gauge

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE Wes Utley - I have successfully completed Troxlers' nuclear gauge safety training class, Troxlers' radiation safety officer training class, and I am VDOT certified for nuclear safety and transportation of hazardous materials. (See Appendix D for RSO responsibilities and attachment for RSO certification).

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

I will be the sole user of the Model 4640 gauge for Colony Construction, Inc. Any employee of Colony Construction, Inc. will have successfully completed the Troxler nuclear gauge safety program class and will also complete the VDOT certification course prior to using the gauge.

### 9. FACILITIES AND EQUIPMENT

Colony Construction, Inc. will be in compliance with all security, posting and public dose regulations.

#### **10. RADIATION SAFETY PROGRAM**

- All gauge users will wear personal monitoring devices and devices will be exchanged at the frequency recommended by the
  processor which will be accredited by NVLAP.
- Colony Construction, Inc. will maintain safety programs that ensure the gauge is transported in compliance with VDOT regulations.
- Leak tests will be performed at intervals not to exceed 6 months. Leak tests will be analyzed by an organization authorized by the NRC or agreement state to provide leak test services.
- Records of receipt, transfer and disposal of gauges will be maintained for at least 3 years.
- Physical inventories of sealed sources will be conducted at intervals not to exceed 6 months.
- Gauge utilization logs and sealed source inventory logs will be in compliance with the NRC and VDOT guidelines.
- Colony Construction, Inc. will control and maintain constant surveillance over gauges that are not in storage and secure gauges from unauthorized use or removal.
- Colony Construction, Inc. will follow operating and emergency procedures stated in Appendix H.
- Colony Construction, Inc. will implement and maintain procedures for routine maintenance and will send the gauge to the manufacturer for non-routine maintenance or repair.

### 11. WASTE MANAGEMENT

Any licensed material will be disposed of by transfer to Troxler Electronics.

# APPENDIX D RSO RESPONSIBILITIES

The RSO is responsible for ensuring the following:

- Stopping licensed activities that the RSO considers unsafe.
- Possession, use, storage, and maintenance of sources and gauges are consistent with the limitations of the license, the Sealed Source and Device Registration sheet(s), and manufacturer's recommendations and instructions.
- Individuals using gauges are properly trained.
- When necessary, personnel monitoring devices are used and exchanged at the proper intervals; records of the results of such monitoring are maintained.
- Gauges are properly secured.
- Proper authorities are notified in case of accident, damage to gauges, fire, or theft.
- Unusual occurrences involving the gauge (e.g., accident, damage) are investigated, causes(s) and appropriate corrective action are identified, and corrective action is taken.
- Audits are performed at least annually and documented, and corrective actions taken.
- Licensed material is transported in accordance with all applicable DOT requirements.
- Licensed material is disposed of properly.
- Appropriate records are maintained.
- Up-to-date license is maintained and amendment and renewal requests submitted in a timely manner.

Reference: NUREG-1556, Vol. 1

# APPENDIX H OPERATING AND EMERGENCY PROCEDURES

## **OPERATING PROCEDURES**

- 1. Always wear assigned personnel dosimetry devices (e.g., TLD badge) when using or transporting the gauge.
- 2. Never wear another person's dosimeter.
- 3. Never store a dosimeter near the gauge or other radiation source.
- 4. Before removing the gauge from its place of storage, ensure that in gauges with movable source rods, the rod is locked in the shielded position, and the transport case is locked.
- 5. Sign out the gauge in a logbook, stating the date(s) of use, name(s) of authorized user(s) who will be responsible for the gauge, and the temporary job site(s) where the gauge will be used.
- 6. Block and brace the gauge to prevent movement during transport and lock the gauge in or to the vehicle. Follow all Department of Transportation requirements when transporting the gauge.
- 7. Use the gauge according to the manufacturer's instructions and recommendations.
- 8. Do not touch the end of the source rod with your fingers, hands, or any part of your body or place any part of the body in the radiation field of the unshielded source.
- 9. Unless absolutely necessary, do not look under the gauge when the source rod is being lowered into the ground. If you must look under the gauge to align the source rod with hole, keep all body parts as far from the unshielded source as possible to minimize radiation exposure.
- 10. After completing each measurement in which the source is unshielded, immediately return the source to the shielded position.
- 11. Always maintain constant surveillance and immediate control of the gauge when it is not in storage or secured in the transport vehicle. Never leave the gauge unattended. Protect the gauge and yourself from danger of moving heavy equipment.
- 12. Always keep unauthorized persons away from the area where the gauge is being used.
- 13. Perform routine cleaning and maintenance according to the manufacturer's instructions and recommendations.
- 14. When the gauge is not in use at a temporary job site, place the gauge in a secured storage location (e.g., locked in the trunk of a car or locked in a storage shed).
- 15. Prior to transporting the gauge, ensure that each gauge source is in the fully shielded position. Ensure that the source rod is locked in the shielded position and that the gauge is placed into the case and lock the case. Block and brace the gauge to prevent movement during transportation. Lock the case in or to the vehicle.
- 16. Return the gauge to its proper storage location at the end of the work shift.
- 17. Log the gauge into the daily use log when it is returned to storage.

### **Troxler Licensing Guide**

- 18. If gauges are used for measurements with the unshielded source extended more than 3 feet below the surface, use piping, tubing or other casing material to line the hole from the lowest depth to 12 inches above the surface. If the piping, tubing, or other casing material cannot extend 12 inches above the surface, cap the hole liner or take other steps to ensure that the hole is free of debris (and it is unlikely that debris will enter the cased hole), so that the unshielded source can move freely (e.g., use a dummy probe to verify that the hole is free of obstructions).
- 19. After making changes affecting the gauge storage area (e.g., changing the location of gauges within the area, removing shielding, adding gauges, changing the occupancy of adjacent areas, moving the storage area to a new location), reevaluate compliance with public dose limits and ensure proper security of gauges.

## **EMERGENCY PROCEDURES**

The following procedures apply when the source fails to return to the shielded position (e.g., as a result of being damaged, source becomes stuck below the surface) or if any other emergency or unusual situation arises (e.g., the gauge is struck by a moving vehicle or is in an accident involving a vehicle):

- 1. Immediately secure the area and keep people at least 15 feet away from the gauge until the situation is assessed and radiation levels are known. However, perform first aid for injured individuals and remove them from the area only when medically safe to do so.
- 2. If any heavy equipment is involved, detain the equipment and operator until it is determined there is no contamination present.
- 3. Gauge users and other potentially contaminated individuals should not leave the scene until emergency assistance arrives.
- 4. Visually inspect the gauge to determine the position of the source rod (exposed or shielded), and the position of the source shutter (open or closed), and the extent of damage, if any, to the source housing and/or shielding.

Name	Work Phone Number	Home Phone Num
Wes UTley	804 598-1400	
Troxler	919 549 - 8661	
NRG	610 337-5216	

5. Notify the persons in the order listed below:

Fill in the names and telephone numbers of appropriate personnel (e.g., the Radiation Safety Officer or other knowledgeable staff, licensee's consultant, gauge manufacturer, or regulatory agency) to be contacted in an emergency. Update list as needed.



- 6. Follow the directions provided by the person contacted above.
- 7. RSO and Licensee management must:

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- a. Arrange for a radiation survey to be conducted as soon as possible by a knowledgeable person using appropriate radiation detection instrumentation. This person could be a licensee employee or a consultant. The person must be competent in use of the survey meter.
- b. Make necessary notifications to local authorities as well as the NRC or Agreement State licensing agency as appropriate.
- c. Reports to the NRC or Agreement States must be made within the reporting timeframes specified in regulations. Reporting requirements are found in 10 CFR 20.2201-2203 and 10 CFR 30.50 or corresponding Agreement State regulations.

### NOTE

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Before shipping a damaged gauge to Troxler, you must do the following:

- Send close-up photographs of the damaged gauge to Troxler.
- Send a leak test sample to Troxler for analysis or send leak test results.
- Obtain a Returned Goods Authorization (RGA) number from Troxler.

	Commonwealth of Vitginia
	Department of Transportation Certificate of Qualification For
•	Nuclear Safety and Transportation of Hazardous Materials
•.	This is to confify that JOHN W. UTLEY the successfully completed an examination distribution by the Department on transportation, handling, salety, strugge and operating procedure of nuclear gauges.
	STATE MATORIALS BASINEER
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This is to acknowledge the receipt of your letter/application dated

8 /17/2237, and to inform you that the initial processing which includes an administrative review has been performed.

There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

140957 Your action has been assigned Mail Control Number \_\_\_\_ When calling to inquire about this action, please refer to this control number. You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI) (6-96)

Sincerely, Licensing Assistance Team Leader

	: (FOR LFMS USE)
	: INFORMATION FROM LTS
BETWEEN:	
	:
License Fee Management Branch, ARM	: Program Code: 03121
and	: Status Code: 3
Regional Licensing Sections	: Fee Category:
	: Exp. Date: 0
	: Fee Comments:
	: Decom Fin Assur Reqd: _

LICENSE FEE TRANSMITTAL

A. REGION I

- 1. APPLICATION ATTACHED
  Applicant/Licensee: COLONY CONSTRUCTION, INC.
  Received Date: 20070820
  Docket No: 3037533
  Control No.: 140957
  License No.: 45-31270-01
  Action Type: New Licensee
- 2. FEE ATTACHED Amount: Check No.: 344€7
- 3. COMMENTS

Signed M. a. Farlin Date 8/20/2017

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_\_/)

1. Fee Category and Amount: \_\_\_\_\_

2. Correct Fee Paid. Application may be processed for: Amendment \_\_\_\_\_\_\_ Renewal \_\_\_\_\_\_\_ License \_\_\_\_\_\_\_

3. OTHER

Signed \_\_\_\_\_\_
Date \_\_\_\_\_