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Landfill #2 Operations Manual

Permit No. 6004-INDUS

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1.0 Description and Responsibilities

1.1 Introduction

1.1.1 This Manual outlines processes and proper procedures for the operation of the McGuire Nuclear Station (MNS) Landfill #2, North Carolina Permit Number 6004 INDUS. This Manual is designed to assist personnel in performing various tasks assigned to them associated with landfill operations.

1.1.2 This is a working document and will be updated when necessary.

1.2 Description

1.2.1 General

The landfill site is located off Highway 73 in Huntersville, North Carolina. The access road is located across from the McGuire Nuclear Station entrance. The landfill footprint is approximately five (5) acres. The general function of the landfill is to contain sanitary, demolition, and other special wastes listed in Tables 2.1 and 2.2, and allow any leaching of wastes from the landfill to be monitored via a leachate collection system prior to discharging to a chemical treatment pond.

The MNS Landfill #2 has an expected useful life of approximately fifteen years (as of the date of this manual) based on the following annual volumes of waste disposal in the landfill:

- Dewatered, non-hazardous sludge: 600 cubic yards
- Non-hazardous wastes from petroleum spills and other releases: 3,700 cubic yards
- Construction debris, asbestos and normal trash: 800 cubic yards
- Non-hazardous obsolete, expired chemicals: 30 cubic yards

1.2.2 Landfill Proper

1.2.2.1 The landfill proper consists of approximately a five acre footprint. The landfill is lined with a high density polyethylene (HDPE) 60 mil liner. A layer of crushed gravel and sand compose a drainage blanket for the bottom and the side slopes of the landfill. Protecting the drainage blanket is a 16 oz. geotextile filter fabric that lies between the drainage blanket and one foot of operational cover.

1.2.2.2 The landfill is divided into four sub cells which function as independent disposal cells. Each cell is contained by a clay divider berm at the lowermost end of each basin

1.2.2.3 Inside each clay berm is a HDPE water stop which is fused to the liner to provide additional protection against contaminated leachate infiltration.

1.2.3 Leachate Collection System

1.2.3.1 The leachate collection system is designed to collect rainwater that falls directly onto the active landfill cell and other liquids which may percolate through the waste material. The rainfall and leachate collected in the landfill are routed to the leachate collection pond. To prevent runoff from large rainfall events from overflowing the leachate collection pond, flow

into the pond is controlled by throttling the valve in the leachate collection line.

1.2.3.2 From the leachate collection pond, the leachate is pumped to the Initial Holdup Pond at MNS, where it is included in the wastewater treatment process.

1.2.3.3 HDPE manholes separate each sub-cell of the leachate collection system within the landfill basin.

1.3 Responsibilities

1.3.1 The Manager of Landfill Operations for the McGuire Landfill is responsible for environmental compliance and operation (including but not limited to waste collection, erosion control, maintenance, and land management) and interfacing with Corporate Environmental Services support groups and regulatory agencies. The Manager of Landfill Operations will also provide up-to-date landfill regulatory information to other responsible groups and ensure adequate training for all landfill personnel is provided. The Manager of Landfill Operations will conduct monthly landfill inspections and document all remedial actions.

1.3.2 Corporate Environmental Services, Waste Programs (CESWP) is responsible for obtaining all needed permits, waste approvals and acting as an interface with regulatory agencies. Additionally, CESWP shall prepare required reports and permit renewals for submission to the state by Environmental Services, Nuclear Environmental Field Support (NEFS) personnel. CESWP will also interface with MNS Radiation Protection (RP) to obtain any regulatory approvals needed for low-level radioactive waste disposal in the Landfill. Submittal of reports associated with low-level radioactive waste will be submitted by NEFS following review and signature by the MNS Station Manager. Corporate Environmental Services, NPDES Compliance is responsible for entering MNS's non-hazardous waste shipments into the e-TRAC Waste Module.

1.3.3 Upper Catawba Hydro Maintenance is the current Operator for the McGuire Landfill and is responsible for all erosion control, grass mowing, land management, maintenance activities (including road maintenance), and waste collection as directed by the Manager of Landfill Operations for the McGuire Landfill. Upper Catawba Hydro Maintenance is also responsible for providing heavy equipment operators to conduct covering operations on an as needed basis.

1.3.4 Real Estate Services is responsible for providing the proper individuals to perform surveying at the landfill during the second quarter of each year to determine the waste capacity of the landfill. Surveying is also required during asbestos or sludge disposal. Additional surveying may be required as deemed necessary by CESWP or the McGuire Landfill Manager.

1.3.5 Environmental Support Services, Environmental Monitoring and the Analytical Lab is responsible for the collection and analysis of groundwater, surface water, and leachate samples. These samples must be analyzed for parameters listed in the operating permit. Results and recommendations from the sampling activities must be reported to the state or other appropriate regulatory agencies. CESWP is

also responsible for the development of any additional monitoring wells that may be necessary and providing updates as necessary to the Groundwater Sampling and Analysis Plan and the Post-Closure Groundwater Monitoring Plans.

1.3.6 MNS Radiation Protection (RP) is responsible for providing radiological surveys of all low-level radioactive waste material.

1.3.7 MNS Chemistry is responsible for adequately treating all leachate from the leachate collection system to meet the NPDES permit requirements through the plants Waste Collection (WC) System.

1.3.8 MNS Health & Safety is responsible for ensuring safe practices are employed in the operation and maintenance of the landfill. Other groups shall involve them as necessary and appropriate for operations, maintenance, training, sampling, and other activities to ensure compliance with various OSHA requirements.

1.3.9 MNS Security is responsible for ensuring overall security of the landfill. Security will not allow unauthorized personnel to enter the landfill without prior approval from the McGuire Manager of Landfill Operations or Landfill Operator. Security will include the landfill in their routine rounds at least once per shift. If anything appears out of the ordinary, they will immediately report the incident to the McGuire Manager of Landfill Operations.

Security will also inspect the level in the leachate collection pond during their rounds. If the level is above the high level mark, the McGuire Manager of Landfill Operations will be immediately notified.

2.0 Waste Collection

2.1 Waste Acceptance

2.1.1 Before any waste can be disposed in the landfill, it must be approved by Corporate Environmental Services, Waste Programs and/or MNS Manager of Landfill Operations. Wastes acceptable for disposal in the landfill are listed in Table 2.1. Non-hazardous waste listed in Table 2.2 will not be routinely disposed in the landfill but can be disposed of in the landfill if needed.

2.1.2 Other wastes, such as, asbestos, sludges, and demolition debris may be disposed of in the landfill. No liquid waste shall be disposed in the landfill.

2.1.3 The removal of waste from the landfill is prohibited unless the landfill manager approves and the removal is not performed on the working face.

2.2 Weighing Waste

2.2.1 Truck scales have been installed at the MNS Site Garage for the purpose of weighing all waste before disposal in the landfill.

2.2.2 On or before August 1 each year a report shall be submitted to the State, for the amount and type of solid waste disposed in the landfill the previous year beginning July 1 and ending June 30. A copy of the report shall also be submitted to Mecklenburg County.

2.3 Transportation

Precautions must be taken to prevent spillage, leakage, or blowing of waste during transport and burial. If wind- blown waste is discovered, it shall be picked up immediately.

2.4 Disposal

2.4.1 The loaded truck must enter the landfill basin from the ramp. All drivers must use extreme caution due to the steepness of the ramp. Waste materials shall be placed against the active working face of the active cell in such a manner as to take the least amount of space..

2.4.2 As the waste is being removed from the truck, it should be closely inspected by appropriate landfill personnel or the Transporter to ensure no un-acceptable waste are disposed in the landfill. Should any un-acceptable waste be identified in a shipment, it shall be removed from the shipment and properly disposed elsewhere.

2.4.3 No waste shall be placed in standing water. Excessive surface water at the working face creates difficulties for maneuvering equipment and prevents the operator from achieving maximum compaction of waste.

2.5 Asbestos Disposal

Asbestos containing materials may be disposed of in the landfill. Asbestos must be packaged in accordance with 40 CFR 61, and shall be disposed of separately and apart from the working area.

2.5.1 Transportation

In N.C., an Asbestos Waste Manifest must accompany each truckload of asbestos. The manifest must be signed by the Landfill Operator. These completed forms must be forwarded to MNS Nuclear Environmental Field Support to be retained on file and routed accordingly.

2.5.2 Waste Disposal

2.5.2.1 If any amount of asbestos waste is received for disposal that is improperly enclosed, uncovered, not double bagged, or mislabeled, immediately inform the MNS Manager of Landfill Operations. Do not unload the truck.

2.5.2.2 The bags of asbestos must be placed together in the active landfill cell. Immediately after unloading the asbestos, it must be covered with six inches of soil in a manner so that the asbestos does not become airborne.

2.5.2.3 The Manager of Landfill Operations must arrange surveying of the disposal so that burial coordinates are recorded. This record shall include the station coordinates and elevations. These records shall be forwarded to MNS Nuclear Environmental Field Support for file retention.

2.6 Sludge Disposal

2.6.1 Dewatered sludge can be disposed in the landfill. This sludge may be slightly radioactive. Laboratory analysis of the sludge must be conducted prior to disposal into the landfill.

2.6.2 Low-level radioactive waste must have written approval from the North Carolina Department of Environment and Natural Resources (DENR), Division of Radioactive Protection prior to disposal in the landfill. The radioactive materials must then be disposed in accordance with the applicable permit and the current radioactive materials license.

2.6.3 The exact disposal location will be determined by the Manager of Landfill Operations. Before placement of the sludge into the landfill, a radiological survey will be performed by MNS Radiation Protection. After placing the dewatered sludge in the landfill, it must be covered with six inches of daily cover material. Ultimately, this sludge must possess a total of two feet of cover soil, including final cover. The final closure cap will satisfy this cover requirement.

2.7 Empty Container Disposal

2.7.1 All containers must be emptied as much as possible prior to disposal in the landfill. No "free liquids" or any liquids that can be poured can be placed in the landfill. All liquid materials must be removed from the container using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating.

2.7.2 All pesticide and herbicide containers must be triple rinsed, or as directed on the pesticide/herbicide container label, before they are discarded

2.7.3 Fifty-five gallon drums that are still in good condition will be collected and shipped to a drum re-conditioner. Any drums that cannot be recycled or disposed of as scrap metal, must be labeled

"empty" before being transporting to the landfill. Once they are located at the landfill, each drum must be crushed before placing it in the active cell. Then the crushed drum can be buried with the rest of the waste.

2.8 Petroleum Product Clean-Up Residue Disposal

2.8.1 Oil contaminated materials, such as oil contaminated soil, oil pads and booms, and oil absorbent material, can be disposed in the landfill. Materials contaminated with oil and diesel fuel which do not contain any free liquids may also be disposed in the landfill.

2.8.2 Petroleum product spill clean-up residues can be treated as loose materials and used to fill voids between other wastes. Oil contaminated soil has been approved for use as alternate daily cover as described in Section 3.3.

2.8.3 Spill clean-up residues other than oil or diesel must be evaluated by MNS Manager of Landfill Operations and/or Corporate Environmental Services, Waste Programs before being disposed in the landfill.

2.9 Spill Cleanup Residue other than petroleum.

Non-hazardous spill cleanup material; such as, from acid, base, and glycol spills must be approved by MNS Nuclear Environmental Field Support and/or Corporate Environmental Services, Waste Programs before being disposed of in the landfill.

2.10 Fish Waste

Periodic disposal of fish waste may occur with approval from the MNS Manager of Landfill Operations. Fish waste shall be covered the same day as disposed.

2.11 Insulation (Non-Asbestos)

All non-hazardous, non-asbestos insulation destined for disposal in the landfill must be approved by the MNS Manager of Landfill Operations and/or Corporate Environmental Services, Waste Programs.

2.12 Surplus Chemical Product Disposal

All non-hazardous excess, obsolete, or expired (surplus) chemical products destined for disposal in the landfill must have the approval of MNS Manager of Landfill Operations and/or Corporate Environmental Services, Waste Programs. . Generally, non-hazardous chemicals are limited to: activated carbon, desiccant, grout, salts, resins, sandblast material, and diatomaceous earth

Table 2.1

WASTES PERMITTED FOR MNS LANDFILL #2 DISPOSAL

0001 - Oil Spill Cleanup Material for Disposal
0002 - Oil Spill Clean Dirt for Cover
0003 - Acid Spill Cleanup Material
0004 - Activated Carbon
0005 - Asbestos - Non-Friable (MNS Only)
0006 - Base Spill Cleanup Material
0007 - Containment Materials
0008 - Desiccant (Used-Unused)
0009 - Diesel Fuel Cleanup Material
0010 - Resins (non-hazardous solid)
0011 - Non-Hazardous Gasoline Spill Cleanup Material
0012 - Grout - Mortar (Unused)
0013 - Insulation
0014 - Non-Hazardous Antifreeze Spill Cleanup Material
0015 - Non-Haz Salts (outdated products)
0016 - Paper Filters (Air, oil, parts washer, bag)
0017 - Paper Waste
0018 - Sandblast Material (Used-Unused)
0019 - Sludges (solidified)
0020 - Diatomaceous Earth
0021 - Asbestos - Friable (MNS Only)
0022 - Mud, Grease, Clam Shells
0023 - Dead Fish
0024 - Boric Acid

Table 2.2

WASTES NOT TO BE ROUTINELY DISPOSED

BUT ALLOWED IN MNS LANDFILL #2

TYPE	COMMENTS
Non-treated Wood	Demolition Landfill
Metal	Scrap Metal Recycle Dealer
Concrete/Brick (used as road bed)	Demolition Landfill/Beneficial Fill
Asphalt (used as road bed)	Recycle/Beneficial Fill
Yard Waste	Composting
Land Clearing Debris	Demolition Landfill/Compost
Cardboard	Recycle
Office paper	Recycle
Sawdust	Recycle
Empty Containers	Metal Recycling / Reconditioned

3.0 Landfill Operation

3.1 General

This section describes the normal day-to-day operation of the MNS Landfill #2.

3.1.1 The operations described in this section will not supersede the N.C. Solid Waste Management Rules, 15A NCAC 13B, nor N.C. Permit Number 6004 INDUS. Landfill operation and maintenance activities shall be carried out in such a manner as not to have any adverse effects upon the landfill proper, nor the environment outside the landfill.

3.1.2 Safe working practices must be used at all times during operation, maintenance, monitoring or any other activities. The MNS Health & Safety group should be contacted concerning safe working practices or any unusual conditions.

3.1.3 Blowing paper and other debris must be controlled. All wind-blown trash must be collected and buried immediately. Previously landfilled wastes that have been uncovered must be recovered with suitable cover by the end of the working day on which it was discovered. In general, conditions must not be maintained that promote the habitation and production of insects or rodents.

3.1.4 Dust control measures will be implemented when necessary and will include at a minimum watering of dusty roads and exposed work areas. The landfill surface does not typically generate dust. Additionally, final cover will be vegetated as soon as is practical in order to minimize the blowing of dust on-site.

3.1.5 Litter, odors, and vectors are not anticipated to be a concern at the MNS No. 2 Landfill. The waste placed in the landfill does not attract vectors, and windblown material is not anticipated to be a problem. Odors have not typically been a problem at the MNS No. 2 landfill.

3.1.6 No open burning shall be permitted at the MNS Landfill # 2. If a fire occurs at the landfill, call the Site Emergency Number (980-875-4911). Equipment and stockpiled soil shall be provided to control accidental fires. MNS will notify the local fire department, which will be immediately dispatched to assist with fire control. Any fire that occurs at the landfill shall be reported to the state within 24 hours and a written notification will be submitted within 15 days.

3.2 Access and Security

3.2.1 The entire landfill site is enclosed with a six foot high chain-linked fence, with three strands of barbed wire. All gates must remain locked at all times except during operation, maintenance, monitoring and other necessary activities.

3.2.2 The warning signs, located on each gate must remain in good condition at all times. "No Trespassing" signs which are located along the fence perimeter must also remain in good condition. Access to the landfill is limited to authorized, personnel only. Those persons include the Manager of

Landfill Operations, operators, maintenance personnel, monitoring personnel, and environmental protection staff. Others may be granted access to the landfill, if accompanied by authorized persons.

3.2.3 A sign providing the landfill permit number is posted at the site entrance and shall be maintained in good condition. Edge-of-waste markers are installed to delineate the edge of waste. These markers shall be maintained in good condition and remain visible at all times.

3.3 Daily Cover

3.3.1 Waste materials shall be placed against the active working face of the active cell in such a manner as to take the least amount of space as directed by the Landfill Operator. The waste shall be restricted to the smallest area feasible and compacted as densely as practical using the landfill heavy equipment. Each day during operation, all waste must be covered with at least six (6) inches of soil and compacted. The slope of the waste must not exceed 3:1 ratio. It is very important not to use more than 6 inches of daily cover to conserve valuable landfill space.

3.3.2 In lieu of soil, two types of alternate daily cover have been approved and may be utilized: oil contaminated soil and a TYPAR blanket. The Landfill Operator will ensure that the oil contaminated soil contains no free liquids. The Landfill Operator will also ensure that no ignition sources are in close proximity to the oil contaminated soil. All oil contaminated soil that is used for cover will be properly staged while awaiting use.

3.3.3 The TYPAR blanket may be used as temporary cover. The use of the TYPAR blanket is not allowed to cover asbestos. The TYPAR blanket is to be secured to prevent the uncovering of the material in the landfill. The blanket shall be secured by placing weights or sandbags on top of the blanket. No solid waste shall be placed on top of the TYPAR blanket. Prior to adding more material to the landfill for disposal, the TYPAR blanket shall be pulled back to prevent inadvertent tearing. The Landfill Manager will inspect the TYPAR blanket for tears on a monthly basis and will initiate procurement of a new blanket as needed.

3.3.4 "Special" wastes, such as asbestos and sludge must be covered daily once it is placed in the landfill.

3.3.5 The equipment operators must inspect each cell riser pipe to ensure proper operation monthly

3.3.6 No equipment shall be driven directly on the geotextile fabric. At all times there should be a minimum of twelve (12) inches of operational cover on top of the geotextile fabric. The Landfill Operator should be contacted in the event of erosion problems inside the landfill.

3.3.7 Areas that have reached final waste grades or are not utilized for 12 months or more must be covered with at least one (1) foot of intermediate cover.

3.3.8 Covered areas shall be adequately sloped such that surface water is diverted from the operational area in a controlled manner. In addition, soil cover shall be uniformly graded and compacted to prevent the formation of erosion channels. In the event that erosion channels do form, the cover should be promptly repaired.

4.0 System Maintenance

To ensure proper operation of the landfill, a considerable amount of preventive maintenance is required. The Landfill Operator will ensure the necessary maintenance is conducted in a timely fashion. The Landfill Operator must also ensure that only qualified personnel conduct these maintenance activities.

4.1 Leachate Collection System

The following maintenance activities shall be performed:

4.1.1 Pumps (2)

The pumps must be inspected monthly and be properly maintained so ensure safe operation.

4.1.2 Clean Out of Leachate Lines

The leachate lines shall be video inspected at least once every five years to the extent practical. Flushing of the leachate lines shall occur as necessary to allow for proper function of the system.

4.1.3 Operation of Leachate Valve

The leachate collection system shut off valve is located near the leachate pond. This valve must be positioned open during routine operations and be closed only for emergency repairs to the leachate collection system.

4.2 Leachate Pond Pumps

A monthly inspection of the control panels and operating parameters of the leachate pond pumps must be performed to ensure proper operation.

4.3 Leachate Pond Pump Seal System

A monthly inspection of the water system valves in the pump house and pumps alarm system must be performed to ensure proper operation.

4.4 Alarm System

A monthly inspection of the alarms at the landfill must be performed to ensure proper operation.

Please refer to the ATTACHMENT 1 for a copy of the Monthly Inspection Sheet.

5.0 General Site Maintenance

To ensure proper operation of the landfill, general site maintenance will be required. The MNS Manager of Landfill Operations will ensure that all maintenance activities are completed as necessary and in a timely fashion. The Manager of Landfill Operations must also ensure that only qualified personnel conduct these maintenance activities.

5.1 Landfill Access Ramp

To maintain vehicle access inside the landfill for unloading waste, the access ramp must be maintained to permit access to the landfill in all weather conditions.

Extreme caution must be observed due to the slope of the access road.

5.2 Sediment Basins (3)

All sediment basins must be inspected monthly. When the basins become 50% filled with sediment, they must be cleaned out, stone replaced and new vegetation seeded.

5.3 Erosion Control

5.3.1 Diversion Control Ditches

The landfill site has diversion ditches to control erosion from the stockpile areas and around the landfill. The diversion ditches must be inspected monthly and repaired as necessary.

5.3.2 Creek Crossing

The landfill entrance road crosses a creek. This crossing must be maintained to prevent erosion, and must be inspected monthly.

5.4 Ground Cover Maintenance

5.4.1 Adequate ground cover must be maintained along the entrance road and inside the landfill basin to prevent erosion. The grass must be mowed at least once per month during the active growing season so that erosion can be easily detected and corrected as soon as possible.

5.4.2 A monthly inspection of the site is required to prevent and detect any erosion problems. Any problems found must be repaired as soon as possible.

5.4.3 Ground cover and roadway maintenance will be performed by the Landfill Operator or under his direction.

5.4.3.1 Mowing

The landfill site grass will be mowed as necessary.

5.4.3.2 Fertilizer and Lime Program

A semi-annual fertilizer and lime program is necessary to provide the adequate soil nutrients to maintain the grass. The Landfill Operators will make the necessary arrangements for the fertilizer and lime application. Fertilizer and lime shall not be applied within 20 feet of the groundwater monitoring wells.

5.4.3.3 Watering

The grass will be watered as needed.

5.4.3.4 Pesticide Applications

Prior to any pesticide/herbicide application, the MNS Manager of Landfill Operations must be notified. Pesticides shall not be applied within 20 feet of the groundwater monitoring wells.

5.5 Security Fence

5.5.1 The landfill basin, leachate pond, sedimentation ponds, and operational cover material is completely surrounded by a six feet high chain linked fence with three strains of barbed wire. The fence provides access with five double vehicle gates and one personnel gate. All gates must remain locked, except when work is being performed.

5.5.2 TRANSCO Pipe Company must have access to their right-of-way pipeline, by using a multiple locking system with Duke Energy locks.

5.5.3 "No Trespassing" and the landfill information signs must be maintained on the fence.

5.5.4 A monthly inspection is required to ensure the integrity of the fence. This inspection must also include the appropriate signage.

5.6 Roadways

5.6.1 The landfill entrance road and roads to the groundwater monitoring wells must be maintained.

5.6.2 The grass along the entrance must also be maintained in the same manner as the basin grass, including a fertilizer and lime program.

5.6.3 A monthly inspection of culverts, ditches, etc., is required and any problems shall be repaired.

6.0 Groundwater Sampling and Analysis Plan

All groundwater monitoring and sampling will be performed in accordance with the approved groundwater sampling and analysis plan.

7.0 Inspections

7.1 To ensure proper operation and maintenance, a monthly inspection will be conducted and documented by the Landfill Operator. Please see Attachment 1 for the Monthly Inspection Sheet.

7.2 Mecklenburg County conducts periodic inspections of the landfill. The Manager of the Landfill or Landfill Operator must accompany any inspector(s) during inspections. Due to the limited landfill operating schedule inspectors are requested to give at a minimum 4 hours prior inspection notification.

8.0 Closure Plan

8.1 Closure/Post Closure

Closure on the MNS landfill will be performed in accordance with the approved landfill closure and post closure care plans.

9.0 Required Regulatory Submittals

Submittal	Requiremen	Reporting/Action Frequency
Groundwater Monitoring Reports	Maintain a record of all monitoring events and analytical data in accordance with the Groundwater Monitoring Program. Reports of the analytical data for each water quality monitoring sampling event shall be submitted to DENR Division of Waste Management (DWM) in a timely manner.	Semiannually
Annual Landfill Report	Tons of waste received and disposed of in the landfill shall be reported to the DWM and to all counties from which waste was accepted on forms prescribed by the DWM. Refer to the Permit to Operate for annual reporting requirement information.	Annually Must submit no later than August 1 each year
10-Year Waste Management Plan	Per North Carolina G.S. 130A-309.09D (c), a 10-year waste management plan shall be developed for this landfill. The plan shall be updated at least every three years.	10-year plan updated every 3 years

ATTACHMENT I
MCGUIRE LINED LANDFILL / MONTHLY INSPECTION SHEET

Inspector's Name: _____

Date / Time: _____

1. Access

a. Access Road: Graded, No Significant Erosion _____
b. Access Road Ditches: Mowed, No Significant Erosion _____
c. Creek Crossing: Unobstructed, Mowed, No Significant Erosion _____

2. Leachate Pond

a. Access Road: Graded, No Significant Erosion _____
b. Gate Access: Locked and Secure _____
c. Pond Level: Below Stand Pipe Level _____
d. Liner Integrity: Secure and Free of Cracks _____
e. Life Preserver: Present, Good Condition _____
f. Information Signs: *DANGER, AUTHORIZED PERSONNEL ONLY*
In Place and In Good Condition _____
g. Leachate Inlet: Caps In Place _____

3. Main Entrance

a. Gate Access: Locked and Secure _____
b. Access Road: Graded, No Significant Erosion _____
c. Sediment Basin #2: Level _____
Erosion _____
Overflow Clear _____
General Appearance _____
d. Landfill Access Ramp: Access in Good Condition _____
e. Daily Cover: 6" Minimum _____
No Standing Water _____
Free of Blowing Trash _____

f. Alternate Cover: TYPAR Blanket Intact, Weighted _____
Oily Soil - No Free Liquids _____
No Ignition Sources _____
Cleanout Pipes: Free of Debris _____

g. Cell Berms: Trash Below Berm _____
No Significant Erosion and Grassed _____

4. **Basin**

a. Cell 1 Active / Closed General Appearance _____
b. Cell 2 Active / Closed General Appearance _____
c. Cell 3 Active / Closed General Appearance _____
d. Cell 4 Active / Closed General Appearance _____

5. **Manways** (When Applicable)

a. Covers: In Place and Secure _____
b. Piping: Free of Leaks _____

Note: #4 IS CONFINED SPACE ENTRY

6. **Sprinkler System:** Operational _____

7. **Sediment Basin #1:** Drainage Pipe _____
Free of Debris _____
Level _____
Erosion _____
Overflow Clear _____
General Appearance _____

8. **Fencing:** Integrity _____

9. **Signs:** In Place & Good Condition _____

10. **Soil Storage Area:** Erosion _____
Grassed _____

11. Sediment Basin #3: Level _____

Erosion _____

Overflow Clear _____

General Appearance _____

12. Edge of Waste Markers: Visible _____

In Good Condition _____

Comments:

_____

_____

_____

_____

_____

Corrective Actions: _____

Signature: _____

ATTACHMENT II

McGuire Landfill Waste Management Guidelines

NOTE:
If your waste matches one of MNS Landfill standard profiles, go to Section B.

Section A. Waste Not Previously Approved:

1. The waste generator/shipper:

- Determines the material cannot be re-used, recycled or disposed as construction/demolition waste.
- Submits the on-line MNS Solid Waste Approval / Disposal Form (Profile) or ATTACHMENT III or provides information through emails and phone calls, including, if available:
  - ⇒ SDS
  - ⇒ Chemical Fact sheets
  - ⇒ TCLP or other analytical data
- Submits requests to Corporate Environmental Services, Waste Programs.

2. Corporate Environmental Services, Waste Programs:

- Reviews the Solid Waste Disposal Form (profile) and evaluates the material using the following criteria:
  - ⇒ Is the material Hazardous?
  - ⇒ Does it contain free liquid?
  - ⇒ Will it affect leachate?
  - ⇒ Is it acceptable for MNS landfill?
  - ⇒ Is MNS landfill the lowest cost option for the generator?
  - ⇒ CESWP informs the generator whether or not the waste is approved for MNS Landfill disposal.
  - ⇒ If not approved, CESWP obtains approval for alternate disposal method.

Section B. Approved Waste:

⇒ **The waste generator/shipper:**

- Identifies the MNS Landfill profile number.
- Completes the non-hazardous waste manifest form (ATTACHMENT IV) or on-line form and ensures that the manifest accompanies the shipment to the Toddville Facility or directly to the MNS Landfill.
- Ensure the container contents are described on the container.
- Indicate on the container that the material is to be disposed of in the MNS Landfill.
- Mark the container as Non-Hazardous.

⇒ **Waste / Manifest received at the Toddville Facility**

- Toddville Waste Operator verifies that the non-hazardous waste manifest and materials match.
- Toddville Waste Operator loads non-hazardous waste in Toddville's secure roll-off container in a timely manner.
- Toddville Waste Operator ensures all non-hazardous manifests accompany the McGuire Landfill bound roll-off container.

⇒ **Corporate Environmental Services, NPDES Programs Support Personnel:**

- Enters non-hazardous waste shipments into the eTRAC Waste Module.

Section C: Specific Waste Streams

Oily Soil from Spill Crews:

⇒ **Oil Spill Crew**

- Inspects load to ensure all waste is acceptable
- separates clean soil from oil pads
- Completes the MNS Landfill Non-Hazardous Waste Manifest, ATTACHMENT IV
- Transports to MNS landfill
- Places absorbent material and trash under cover
- Places any clean soil in cover soil pile

- Places soil with debris into waste area
- Ensures gate is locked
- Places completed manifest in Manifest Drop Box next to the scales at the McGuire Garage

⇒ **Corporate Environmental Services, NPDES Programs Support Personnel:**

- Enters non-hazardous waste shipments into the eTRAC Waste Module.

ATTACHMENT III

MNS Landfill Profile Request

ATTACHMENT IV

McGuire Site Landfill #2
Permit # 6004 INDUS

NON-HAZARDOUS WASTE MANIFEST

NOTE: Please submit a separate manifest for multiple addresses if loads are in different counties.

SUBMITTED BY:_____ SECTION/DEPT: _____

PHONE NUMBER:_____ FACILITY:_____

DESCRIPTION OF WASTE	PROFILE NUMBER	NET WEIGHT	CONTAINER TYPE*

*Dump truck, drum, bag, etc.

_____ _____ _____
NAME (Driver's Name) SIGNATURE DELIVERY DATE

LOCATION NAME:_____

STREET ADDRESS:_____

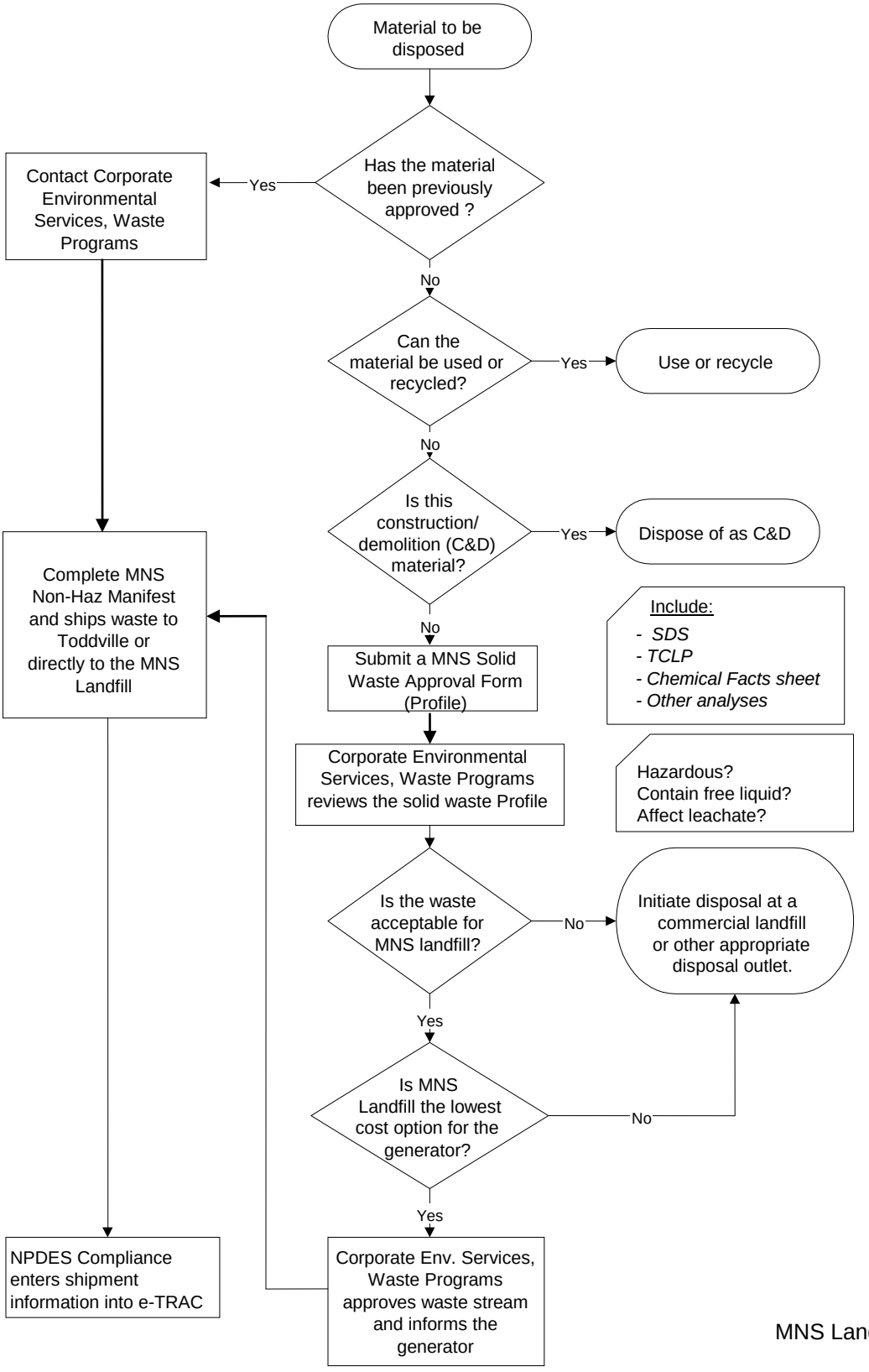
CITY AND STATE:_____

COUNTY:_____

COMMENTS:_____

_____

MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL



MNS Landfill Flowchart

ATTACHMENT VI
15A NCAC 13B .0505 Operational Requirement Cross-Reference Table

15A NCAC 13B .0505 - Operational Requirements for Sanitary Landfills	Section Reference in Operations Manual
1. Plan and Permit Requirements	
a. Construction plans shall be approved and followed.	Original Permit to Construct issued July 30, 1991. Attachment 1 - Permit to Operate: Phases 3 and 4, issued July 7, 2009
b. Specified monitoring and reporting requirements shall be met.	1.3.2 - Responsibilities 1.3.5 - Responsibilities 2.2.2 - Weighing Waste 6.0 - Groundwater Sampling and Analysis Plan 9.0 - Regulatory Required Submittals
2. Spreading and Compacting Requirements	
a. Solid waste shall be restricted into the smallest area feasible.	2.4.1 - Disposal 3.3.1 - Daily Cover
b. Solid waste shall be compacted as densely as practical into cells.	3.3.1 - Daily Cover
3. Cover Requirements	
a. Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the Division.	3.3.1 - Daily Cover
b. Areas which will not have additional wastes placed on them for 12 months or more, but where final termination of disposal operations has not occurred, shall be covered with a minimum of one foot of intermediate cover.	3.3.7 - Daily Cover
c. After final termination of disposal operations at the site or a major part thereof, or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.	Conceptual Design and Estimated Costs for Landfill Closure, McGuire Nuclear Station, Landfill #2, prepared by Altamont Environmental, Inc. dated October 11, 2011
4. Erosion Control Requirements	
a. Adequate erosion control measures shall be practiced to prevent silt from leaving the site.	5.3.1 - Erosion Control (Diversions Control Ditches) 5.4.1 - Ground Cover Maintenance 5.4.2 - Ground Cover Maintenance
b. Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.	3.3.8 - Daily Cover 5.3.1 - Erosion Control (Diversion Control Ditches) 5.4.1 - Ground Cover Maintenance 5.4.2 - Ground Cover Maintenance
5. Drainage Control Requirements	
a. Surface water shall be diverted from the operational area.	3.3.8 - Daily Cover 5.3.1 - Erosion Control
b. Surface water shall not be impounded over or in waste.	2.4.3 - Disposal 3.3.8 - Daily Cover
c. Completed areas shall be adequately sloped to allow surface water runoff in a controlled manner.	3.3.10 - Daily Cover
6. Vegetation Requirements	
a. Within six months after final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.	Conceptual Design and Estimated Costs for Landfill Closure, McGuire Nuclear Station, Landfill #2, prepared by Altamont Environmental, Inc. dated October 11, 2011
b. Temporary seeding will be utilized as necessary to stabilize the site.	5.4.1 - Ground Cover Maintenance 5.4.3.2 - Ground Cover Maintenance (Fertilizer and Lime Program)
7. Water Protection Requirements	
a. The separation distance of four feet between waste and water table shall be maintained unless otherwise specified by the Division in the permit.	Not included in current Operations Plan
b. Solid waste shall not be disposed of in water.	2.4.3 - Disposal
c. Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to the discharge of leachate to surface waters.	1.2.1 - Description (General) 1.2.3 - Description (Leachate Collection System)

15A NCAC 13B .0505 - Operational Requirements for Sanitary Landfills		Section Reference in Operations Manual
8.	Access and Security Requirements	
	a. The site shall be adequately secured by means of gates, chains, berms, fences, and other security measures approved by the Division, to prevent unauthorized entry.	3.2.1 - Access and Security 5.5 - Security Fence
	b. An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.	1.3.9 - Responsibilities 3.2.2 - Access and Security
	c. The access road to the site shall be of all-weather construction and maintained in good condition.	5.1 - Landfill Access Ramp 5.6.1 - Roadways
	d. Dust control measures shall be implemented where necessary.	3.1.4 - General (Landfill Operation)
9.	Sign Requirements	
	a. Signs providing information on dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.	3.2.2 - Access and Security 3.2.3 - Access and Security
	b. Signs shall be posted stating that no hazardous or liquid waste can be received without written permission from the Division.	2.1 - Waste Acceptance Table 2.1 Table 2.2
	c. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.	3.2.3 - Access and Security
10.	Safety Requirements	
	a. Open burning of solid waste is prohibited.	3.1.6 - General (Landfill Operation)
	b. Equipment shall be provided to control accidental fires or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed.	3.1.6 - General (Landfill Operation)
	c. Fires that occur at a sanitary landfill shall be reported to the Division within 24 hours and a written notification shall be submitted within 15 days.	3.1.6 - General (Landfill Operation)
	d. The removal of solid waste from a sanitary landfill is prohibited unless the owner/operator approves and the removal is not performed on the working face.	2.1.3 - Waste Acceptance
	e. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein.	2.7.1 - Empty Container Disposal 2.7.3 - Empty Container Disposal 2.7.4 - Empty Container Disposal
11.	Waste Acceptance and Disposal Requirements	
	a. A site shall only accept those solid wastes which it is permitted to receive. The landfill operator shall notify the Division within 24 hours of attempted disposal of any waste the landfill is not permitted to receive, including waste from outside the area the landfill is permitted to serve.	2.1.1 - Waste Acceptance 2.1.2 - Waste Acceptance Table 2.1 - Wastes Permitted for Landfill Disposal
	b. No hazardous or liquid waste shall be accepted or disposed of in a sanitary landfill.	2.1.1 - Waste Acceptance 2.1.2 - Waste Acceptance Table 2.1
	c. Spoiled foods, animal carcasses, abattoir waste, hatchery waste, and other animal waste delivered to the disposal site shall be covered immediately.	2.1.1 - Waste Acceptance 2.10 - Fish Waste Table 2.1
	d. Asbestos waste that is packaged in accordance with 40 CFR 61, which is adopted by reference in accordance with G.S. 150B-14(c), may be disposed of separate and apart from other solid wastes at the bottom of the working face or in an area not contiguous with other disposal areas, in either case, in virgin soil. Separate areas shall be clearly marked so that asbestos is not exposed by future land-disturbing activities. The waste shall be covered immediately with soil in a manner that will not cause airborne conditions. Copies of 40 CFR 61 may be obtained and inspected at the Division.	2.5 - Asbestos Disposal 2.5.2.1 - Asbestos Disposal (Waste Disposal) 2.5.2.2 - Asbestos Disposal (Waste Disposal)
	e. Wastewater treatment sludges may only be used as a soil conditioner and incorporated into the final two feet of cover. Sludges shall be examined for acceptance by Waste Determination procedures in Rule .0103(e) of this Subchapter.	2.6 Sludge Disposal
12.	Miscellaneous Requirements	
	a. Effective vector control measures shall be applied to control flies, rodents, and other insects or vermin when necessary.	3.1.5 - General (Landfill Operation)
	b. Appropriate methods such as fencing and diking shall be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.	3.1.3 - General 3.1.5 - General