Pursuant to Chapter 23.1-08 of the North Dakota Century Code (NDCC), (Solid Waste Management and Land Protection Act), and Article 33.1-20 of the North Dakota Administrative Code (NDAC), (Solid Waste Management Rules), and in reliance on statements and representations heretofore made by the owner or owner's representative designated below, a permit is hereby issued authorizing such Permittee (Permittee) to construct and operate a solid waste management facility at the designated location under any and all conditions.

A. **Owner/Operator (Permittee):**
   1. **Name:** Secure USA LLC – 13 Mile Landfill
   2. **Mailing Address:** 13809 66th St. NW, Williston, ND 58801
   3. **Location Address:** 14 miles north of Williston and 2 miles west of Highway 85

B. **Permit Number:** 0371

C. **Solid Waste Management Units:**
   1. Special and Small Volume Industrial Waste Landfill
   2. Surface Impoundments – 2

D. **Location Information:**
   1. **General:** SE1/4 of Sec 36 TWP 157N R 101W of Williams County
   2. **Permit Area:** As described in referenced documents and facility files – approximately 160 acres.
   3. **Latitude:** 48.373211° **Longitude:** -103.669014°

E. **General Conditions:**

   E.1. The Permittee of the facility is subject to the Solid Waste Management and Land Protection Act (NDCC Chapter 23.1-08), the Solid Waste Management Rules (NDAC Article 33.1-20), all other North Dakota and federal laws, rules or regulations and orders now or hereafter effected by the North Dakota Department of Environmental Quality (hereinafter the Department), and to all conditions of this permit.

   E.2. Compliance with terms of this permit does not constitute a defense to any order issued or any action brought under NDCC Chapter 23.1-08, NDAC Article 33.1-20, NDCC Chapter 23.1-04, NDAC Article 33.1-24, Sections 3013, 7003, or 3008(a) of Resource Conservation and Recovery Act (RCRA), Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et. seq.) or any other law providing for protection of public health or the environment.
E.3. Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. (NDAC Section 33.1-20-02.1-06)

E.4. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (NDAC Section 33.1-20-02.1-04)

E.5. This permit is based on the premise that the information submitted by the Permittee is accurate and that the facility will be or has been constructed and will be operated or has been as specified in the application and all related documents. Any inaccuracies or misrepresentations found in the application may be grounds for the termination or modification of this permit. The Permittee must inform the Department of any deviation from, or changes in, the information in the application which would affect the Permittee's ability to comply with the applicable rules or permit conditions. (NDAC Section 33.1-20-02.1-07)

E.6. The Permittee shall at all times properly operate and maintain the facility, solid waste management units, and related appurtenances which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit. (NDAC Section 33.1-20-02.1-04)

E.7. The Permittee shall give notice to the Department of any planned physical alterations or additions to permitted solid waste management units. Any physical change in, or change in the method of the operation of, a treatment or disposal operation shall be considered to be construction, installation or establishment of a new operation. No construction, installation or establishment of a new operation shall be commenced unless the Permittee thereof shall file an application for, and receive, a permit from the Department. (NDAC Section 33.1-20-02.1-04 and NDAC Section 33.1-20-02.1-07)

a. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

b. The Permittee shall provide to appropriate representatives that will be involved in routine operation of the facility a copy of the approved Plan of Operation (including waste acceptance procedures). The training and educational material shall be repeated and/or amended as necessary to ensure compliance with the waste acceptance procedures and the permit.

c. Whenever the Permittee becomes aware that the Permittee failed to submit any relevant facts in the permit application or submitted incorrect information in the permit application or in any report to the Department, the Permittee shall promptly submit such facts or information.

E.8. The Permittee shall construct, operate, maintain and close the solid waste management
units and the facility according to the criteria of law and rule, conditions of this permit, and other reasonable precautions to prevent or minimize, if applicable, any environmental impacts including, but not limited to, fugitive dust emissions, objectionable odors, air toxics and gas emissions, spills, litter, and contamination of surface water and groundwater. (NDAC Section 33.1-20-02.1-04 and NDAC Subsections 33.1-20-04.1-02(1) – (6))

E.9. The Permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit. (NDAC Section 33.1-20-02.1-07 and NDAC Section 33.1-20-04.1-04)

E.10. This permit may be modified, revoked and reissued, or terminated for cause as specified in NDAC Section 33.1-20-02.1-07. The filing of a request for permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

This permit may be renewed as specified in NDAC Section 33.1-20-02.1-08. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology, compliance with state rules and permit, as well as changes in applicable regulations.

E.11. This permit addresses only the environmental aspects and operational procedures of the facility. It does not supersede local zoning authority or any other requirements of any political subdivision of the state. The Permittee must obtain any and all local zoning, conditional use permits, or meet any other county, township or municipal requirements prior to commencing construction and/or operation. (NDAC Section 33.1-20-02.1-06 and SFN 19269)

E.12. The Permittee shall design, close, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion or any unplanned sudden or nonsudden release of solid waste or solid waste constituents to air, soil, groundwater or surface water which could threaten human health or the environment. (NDAC Section 33.1-20-04.1-02)

E.13. Any entity that controls the permit holder (Permittee) agrees to accept responsibility for any remedial measures, closure and postclosure care or penalties incurred by the Permittee. For purposes of this permit, "control" means ownership or control, directly, indirectly, or through the actions of one or more persons of the power to vote 25% or more of any class of voting shares of a permit holder, or the direct or indirect power to control in any manner the election of a majority of the directors of a permit holder, or to direct the management or policies of a permit holder, whether by individuals, corporations, partnerships, trusts, or other entities or organization of any type. Within thirty (30) days of the issuance of this permit, if not previously provided with the application, or within thirty (30) days of the existence of any new controlling entity, the Permittee shall submit to the Department the name of the controlling entity, a statement signed by the controlling entity in which the controlling entity agrees to accept responsibility for any remedial measures, closure, and postclosure care or penalties
incurred by the Permittee and a disclosure statement from the controlling entity containing the same information as required from permit applicants under NDCC Section 23.1-08-17. (NDCC Subsection 23.1-08-09(1))

E.14. All personnel involved in solid waste handling and in the facility operation or monitoring must be provided a copy of this permit and shall be instructed in specific procedures to ensure compliance with the permit, the facility plans and the state rules as necessary to prevent accidents and environmental impacts. Documentation of training such as names, dates, description of instruction methods and copies of certificates awarded must be placed in the facility’s operating record. (NDAC Section 33.1-20-04.1-02)

E.15. Except as modified by conditions of this permit or future approvals from the Department, this facility and related solid waste management units and structures shall be designed, constructed, operated and closed in accordance with previous correspondence and documents contained in Departmental files pertaining to this facility and as described in the documents listed in Attachment 1, which are hereby incorporated by reference in this permit. Future submittals approved by the Department may supersede or supplement items listed in Attachment 1. (NDAC Section 33.1-20-02.1-04)

E.16. All facility reports shall be submitted to the Department in a digital or electronic format as a searchable PDF format document unless otherwise requested. In some cases, the Department may request hard copies in addition to electronic format. Reports shall be sent to solidwaste@nd.gov.

Recordkeeping and reporting shall be in accordance with NDAC Section 33.1-20-04.1-04 and as described in the approved Plan of Operations.

The Permittee shall submit an annual report to the Department by March 1st of each year in accordance with NDAC Subsection 33.1-20-04.1-04(3).

The Permittee shall submit an annual groundwater report to the Department by April 1st of each year in accordance with NDAC Subsection 33.1-20-04.1-04(4).

E.17. The Permittee shall complete the Department’s Waste Rejection Report (SFN 60120) and notify the Department within five (5) days of any wastes rejected and not accepted by the facility. (NDAC Subsection 33.1-20-04.1-02(8))

E.18. Within sixty (60) days of the issuance of this permit, if not already completed, the Permittee shall record a notarized affidavit with the County Recorder. The affidavit shall specify that this facility, as noted in the legal description, is permitted to accept solid wastes for disposal. This affidavit shall specify that another affidavit must be recorded upon the facility’s final closure.

Upon closure, a second affidavit shall be recorded specifying any final details regarding the types of waste disposed at the facility, as well as any final details regarding the facility’s location, construction, management, etc.

The Department must be provided a copy of both affidavits, certified by the County Recorder of the county in which the facility is located. The copies must be forwarded to the Department within thirty (30) days of recorded dates, or if notification has already been completed, within thirty (30) days of the permit issuance date. (NDAC Section 33.1-20-02.1-05)
F. Special and Small Volume Industrial Waste Landfill Specific Conditions:

F.1. The following wastes are prohibited from disposal at this facility:

- Regulated infectious waste;
- Used oil as a free liquid;
- Hazardous waste; and
- TENORM waste

(NDAC Subsection 33.1-20-07.1-01(2))

F.2. The facility is authorized only for the disposal of industrial waste, EPA-exempt natural gas and crude oil exploration and production special waste, and other wastes as identified in the permit application, Departmentally-approved facility waste acceptance plan, elsewhere in this permit, or through Departmental correspondence. The facility may accept other types of special waste upon approval from the Department.

"Industrial waste" means solid waste, which is not a hazardous waste regulated under chapter 23.1-04, generated from the combustion or gasification of municipal waste and from industrial and manufacturing processes. The term does not include municipal waste or special waste. (NDCC Subsection 23.1-08-02(5))

The facility is limited to accepting 25,000 tons per year or 3,000 tons in any one month of industrial waste unless larger amounts in one month resulting from remediation of spills or cleanup projects are approved by the Department. (NDAC Subdivision 33.1-20-01.1-11(1)(b))

"Inert waste" means nonputrescible solid waste which will not generally contaminate water or form a contaminated leachate. Inert waste does not serve as a food for vectors. Inert waste includes: construction and demolition material such as metal, wood, bricks, masonry and cement concrete; asphalt concrete; metal; tree branches; bottom ash from coal-fired boilers that is not CCR; and waste coal fines from air pollution control equipment. (NDAC Subsection 33.1-20-01.1-03(46))

"Special waste" means solid waste that is not a hazardous waste regulated under chapter 23.1-04 and includes waste generated from energy conversion facilities; waste from crude oil and natural gas exploration and production; waste from mineral and ore mining, beneficiation, and extraction; and waste generated by surface coal mining operations. The term does not include municipal waste or industrial waste. (NDCC Subsection 23.1-20-01.1-03(16))

"Technologically enhanced naturally occurring radioactive material (TENORM)" means naturally occurring radioactive material whose radionuclide concentrations are increased by or as a result of past or present human practices. TENORM does not include background radiation or the natural radioactivity of rocks or soils. TENORM does not include "source material" and "byproduct material" as both are defined in the Atomic Energy Act of 1954, as amended [42 U.S.C. 2011 et seq.] and relevant regulations implemented by the United States nuclear regulatory commission. (NDAC Subsection 33.1-20-01.1-03(83))

The facility is not approved for the management or disposal of TENORM equal to or
greater than 5.0 picocuries per gram (pCi/g) of combined radium-226 (Ra-226) plus radium-228 (Ra-228).

F.3. Waste containing free liquids is not approved for transport or delivery to the facility. "Free liquid" means the liquid which separates from the solid portion of a solid waste under ambient pressure and normal, above freezing temperature. The environmental protection agency paint filter liquids test method or visual evidence must be used to determine if a waste contains free liquid. (NDAC Subsection 33.1-20-01.1-03(32))

At minimum, visual observation of the waste at both the entry to the facility and at the working face shall be used to inspect waste arriving at the facility. The EPA Paint Filter Liquids Test (Method 9095B) protocol shall be used for all waste in which visual observation is not conclusive or if there is any question on free liquids. (NDAC Subparagraph 33.1-20-04.1-03(1)(h)(4)(n))

F.4. Any waste sampling and analysis must be representative of the waste using approved sampling and analytical procedures. All analysis must be performed by a Departmentally certified and approved laboratory or survey procedure documenting whether the waste meets limits established by rule, permit and Department approved waste acceptance procedures. (NDAC Section 33.1-20-01.1-13 and NDAC Paragraph 33.1-20-04.1-03(1)(h)(2))

F.5. Prior to storage, treatment or disposal of wastes, the Permittee will obtain, at a minimum, the following information:

a. Name and address of the generator;

b. A generator contact person and telephone number;

c. The source of the waste (facility's name and legal description of location);

d. The name of the company managing the waste, if other than the generator;

e. The name of the waste transporter, Solid Waste Transporter Permit Number and if TENORM waste is being hauled, the TENORM Waste Transporter License Number;

f. Physical description of the waste (e.g., solid, liquid, sludge);

g. Amount of wastes (e.g., tons, yards, drums);

h. Description of the process through which the waste was generated (e.g., tank bottoms, drill pit mud);

i. Appropriate analysis specific to that waste, if the waste is not uniquely associated with crude oil and natural gas exploration and production, to identify any hazardous waste characteristics; and

j. Signed statement by the generator that, to their knowledge, this waste is not, by definition, a hazardous or radioactive waste, the waste has not been diluted to reduce TENORM levels, and that the waste, as delivered to the facility will not contain free liquids.
k. This information shall be retained in the operating record of the facility and copies of such information shall be included as a separate attachment in the monthly report and marked as confidential as allowed by NDCC Section 44-04-18.4.

(NDCC Section 23.1-08-14 and NDAC Subdivision 33.1-20-03.1-02(6)(b))

F.6. Waste accepted at the facility shall not be stored, stockpiled or placed anywhere on the facility other than the approved disposal area. (NDAC Subdivision 33.1-20-04.1-03(1)(b))

F.7. All incoming waste to the facility shall be surveyed for radiation utilizing the facility’s Department approved radiation surveying procedure and equipment at or near the entrance to the facility, prior to any off-loading or disposal. Radiation survey results shall be recorded and included in the monthly report.

a. Waste that is suspected by the waste generator to contain TENORM concentrations of less than 5.0 pCi/g of combined Ra-226 plus Ra-228 and which the surveyed results are less than the approved survey level, may be accepted for disposal in accordance with the approved plan of operation.

b. For waste that is suspected to contain TENORM in which the surveyed results are equal to or exceed the approved survey level, the Permittee must either reject the waste or place the waste in a Department approved portion of the disposal area while waiting for analytical results. The waste shall be covered and secured and shall not be held for longer than 45 days, otherwise the waste must be rejected.

   1. If the waste has concentrations less than 5.0 pCi/g of combined Ra-226 plus Ra-228, the waste may be accepted for disposal in accordance with the approved plan of operation.

   2. If the waste has concentrations equal to or greater than 5.0 pCi/g of combined Ra-226 plus Ra-228, the waste must be rejected.

b. For any waste that is not suspected to contain TENORM in which the surveyed results are equal to or exceed the approved survey level, the Permittee must do a physical inspection of the waste to determine if TENORM or regulated radioactive waste has been incorporated within or added to the waste.

   1. If identifiable TENORM or regulated radioactive waste is observed, the waste must be rejected.

   2. If identifiable TENORM is not observed in the waste but naturally occurring radioactive material (NORM) is observed, the NORM should be removed, if possible, to determine if the remaining waste is below the approved survey level. If the waste is below the approved survey criteria, the entire waste may be accepted for disposal in accordance with the approved plan of operation.

   3. If identifiable TENORM or regulated radioactive waste is not observed and after the removal of the observed NORM waste, and the re-survey of the waste is equal to or above the approved survey level, then the Permittee must either reject the waste or place the waste in a Department approved portion of the disposal area while waiting for analytical results. The waste shall be
covered and secured and shall not be held for longer than 45 days, otherwise the waste must be rejected.

i. If the waste has concentrations less than 5.0 pCi/g of combined Ra-226 plus Ra-228, the waste may be accepted for disposal in accordance with the approved plan of operation.

ii. If the waste has concentrations equal to or greater than 5.0 pCi/g of combined Ra-226 plus Ra-228, the waste must be rejected.

Waste rejection must follow the procedures in condition E.17.

(NDAC Subdivision 33.1-20-04.1-03(1)(a), NDAC Subparagraph 33.1-20-04.1-03(1)(h)(4)(d))

F.8. The Permittee shall conduct random waste characterization and screening. The Permittee shall randomly collect a composite representative sample of waste from 1% of the incoming loads of the production waste subset of special waste and have the sample analyzed for:

1. Total Petroleum Hydrocarbons (TPH) as Diesel Range Organics (DRO) and Gasoline Range Organics (GRO);
2. RCRA metals;
3. TENORM radioactivity level for combined Ra-226 plus Ra-228;
4. Benzene, Toluene, Ethyl benzene and Xylene (BTEX);
5. Ignitability; and
6. Free liquids using both a visual assessment and an EPA Paint Filter Test.

The sampling methodologies and testing criteria for random special waste characterization shall conform to the requirements of a Department-approved sampling and analysis plan using approved screening and analytical methods.

On a case-by-case basis, the Department may approve a reduction of random waste sampling for large projects in which the wastes are characteristically similar and are generated from a contiguous source such as a waste clean-up project, oilfield exploration/drilling and similar activities. The Permittee must obtain written Department approval prior to reducing sampling. The Department reserves the right to require modification to random waste sampling as deemed necessary.

(NDAC Subdivision 33.1-20-04.1-03(1)(h))

F.9. Any waste material suspected to contain TENORM or likely to have accumulated TENORM in concentrations equal to or greater than 5.0 pCi/g shall be analyzed for Ra-226 and Ra-228 concentrations by a state-approved analytical procedure. If the total analytical measured concentrations of combined Ra-226 plus Ra-228 are equal to or greater than 5.0 pCi/g, the waste will not be allowed for acceptance, treatment or disposal at the facility and shall be rejected.
This permit does not authorize any waste or product centrifuging, filtering or similar processing to separate oil, water and/or solids on this site. This permit does not authorize any diluting to reduce TENORM levels.

(NDAC Subdivision 33.1-20-04.1-03(1)(a) and NDAC Subsection 33.1-20-07.1-01(2))

F.10. The Permittee shall submit monthly reports to the Department by the last day of the following month. The report shall include a summary of the past month’s construction activity, operations and inspections of the facility. At a minimum, the following information shall be included:

a. Tonnage accepted for the month broken down by industrial waste, inert waste, and special waste
b. Rejected waste loads
c. Information required in conditions F.5., F.7. and F.8.
d. Rainfall totals for events equal to or greater than the 25-year, 24-hour storm event
e. Map, including location and size (in acres) of the:
   1. Operating area
   2. Areas with interim cover
   3. Areas with final cover
f. Current construction projects and upcoming construction projects for both new construction and closure projects
g. Leachate head above liner in the landfill, amount of leachate generated, and how leachate is managed (i.e. surface impoundment or disposed of via injection well)
h. Amount of freeboard in the surface impoundment(s)
i. Condition of the pump(s) for leachate management
j. Summary of training conducted

(NDAC Section 33.1-20-02.1-04)

F.11. The facility shall be operated in full accordance with the approved plan of operation and the waste screening provisions. (NDAC Section 33.1-20-04.1-03)

F.12. The Permittee shall conduct self-inspections in accordance with the approved inspection procedures. (NDAC Subsection 33.1-20-04.1-02(8))

F.13. During excavation and construction of any disposal unit, surface impoundment, or other solid waste unit, any layers of materials with a higher hydraulic conductivity, including, but not limited to, areas of sand, silty sand, gravel and/or lignite over eight (8.0) inches in thickness, or any areas where in-situ clay-rich soils underlying the base of the solid waste unit are less than three (3) feet thick, the base shall be over-excavated and replaced with at least three (3) feet of carefully compacted clay-rich soil to establish a
geologic barrier to leachate migration. At minimum, sand or lignite zones less than eight (8.0) inches in thickness shall be scarified, mixed with in-situ shale or clay-rich sediments to a depth of 12 inches, visually classified, recompacted and tested as described in Section IV, Subbase Preparation, of the Department's Guideline 5 – Quality Assurance for Construction of Landfill and Surface Impoundment Liners, Caps and Leachate Collection Systems (see attachment 2). Replacement of the zones of higher hydraulic conductivity and the placement of compacted clay shall be addressed in the final quality assurance/quality control report to the Department. (NDAC Subsection 33.1-20-04.1-01(2))

F.14. On all areas of the landfill where final cover or additional solid waste will not be placed within six (6) months, eight (8) inches or more of compacted clay-rich soil material, similar material, or a synthetic cover must be placed to prevent ponding of surface water, to minimize infiltration of surface water, and to control windblown dust. (NDAC Subsection 33.1-20-07.1-01(1))

F.15. All earthen material must be maintained on-site (to be used for all construction, cover, closure and revegetation activities) unless removal from the site is authorized by the Department. (NDAC Subdivision 33.1-20-04.1-09(2)(k))

F.16. Suitable plant growth material (SPGM) topsoil and SPGM subsoil shall be used for site closure. Any extra material shall be stored in approved areas for use in site maintenance and closure repair. All SPGM shall be replaced upon site or area reclamation. (NDAC Subdivision 33.1-20-04.1-09(2)(f))

G. Facility Specific Conditions:

G.1. The Permittee shall provide adequate funding to the Department to conduct a monitoring and inspection program. The Department will send an invoice based on current expense levels.

Within thirty (30) days of receipt of the initial invoice, the Permittee shall provide the funds, and thereafter by July 31 of each year. If the funds are not provided to the Department as described in this permit, the facility must discontinue waste acceptance and begin closure.

(NDCC Section 23.1-08-10)

G.2. The Permittee 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 the same frequency and for the same parameters in the facility's approved groundwater monitoring program. The analytical results shall be submitted to the Department with the groundwater monitoring report. (NDAC Paragraph 33.1-20-04.1-09(3)(e)(2))

G.3. Sequential closure of solid waste disposal units shall be implemented as described in the approved closure plan. (NDAC Subdivision 33.1-20-04.1-03(1)(g), NDAC Subsection 33.1-20-04.1-05(2), and NDAC Subdivision 33.1-20-04.1-05(5)(d))

The largest approved open area is 15 acres before sequential partial closure must be initiated. (NDAC Subdivision 33.1-20-04.1-05(5)(a))
G.4. No area of the landfill final cover, including, but not limited to, support berms and the outer slopes of any drainage control berm/swale shall be greater than the 25% (4:1) maximum slope allowed by NDAC Paragraph 33.1-20-04.1-09(4)(b)(3).

G.5. The Permittee shall use the approved survey level of twice background when conducting radiation surveys in accordance with condition F.7. (NDAC Subsection 33.1-20-04.1-03(1)(a))

H. Surface Impoundment Specific Conditions:

H.1. All surface impoundments shall be constructed, operated, maintained and inspected in accordance with NDAC Chapter 33.1-20-08.1.

All surface impoundments shall be maintained and inspected to ensure orderly operation and ensure adequate storage capacity, and two (2) foot of freeboard must be maintained. After significant runoff events, prior to winter freeze-up, and/or in anticipation of a period of heavy precipitation, the surface impoundment’s capacity shall be restored as soon as practicable to ensure at least a 25-year, 24-hour stormwater management capacity. (NDAC Subdivision 33.1-20-04.1-09(3)(a))

The surface impoundments shall not be used for management of stormwater that has not been in contact with waste. The surface impoundments shall be protected from surface water run-on from adjacent areas. (NDAC Subdivision 33.1-20-04.1-09(3)(d))

Should questions or issues arise, the Permittee shall contact the North Dakota Department of Environmental Quality at 701-328-5166.

In consideration of information provided regarding the facility and its operation and in consideration of the conditions above, the North Dakota Department of Environmental Quality hereby issues a permit to the Secure USA LLC.

This permit is effective as of June 6, 2022 and shall remain in effect until June 6, 2025, unless modified, superseded, or revoked under Section 33.1-20-02.1-07 NDAC or continued in accordance with Section 33.1-20-02.1-08 NDAC.

[Signature]
Charles R. Hyatt, Director
Division of Waste Management

Date: 6/6/22

Attachments:

Attachment 1: Historical Document List

Attachment 2: Guideline 5-Quality Assurance for Construction of Landfill and Surface Impoundment Liners, Caps and Leachate Collection Systems
<table>
<thead>
<tr>
<th>Date</th>
<th>Document Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 6, 2021</td>
<td>Revised Plan of Operations.</td>
</tr>
<tr>
<td>July 12, 2021</td>
<td>NDDEQ Letter and Review Memo of the October 14, 2020 Permit Application from Secure Energy Services – The review identified several deficiencies.</td>
</tr>
<tr>
<td>May 7, 2021</td>
<td>Major Permit Modification Application for TENORM Waste Acceptance at Secure Energy Services USA LLC 13 Mile Landfill Facility located 14 Miles North of Williston &amp; 2 Miles West of Highway 85, North Dakota – NDDEQ Permit No.0371.</td>
</tr>
<tr>
<td>October 14, 2020</td>
<td>Permit Application for Secure Energy Services USA LLC 13 Mile Landfill Facility located 14 Miles North of Williston &amp; 2 Miles West of Highway 85, North Dakota – NDDEQ Permit No.0371.</td>
</tr>
<tr>
<td>September 18, 2019</td>
<td>NDDEQ Letter to Secure Energy Services and NDDEQ Letter to Williams County Commissioners regarding zoning.</td>
</tr>
<tr>
<td>August 1, 2018</td>
<td>Letter from Larry Hammersmark regarding Secure Energy Services USA LLC &quot;SECURE&quot; respectfully submits these comments in response a meeting between the NDDoH- Waste Management and SECURE regarding the draft permit for TENORM acceptance and the construction of Cell 3.</td>
</tr>
<tr>
<td>May 4, 2018</td>
<td>Letter from Larry Hammersmark regarding Secure Energy Services Application Resubmittal – Addressing Deficiencies in the Secure Energy October 20, 2017 Major Permit Modification Application for TENORM Waste Acceptance and Base Grade Design Changes</td>
</tr>
<tr>
<td>May 4, 2018</td>
<td>Secure Energy Services Application Resubmittal – Addressing Deficiencies in the Secure Energy October 20, 2017 Major Permit</td>
</tr>
</tbody>
</table>
Modification Application for TENORM Waste Acceptance and Base Grade Design Changes

April 5, 2018

NDDoH Letter and Memorandum review of the October 20, 2017 Permit Application from Secure Energy Services – The review identified several deficiencies.

October 20, 2017

Major Permit Modification Application for TENORM Waste Acceptance at Secure Energy Services USA LLC 13 Mile Landfill Facility located 14 Miles North of Williston & 2 Miles West of Highway 85, North Dakota – NDDoH Permit No. 0371.

May 31, 2017

NDDoH Letter and Memorandum review of April 2016 -Solid Waste Management Facility Permit Renewal and Modification Application – Secure Energy – Marquis Alliance – 13 Mile Landfill 0371

February 28, 2017

In support of our 13 Mile Landfill Major Permit Application we are forwarding the following updating documents:

1. A signed North Dakota Solid Waste Management Facility Permit application form – SFN 19269 (4-2010) and current Certificate of Insurance, and
2. A signed disclosure statement as required by North Dakota Century Code section 23-29-07.11.

February 22, 2017

Major Permit Modification Application for TENORM Waste Acceptance at Secure Energy Services USA LLC's - 13 Mile Landfill Facility - NDDoH Permit No.0371.

September 22, 2016

Solid Waste Permit 00371 is hereby modified by the NDDH to include the following conditions to be added to the existing permit for your facility:

K. Special Conditions - Waste Acceptance and Rejection:

April 4, 2016

Major Permit Modification Application for TENORM Waste Acceptance and Permit Renewal at Secure Energy Services USA LLC 13 Mile Landfill Facility located 14 Miles North of Williston & 2 Miles West of Highway 85, North Dakota – NDDoH Permit No.0371.

March 13, 2014

13 Mile Solid Waste Management Facility Operator Name Change from Marquis Alliance to Secure Energy Services - Permit No. 0371

May 30, 2013


April 2013

"Groundwater Monitoring Plan," 13 Mile Landfill – SE1/4, Section

November 7, 2012

"Application for a Solid Waste Management Facility Permit SFN19269 (4-2010)" and attachments, dated November 7, 2012.

November 2012


October 2012


August 7, 2012

NDDoH letter conditionally approving the preapplication submitted by Marquis Alliance Energy Group for a new oilfield special waste landfill north of Williston

June 6, 2011

"Pre-Application Report Special Waste Landfill Sec 36-157N-101W, Williams County, North Dakota" submitted by Marquis Alliance Energy Group
I. Introduction

Quality Assurance (QA) procedures are necessary to assure proper construction of solid waste landfills and surface impoundments. The purpose of this document is to provide detailed recommendations to field personnel, engineers and permit applicants regarding the minimum quality assurance procedures for the construction of facilities and to ensure documentation of construction. These QA recommendations do not in any way reduce the responsibilities of individual contractors or permittees to achieve facility design or performance specifications.

Quality assurance refers to the function of the owner or owner's representative, usually an independent testing company, to monitor construction activity and review construction data and reports from contractors, manufacturers and suppliers. Contractors, manufacturers and suppliers must supply Quality Control (QC) information for their products and equipment. The information becomes part of the project quality assurance/documentation report that is often submitted to the Department.

A specific sequence of procedures is necessary for the construction of liners. These procedures are usually provided with an application for a permit and occasionally required by a permit. Documentation of each procedure becomes necessary to demonstrate that design or performance specifications have been achieved. Visual inspection, survey, field and laboratory testing will be undertaken as appropriate. Recommendations for certifications are listed, including testing frequencies and product specifications. A qualified QA inspector and/or surveyor, independent of the owner or owner's representative, can provide oversight to certify proper construction.

This document has been prepared by the Department for the purpose of assisting owners and operators in fulfilling regulatory and permit requirements. Questions and comments are welcome and can be addressed to the Division of Waste Management, North Dakota Department of Environmental Quality, 918 E. Divide Ave., 3rd Fl., Bismarck, ND 58501-1947.

II. Soil Investigation

The soil material to be used for the construction or installation of any backfill or subliner, subbase, clay liner, drainage layer, or landfill cap must be clearly identified and described in a soil investigation to be submitted to the Department with any permit application or as deemed necessary (NDAC 33.1-20-03.1-02, subsection 6). The soil investigation should include a map and a description of borings along with a determination of soil parameters for any material to be used during construction. Appropriate soil parameters for a soil investigation include, but are not limited to:

1. In-place moisture-density
2. Atterberg limits
III. Backfill or Subliner Installation

For some landfills in strip mined areas, it is necessary to raise the bottom elevation of the disposal units. The earthen materials used for backfill must be selected and placed to ensure proper stability for the landfill and the liners and to help minimize leachate constituent migration. The backfill placement should be documented as follows:

1. A grid pattern should be established at the base and sides of the excavation, generally 100 foot spacing. Survey points should be taken and recorded on drawings to be submitted to the Department in the QA report.

2. Minimum one (1) standard or modified proctor test for every 10,000 cubic yards with an additional test for any change in the major soil type.

3. Grain-size distribution and soil classification of backfill tested, at minimum, once each 5000 cubic yards, with any changes in the major soil type.

4. Suitability of backfill, at minimum each twelve inches, tested as follows:
   a. Visual check of soil characteristics as the material is placed.
   b. Density test. Meet 90 percent modified or 95 percent standard proctor density, one test per 100-foot grid.

   Location method of all tests should be documented for reports.

IV. Subbase Preparation

Construction of appropriate berms, embankments and subbase preparation will occur prior to liner installation. A survey of the subgrade area is necessary prior to the start of liner construction. The subgrade surface should be smooth and free from material prior to the start of liner construction. The subgrade should be documented as follows:

1. A grid pattern should be established with additional points placed at the toe of all slopes and at the low point in each cell. Survey points should be taken and recorded on drawings for inclusion with reports.

2. Tests of the top six inches of the subgrade are needed as follows:
   a. Minimum one (1) standard or modified proctor test (minimum 5-point curve) with an additional test for any change in major soil type.
   b. Density and in-place moisture testing. Determine in-place moisture content and meet, at minimum, 90 percent modified proctor or 95 percent standard proctor density, one test per 100-foot grid.
   c. Soil classification. Atterberg limits and grain-size distribution once per 1000 cubic yards of subgrade surface area, at a minimum, and with any change in the major soil type.
d. Location method of all tests should be documented for reports.

V. Lysimeter Installation

Lysimeters should be installed in accordance with appropriate design details. The subgrade elevations and pipe invert elevations should be addressed in permit applications or as may be required by the Department. All values should be entered in appropriate tables. The lysimeter construction should be visually inspected during installation.

VI. Clay Liner Specifications

For clay liner (and clay caps), the selection and placement of clay soils is critical to meet the required hydraulic conductivity of $1 \times 10^{-7}$ centimeters per second or less. The condition and moisture level of the soil material has to be monitored closely. Processing of the soil is very important. If the material consists of a claystone, a rock crusher and screen may be utilized to pulverize the material to an adequate consistency.

Appropriate precautions are needed to avoid rocks and gravel larger than 3/4 inch in the liner materials. At minimum, for clay liner soils placed within two feet of the top of the clay liner surface (the upper two feet of the liner), rocks and gravel larger than 3/4 inch must be screened or removed from the soil. A road reclaimer or tillage equipment may be used to break up soil clods. The addition of water or, if necessary, any drying of the soil must be provided for. Placement of the clay soil should be as follows:

1. The clay soils should be placed to achieve a maximum thickness of six inches per compacted lift and compacted to a minimum 90 percent modified proctor or 95 percent standard proctor density. Additional compaction effort may be necessary based on the moisture-density relationship and permeability information.

2. The clay should be compacted 2 to 5 percent wetter than the moisture content at maximum proctor density.

3. Placement and/or compaction of frozen soils is not recommended. Therefore, if frozen soils are identified, they should be removed from the liner. Special precautions to prevent freezing of the clay liner will be necessary. These methods may include soil cover and/or insulation.

4. Proper compaction equipment and methods are necessary. The tamp foot or sheeps foot compactor should weigh, at minimum, 30,000 pounds. However, equipment in the range of 60,000 to 70,000 pounds is better. It is necessary that field equipment properly breaks clay lumps and kneads the clay materials together. At minimum, four to six passes of the compaction equipment per lift of soil are necessary to assure structural improvement of the soil.

5. Visual control to eliminate unacceptable material is necessary. Appropriate testing and documentation during clay liner and clay cap construction are necessary. The soil testing and documentation recommendations follow:
a. Density and as-placed moisture content tests, as discussed in item No. 1 above, one (1) density and as-placed moisture content test per 100-foot grid pattern on the base of the cell on every lift and offset on each subsequent lift. Nuclear density testing may be utilized rather than sand cone; however, some limited sand cone testing should be utilized to verify nuclear testing methods. Use of a twelve (12) inch probe could allow for reduced frequency of testing since the probe will effectively monitor two (2) lifts per test. Nuclear density testing holes must be filled with clay or bentonite. Greater testing frequency should be utilized in confined areas, small facilities, or where thinner liners are allowed.

b. Moisture-density (Proctor) testing (minimum 5-point curve), at minimum, on every 5000 cubic yards or less of material used and with any change in the major soil type with a minimum of one test per lift of soil. Modified proctor density testing is preferred to standard proctor testing.

c. Laboratory determination of as-placed moisture content, dry density and Atterberg limits at a minimum frequency of one (1) test per every 5000 cubic yards of material used.

d. Soil classification tests for grain-size distribution and soil classification at a frequency of, at minimum, one (1) test per every 5000 cubic yards of clay placed or at a frequency of one (1) test per acre and with any change in the major soil type.

e. Hydraulic conductivity testing of the liner at a frequency equivalent to every third grain-size sample required under item No. 3 above with a minimum of three tests per site or construction phase. Laboratory testing methods utilizing a Shelby tube or on hand carved samples from the liners are inferior and have been documented to underrepresent actual hydraulic conductivities by a factor of 900 to 1300. Some in situ testing of liner and cap construction utilizing single or double ring devices is preferable to verify lab testing results. Landfill leachate may be used instead of water in the liner tests.

f. Porosity should be calculated in conjunction with permeability tests.

VII. Clay Side Liner Specifications

Clay side liners may be constructed parallel to the sidewall in instances where side slopes are not overly steep. Problems could arise in achieving adequate compaction and uniform thickness on steeper slopes. Where slopes are steeper (especially steeper than 2.5 to 3 H:1V) liners should be built in horizontal lifts with a horizontal thickness equivalent to the scraper width. Horizontal lifts should be tied together and should not contain layers of coarse material. More permeable zones in horizontal lifts could result in seepage. Side/liner construction and testing should be similar to that for the requirements for bottom liners, except for horizontal lifts, where the density and as-placed moisture content testing requirement should be completed on each 200 lineal feet of sidewalk for each lift, and the testing should be offset on each subsequent lift.
When the trench is open for use, liners should be protected to minimize the damaging effects of desiccation (drying), freezing, erosion and traffic on the liners. Recompaction or reconstruction of damaged liners may be necessary.

VIII. Synthetic Liner Installation

Installation procedures for synthetic liners should be fully described in the permit application. All synthetic liner installation must be performed under the daily supervision of a master seamer. All personnel performing seaming operations should be qualified by experience or by successfully passing seaming tests. The experience record of each of the installer's technicians should be given to the QA inspector prior to the start of synthetic liner placement. No seamer should be allowed to work until their qualifications have been reviewed by the inspector.

The manufacturer shall provide quality control (QC) certification forms with results of plant testing of the geomembrane. These forms must certify that the geomembrane rolls shipped to the site meet or exceed the material property requirements of the project specifications. These QC certification forms should be received by the QA inspector prior to any synthetic liner installation.

A preconstruction meeting is necessary prior to synthetic liner placement to discuss schedule, responsibilities, testing frequencies and to review the installer's panel layout drawing.

The geomembrane rolls must be inspected upon arrival to ensure that the materials meet the project specifications. The QA inspector should record all roll numbers to verify rolls as shipped and note in a daily field report any damage to the rolls.

Prior to the placement of the liner, both installer and the QA inspector must inspect the clay liner for any uneven areas, rocks, foreign objects, etc. that may damage the liner. The installer should sign an acceptance form accepting the clay liner condition prior to synthetic liner placement. During the deployment of the liner, the inspector should be present to observe deployment, record roll numbers and panel numbers, and mark any areas with visible damage on the liner. A panel placement form should be filled out by the inspector detailing weather conditions, etc. during deployment.

Before seaming begins, trial welds must be taken, tested and recorded. The frequency of trial welds should be specified in the permit application. If a trial weld fails, the seamer must be required to make another complete trial seam. If this additional test fails, the seaming apparatus or seamer should not be accepted until the deficiencies are corrected and two consecutive passing trial seams are made.

Continuity (nondestructive) testing should be performed using a vacuum box unit or appropriate pressure testing methods over the entire length of each seam. This process should be observed by the QA inspector and any leaks noted, repaired and retested. This testing should follow along the seaming process, not at the completion of all seaming.
Destructive test samples must be taken at the minimum frequency of one test per every 500 feet of seam length. These samples should be taken on a daily basis and sent to an independent laboratory for testing. The locations of these tests should be recorded and included on the as-built panel placement drawing.

IX. Cap and Liner Protection and Repair

Damage to both synthetic and clay liners and caps may occur due to exposure to wind, rain, freezing, drying, equipment traffic and other factors. The owner/operator of a landfill should address liner protection, maintenance and repair in the permit application. The owner/operator or his representative should perform regular inspections of the cap or liner condition and repair damaged areas.

Caps and lines should be protected from damage during freezing conditions. All lined areas should have at least six feet of solid waste in place on the liner by December 15 of each year. No disposal should take place on uncovered areas after December 15 without testing the liner integrity; Department approval may be necessary.

X. Drainage Layer or Blanket Placement

Installation of the granular drainage material must be performed in a manner that prevents equipment from coming in direct contact with the liner. Placement should start at the edge of the cell and proceed by pushing the material out over the liner surface. Placement of drainage material on sidewalls should be completed by pushing the material up. Placement of drainage material around, adjacent or over leachate collection pipe and leachate collection pipe trenches should be carefully monitored.

Documentation and testing for the drainage blanket construction must include:

1. Hydraulic Conductivity. One test, at minimum, for every 2000 cubic yards of material with a minimum of one test per borrow area. At minimum, every site must be tested for at least four samples.

2. Gradation. Minimum of one (1) gradation to a 200-mesh sieve per 1000 cubic yards placed, with a minimum of one per borrow area.

3. Porosity. Calculated in conjunction with the hydraulic conductivity tests.

Lab hydraulic conductivity of the drainage blanket must be of a sample remolded to inplace density. Constant head permeability tests (D 2434) are appropriate for this material. The Department may require that leachate be used in the tests and may require both chemical and physical durability be tested. Appropriate survey control should be used to document drainage layer thickness.

XI. Leachate Collection Transmission Pipes

Pipes must be placed in locations and elevations as shown on plans provided with the permit application. Transmission line joints and PVC pipes should be sealed with solvent-based glue. Slip joints for leachate collection lines may be approved if calculations suggest that substantial subsidence may occur. Pipes should be properly
supported to prevent movement and concentration of loads. The coarse aggregate
used as pipe bedding and cover should be tested for gradation and compared with
gradation of drainage blanket at a frequency of twice per cell. Geomembrane, granular
filters or filter fabric placed around the pipe bedding should be appropriately specified,
based on results of material gradations, and properly placed. Deflection testing of the
collection pipe should be conducted using a mandrel. The cable should be strung
through the pipe sections as they are installed. The mandrel should be attached and
pulled through the pipe following placement of the granular drainage layer.

XII. Landfill Caps

Construction of the landfill cap should be completed in a manner similar to the
construction of landfill clay liners. Special precautions are necessary to assure the
disposed waste will support the landfill cap as constructed.

XIII. Quality Assurance/Construction Documentation Report

Authorization to utilize a new facility is usually contingent upon Departmental review and
approval of a quality assurance/construction documentation report.

An acceptable report includes, at a minimum, the following information:

1. As-built engineering drawings depicting the following information:
   a. Completed subbase elevations.
   b. Final liner grades.
   c. Top of drainage blanket grades.
   d. Leachate collection lines, clean-outs and manholes with spot elevation
every 100 feet along the lines and at all manhole entrances and exits.
   e. Drainage features.
   f. All monitoring devices.
   g. Spot elevations at all breaks and slope and on approximate 100-foot
centers.
   h. All test locations.
   i. Other site information as appropriate.

2. Engineering cross sections, a minimum of one east-west and one north-south
   through the completed area.

3. A comprehensive narrative explaining how construction of the project was
   accomplished along with an analysis of the soil, liner and any other testing data.
   This report should also include an appendix containing all the raw data from the
   field and laboratory testing.

4. A series of 35mm color prints documenting all major aspects of the site
   construction.

5. Construction of the site should be certified by a registered professional engineer
to have been completed in accordance with the approved plans. Any deviations
from the plan should be noted and explained.

The Department reserves the right to require any measures necessary to assure proper
construction and documentation of the landfill or disposal cell.
XIV. References:


