

Licensing & Permitting

North Dakota Department of Health

TENORM Licensing

North Dakota Department of Health
Radiation Control Program

What is TENORM?

- Technologically Enhanced Naturally Occurring Radioactive Material.
- Materials that are removed from the earth and concentrated by human activities.
- TENORM is created in the oil and gas industry and found in filter socks, filter cake, tank bottom sludge, used proppant and scales that form inside well pipes and equipment.



Companies requiring a Specific License for TENORM.

- Waste Processors/Treating Facilities
 - Solidification and treatment of NORM and TENORM waste using a filter press, shaker or centrifuge.
- Waste Haulers
 - Haulers who haul TENORM contaminated equipment, tank bottom sludge, filter socks and TENORM waste.



Companies requiring a Specific License for TENORM Continued.

- Decontamination
 - Commercial decontamination of equipment, facilities and land.
- Landfills who want to modify their permit to accept TENORM waste concentrated up to 50 pCi/g.

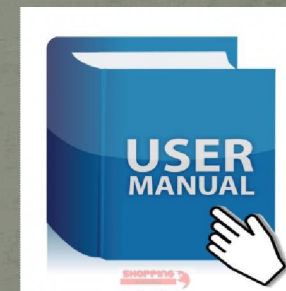


License Application Requirements for Waste Processors, Decontamination and Landfills

- Annual Fee 2016
 - Transporter \$7,550.00
 - Waste Processor/Treating Facilities \$16,180.00
 - Decontamination \$21,610.00
 - Landfills \$134,720.00
- Financial Assurance (NDAC 33-10-03.1)
 - Surety Bond
 - Landfill Bond \$1,125,000.00
 - Waste Processors/Treating Facilities \$225,000 - \$1,125,000.00
 - Decontamination \$225,000 - \$1,125,000.00
 - Standby Trust



- Operating and Emergency Policies/Procedures
 - Procedures for managing an accident or unusual occurrence.
 - Contamination control
 - Decontamination
 - Personnel Protective Equipment (PPE)
 - Disposal of contaminated materials
 - Procedures for daily operations




- Radiation Safety Program:
 - Radiation Safety Officer (RSO) 40 hr course
 - Training for all personnel
 - Personnel dosimetry program
 - Radiation survey instruments
 - Radiation area surveys
 - Posting: radiation area, restricted area
 - Procedures for labeling containers of TENORM contaminated waste.
 - Facility diagram



- Transportation
 - Hauled by a licensed transporter
 - Waste manifests
 - Quarterly reports
- Records Keeping
 - Personnel monitoring
 - Survey records
 - Calibration records
 - Training records
 - Receipt, Transfer and disposal records
 - Document retention period



- Personal & Business Information Disclosure
 - Waste Processors/Treating Facilities
 - Landfills
 - Decontamination Facilities


PERSONAL AND BUSINESS INFORMATION DISCLOSURE
 NORTH DAKOTA DEPARTMENT OF HEALTH
 DIVISION OF AIR QUALITY
DAH-61001 (1-16)

Name of Applicant		Name of Business	
Mailing Address			
City		State	ZIP Code
Business Phone Number	Business Cell Number	Business Email Address	
Describe your experience in managing the type of TENCORM that will be managed under the license:			

DISCLOSURE (Attach additional pages as needed):

1. Within the last 5 years, have you been the recipient of any civil or administrative complaint for the violation of any state or federal environmental protection law which resulted in a fine or penalty of more than \$10,000.00?
 Yes No If yes, please describe:

2. Within the last 5 years, have you entered into a settlement agreement with a federal or state agency to resolve any alleged violation of any state or federal environmental protection law which resulted in a payment of more than \$10,000.00?
 Yes No If yes, please describe:

3. Do you have any pending notice of violation, civil complaint, administrative complaint, or criminal complaint alleging the violation of any state or federal environmental protection law?
 Yes No If yes, please describe:

4. Within the last 5 years, have you had any judgment of criminal conviction entered against you for the violation of any state or federal environmental protection law?
 Yes No If yes, please describe:

5. Within the last 5 years, have you had any judgment or criminal conviction of a felony constituting a crime involving fraud or misrepresentation under the laws of any state or of the United States entered against you?
 Yes No If yes, please describe:

I declare under the penalties of perjury that this disclosure has been examined by me and to the best of my knowledge is a true, correct and complete.

Typed/print name	Title
Signature	Date

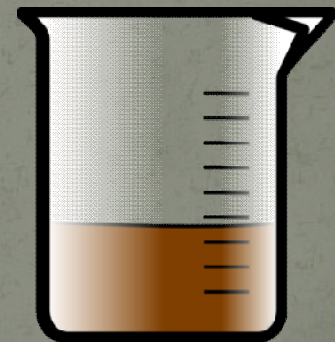
Return completed form to:
 North Dakota Department of Health
 Division of Air Quality
 919 E. Divide, 2nd Floor
 Bismarck, ND 58501-1947
 Telephone: (701)328-5188

- Public Notice

- Application and documents are placed on our website for 30 days.
- Notice is published in the county newspaper.
- Landfill applications public notice for Radiation Control Program will be in conjunction with Waste Managements public notice.

Sampling

- Analytical data of the concentration of Radium-226, Radium-228
- Approved Lab by the NDDoH.
- http://www.ndhealth.gov/AQ/RAD/Licensed_tenorm_testing.htm



Application Requirements for **TENORM** **Waste Transporter**

- Radiation Safety Program
 - Radiation Safety Officer (RSO) 8hr Course
 - Training for all personnel
- Operating and Emergency Manual
- Solid Waste Transporter Permit from Waste Management.

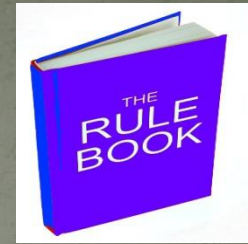


General TENORM License

- “ No formal document
- “ Generator
 - “ Well site
 - “ Salt water disposals
- “ Requirements
 - “ Notify the department within 60 days if it is not a site regulated by North Dakota Industrial Commission (NDIC).
 - “ Name and address of licensee
 - “ Location and description of the facilities
 - “ Description of the TENORM and estimates of amount



- Application Regulations
 - NDAC 33-10-01 General Provisions
 - NDAC 33-10-03.1 Licensing of Radioactive Material
 - NDAC 33-10-04.2 Standards for Protection Against Radiation
 - NDAC 33-10-10.1 Notices, Instructions and Reports to Workers.
 - NDAC 33-10-11 Fees for Issuance of License and Registration Certificates and Inspections
 - NDAC 33-10-13.1 Transportation of Radioactive Material
 - NDAC 33-10-23 Regulation and Licensing of TENORM



TENORM Permitting

North Dakota Department of Health
Solid Waste Program

Transporting TENORM Waste

- Requires:
 - A waste hauler permit from the Solid Waste Program
 - A license from the Radiation Control Program
- The solid waste permit will not be issued until the license from Radiation Control is issued
- \$75 permit fee
- \$25 yearly renewal fee

TENORM Rules

- Rule change in TENORM limit did NOT automatically increase the limit at all landfills
- ONLY applies to Special Waste and large volume Industrial Waste landfills
- Does NOT apply to Municipal Solid Waste landfills
- Each landfill will have to apply for a major permit modification

TENORM Rules – Solid Waste

- Solid Waste Program NDAC Chapter 33-20-11
 - Landfill disposal requirements:
 - Maximum 50.0 pCi/g total of Ra-226 + Ra-228
 - Maximum 25,000 tons/year
 - Covered by 1 foot of non-TENORM waste or daily cover material each day
 - 10 feet below surface of final cover
 - If final cover slope >15%, then final cover must be at least 5 feet thick

TENORM Rules – Solid Waste cont.

- Financial assurance required
- Leachate and groundwater monitoring are required
- Quarterly reporting to the NDDH
- Worker training and safety program required
- Record of notice attached to property deed which indicates the volume of TENORM disposed
- Waste Haulers will need:
 - Solid Waste Permit
 - TENORM Hauler License

Modifying Your Solid Waste Permit

- To take TENORM waste between 5.0 pCi/g and 50.0 pCi/g, the following must be completed:
 - Check with the local zoning authority to be sure that TENORM waste may be accepted
 - Apply for a Radioactive Materials License through the Division of Air Quality – Radiation control program

Modifying your Solid Waste Permit cont.

- Apply for a major modification of your Solid Waste Permit including:
 - Permit Application Form
 - Permit Application Fee
 - Notice on the Deed

Modifying your Solid Waste Permit cont.


- Apply for a major modification of your Solid Waste Permit including (cont.):
 - **Update, at a minimum:**
 - Final Cover Design (if > 15% slope)
 - Groundwater Monitoring Plan
 - Plan of Operations
 - Recordkeeping & Reporting
 - Waste Acceptance Plan
 - Worker Training & Safety Plan

Public Notice & Public Comment

- Public notice with a 30 day public comment period
- Public comment period will run concurrently for Radiation Control Program and Solid Waste Program
- Public hearing would be held for both programs

NDDH - List Serve

- Go to <http://www.ndhealth.gov/subscriptions/> and subscribe to the list serve for notifications




Administrative Support ▾

Email Subscription Service

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Company/Name:

Email Address:

Questions?