



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF RADIOLOGICAL HEALTH**

William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor Nashville, Tennessee 37243
615-532-0364

RADIOACTIVE MATERIAL LICENSE

Amendment 9-Corrected Copy

Pursuant to Tennessee Department of Environment and Conservation Regulations, 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 radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the Tennessee Department of Environment and Conservation and orders of the Division of Radiological Health, now or hereafter in effect and to any conditions specified below.

<p style="text-align: center;">LICENSEE</p> <p>1. Name Chase Environmental Group, Inc.</p>	<p>3. License Number R-53008-G29 Amended in its entirety</p>	
<p>2. Address</p> <p style="text-align: center;">200 Sam Rayburn Parkway Lenoir City, Tennessee 37771</p>	<p>4. Expiration Date July 31, 2029</p>	
	<p>5. File No. R-53008</p>	
<p>6. Radioactive Material (Element and Mass Number)</p>	<p>8. Chemical and/or physical form</p>	<p>9. Maximum Radioactivity and/or quantity of material which licensee may possess at any one time.</p>
<p>SEE SUPPLEMENTARY SHEETS</p>		

10. Authorized Use

SEE SUPPLEMENTARY SHEETS

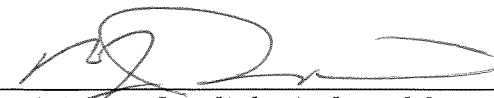
CONDITIONS

11. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.

For the Commissioner
Tennessee Department of Environment and Conservation

Date of Issuance: July 16, 2019

By: _____



Division of Radiological Health
Ronald J. Parsons, Environmental Consultant



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|---|--|---|
| <p>6. Radioactive Material
(Element and
<u>Mass Number</u>)</p> <p>A. Any radioactive
material</p> <p>B. Any radioactive
material</p> | <p>8. Chemical and/or
<u>Physical Form</u></p> <p>A. See Item 10.A below</p> <p>B. Sealed sources
(Manufactured and
distributed in accordance
with a license issued by the
Department, U.S. Nuclear
Regulatory Commission or
an Agreement State, as
appropriate, in accordance
with applicable provision
for the manufacture and
distribution of such
radioactive material.)</p> | <p>9. Maximum Radioactivity
and/or Quantity of Material
Which Licensee May Possess
<u>at Any One Time</u></p> <p>A. See Item 10.A below</p> <p>B. See Item 10.B below</p> |
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10. Authorized Uses

- A. 1. The licensee is authorized to perform tests for leakage and/or contamination upon sealed sources containing these radioactive materials and upon devices which contain sealed sources. The licensee is also authorized to possess and analyze radioactive material contained on test media resulting from these tests and contamination surveys which the licensee may perform. Such waste material will be disposed of in conformance with 0400-20-05-.120 of "State Regulations for Protection Against Radiation."
2. The licensee's possession of special nuclear material is limited to less than 1 gram.
- B. Installation, removal, preparation for transport, relocation, maintenance, repair, source exchange, and performance of initial radiation survey of gauges or measuring devices that have been manufactured and distributed in accordance with a license issued by the Department, U.S. Nuclear Regulatory Commission or an Agreement State, as appropriate, with applicable provision for the manufacture and distribution of such radioactive material, and listed on the U.S. NRC Registry of Sealed Sources and Devices. All activities



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must be performed on gauges and source holders that are approved in the U.S. NRC's "Sealed Source and Device Registry."

Conditions

12. The licensee shall comply with applicable provisions of 0400-20-04, 0400-20-05, and 0400-20-10 of "State Regulations for Protection Against Radiation."
13. A. The services authorized in this license shall be performed only by or under the supervision and in the physical presence of individuals who have satisfactorily completed training in accordance with statements, representations, and procedures contained in application dated
 - B. The Radiation Safety Officer for this license is Christopher E. Echterling. The Alternate Radiation Safety Officer for this license is Craig Eisenberg.
14. Services authorized in Item 10 shall be performed only at the customers' sites (except for analyses of test media which may be performed at licensee's address), in areas not under exclusive Federal jurisdiction, as designated by the pertinent Tennessee licensee authorizing the customer's use and possession of that radioactive material.

Before radioactive material can be used at a temporary job site at any Federal facility, the jurisdictional status of the job site must be determined. If the jurisdictional status is unknown, the Federal agency should be contacted to determine if the job site is under exclusive Federal jurisdiction. A response should be obtained in writing or a record should be made of the name and title of the person at the Federal agency who provided the determination and the date that it was provided. Authorization for use of radioactive materials at job sites under exclusive Federal jurisdiction shall be obtained either by: (1) Filing a U.S. NRC Form-241 in accordance with 10 CFR 150.20(b), "Recognition of Agreement State Licensees," or (2) Applying for a specific U.S. NRC license.

Before radioactive materials can be used at a temporary job site in another State, authorization shall be obtained from the State if it is an Agreement State, or from the U.S. NRC for any non-Agreement State, either by filing for reciprocity or applying for a specific license.



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15. A. The licensee is authorized to collect leak test samples from sources possessed by the licensee's customers in accordance with statements, representations, and procedures contained in application dated for analysis by persons specifically authorized by this Department, the U.S. Nuclear Regulatory Commission, or another Agreement State to perform this service or tests for leakage and contamination shall be performed by persons specifically licensed by this Department, the U.S. Nuclear Regulatory Commission, or an Agreement State to perform such services.
- B. Tests for leakage and contamination authorized in Item 10 above shall be performed only at the customer's site as designated by the pertinent Tennessee license authorizing the customer's use and possession of that radioactive material. (This condition does not prohibit use in other states under reciprocity privileges which may be granted by the agency having jurisdiction.)
- C. The tests for leakage and/or contamination shall be capable of detecting 0.005 microcurie of contamination on the test sample. The customer shall be furnished a report of leak tests results in units of microcuries.
- D. If the test reveals the presence of removable contamination equivalent to or greater than 0.005 microcurie, the customer of the licensee shall be informed of the Department's requirements as follows: "The licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Tennessee Department of Environment and Conservation, Division of Radiological Health, William R. Snodgrass Tennessee Tower, 312 Rosa Parks Avenue, 15th Floor, Nashville, Tennessee 37243 describing the equipment involved, the test results, and the corrective action taken."
16. Tests for leakage and/or contamination shall be capable of detecting 0.005 microcurie of radioactive material on the test sample, or in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours. The customer shall be furnished a report of leak test results in units of microcuries. If a test reveals the presence of removable contamination equivalent to or greater than 0.005 microcurie, or in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours, the customer of the licensee shall be informed of the Department's requirements as follows: "The licensee shall immediately withdraw the sealed source from use and shall cause it to be



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decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five days of the test with the Tennessee Department of Environment and Conservation, Division of Radiological Health, William R. Snodgrass Tennessee Tower, 312 Rosa Parks Avenue, 15th Floor, Nashville, Tennessee 37243, describing the equipment involved, the test results, and the corrective action taken.”

17. Shipments of Plutonium by air, regardless of quantity, may only be made in packages the design of which has been specifically approved by the U.S. Nuclear Regulatory Commission for transport of Plutonium by air.
18. The licensee shall maintain complete and accurate records of the receipt and disposal of radioactive material. The licensee shall, for radioactive material no longer useful for any purpose and for any equipment or supplies contaminated with such material for which further use and decontamination is not planned, define those materials as radioactive waste and treat them as such in accordance with the following provisions:
 - A. Radioactive waste material shall not be stored with non-radioactive waste.
 - B. A written record of all radioactive waste material shall be maintained until it has been determined by a suitable survey or radioassay that it has decayed to background levels or until it has been shipped to an authorized recipient in accordance with all applicable regulations. Accountability of radioactive waste material prepared for shipment but not yet shipped from the licensee's premises shall be maintained by the licensee by an internal record system such that the licensee is constantly aware of the material's location and the proposed time of shipment. Individuals who are involved in the shipping of such material and/or the storage of such material prior to shipment, shall be trained in the precautions necessary for such handling and storage.
 - C. For material which has decayed to background levels as determined by radioassay or external level as measured with appropriately calibrated instruments, records shall indicate that the material was determined to be no longer radioactive and will indicate the methods and results of the survey or analysis.
 - D. Shipment records of radioactive waste material shall be maintained and the licensee shall require written confirmation from the authorized recipient of such material that this material has been received.



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- E. All records and written confirmations required by this condition shall be maintained for inspection by the Department.

The requirements for this condition are in addition to any other requirements for the handling and/or disposal of radioactive material contained in this license and "State Regulations for Protection Against Radiation."

19. The licensee shall not open sealed sources containing radioactive material.
20. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by this Department, the U.S. Nuclear Regulatory Commission, or another Agreement State. A record of the results of this survey shall be maintained for the duration of the license.
21. The licensee is authorized to receive, possess, and use any radioactive material distributed under a general license, issued by the U.S. Nuclear Regulatory Commission, an Agreement state, or a Licensing state without being specifically referenced in Items 6, 8, 9, and 10 of this license. Notwithstanding, any other conditions of this license, the general licensee may possess and use radioactive material received under the provisions of " State Regulations for Protection Against Radiation ," 0400-20-10 in accordance with the requirements provided at the time of transfer of the radioactive material under the terms of the general license.
23. No provision of this license relieves the licensee from compliance with other Federal, State and local laws, ordinances, and regulations applicable to the licensee's activities.
24. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in the following:
 - Application dated April 23, 2019, with attachments
 - Letter dated July 8, 2019, with attachments