

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

RADIOACTIVE MATERIAL LICENSE

Pursuant to Section 23.1-03-01 through Section 23.1-03-15 of Chapter 23.1-03 of the North Dakota Century Code, and Article 33.1-10 of the North Dakota Administrative Code, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess, and use the radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders now or hereafter in effect of the North Dakota Department of Environmental Quality and to any conditions specified below:

Licensee  1. Name SECURE Energy Services USA, LLC	3. License Number 33-55508-01 is issued in its entirety
2. Address 5807 Front Street West Williston, ND 58801	4. Expiration Date
	5. Reference Number  551

6. Radioactive materials (element and mass number)	7. Chemical and/or physical form	8.A. Maximum concentration	8. Maximum quantity which licensee may possess at any one time
A. Technologically enhanced naturally occurring radioactive material (TENORM) atomic numbers 82-92 inclusive	A. Any form suitable for transport under U.S. DOT Regulations	A. 50 picocuries per gram of the total radium-226 plus radium-228 content	A. Total quantity not to exceed 25,000 tons per year

Abbreviations used in this license: United States Department of Transportation (U.S. DOT)

9. Authorized Use:
- A. For receipt and consolidation of waste materials containing technologically enhanced natural occurring radioactive material (TENORM) for permanent disposal.

**CONDITIONS:**

- 10. Licensed material shall be received, used and stored only at the licensee's 13-Mile Landfill located at 13809 – 66<sup>th</sup> Street NW, Williston, North Dakota 58801.

11. A. The licensee shall comply with the following chapters of the North Dakota Radiological Health Rules:
  - Chapter 33.1-10-01 General Provisions
  - Chapter 33.1-10-03.1 Licensing of Radioactive Material
  - Chapter 33.1-10-04.2 Standards for Protection Against Radiation
  - Chapter 33.1-10-10.1 Notices, Instructions, and Reports to Workers – Inspections
  - Chapter 33.1-10-11 Fees for Issuance of License and Registration Certificates and Inspections
  - Chapter 33.1-10-23 Regulation and Licensing of Technologically Enhanced Naturally Occurring Radioactive Material
- B. The licensee shall comply with all State and Federal environmental regulations. Issuance of this license does not supersede, replace, or negate any local ordinances, codes, rules, or regulations. In addition, the licensee shall comply with all local fire, zoning, and other applicable ordinances, codes, rules, and regulations as they affect the safe use and storage of radioactive material.
12. A. Licensed material shall only be used by, or under the supervision of individuals who have received the training described in the application dated April 30, 2018. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
- B. The Radiation Safety Officer for this license is Kurt Rhea.
13. The Department may at any time impose additional requirements and/or license conditions regarding the disposal of licensed materials as may be necessary to ensure health and safety of workers, protection of the environment and compliance with any applicable rules, regulations and statutes.
14. Financial assurance required by North Dakota Radiological Health Rule Section 33.1-10-03.1-01 [10 CFR 30.35] shall be maintained throughout the life of the facility, including the postclosure care period.
15. Annual license fees will be reduced to 5 percent of the applicable annual license fee for each year during the postclosure period as defined in Permit Number 0371 authorizing the landfill disposal of TENORM impacted waste issued by the North Dakota Department of Environmental Quality, Division of Waste Management.
16. Licensed waste material may not be accepted for disposal without a manifest as described in North Dakota Radiological Health Rule Subsection 33.1-10-23-08(4) and results of sample analysis of the individual concentrations, in picocuries per gram (pCi/g), of the radium-226 plus radium-228 content. The sampling of the waste material for this analysis must have been performed prior to adding any other materials (i.e., drying agents).

17. Should the licensee become aware of radioactive materials that were not identified (i.e., tracer materials) in any waste characterization or manifest that are present in waste materials received or buried at the site, the licensee shall maintain a record of these and shall provide immediate notification to the Department for any materials that are not specifically authorized on the license.
18. The licensee shall provide a personnel dosimeter that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor to each individual working with or in the vicinity of TENORM-impacted materials or equipment. Each personnel dosimeter must be assigned to and worn by only one individual. Film badges must be replaced at periods not to exceed one month and other personnel dosimeters must be replaced at periods not to exceed three months. After replacement, each personnel dosimeter must be processed as soon as possible. The licensee may request relief of this condition by submitting a minimum of 12 months of dosimetry reports to the Department for review.
19. The licensee shall obtain and analyze a representative sample of leachate/contact water contained in any leachate collection or accumulation or system, sump and/or other accumulation area, any surface impoundment and stormwater pond at intervals not to exceed 3 months. The sampling shall include measurements of the concentrations of radium-226, radium-228, gross alpha, total uranium and radon. Initial leachate sampling shall be performed prior to accepting any licensed waste materials. Leachate sampling records shall be maintained throughout the life of the facility, including the postclosure period as defined in Permit Number 0371 authorizing the landfill disposal of TENORM impacted waste issued by the North Dakota Department of Environmental Quality, Division of Waste Management.
20.
  - A. If radionuclides are detected in the leachate at a concentration greater than the concentrations listed below (excluding background), the groundwater monitoring network shall be analyzed for radionuclide parameters.
    - 1) Combined radium-226 plus radium-228: 5 picocuries per liter (pCi/L)
    - 2) Gross alpha particle activity (including radium-226, excluding radon and uranium): 15 picocuries per liter (pCi/L)
    - 3) Total uranium: 30 micrograms per liter (ug/L)
    - 4) Radon: 4,000 picocuries per liter (pCi/L)
  - B. Initial groundwater sampling shall be performed prior to accepting any licensed waste materials. Groundwater sampling records shall be maintained throughout the life of the facility, including the postclosure period as defined in Permit Number 0371 authorizing the landfill disposal of TENORM impacted waste issued by the North Dakota Department of Environmental Quality, Division of Waste Management.
21. The licensee shall conduct air sampling at a minimum of two locations; one located up-wind (i.e., northwest) and one located down-wind (i.e., southeast) of areas in the landfill identified for TENORM impacted waste disposal. The sampling shall be conducted for a minimum continuous two-week

period at intervals not to exceed 3 months. The sampling shall include measurement of the concentrations of radium-226, radium-228 and radon progeny. Initial air sampling shall be performed prior to accepting any licensed waste materials. Air sampling records shall be maintained throughout the life of the facility, including the postclosure care period as defined in Permit Number 0371 authorizing the landfill disposal of TENORM impacted waste issued by the North Dakota Department of Environmental Quality, Division of Waste Management. The licensee may request modification of this condition by submitting a minimum of 24 months of air sampling reports to the Department for review.

22. The licensee shall conduct area radiation monitoring of the facility's outer boundaries, at intervals not to exceed 3 months, to demonstrate compliance with the public dose limits specified in North Dakota Radiological Health Rule Chapter 33.1-10-04.2. Initial monitoring shall be performed prior to accepting any licensed waste materials. Monitoring records shall be maintained throughout the life of the facility, including the postclosure care period. Radiation survey instruments shall be calibrated at intervals not to exceed 12 months and after instrument servicing, except for battery changes.
23. An annual air, groundwater and leachate sampling and area radiation monitoring report shall be filed no later than March 31<sup>st</sup> of each calendar year with the North Dakota Department of Environmental Quality. The "Annual Air, Groundwater and Leachate Sampling/Area Radiation Monitoring Report" is available at [www.deq.nd.gov/AQ/Radiation](http://www.deq.nd.gov/AQ/Radiation) and shall be submitted electronically in excel format to [ram@nd.gov](mailto:ram@nd.gov).
24.
  - A. The licensee shall collect a representative composite sample of every 10th random shipment received from each TENORM impacted waste stream. The sample shall be analyzed for the concentrations of radium-226 and radium-228 by a Department approved laboratory or licensee using a Department approved analytical method. The analysis shall be compared to the initial characterization data for the waste stream. If the results differ from the profile, the Radiation Safety Officer or designee shall contact the waste generator and attempt to resolve the discrepancy. If the results cannot be reconciled, the waste stream shall be rejected until it can be resolved. Random sampling records shall be maintained throughout the life of the facility, including the postclosure period as defined in Permit Number 0371 authorizing the landfill disposal of TENORM impacted waste issued by the North Dakota Department of Environmental Quality, Division of Waste Management. Specific waste streams may be exempted from this requirement by the Department on a case-by-case basis.
  - B. Representative composite samples shall consist of a minimum of one individual sample for each linear foot of the greatest dimension of the waste material container. Each individual sample shall be acquired at a depth of 18 inches. All individual samples shall be mixed thoroughly to create the composite sample of record.
25. The licensee shall require all in-coming non-containerized loads of licensed waste material be covered or tarped prior to acceptance.
26. The licensee shall verify all in-coming loads of licensed waste material are transported by a transporter possessing a Department issued license to transport such materials.

27. This license is valid only in conjunction with the possession of Permit Number 0371 authorizing the landfill disposal of TENORM impacted waste issued by the North Dakota Department of Environmental Quality, Division of Waste Management.
28. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in the documents, including any enclosures, listed below. The North Dakota Radiological Health Rules shall govern unless the statements, representations, and procedures in the licensee's application and correspondence or the conditions contained in this license are more restrictive than the North Dakota Radiological Health Rules.
- A. Radioactive materials license application dated April 30, 2018.
  - B. North Dakota Department of Environmental Quality, Division of Waste Management landfill permit modification application resubmittal dated May 7, 2018.

FOR THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

Dated: \_\_\_\_\_

By: \_\_\_\_\_

Dale P. Patrick  
Manager  
Radiation Control Program