



## Macon County Department of Solid Waste Management

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August 23, 2016

Mr. Allen Gaither  
Environmental Engineer II  
DEQ – DWM – SWS  
Permitting Branch  
Asheville Regional Office  
2090 US Hwy 70  
Swannanoa, NC 28778-8211

Permit No.	Date	DIN
<b>57-03</b>	<b>August 31, 2016</b>	<b>26705</b>

RECEIVED

**August 23, 2016**

Solid Waste Section

Asheville Regional Office

Mr. Gaither:

Please accept this letter and attachment as notification of a modification to the Operations Plan for Macon County MSW Landfill Facility; Permit #57-03. The purpose of this modification is to incorporate operations of a tear-off shingle recycling program at the Treatment and Processing Facility. Macon County currently has an agreement with a shingle processor to grind the shingles and incorporate them into an asphalt mix for road building.

The attachment is a word document with the changes tracked to make it easier for you to review. These changes will be forwarded to McGill Associates for inclusion in the pending Permit to Operate Phase III; Cell 1; or in an earlier submittal, as applicable.

If you require any additional information or have any questions about this request; please do not hesitate to contact me at your convenience.

Sincerely,

M. Chris Stahl  
Director of Solid Waste Management

CC: Mark Cathey, McGill Associates  
Operating File

**OPERATIONS PLAN**  
**Macon County MSW Landfill**

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**OPERATIONS PLAN**  
**Macon County MSW Landfill**

**Introduction**

Macon County currently manages the operation of a single active MSW cell - Phase 2 Cell 1 - at the Macon County Municipal Solid Waste Landfill (MSWLF) Facility. Phase 2 Cell 1 began receiving waste in February 1999 and is expected to reach capacity in the spring of 2017, at which time, the County will begin to utilize proposed Phase 3 Cell 1. The proposed Phase 3 Cell 1 area received Site Study Approval in 1997 at the same time as the existing Phase 2 Cell 1 area. Phase 3 Cell 1 is a standalone landfill unit. The County has recently purchased adjoining property and will expand the Facility Boundary as part of the Permit to Construct Phase 3 Cell 1. Existing MSWLF facilities that will remain in operation include a landfill office, scales and scalehouse, Waste Treatment and Processing Facility, equipment storage building, leachate collection system, yard waste facility and a recycling processing center. Proposed MSW Phase 3 Cell 1 is expected to provide five (5) years of additional landfill airspace. The location of MSW Phase 3 Cell 1 along with the proposed Facility Boundary is shown on Sheet C-101 of the Permit to Construct drawings. Appendix 7 includes the waste and volume projections for the five (5)-year permitting period for MSW Phase 3 Cell 1.

The Macon County Municipal Solid Waste Landfill is owned and operated by Macon County, North Carolina. Operation and maintenance of the landfill is under the supervision of the Macon Solid Waste Director, Mr. Chris Stahl.

**This Operations Plan has been prepared as required under Rule .1617 and in accordance with Rule .1625 of the North Carolina Solid Waste Management Rules (15A NCAC 13B). Macon County shall maintain and operate the Macon County MSW Landfill in accordance with the following requirements.**

**1.0 Waste Acceptance and Disposal Requirements**

The Macon County Municipal Solid Waste Landfill will only accept municipal solid waste, construction and demolition waste, and non-hazardous industrial waste generated in Macon County, and the Town of Highlands. Macon County will notify the Division of Waste Management, Solid Waste Section within 24 hours of any attempts to dispose of non-permitted waste.

**1.1 Prohibited Wastes**

The following wastes are prohibited from disposal at the landfill:

- Hazardous waste as defined within 15A NCAC 13A, including hazardous waste from conditionally exempt small quantity generators.
- Polychlorinated biphenyls (PCB) waste as defined in 40 CFR 761.
- Liquid wastes unless they are managed in accordance with Rule .1626(9).

- Wastes prohibited by Statute GS 130A-309.10 of the North Carolina Solid Waste Management Rules. These wastes include:
  - Used oil,
  - Yard trash,
  - White goods,
  - Antifreeze (ethylene glycol),
  - Lead-acid batteries,
  - Aluminum cans,
  - Whole scrap tires.
  - Motor oil filters,
  - Recyclable plastic bottles (excluding motor oil bottles),
  - Wooden pallets.
  - Oyster Shells,
  - Discarded Computer Equipment,
  - Discarded Televisions
  
- Wastes prohibited by Macon County Solid Waste Ordinance passed on July 2, 1996. These wastes include:
  - Burning or smoldering materials, or any other materials that would create a fire hazard,
  - Cardboard,
  - Radioactive Waste,
  - Wet sludges that cannot pass the paint filter test,
  - Aluminum cans,
  - Metal drums of 50 gallons or more capacity unless drain holes are provided to prevent containers from holding liquid or unless filled with identifiable solid waste which is otherwise acceptable,
  - Automobiles, truck or other motor vehicle bodies, large pieces of metal such as manufactured homes or farm equipment,
  - Ash unless approved by the Solid Waste Director,
  - Regulated medical waste,
  - Wood waste greater than 6 inches in diameter at the butt end and greater than 4 feet in length, and
  - Friable Asbestos.

## **1.2 Hazardous Wastes**

Hazardous waste may be gases, liquid, solids or sludges that are listed or exhibit the characteristics described in 40 CFR Part 261.

PCB wastes are defined in 40 CFR 761. They may be liquids or non-liquids (sludges or solids). PCB wastes do not include small capacitors found in white goods (e.g., washers, dryers, refrigerators) or other consumer electrical products (e.g., radio and television units).

### **1.3 Liquid Wastes**

Bulk or non-containerized liquid waste may not be placed in Macon County Municipal Solid Waste Landfill cell unless:

1. The waste is household waste other than septic waste.
2. The waste is leachate or gas condensate derived from the cell itself.

Containers holding liquid waste may not be placed in the Macon County Municipal Solid Waste Landfill unless:

1. The container is a small container similar in size to that normally found in household waste.
2. The container is designed to hold liquids for use other than storage.
3. The waste is household waste.

Note: Liquid Waste means any waste material that is determined to contain “free liquids” as defined by Method 9095 (Paint Filter Liquids Test), as described in “Test Methods for Evaluating Solid Wastes, Physical/Chemical methods” (EPA Pub. No. SW-846).

### **1.4 White Goods**

The Macon County Municipal Solid Waste Landfill does accept white goods, which are taken to a white goods pad that is located behind the Recycling Processing Center. All appliances containing chlorofluorocarbon (CFC) refrigerants are segregated from the other scrap metals. Freon (type 12 for refrigeration units and type R22 for air conditioning units) is removed by certified staff (State Board of Refrigeration Examiners certification number NC-820-3177) using model CR-600 refrigerant extraction pumps. The Freon is collected into 50-pound storage tanks and then transferred to a 250-pound storage tank located inside the Recycling Facility. The Freon is shipped to a certified Freon recycler for final processing when the 250-pound tank is full. Once a white good unit is empty, it is marked, logged into the Freon records book and transferred to the scrap metal pile located on the same concrete pad behind the refrigeration units. Any refrigerators with locking doors will have the door removed immediately.

Non-Freon containing white goods are placed into the scrap metal area on the white goods pad for removal by a contractor. Freon and non-Freon items are stored separately on the pad prior to Freon removal.

### **1.5 Car Wash Sediment**

The Macon County Municipal Solid Waste Landfill does not accept car wash sediment unless a TCLP test on metals has been performed at the potential customer’s expense and the test is negative. Any waste accepted must not contain any free liquids and must pass the paint filter test as well.

### **1.6 Mercury Containing Products**

Mercury containing devices are accepted as Universal Wastes from residents and commercial entities at the Materials Recovery Facility (MRF) located at the MSW Landfill. These devices

include intact mercury thermostat switches, and mercury containing lamps. These devices will be packaged and stored according to the Universal Waste regulations, and will be sent to qualified Universal Waste handlers for processing and recycling. A detailed plan for management of Mercury containing devices can be found in Appendix 8.

### **1.7 Automobile Fuel Tanks**

Steel automobile gasoline tanks are accepted at the Macon County MSW Facility as long as they do not contain any explosive vapors or any free liquids and they have been perforated or rendered incapable of retaining liquids. Terne-coated gasoline tanks cannot be landfilled due to the tanks exhibiting TCLP leachability for lead well in excess of 5.0 ppm, which is the EPA hazardous threshold.

### **1.8 Asbestos**

All waste containing asbestos shall be managed in accordance with 40 CFR 61. Only non-friable asbestos is accepted at the Macon County Municipal Solid Waste Landfill. A small sample of the asbestos must be brought to the Landfill for inspection prior to bringing the full load to the landfill. The Solid Waste Director or a NCDENR representative will verify if the asbestos is acceptable for disposal in the Macon County Municipal Solid Waste Landfill. Asbestos is considered non-friable if it cannot be crushed into a powder form or into multiple smaller pieces when squeezed in a fist. Non-friable asbestos will only be accepted between 8:00 am and 3:00 pm, Monday through Friday. The asbestos must be double-bagged in heavy duty trash bags. Prior to sealing the bags, the asbestos must be sprayed with water to discourage creation of airborne particles in the event that the bags rip or become opened. Asbestos waste should be brought to the landfill separately from any other waste. Upon entry to the landfill, the generator/hauler will inform the scalehouse attendant of the nature of the waste. The scalehouse attendant will direct the customer to a landfill operator at the Waste Treatment and Processing Facility, not to the landfill. One of the Waste Treatment and Processing Facility or landfill operators will escort the customer to a determined disposal location and stay with the customer until the waste is deposited. The landfill operator will excavate a hole in the working face for placement of the asbestos waste materials. The operator will then immediately cover the waste with additional loose waste at the toe of the working face to cover the bags. Asbestos waste will not be placed with a compactor or bulldozer.

### **1.9 Food, Animal, & Regulated Medical Waste**

No hazardous, liquid, or regulated medical waste shall be accepted or disposed of in the Landfill. Spoiled foods, animal carcasses, abattoir waste, hatchery waste, and other animal waste delivered to the disposal site shall be covered immediately. These wastes will be placed at the toe of the working face and shall be covered immediately.

## **1.10 Wastewater Sludge**

Wastewater sludges may be disposed of in the landfill. Sludges disposed in the landfill must pass the paint filter test and must be designated non-hazardous with the Toxicity Characteristic Leaching Procedure (TCLP) test.

## **1.11 Electronic Waste Recycling**

Macon County accepts a full range of electronics from residents at the Macon County MSWLF. Electronic waste to be collected and recycled includes, but is not limited to; computer equipment, televisions, hard drives, scanners, fax machines, copiers, and other miscellaneous electronic equipment. Electronics are brought into the Waste Treatment and Processing Facility where they are prepared by County staff for shipping. The County contracts with an approved vendor that has e-steward or R2 certification to remove the collected electronic waste back to their facility for recycling and/or further disposal. Once the electronic waste is collected, the vendor will send the County a statement that provides the tonnage of material disposed, broken down by computer equipment, televisions, and other electronic material.

## **1.12 Tear-off Asphalt Shingles**

Macon County accepts source-separated post-consumer tear-off asphalt shingles at the Waste Treatment and Processing Facility. Tear-off shingles will only be accepted for recycling from facilities not regulated under the Asbestos NESHAP; or, from NESHAP regulated facilities provided that documentation stating that the shingles do not contain >1% asbestos. (Documentation is a letter from the North Carolina accredited asbestos inspector or roofing supervisor that collected the samples with the analytical results attached.). Solid Waste staff will perform minimal sorting of shingles. Shingles that have not been source separated will not be accepted for recycling; solid waste staff will perform only minimum sorting at the facility. Shingles not approved for recycling will be taken to the landfill for disposal. Shingles containing non-friable asbestos will be landfilled per Section 1.8 of this Plan; and are not eligible for recycling. The Macon County landfill does not accept friable asbestos.

Macon County will manage the tear-off shingle recycling program in accordance with industry developed best management practices for post-consumer reclaimed asphalt shingles. Shingles approved for recycling will be consolidated in a concrete bunker on the tipping floor of the T&P Facility. Staff will manage the shingle pile, keeping shingles within the confines of the bunker and removing any residual contaminants. Once approximately 20-tons of approved materials are received in the program, a contract hauler will be notified, and the shingles will be delivered to an off-site recycler for processing. If for any reason, a recycler is not available for processing of the shingles, the shingles will be taken to the Macon County MSW Landfill for disposal.

## **2.0 Random Waste Inspections**

Macon County has a program in place for detecting and preventing the disposal of hazardous and banned wastes by conducting a random inspection program. The frequency of random inspections shall be based on the type and quantity of wastes received daily, and the accuracy and confidence desired in conclusions drawn from inspection observations. Currently, the random inspection rate represents approximately 5–10% of the average daily waste load. At a minimum, inspected loads will always represent at least 1% of the waste stream. Inspections will be performed at the Waste Treatment and Processing Facility. If these inspections indicate that unauthorized wastes are being brought to the Macon County Municipal Solid Waste Landfill site, then the random inspection program should be modified to increase the frequency of inspections.

Inspection priority also will be given to haulers with unknown service areas, to loads brought to the facility in vehicles not typically used for disposal of municipal solid waste, and to loads transported by previous would-be offenders. For wastes of unidentifiable nature, the inspector should question the transporter about the source/composition of the materials. The program will include the following:

Landfill personnel will conduct random inspections of incoming loads. The frequency of the random inspections will be based on the type and quantity of waste, but not less than 1% of the waste stream. Inspections will occur at the Waste Treatment and Processing Facility. The driver will be directed to dump his/her load on the tipping floor of the Facility off to the side of the regular waste stream. The load will be carefully spread using the bucket of a rubber-tired loader. Landfill personnel who have been adequately trained to identify hazardous and banned waste will then inspect the load. Any unacceptable wastes are removed from the load and taken to the proper disposal area. If hazardous or unknown wastes are discovered, the waste is secured away from the operating area at an isolated location of the tipping floor. The waste generator/hauler would then be questioned on the source and nature of the waste and the Solid Waste Director notified immediately. If the nature of the waste presents an acute or immediate hazard to personal safety, the Emergency Management Services will be contacted. NCDENR will be notified of the situation by telephone within 24 hours and in writing within 15 days of the occurrence. The written notice will take the form of a Special Waste Handling Occurrence Report, which is located at the Solid Waste Administration Building.

### **2.1 Waste Inspection Records and Notices**

A record will be kept of each inspection that is performed. These records will be included and maintained in the operating record of the landfill. A copy of the waste inspection record and a procedure of the random waste screening process are attached as Appendix 3.

Signs shall be placed in clear view of each incoming waste transporter, which shall include the following notice:

NOTICE: RANDOM WASTE SCREENING IS PRACTICED HERE. WE RESERVE THE RIGHT TO INSPECT ANY LOAD OR PORTION OF A LOAD ARRIVING AT OUR FACILITY. WE WILL REJECT ALL: HAZARDOUS WASTES, PCBs, LIQUIDS AND ANY UNACCEPTABLE WASTE AS DETERMINED BY OUR MANAGEMENT. YOUR PARTICIPATION IN THIS PROGRAM IS NOT OPTIONAL!

## **2.2 Training of Facility Personnel**

Landfill Operators and Transfer Station Operators shall become certified and maintain their Continuing Education Units (CEU's) through training courses offered by SWANA. Documentation of training will be placed in the operating record for the facility. There are at least four (4) certified Landfill Operators employed at the Macon County MSW Landfill in addition to the Solid Waste Director, who currently has a Manager of Landfill Operations, Manager of Transfer Station Systems, and a MSW Systems Management Certification. At no time will non-certified employees staff the landfill without a certified operator present.

Macon County, with the assistance of ~~J&B Disposal~~ a contracted hauling company, operates eleven (11) staffed convenience centers throughout rural parts of the County. Personnel at the convenience centers are trained to identify hazardous, liquid, and special wastes. If any banned or hazardous wastes are identified by center personnel, they will instruct the individual attempting to dispose of the waste to remove it and require the individual to dispose of the waste in a hazardous facility or direct them to the landfill for proper disposal. Macon County will provide at least annual training to all landfill personnel in regard to recognizing hazardous and liquid waste.

## **2.3 Contingency Plan**

A Contingency Plan for handling prohibited wastes is included as part of the training plan. The Contingency Plan is described in the Waste Screening and Special Waste Handling Occurrence Procedures included in Appendix 3. The plan involves the identification of the waste by inspection. If the load has been determined to be of a hazardous nature, the landfill will not accept the waste and require that hauler remove the waste from the facility. The hauler will then be required to find a facility suitable for accepting the hazardous waste.

### **3.0 Waste Treatment and Processing Facility**

#### **3.1 Overview**

Macon County utilizes the Waste Treatment and Processing Facility to receive incoming waste at the Macon County MSWLF. The Waste Treatment and Processing Facility consists of a pre-engineered metal building with a concrete tipping floor and concrete push wall. Incoming waste collection vehicles will deposit municipal solid waste (MSW) and construction & demolition wastes directly onto the concrete tipping floor of the Facility. Once the wastes have been dumped onto the tipping floor, it will be inspected for illegal and banned wastes, hazardous wastes, and/or other wastes requiring special handling. Illegal and hazardous wastes will be diverted from the waste stream and disposed of properly in a hazardous waste landfill. Once the wastes have been inspected for unacceptable materials, a loader will spread the remaining wastes over the tipping floor so that recyclable materials can be removed from the waste stream. Cardboard and scrap metal will be the principle materials targeted for recovery, along with clean wood and pallets, rigid plastics, #1 and #2 plastics, tear-off asphalt shingles, and electronics. Other recyclable wastes will ~~only~~ be recovered if they arrive in bulk form and/or are easily separable from the waste stream; and, a financially feasible processor or recycler can be contracted to accept the materials. The remaining wastes will be pushed to the rear of the Facility via a rubber tired loader. The waste will be collected along the push-wall that runs parallel to a 48-ft. walking floor trailer. The loader will pick up the waste along the push-wall and deposit it into the walking floor trailer. A road tractor will then carry the waste in the trailer to the landfill for disposal. It is anticipated that 1-3 loads will be taken to the landfill daily. The cycle time for off-loading the trailer is approximately 15 minutes. Wastes will be collected at the toe of the push-wall while the trailer is away from the facility. At the end of each operating day, all wastes will be removed from the tipping floor and partial trailer loads will be stored overnight in the walking floor trailer within the Treatment and Processing Facility.

Normal working hours for the Waste Treatment and Processing Facility are 7:30 a.m. to 4:30 p.m., Monday through Friday and 8:00 am to 2:00 pm on Saturdays. Note that should unexpectedly heavy volumes occur, Facility personnel would continue to load MSW wastes after the regularly scheduled hours. The Facility is closed on Sunday and the following holidays: Thanksgiving Day, Christmas Day and any federal holiday which falls on Tuesday through Thursday.

#### **3.2 Personnel**

The Facility is owned and operated by Macon County. The operation is staffed at all times that waste is being received in the Waste Treatment and Processing Facility. These employees are properly trained in safety procedures and the inspection of incoming wastes. Training materials published by the Solid Waste Association of North America (SWANA) are utilized for initial training of on-site personnel and for continuing education. The Waste Treatment and Processing Facility employees also direct and coordinate the movement of collection vehicles into and out of the Facility

### **3.3 Characterization of Waste Stream**

The waste received at the Waste Treatment and Processing Facility will have the same characterization as the waste accepted by the MSW landfill. Certain waste types will bypass the Facility and be taken directly to the landfill for disposal. These materials include such wastes as asbestos wastes, sludges, non-regulated medical wastes, and potentially any other wastes that are difficult to process and/or contain no recoverable materials.

### **3.4 Inspection of Wastes**

Properly trained employees control access to the Waste Treatment and Processing Facility. As the contents of the collection vehicles are emptied onto the tipping floor, an employee will conduct periodic visual inspections of the waste materials as outlined in the Waste Screening and Special Waste Handling Occurrence Procedure found in Appendix 3. If unacceptable waste is found, the driver of the vehicle will be instructed to terminate dumping and the unacceptable waste will be reloaded onto the vehicle for removal from the site. Examples of unacceptable wastes include large containers of liquid waste, sludges, drums that have not been emptied and crushed prior to delivery, and containers either smoking or emitting noxious vapors. If any hauler using the Facility develops a pattern of deceptive waste identification in order to circumvent proper regulation, the Asheville regional office of NCDENR will be notified within 24 hours of attempted disposal and informed as to the type of material and the hauler so that follow-up investigations can be conducted, if necessary.

If hazardous waste is identified during vehicle dumping, Facility personnel will immediately notify the driver and if necessary, contact NCDENR and the Hazardous Materials Emergency Response Team for the region, RRT6. The appropriate information concerning the waste will be provided to those officials and the recommended steps will be taken until properly trained handlers of hazardous waste arrive on-site.

Infectious or medical waste haulers are advised that the Facility does not accept such wastes and that the hauler will have to transport the infectious wastes to an approved facility for disposal.

Should a “hot load” occur in a vehicle using the Facility, the attendant will not permit the load to be unloaded. No asbestos or animal wastes will be accepted at the Treatment and Processing Facility.

The above limitations on the types of wastes that will be accepted do not circumvent the incidental wastes that may be found in the residential waste stream that is expected at the facility.

### **3.5 Traffic Control**

Site personnel control access to the Waste Treatment and Processing Facility. As vehicles arrive at the Facility, site personnel will direct the driver to position the vehicle at the correct unloading location once there is sufficient room to maneuver on the concrete floor. When the contents of the vehicle are emptied, the driver is instructed to move the vehicle away from the tipping floor and exit the Facility. Directional signs located at the facility will aid traffic control.

During times when several vehicles are at the Facility at the same time, haulers are instructed to wait within the staging area located outside the entrance to the building. The tipping area will allow up to four (4) trucks to dump simultaneously.

### **3.6 Housekeeping, Litter, and Vector Control**

Incoming wastes will be transported to the Facility in covered or enclosed vehicles. Throughout the day and at the end of each working day, facility personnel will police the building and surrounding site for litter. Collected litter is placed in containers for proper disposal. A yard hydrant is available to wash down the concrete tipping floor and adjacent equipment areas when needed. The equipment used for pushing trash on the tipping floor also has a bucket equipped with a squeegee. The wash water flows into drains located throughout the tipping floor. A metal grate covers the drain to block large debris that might clog the drains. The metal grates are raked periodically and the collected trash is placed into containers for proper disposal. The drain is connected to a six (6)-inch sewer line that also services the office, breakroom, and restrooms. The sewer line drains to a duplex pump station outside the Facility. This pump station pumps through a two (2)-inch force main to a 10-inch force main that runs between the East Franklin Pump Station and the Franklin Wastewater Treatment Plant. The pump station has an excess volume capacity of 200 gallons and a pumping capacity of 20 gpm. The pump station is equipped with automatic controls and high-water alarm. Final disposal of the leachate is at the Franklin Wastewater Treatment Plant. The Town of Franklin operates this wastewater treatment plant. See Appendix 1 for a letter from the Town of Franklin, which states that the Town of Franklin Wastewater Treatment Plant will accept an average flow of 875 gallons per day from the former Baling Facility (now the Waste Treatment and Processing Facility) at the Franklin Landfill.

Odors are controlled by prompt unloading and transfer of all delivered wastes at the Facility, which has seven (7) roll-up doors to allow adequate access to all areas of the building to ease operations, maintenance, and cleaning. The doors allow adequate fresh air exchange when opened, which aid in odor control. The building is also equipped with ventilation fans for operation during cold weather.

The daily removal of solid waste in conjunction with daily housekeeping procedures effectively controls the development of vector related problems. The tipping floor is constructed of concrete, which is a relatively impervious, cleanable material. Floor and equipment wash-downs at the Facility also reduce both odor and vector problems. As described previously, wash water is diverted to the duplex pump station located outside the building. Licensed exterminators are also available to visit the Facility as needed.

### **3.7 Waste Treatment and Processing Facility Bypass Procedures**

Wastes from commercial haulers and convenience centers are disposed directly at the working face of the landfill, unless large quantities of recoverable materials are identified. Smaller loads utilize the Waste Treatment and Processing Facility. Unregulated wastes from hospitals and retirement facilities, animal wastes, and asbestos wastes are disposed directly at the working face of the landfill. Asbestos wastes require special handling as outlined in Section 1.8.

In the event that wastes cannot be processed through the Waste Treatment and Processing Facility due to equipment failure, the Facility may be bypassed. If the Facility is anticipated to be out of operation for only a short period, wastes will be stockpiled on the tipping floor. The

tipping floor at the Facility can comfortably accommodate approximately 150 tons of wastes. If the Facility is anticipated to be out of operation for more than 2 or 3 hours, the Facility will be bypassed. The waste would then be taken directly to the MSW landfill by the collection trucks. All rules that apply to traditional landfilling practices will be followed. Inspections will be performed in the landfill adjacent to the working face and materials will be separated as required. The MSW will then be compacted and sufficiently covered. In all cases, wastes will not be allowed to remain on the tipping floor of the Facility overnight.

### **3.8 Dust and Fire Control**

Since collection and transfer vehicles travel at low speeds on paved roads, dust generation to the Facility is not a problem. The road from the Facility to the MSW Landfill is gravel so the County periodically wets the road to contain dust. Furthermore, periodic washdown of the tipping floor and equipment will also prevent excessive build-up of dirt and dust at the facility.

Hand-held fire extinguishers and two fire hoses located inside the building provide fire control. Fire protection will be provided by the local fire department, which is aware of the fire control needs for the Facility. In the event that a fire occurs, the local authorities will be notified immediately if help is needed. The telephone numbers of local fire, police, ambulance and hospital facilities are posted in and around the Facility at all times. Should a fire occur at the Facility, the NCDENR will be notified within 24 hours and written notification will be submitted within 15 days.

### **3.9 Wastewater Collection**

Wastewater flow at the Facility consists of wash-down water and liquids escaping the deposited wastes. These sources of wastewater are directed into six drains located throughout the Facility floor. The metal roof covering the Facility minimizes the generation of wastewater. The drains empty into the duplex pumping station located outside of the building. The wastewater that accumulates in the pump station is pumped to the Franklin Wastewater Treatment Plant. Refer to Appendix 1 for a letter from the Town of Franklin, accepting flow from the former Baling Facility (now Waste Treatment and Processing Facility).

### **3.10 Stormwater Management and Erosion Control**

Areas adjacent to the Facility are graded away from the building. Gutters and downspouts are positioned on the building to divert discharge of stormwater to diversion ditches and stormdrains. The Macon County Landfill operates under a stormwater discharge permit issued by the NCDENR-Division of Water Quality, permit number: NCG120083, which requires regular monitoring of stormwater discharge locations.

### **3.11 Zoning**

Since the Waste Treatment and Processing facility is located on the Macon County Landfill property, zoning approved for the current solid waste management facilities allows for the Waste Treatment and Processing Facility. Refer to Appendix 4 for a letter from the county where zoning for the Macon County Landfill property is given.

### **3.12 Facility Inspections**

Regular maintenance inspections of the Facility are conducted at least annually. The inspections are conducted by site personnel who are familiar with the buildings and equipment at the site, as well as operations of the Facility. No records of inspections are kept. Observations include the following:

1. Building, foundation, and push walls
2. Ventilation system
3. Fire equipment
4. Electrical systems
5. Floor drains and yard hydrant
6. Leachate pump station

If the Waste Treatment and Processing Facility personnel note any unsatisfactory conditions, the concerns will be reported to the Macon County Solid Waste Director. If a threat to safety or to the environment is identified, immediate action will be taken to correct the situation. If necessary, operations at the Facility will be suspended temporarily until the proper authority can be contacted.

## **4.0 Waste Placement & Cover Material Requirements**

Macon County would like to conduct waste filling operations in an uphill direction, and therefore will begin waste filling at the southern margin of the site, adjacent to the sump area. However, the County will still maintain a stormwater pumping area on top of the stormwater cover above the leachate sump for as long as possible. In addition to pumping stormwater from the low point of the cell, a stormwater control berm will be installed and will divert runoff to the low point of the liner edge near the southwest corner of Phase 3 Cell 1. Waste fill operations will continue up the hill on the eastern side of the cell. Waste fill operations for the five-year permitting period are shown on Sheets C-108 through C-112 of the Permit to Construct Drawings.

Waste placement will continue in a phased manner until the final grades are reached. The initial 6 – 10 foot depth of waste in each subcell shall be carefully screened for objects that could be pushed through the composite liner. A compactor shall not be used on this initial lift of waste to reduce the potential for impacting the geomembrane. The initial lift of waste will be compacted only by the equipment used to place the waste. Following placement of the initial lift, the solid waste will be placed and compacted as densely as possible using compactors and dozers. Waste placement will be in lifts not to exceed 10 feet. In order to increase compaction, waste should be placed from the downgradient to upgradient direction when possible. The working face shall be maintained in as small an area as possible to increase compaction and to reduce the amount of daily cover required. All windblown material resulting from daily waste placement will be recovered and returned to the cell for disposal at the end of each workday.

### **4.1 Daily Cover**

Macon County shall cover the disposed solid waste with six (6) inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.

### **4.2 Alternative Daily Cover**

As an alternative to the six inches of earthen material, Macon County may use an alternative daily cover (ADC) that has been approved by the Solid Waste Division. The County will abandon the use of the 4 mm thick polyethylene film as an ADC in conjunction with the removal of the baling process from the landfill operation. Two types of ADC have been approved by the NCDENR-Solid Waste Division for use at the landfill. Macon County has obtained the approval of a 48ft x 50ft landfill tarp as an ADC. The tarp will be spread over the sloped working face of the landfill at the end of each day. The second method of approved ADC is the use of 3-inches of ground pallets and wood waste in conjunction with 3-inches of native soil instead of the 6-inches of earthen material. Correspondence pertaining to both of the approved ADC's is included in Appendix 6.

Each day at closing, the ADC tarp is walked onto the landfill face. The sides of the tarp will be weighted with soil as needed to prevent the tarp from being blown off of the landfill face by high winds. The size of the working face will be maintained so that the tarp completely covers all wastes not otherwise covered with at least six inches of earthen material or approved ADC. On rare occasions, such as the beginning or end of a landfill lift, it may be necessary to maintain a larger working face. Under such circumstances, a second tarp will be taken to the landfill for additional temporary coverage. The second tarp will be placed so that a maximum overlapping

of the tarps is maintained. Care is taken to make sure that no vehicle traffic or landfill equipment is allowed to pass over the cover, which could result in shearing or tearing of the cover. The spare tarp will be stored at the Waste Treatment and Processing Facility.

The second type of approved ADC consists of a 6-inch thick lift consisting of a 50/50 mixture of native soil and ground pallets and yard waste. The ground wood waste and soil are mixed in the buffer area prior to transport to the landfill and spread as cover at the end of the day. The mixed material will be used on internal slopes and working faces.

The ADC's will be placed to meet or exceed the performance criteria of an ADC as outlined in Rule .1626 2 (b) by providing control of disease vectors, fires, odors, blowing litter, and scavenging.

Macon County shall cover all waste areas that will be inactive for more than twelve (12) months and have not reached final elevations with a minimum of one foot of intermediate cover. Any area inactive for more than ninety (90) days will be hydro-seeded to prevent erosion of the cover layer.

#### **4.3 Disease & Vector Control**

Macon County will control the spread of disease vectors by maintaining daily cover requirements and picking up windblown trash at the end of each day.

## **5.0 Explosive Gases Control**

Refer to the Landfill Gas Monitoring Plan prepared by Bunnell-Lammons Engineering, Inc. for Phases 1, 2, and 3 (Cell1) dated May 28, 2015. The plan was prepared in accordance with North Carolina Rules for Solid Waste Management, 15A NCAC 13B Rule .1624(4).

## **6.0 Air Quality**

### **6.1 Clean Air Act**

The Macon County MSW Landfill is not required to have an air quality permit as promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended. The Macon County Landfill would be required to obtain a Title V operating permit at the point in time that the Macon County MSW Landfill reaches an on-site volume of more than 2.5 million Megagrams of waste. The Phase 1/Phase 2 area contains approximately 0.59 million Megagrams of waste (as of April 29, 2015) and will accommodate a total of approximately 0.64 million Megagrams of waste at full capacity. MSW Phase 3 Cell 1 has the capacity of approximately 0.20 million Megagrams, which will bring the total disposed waste at the Macon County MSWLF to 0.84 million Megagrams at the end of the Phase 3 Cell 1 five-year permitting period.

### **6.2 Open Burning**

No open burning of solid waste shall be allowed at the landfill, except for the infrequent burning of land clearing debris generated on site or debris from emergency clean-up operations. The Division of Solid Waste must approve any such infrequent burning.

### **6.3 Hot Loads**

If a hot load of waste is delivered to the landfill, the driver shall not be allowed to dump the load. If a hot load must be dumped, it will be dumped on an inactive portion of the landfill near the working face so that liquids in the waste or liquids used to extinguish the fire are confined in the landfill. The waste may be smothered with clean dirt, or the local fire department may be called for assistance. Once the load has been extinguished and the cause determined, the load will be taken to the working face for disposal.

If a load of “hot” waste is unknowingly discharged in the Landfill, it will immediately be watered or smothered with dirt until extinguished by landfill personnel if possible and the local fire department called if needed. The Waste Treatment and Processing Facility is equipped with a two-inch hose bib at the side of the tipping floor. Hoses will remain connected to the hose bib to allow quick access. Fire hydrants are located just outside the Waste Treatment and Processing Facility.

Equipment and a stockpile of soil shall also be maintained in close proximity to the Landfill for controlling accidental fires. The local fire department has been contacted and informed of the potential fire hazards at the Landfill. Arrangements have been made with the fire department to provide access to the landfill site. The fire department has also been provided with operational information of the facility in case of emergency.

### **6.4 Fire Notification Requirements**

Macon County shall provide verbal notification to the Solid Waste Division within 24 hours of a fire at the Landfill and written notice within 15 days. The Fire Occurrence Notification Form is included in Appendix 3.

## **7.0 Access and Safety Requirements**

A fence currently encloses the site with access controlled by means of gates. A security check station and weigh scales is located at the landfill entrance to evaluate waste stream and proper disposal. An attendant will be on duty at the site at all times while it is open for public use to insure compliance with operational requirements. Access roads to the site shall be of all weather construction and maintained in good condition.

### **7.1 Dust Control**

Dust generated due to landfill activities will be controlled. Dust will be controlled through the application of water by truck or other approved dust control products, if necessary. Removal of mud and dirt from the roads will also be a part of the dust control measures. Additionally, final cover will be vegetated as soon as practical in order to minimize the blowing of dust on-site.

### **7.2 Signage**

Signs providing information on disposal procedures; the hours that the site is open for public use; the permit number; ~~stating~~ a statement that no hazardous or ~~un-permitted~~ banned wastes can be received for disposal without written permission; ~~stating~~ a statement that no liquid waste can be received for disposal; emergency contact information; and any other pertinent information that informs the public of the Solid Waste Department's rules and regulations will be posted at the site entrance. Traffic signs and markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and maintain efficient operating conditions.

### **7.3 Scavenging**

Scavenging of solid waste is prohibited unless approved by the owner or operator and the removal is not performed on the working face.

### **7.4 Barrels and Drums**

Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no hazardous or liquid waste is contained therein. The only exception is drums that contain non-friable asbestos.

## **8.0 Erosion and Sedimentation Control Requirements**

Existing and proposed erosion/sedimentation control structures include sediment basins, storm drains, temporary slope drains, check dams, and diversion ditches. Existing and proposed erosion/sedimentation control structures include sediment basins, storm drains, temporary slope drains, check dams, and diversion ditches. The County will install at least 6 new sediment/skimmer basins as part of the development of Phase 3 Cell 1. An erosion control plan submittal to the NCDENR-Land Quality Section for the work associated with the construction of Phase 3 Cell 1 is pending. The County will provide a copy of the Erosion Control Permit to the Solid Waste Section upon receipt. The Erosion Control Plan will be designed to restrain the sedimentation associated with the construction and operation of Phase 3 Cell 1 and the construction and operation of Phase 3 Cell 2. The Plan will address the construction of access roads and stockpile/borrow areas for approximately 10 years of landfill operations.

Sedimentation basins will be checked after periods of significant runoff. Sediment will be removed from the basin to its original dimension when sediment accumulates to one half of the design depth. The sedimentation basins, embankments, ditches, inlets and outlets will also be inspected for erosion damage. All necessary repairs will be made immediately. Any trash or debris within the riser pipes will be removed. The Macon County Landfill operates under a storm water permit issued for the NCDENR-Division of Water Resources, permit number: NCG120083.

Storm drain outlets and diversion ditches will be inspected for damage after each runoff event. Rip rap will be placed in ditches and at pipe outlets to prevent erosion and wash outs. Provisions for a vegetative ground cover sufficient to control erosion must be accomplished within fourteen (14) working days upon completion of any phase of MSWLF development.

Embankment slopes shall be periodically inspected for erosion. The embankment slopes shall be mowed at a frequency sufficient to maintain a good stand of vegetation. The slopes shall be mowed a minimum of twice per one (1) year period. The embankment slopes shall be refertilized in the second year unless vegetation growth is fully adequate. Any damaged areas will be reseeded, fertilized, and mulched immediately. Seeding, fertilizing and mulching shall be in accordance with the North Carolina Erosion and Sedimentation Control Guidelines.

## **9.0 Drainage Control and Water Protection Requirements**

### **9.1 Surface Water Diversion**

Surface water from outside the operational area will be diverted from the waste area by the use of perimeter ditches. The perimeter ditches direct surface water to the sedimentation basins.

### **9.2 Storm Water Cover**

The active waste area will be filled and graded so that no surface water will pond near or on waste and that no waste will be disposed of in ponded water. Initially for Phase 3 Cells 1, a stormwater diversion berm will be installed to divert water to the low point in the liner edge near the southwest corner of the Cell.

Leachate will be collected within the active waste area on top of the HDPE liner. Leachate will be pumped with side slope riser pumps through a dual-contained force main to a leachate holding pond, located adjacent to the landfill on the property of the Town of Franklin Wastewater Treatment Plant.

### **9.3 Discharge of Pollutants**

There shall be no discharge of pollutants from the landfill into waters of the U.S., including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination Systems (NPDES) requirements, pursuant to Section 402.

There shall be no discharge of a nonpoint source of pollution into waters of the U.S., including wetlands, that violates any requirement of area-wide or State-wide water quality management plan that has been approved under Section 208 or 319 of the Clean Water Act, as amended.

## **10.0 Recordkeeping Requirements**

Landfill personnel shall record and retain the following information in an operating record at the landfill, or at an alternate location that has been approved by the Division.

- Inspection of leachate management system,
- Inspection records and waste determination records,
- Training received by landfill personnel,
- Waste amounts received by weight, which includes source of generation,
- Gas monitoring results and any necessary remediation plans,
- Any demonstration, certification, finding, monitoring, testing, or other analytical data required by sections .1630 to .1637 of the Rules (15A NCAC 13B),
- Any monitoring, testing, or analytical data as required by Rule .1627 (15A NCAC 13B),
- Any cost estimates and financial assurance documentation required by Rule .1628 (15A NCAC 13B), and
- Yearly Landfill Capacity and Volume Calculations

This information will be readily available for inspection by the Division of Waste Management-Solid Waste Section. A copy of this Operation Plan will remain at the facility at all times.

## **11.0 Leachate Management Plan**

### **11.1 LCRS System Maintenance**

Landfill personnel shall maintain records of all inspections, cleaning, and repairs made on the leachate collection system.

### **11.2 Leachate Testing**

The leachate quality will be sampled on a semi-annual basis. Leachate will be analyzed for Appendix 1 constituents as well as BOD, COD, phosphate, nitrate, sulfate, pH, and Specific Conductance.

### **11.3 Pump Requirements**

The average flow that will reach the sump for Phase 3 Cell 1 is estimated to be 9.0 gallons per minute (GPM). A peaking factor of 5.22 was applied to the average flow for a pump station design flow of 47 GPM for a single pump operation. Both pumps will pump a combined flow of 61.25 GPM. In the condition where the existing pumps from Phase 2 Cell 1 and one proposed pump from Phase 3 Cell 1 are in operation, it was determined that the proposed pump would operate at 41 gallons per minute, existing pump A would operate at 21 gallons per minute, and existing pump B would operate at 44 gallons per minute. All three pumps are the same EPG model and operate at an acceptable flow based on the pump curves and flow range. See the Phase 3 Cell 1 Engineering Plan Appendix C for design calculations and system layout.

### **11.4 Leachate Disposal**

The leachate will be pumped to the adjacent Town of Franklin Wastewater Treatment Plant. There is an agreement between the Landfill and the Town that the WWTP accept leachate from the landfill and the landfill receive sludge from the WWTP. A letter approving disposal of leachate at the plant is included in Appendix 5. A copy of the Macon County Landfill Pretreatment Permit is also included in Appendix 7.

### **11.5 LCRS System Inspection**

The landfill operator is responsible for periodic inspection and maintenance of the LCRS. Landfill personnel will perform monthly inspections of the leachate collection system equipment, specifically the pumping stations. A copy of the inspection form has been attached as Appendix 2. The pump stations will be inspected for proper operation and run-time hours will be documented. If the monthly inspection reveals any equipment deficiency, remedial measures will be taken immediately to correct the problem. An incident report will be completed that includes details of the incident and any corrective measures required. If an incident report is required, a copy of the report shall be attached to the inspection form where the deficiency was identified.

### **11.6 Leachate Records**

Comprehensive records of the amount of leachate generated will be maintained at the Town of Franklin Wastewater Treatment Plant, which is located adjacent to the Landfill facility. Leachate

generation will be determined from the hours of pump operation and pump rates. An annual summary of leachate generation will be maintained in the operating record.

### **11.7 LCRS Contingency**

In the event that there is a temporary failure with any of the leachate removal and storage equipment, the geometry of the landfill will allow for the landfill to contain the leachate for a period of several months. Action will be taken to remedy any malfunction within 2 days. Due to the conservative design of the leachate removal and storage equipment and the geometry of the landfill, the possibility of leachate overflowing the perimeter berm is virtually impossible.

In the event that extreme levels of particular constituents are found to be present in the leachate during sampling, or extremely excessive leachate production occurs, the Solid Waste Division and the Town of Franklin Wastewater Treatment Plant will be notified. Additional pre-treatment methods will be utilized if problems are encountered with leachate quality.

## **12.0 Composting Operation**

### **12.1 Overview**

The Composting Operation has been dormant since 2004 due to the lack of a feedstock; however, if a feedstock should become available, the County may resume Composting Operations. The County will notify the NCDENR-Solid Waste Section upon reinstatement of the Composting Operation and apply for an updated permit.

## **13.0 Yard Waste Treatment and Processing Operation**

### **13.1 Overview**

The Yard Waste Treatment and Processing Operation at the Macon County Municipal Solid Waste Facility generate mulch for use as an alternate daily cover for the Landfill. Incoming waste collection vehicles will deposit yard waste at the unloading area. The hauler will unload the yard waste in a manner to keep the unloading area free of debris. A contractor will grind the yard waste to produce mulch.

### **13.2 Personnel**

The facility is owned and operated by Macon County. The employees are properly trained in safety procedures and the inspection of incoming wastes. Training materials published by the Solid Waste Association of North America (SWANA) are utilized for initial training of on-site personnel and for continuing education.

### **13.3 Characterization of Waste Stream**

The waste received by the Yard Waste Operation will include untreated, unpainted pallets and wood, leaves and land clearing debris consisting entirely of weedy material such as roots, brush, saplings and stumps. If municipal solid waste is mixed with yard waste, the hauler will need to dispose of the MSW at the Waste Treatment and Processing Facility before unloading the yard waste. The following items are not accepted at the Yard Waste Operation: treated or painted lumber wastes, household waste, cardboard, any non-recyclable material or any non-yard waste materials.

### **13.4 Procedures**

Vehicles containing yard waste will be weighed on the scales upon entry to and from the Landfill. The hauler will be directed to the Yard Waste Management Area. If there is Municipal Solid Waste or other material mixed with the yard waste, the hauler will be directed to the Waste Treatment and Processing Facility to unload the MSW before the yard waste. The hauler will proceed to the Yard Waste Management Area along the gravel drive along the northeast side of the adjacent MSW landfill. The unloading area is of sufficient size to allow two or three vehicles to unload simultaneously. The hauler will unload the yard waste in such a manner as to keep the unloading area free of debris. Larger loads that may come in by dump truck will be unloaded as far from the access roadway as possible. As necessary, the County staff will use a bulldozer and loader to push the waste into stockpiles. The stockpiles will be configured so that stormwater runoff flows in a laminar fashion across the graded and grassed slopes to prevent erosion and point source runoff. The yard waste pile will be maintained so that air can freely flow through the pile in order to keep the internal temperature below 110-degrees Fahrenheit (F). A qualified contractor will grind the yard waste to make mulch. The primary use of the mulch will be an approved alternative daily cover for the Municipal Solid Waste and in the composting process. Mulch will be hauled to the Municipal Solid Waste Landfill and the Composting Pad using a dump truck.

### **13.5 Traffic Control**

The Scale personnel will direct vehicles that contain yard waste to the Yard Waste Management Area. The unloading area is adequately sized to allow two to three vehicles to unload simultaneously. The hauler will empty their load themselves onto the stockpiles.

## **14.0 Recycling Operation**

### **14.1 Overview**

Macon County operates a Recycling Processing Center at the Landfill facility. The Recycling Center accepts materials dropped off at the facility as well as processes incoming recycling waste from the eleven collection sites located throughout Macon County. The recyclable material is baled and shipped to corresponding recycling companies.

### **14.2 Personnel**

The Recycling Processing Center is owned and operated by Macon County. The employees are properly trained in safety procedures and the inspection of incoming wastes.

### **14.3 Characterization of Waste Stream**

The waste received by the Recycling Processing Center will include the following items:

- Newspaper,
- Cardboard
- Mixed Paper
- Aluminum Cans,
- Steel Cans,
- Clear, Brown and Green Glass,
- #1 Plastic (PETE), and
- #2 Plastic (HDPE),
- Mixed rigid plastics,
- White Goods and scrap metal,
- Used clothing.

Additional materials recovered by the County:

- Batteries,
- Anti-freeze,
- Oil,
- Oil filters,
- Used Cooking Oil
- Carpet and padding
- Mercury lamps and switches
- Electronics
- Tear-off Asphalt Shingles

## **Appendix 1**

**Correspondence from Town of Franklin Wastewater Treatment Facility Approving  
Wastewater from (former) Baling Facility (now Waste Treatment and Processing Facility)**

## Town of Franklin

70 West Main Street  
Franklin, North Carolina 28734  
(704) 524-2516

February 20, 1997

Mr. A. Preston Howard, P.E.  
North Carolina Department of Environment, Health and  
Natural Resources  
Post Office Box 29535  
Raleigh, North Carolina 27626-0535

Dear Mr. Howard:

The Town of Franklin will accept the wastewater (875 gpd) from the proposed Macon County Solid Waste Baling Facility for treatment at the Town of Franklin Wastewater Treatment Plant.

Sincerely,



David E. Henson  
Mayor

## **Appendix 2**

### **Leachate Collection System Inspection Report**



## LEACHATE SYSTEM INSPECTION REPORT

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ AM/PM NAME: \_\_\_\_\_

### Phase 1 Cell I

Gravity System through landfill dike to leachate pond.

- Are manholes free of debris:  Yes  No
  - Is there any leachate standing in the manhole:  Yes  No
  - Is there indication of a leachate spill along main:  Yes  No
- 

### Phase 2 Cell I

Pump system with two pumping stations and force main that becomes gravity and empties into leachate pond.

#### Leachate Pump Station: Upper:

- Is pump station operational:  Yes  No
  - Are control panels working properly:  Yes  No
  - Is there indication of leachate spill along main:  Yes  No
  - Current water depth in well: \_\_\_\_\_ inches
  - Pump runtime meter: \_\_\_\_\_ hours
- 

#### Leachate Pump Station: Lower:

- Is pump station operational:  Yes  No
  - Are control panels working properly:  Yes  No
  - Is there indication of leachate spill along main:  Yes  No
  - Current water depth in well: \_\_\_\_\_ inches
  - Pump runtime meter: \_\_\_\_\_ hours
- 

### Phase 3 Cell I

Pump system with two pumping stations and force main that connects to existing forcemain from Phase 2 Cell 1.

#### Leachate Pump Station: 1:

- Is pump station operational:  Yes  No
  - Are control panels working properly:  Yes  No
  - Is there indication of leachate spill along main:  Yes  No
  - Current water depth in well: \_\_\_\_\_ inches
  - Pump runtime meter: \_\_\_\_\_ hours
- 

#### Leachate Pump Station: 2:

- Is pump station operational:  Yes  No
  - Are control panels working properly:  Yes  No
  - Is there indication of leachate spill along main:  Yes  No
  - Current water depth in well: \_\_\_\_\_ inches
  - Pump runtime meter: \_\_\_\_\_ hours
-

**Leachate Pond:**

Leachate from landfill empties into pond. Treated by aeration and pumped to head works of Wastewater Treatment Plant.

- Is leachate flowing into pond:  Yes  No
  - Is foot-valve clean:  Yes  No
  - Are Aeration Pumps operational:  Yes  No
  - Is control panel for aeration pumps operational:  Yes  No
  - Is leachate pump #1 functioning properly:  Yes  No
  - Is leachate pump #2 functioning properly:  Yes  No
  - Are pump controls functioning properly:  Yes  No
  - Is flow meter/totalizer functioning properly:  Yes  No
  - What is the depth of leachate in pond: \_\_\_\_\_ feet
  - Inquire from WWTP Operators as to any noticed changes in leachate flow, volume or characteristics that cannot be explained by change in weather (i.e. heavy rain event). Note changes below on incident report:
-



## LEACHATE SYSTEM INCIDENT REPORT

If YES was answered to any of the previous questions or if a breakdown has occurred in the leachate management system, an incident report must be completed. On the report, list the nature of the problem and steps taken to correct the problem. If the breakdown resulted in a leachate spill outside of the landfill liner perimeter, notify the Solid Waste Director and report to DENR immediately.

**Incident Report:**

**Nature of Incident:**

**Corrective Action Taken:**

## **Appendix 3**

**Waste Screening and Special Waste Handling Occurrence procedure**

# WASTE SCREENING AND SPECIAL WASTE HANDLING OCCURRENCE PROCEDURES

## **Waste Screening Program**

Macon County has established the following program for screening and detecting hazardous and banned wastes, and preventing such wastes from disposal in the Macon County Municipal Solid Waste (MSW) Landfill.

### **Convenience Centers:**

Convenience Center employees are trained to recognize and refuse banned wastes from disposal at the drop-off centers. Signs are posted at the centers to inform the public as to waste types not accepted at the centers.

### **Scale House:**

All loads entering the landfill must cross the scales at the entrance to the landfill. Scale house attendants are trained to recognize potential hazardous or banned wastes, and question generators/haulers as to the nature of the wastes. Scale house attendants refuse banned wastes from disposal. Customers hauling questionable wastes are directed to the tipping floor of the Waste Treatment and Processing Facility where the Solid Waste Director or Landfill Operator will inspect the waste and determine proper disposal of the waste.

### **Waste Treatment and Processing Facility/Landfill:**

The Solid Waste Operations personnel conduct regular random load inspection of waste entering the Waste Treatment and Processing Facility. Currently, inspections are conducted on approximately 5-10% of the waste stream. At a minimum, inspected loads will always represent 1% of the waste stream. Operators receive yearly training from SWANA On-site Waste Screening and Healthy and Safety Training Courses. These courses teach operators to recognize potentially hazardous wastes by container markings and waste characteristics such as noxious

odor. Completed inspection reports are kept at the baling facility until being filed at the Solid Waste Administration Building. The records are updated monthly. Most banned wastes are nonhazardous and common in nature; such as tires, metal, lead-acid batteries, etc., and are simply removed from the waste stream and taken to the proper disposal area. Banned wastes that are brought in by individuals are refused and the generator/hauler is instructed as to proper disposal of the waste. If a waste of suspected hazardous or unknown nature is found, procedures for a Special Waste Handling Occurrence are followed.

### **Random Load Inspection Procedures:**

- Driver is directed to dump load on the tipping floor of the bale facility off to the side of the regular waste stream.
- The load is spread using the bucket of a rubber-tired loader.
- The load is then inspected by landfill personnel to search for hazardous/banned wastes.
- Any unacceptable wastes found are removed from the load and taken to the proper disposal area. If hazardous or unknown wastes are discovered, procedures for a Special Waste Handling Occurrence are followed.
- Remaining, acceptable wastes are then incorporated back into the waste stream for disposal.

### **Special Waste Handling Occurrence Procedures:**

If a known hazardous waste or waste of unknown nature that exhibits potentially hazardous characteristics is discovered, the following steps should be taken:

1. **Secure the waste.** Move waste away from the operating area to an isolated section of the tipping floor. If necessary, construct a dam around the suspected waste using absorbent material or socks. Remove public and personnel from contact with the waste. Depending on the nature of the hazard, this would include: at minimum, placing cones or other restrictive barrier around waste; and up to, complete evacuation of public and personnel from the bale facility and a safe perimeter around the facility. In the event of a closing of the Waste Treatment and Processing Facility, waste would be directed to the landfill.

2. **Identify waste generator/hauler.** Hold and question generator/hauler of the waste as to

the source and nature of the waste.

**3. Notify Solid Waste Director Immediately.**

**4. Contact Emergency Management Services.** If the nature of the waste presents an acute or immediate hazard to personal safety, contact EMS by dialing 911. EMS may also contact the Regional Hazardous Waste Management Team located in Asheville, North Carolina.

**5. Notify NCDENR.** Notify NCDENR by telephone of the situation within 24 hours of the occurrence. NCDENR should also be notified in writing of the occurrence within 15 days. This notice will be sent by completion of a Special Waste Handling Occurrence Report. Blank forms are located at the Solid Waste Administration Building.

**6. Properly dispose of waste.** Follow up, and include in the report, on final status of the waste. Either, the waste was identified and acceptable for burial in the landfill or the waste was handled by contractor or other agent to remove the waste for proper disposal at acceptable waste handling facility.

**Appendix 4**

**Letter from Zoning Committee**





## Town of Franklin

70 West Main Street  
Franklin, North Carolina 28734  
(704) 524-2516

December 19, 1989

Mr. Jack Horton  
Macon County Manager  
5 West Main Street  
Franklin, NC 28734

Dear Mr. Horton,

As you are aware the Board of Aldermen of the Town of Franklin, at the regular meeting on December 4, 1989 passed an ordinance setting forth an Extraterritorial Jurisdiction area around the perimeter of the Town and to also establish the zoning as it appeared on the planning maps at that time.

This action was taken by the authority granted in G.S. 160A-360, Article 19 and G.S. 160A-381,382,383,384,385,386,387,388,389 and 390.

The area in which the proposed Macon County Landfill will be sited is now zoned residential, but the Board adopted amendments to the existing Zoning Ordinance that will permit landfills that are approved by the State of North Carolina in the residential zone. A copy of the amended zoning ordinance will be made available to you as soon as we receive it from the printers.

I hope this answers the questions you had, but if you have others please let me know.

Sincerely,

Jim Williamson  
Town Administrator

JW/ss

## **Appendix 5**

**Correspondence from Town of Franklin Wastewater Treatment Facility Approving  
Leachate Acceptance and Pretreatment Permit**



**TOWN OF FRANKLIN**

Control Authority and/or Municipality

**DISCHARGE PERMIT**

Industrial User Pretreatment Permit (IUP)  
To Discharge Wastewater Under the  
Industrial Pretreatment Program

<b>0002</b>	N/A
IUP Number	40 CFR Category(if Applicable)

In compliance with the provisions of North Carolina General Statute 143-215.1, any applicable federal categorical pretreatment regulations, all other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Control Authority Sewer Use Ordinance. The following Industry, hereafter referred to by name or as the permittee:

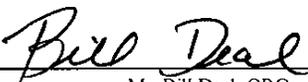
Industry name, permittee: <b>MACON COUNTY</b>
Facility Located at Street Address <b>1448 LAKE SIDE DRIVE</b>
City <b>FRANKLIN</b>
State, Zip <b>NORTH CAROLINA, 28734</b>

is hereby authorized to discharge wastewater from the facility located at the above listed address into the sanitary sewer collection system and the wastewater treatment facility of the Control Authority listed below:

IUP Control Authority and/or Municipality WWTP name: <b>TOWN OF FRANKLIN WWTP</b>
NPDES Number: <b>NC0021547</b>
WWTP Mailing Address: <b>POST OFFICE BOX 1479</b>
City, State, Zip <b>FRANKLIN, NC 28734</b>

in accordance with effluent limitations, monitoring requirements, and all other conditions set forth in Parts I, II, and III of this Industrial User Pretreatment Permit (IUP).

Effective date, this permit and the authorization to discharge shall become effective at midnight on this date: <b>August 1, 2016</b>
Expiration date, this permit and the authorization to discharge shall expire at midnight on this date: <b>July 31, 2021</b>

  
Mr. Bill Deal, ORC

6-20-2016  
Date

**Industrial User Pretreatment Permit (IUP)**

**PART I**

**Specific Conditions**

IUP, PART I, OUTLINE:

- A.) IUP Basic Information
- B.) IUP Modification History
- C.) Authorization Statement
- D.) Description of Discharges
- E.) Schematic and Monitoring Locations
- F.) Effluent Limits & Monitoring Requirements
- G.) Definitions and Limit Page(s) notes

**A. IUP Basic Information:**

Receiving Control Authority & WWTP name : <b>TOWN OF FRANKLIN WWTP</b>	POTW NPDES # : <b>NC0021547</b>
IUP Name : <b>MACON COUNTY LANDFILL</b>	IUP Number : <b>0002</b>
IUP Effective date : <b>August 1, 2016</b>	Pipe Numbers, list all regulated pipes: <b>001</b>
IUP Expiration date : <b>July 31, 2021</b>	IUP 40 CFR # (if applicable), or N/A: <b>N/A</b>

**B. IUP History. A Complete Permit History is required):**

<u>Effective Date</u>	<u>Renewal or Modification</u>	<u>Description of changes over previous IUP.</u>
October 31, 1997		Original permit issuance
May 1, 1998	Modification	Modified limits and monitoring frequency
July 31, 2001	Renewal	No modifications
February 29, 2004	Modification	Identified separate monitoring frequencies for Permittee and Control Authority
July 31, 2005	Renewal	Modified limits for Chromium and Nickel
November 15, 2005	Modification	Modified TTO Monitoring, Updated sample point diagram
July 31, 2010	Renewal	Revised pH limits, incorporated streamlining changes
November 1, 2011	Renewal	Incorporated streamlining changes for Penalties
August 1, 2016	Renewal	Modified Part II General Conditions and added Part III Special Conditions to be consistent with Division of Water Resources IUP guidance. Added Part III Section 2 Certified Laboratory Analysis. Reduced mercury daily maximum limit to 0.0003 mg/l. Increased cyanide daily maximum limit to 0.08 mg/l. Reduced POTW monitoring frequency to once per six months. Modified Part I.C.2 description of IU Treatment Units to be consistent with renewal application. Modified Part 1.E. to include the flowmeter on the schematic.

**Industrial User Pretreatment Permit (IUP)**

**PART I**

**Specific Conditions**

**C.) Authorization Statement:**

- 1.) The Permittee is hereby authorized to discharge wastewater in accordance with the effluent limitations, monitoring requirements, and all other conditions set forth in this Industrial User Pretreatment Permit (IUP) into the sewer collection system and wastewater treatment facility of the Control Authority and/or Municipality.
- 2.) The Permittee is hereby authorized to continue operation of and discharge wastewater from the following treatment or pretreatment facilities. These facilities must correspond to the treatment units listed on both the application and inspection forms.

IU Treatment Units	
AERATION	Three floating aerators in 480,000 gallon leachate collection lagoon
STORAGE	Facility has one 800 gallon storage tank and one 1,100 gallon storage tank that could be used for excess leachate storage. To date, the tanks have not been used.

- 3.) The Permittee is hereby authorized to, if required by the Control Authority and/or after receiving Authorization to Construct (A to C) from the Control Authority and/or Municipality, construct and operate additional pretreatment units as needed to meet final effluent limitations.

**D.) Description of IUP Discharge(s):**

1. Describe the discharge(s) from all regulated pipes.

Pipe # 001 , Description of Discharge:  LANDFILL LEACHATE ONLY.
---

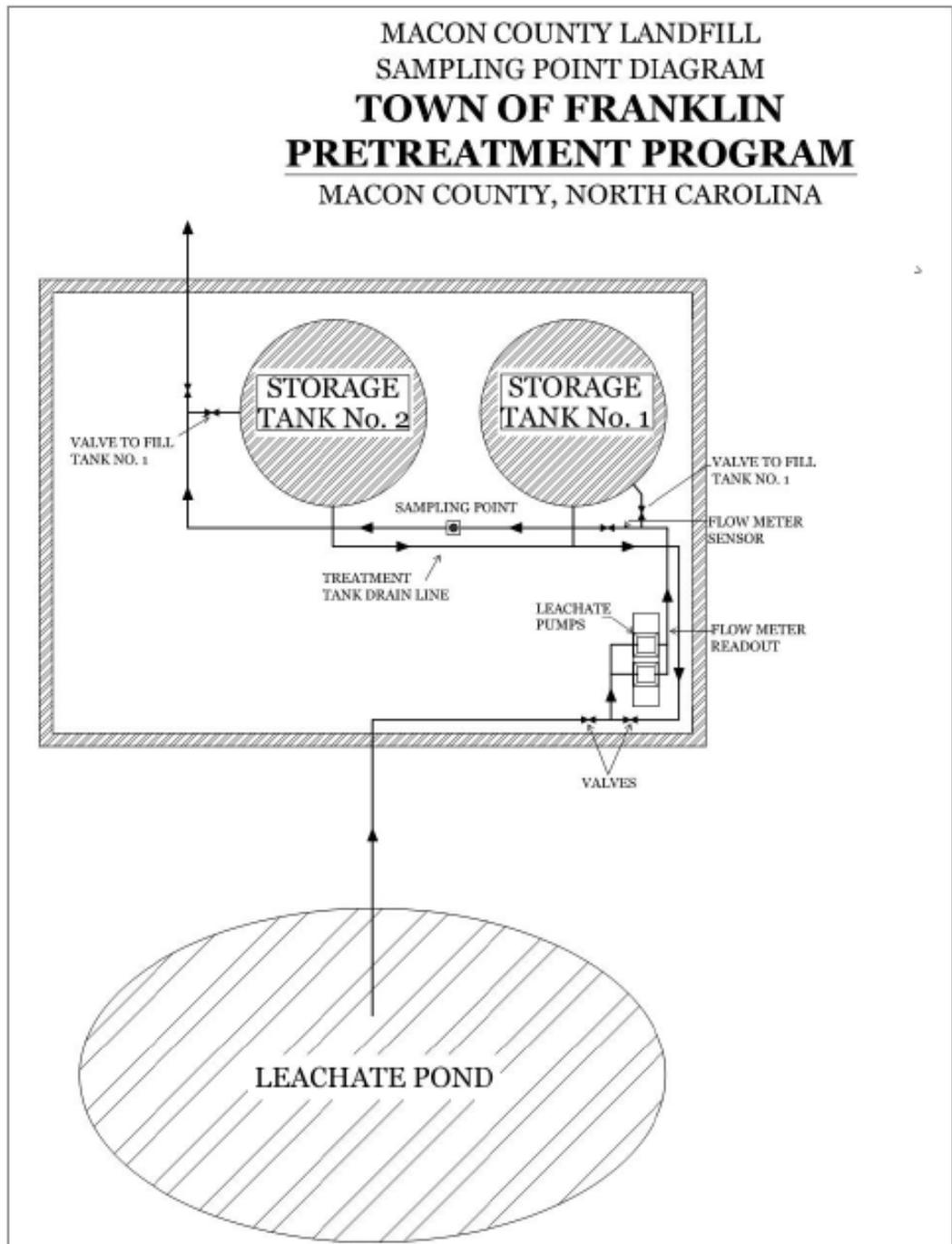
**Industrial User Pretreatment Permit (IUP)**

**PART I**

**Specific Conditions**

**E.) Schematic and Monitoring Locations:**

The facility schematic is shown on the attached location map. The discharge shall be monitored prior to discharge to the WWTP.





**Section F:**  
**Effluent Limits and Monitoring Requirements**

The Permittee may discharge from this specific Pipe number according to these specific dates, effluent limits, and monitoring requirements

Receiving POTW name =>

Town of Franklin  
 WWTP

Receiving POTW NPDES # =>

NC0021547

Effective date for these Limits =>

August 1, 2016

Expiration date for these Limits =>

July 31, 2021

IU name =>

Macon County Landfil

IUP # =>

0002

Pipe # =>

001

PARAMETER	DAILY MAXIMUM	SAMPLE TYPE	MONITORING FREQUENCY	
			Permittee	Control Authority
Flow	0.040 MGD	Meter*	Each sample	Each Sample
BOD	1,000 mg/l	Composite	1/6 month	1/6 month
TSS	500 mg/l	Composite	1/6 month	1/6 month
CADMIUM	0.02 mg/l	Composite	1/6 month	1/6 month
CHROMIUM	0.10 mg/l	Composite	1/6 month	1/6 month
COPPER	0.50 mg/l	Composite	1/6 month	1/6 month
CYANIDE	0.08 mg/l	Grab	1/6 month	1/6 month
LEAD	0.03 mg/l	Composite	1/6 month	1/6 month
MERCURY	0.0003 mg/l	Composite	1/6 month	1/6 month
NICKEL	0.50 mg/l	Composite	1/6 month	1/6 month
SILVER	0.15 mg/l	Composite	1/6 month	1/6 month
ZINC	0.30 mg/l	Composite	1/6 month	1/6 month
OIL & GREASE	100 mg/l	Grab	1/6 month	1/6 month
TTO		Composite/Grab	At each Permit Renewal	At each Permit Renewal
pH	6.5-9.5	Grab	1/6 month	1/6 month
TEMPERATURE	40°C	Grab	1/6 month	1/6 month

Parameters not limited in this permit shall be discharged in accordance with the Town of Franklin Sewer Use Ordinance. This discharge shall be limited and monitored as specified.

All samples shall be taken at the location designated in IUP, Part I, E. Schematic and Monitoring Locations, taken from Pipe No. 001.

\*Discharge Flow Meter shall be read and recorded at the beginning and end of each sample period.

The limits on this page are for the entire permit period

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## Industrial User Pretreatment Permit (IUP)

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### PART I

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#### Specific Conditions

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**G.) Definitions and Limit Page(s) notes:**

In addition to the definitions in the Town of Franklin Sewer Use Ordinance the following definitions and requirements apply:

1. Composite Sample:

Unless defined differently below, a composite sample for the monitoring requirements of this IUP, is defined as the automatic or manual collection of one grab sample of constant volume, not less than 100 ml, collected every hour during the entire discharge period on the sampling day. Sampling day shall be a typical production, and discharge day.

2. Composite Sample, alternative definition:

A composite sample for the monitoring requirements of this IUP is the same as described above unless specifically defined below as the automatic or manual collection of constant volume and constant time grab samples collected and composited according to the following criteria:

specific volume of each grab sample =	N/A	Milliliters
specific time interval between samples =	N/A	Hours
total duration of sample collection period =	N/A	Hours
Total number of grab samples to be composited =	N/A	Samples

3. Daily Monitoring Frequency

Daily Monitoring Frequency as specified in this IUP shall mean each day of discharge.

4. Grab Sample

Grab sample for the monitoring requirements of this IUP, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

5. Instantaneous measurement

An Instantaneous measurement for the monitoring requirements of this IUP is defined as a single reading, observation, or measurement.

# Industrial User Pretreatment Permit (IUP)

## PART II

### General Conditions Outline of PART II,

1.	Representative Sampling	16.	Federal and/or State Laws
2.	Reporting	17.	Penalties
3.	Test Procedures	18.	Need to Halt or Reduce
4.	Additional Monitoring by Permittee	19.	Transferability
5.	Duty to comply	20.	Property Rights
6.	Duty to Mitigate	21.	Severability
7.	Facilities Operation, Bypass	22.	Modification, Revocation, Termination
8.	Removed substances	23.	Reapplication
9.	Upset Conditions	24.	Dilution Prohibition
10.	Right of Entry	25.	Reports of Changed Conditions
11.	Availability of Records	26.	Construction of pretreatment facilities
12.	Duty to provide information	27.	Reopener
13.	Signatory Requirements	28.	Categorical Reopener
14.	Toxic Pollutants	29.	General Prohibitive Standards
15.	Civil and Criminal Liability	30.	Reports of Potential Problems

#### 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to, and approval by, the permit issuing authority.

#### 2. Reporting

a.) Monitoring results obtained by the permittee shall be reported on forms specified by the Control Authority and/or Municipality, postmarked no later than the twentieth day of the month following the month in which the samples were taken. If no discharge occurs during a reporting period (herein defined as each calendar month) in which a sampling event was to have occurred, a form with the phrase "no discharge" shall be submitted. Copies of these and all other reports required herein shall be submitted to the Control Authority and/or Municipality and shall be sent to the following address:

Bill Deal  
Pretreatment Coordinator  
Town of Franklin  
Post Office Box 1479  
Franklin, North Carolina 28734

b.) If the sampling performed by the permittee indicates a violation, the permittee shall notify the Control Authority within 24 hours of becoming aware of the violation. The permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Control Authority within 30 days after becoming aware of the violation.

#### 3. Test Procedures

Test procedures for the analysis of pollutants shall be performed in accordance with the techniques prescribed in 40 CFR part 136 and amendments thereto unless specified otherwise in the monitoring conditions of this permit.

#### 4. Additional Monitoring by Permittee

## Industrial User Pretreatment Permit (IUP)

---

### PART II

---

#### General Conditions

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be submitted to the Control Authority. The Control Authority may require more frequent monitoring or the monitoring of other pollutants not required in this permit by written notification.

**5. Duty to Comply**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Control Authority Sewer Use Ordinance and is grounds for possible enforcement action.

**6. Duty to Mitigate - Prevention of Adverse Impact**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health, the POTW, the waters receiving the POTW's discharge, or the environment.

**7. Facilities Operation, Bypass**

The permittee shall at all times maintain in good working order and operate as efficiently as possible, all control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Bypass of treatment facilities is prohibited except when approved in advance by the Control Authority. Bypass approval shall be given only when such bypass is in compliance with 40 CFR 403.17.

**8. Removed Substances**

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutants from such materials from entering the sewer system. The permittee is responsible for assuring its compliance with any requirements regarding the generation, treatment, storage, and/or disposal of "Hazardous waste" as defined under the Federal Resource Conservation and Recovery Act.

**9. Upset Conditions**

An "upset" means an exceptional incident in which there is an unintentional and temporary noncompliance with the effluent limitations of this permit because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed or inadequate treatment facilities, lack of preventative maintenance, or careless or improper operations.

An upset may constitute an affirmative defense for action brought for the noncompliance. The permittee has the burden of proof to provide evidence and demonstrate that none of the factors specifically listed above were responsible for the noncompliance.

**10. Right of Entry**

The permittee shall allow the staff of the State of North Carolina Department of Environmental Quality, Division of Water Resources, the Regional Administrator of the Environmental Protection Agency, the Control Authority and/or Municipality, and/or their authorized representatives, upon the presentation of credentials:

1. To enter upon the permittee's premises where a real or potential discharge is located or in which records are required to be kept under the terms and conditions of this permit; and
2. At reasonable times to have access to and copy records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

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## Industrial User Pretreatment Permit (IUP)

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### PART II

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#### General Conditions

##### 11. Availability of Records and Reports

The permittee shall retain records of all monitoring information, including all calibration and maintenance records as well as copies of reports and information used to complete the application for this permit for at least three years. All records that pertain to matters that are subject to any type of enforcement action shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

Except for data determined to be confidential under the Sewer Use Ordinance, all reports prepared in accordance with terms of this permit shall be available for public inspection at the Control Authority and/or Municipality. As required by the Sewer Use Ordinance, effluent data shall not be considered confidential.

##### 12. Duty to Provide Information

The permittee shall furnish to the Director of Public Works or his/her designees, within a reasonable time, any information which the Director, his/her designee, or the Division of Water Resources may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish, upon request, copies of records required to be kept by this permit.

##### 13. Signatory Requirements

All reports or information submitted pursuant to the requirements of this permit must be signed and certified by the Authorized Representative as defined under the Sewer Use Ordinance. If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of this section must be submitted to Control Authority prior to or together with any reports to be signed by an authorized representative.

##### 14. Toxic Pollutants

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit may be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

##### 15. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

##### 16. Federal and/or State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal and/or State law or regulation.

##### 17. Penalties

The Sewer Use Ordinance of the Control Authority provides that any person who violates a permit condition is subject to a civil penalty not to exceed \$25,000 dollars per day of such violation.

Under state law, (NCGS 143-215.6B), under certain circumstances it is a crime to violate terms, conditions, or requirements of pretreatment permits. It is a crime to knowingly make any false

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## Industrial User Pretreatment Permit (IUP)

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### PART II

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#### General Conditions

statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance. These crimes are enforced at the prosecutorial discretion of the local District Attorney.

**18. Need to Halt or Reduce not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of the permit.

**19. Transferability**

This permit shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation without approval of the Town.

**20. Property Rights**

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

**21. Severability**

The provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

**22. Permit Modification, Revocation, Termination**

This permit may be modified, revoked and reissued or terminated with cause in accordance to the requirements of the Control Authority Sewer Use Ordinance and North Carolina General Statute or implementing regulations.

**23. Re-Application for Permit Renewal**

The permittee is responsible for filing an application for reissuance of this permit at least 180 days prior to its expiration date.

**24. Dilution Prohibition**

The permittee shall not increase the use of potable or process water or in any other way attempt to dilute the discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

**25. Reports of Changed Conditions**

The permittee shall give notice to the Control Authority of any planned significant changes to the permittee's operations or system which might alter the nature, quality, or volume of its wastewater at least 180 days before the change. The permittee shall not begin the changes until receiving written approval from the Control Authority and/or Municipality. Also see Part II, 31 below for additional reporting requirements for spill/slug issues.

Significant changes may include but are not limited to

- (a) increases or decreases to production;
- (b) increases in discharge of previously reported pollutants;
- (c) discharge of pollutants not previously reported to the Control Authority and/or Municipality;
- (d) new or changed product lines;
- (e) new or changed manufacturing processes and/or chemicals; or



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## Industrial User Pretreatment Permit (IUP)

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### PART II

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#### General Conditions

- (f) new or changed customers.

#### 26. Construction

No construction of pretreatment facilities or additions thereto shall be begun until Final Plans and Specifications have been submitted to the Control Authority and written approval and an Authorization to Construct (A to C) have been issued.

#### 27. Reopener

The permit shall be modified or, alternatively, revoked and reissued to comply with any applicable effluent standard or limitation for the control of any pollutant shown to contribute to toxicity of the WWTP effluent or any pollutant that is otherwise limited by the POTW discharge permit. The permit as modified or reissued under this paragraph may also contain any other requirements of State or Federal pretreatment regulations then applicable.

#### 28. Categorical Reopener

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 302(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

- 1.) contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
- 2.) controls any pollutant not limited in this permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

#### 29. General Prohibitive Standards

The permittee shall comply with the general prohibitive discharge standards in 40 CFR 403.5 (a) and (b) of the Federal pretreatment regulations.

#### 30. Potential Problems

The permittee shall provide protection from accidental and slug discharges of prohibited materials and other substances regulated by this permit. The permittee shall also notify the POTW immediately of any changes at its facility affecting the potential for spills and other accidental discharge, discharge of a non-routine, episodic nature, a non-customary batch discharge, or a slug load as defined in the Sewer Use Ordinance.

Additionally, the permittee shall notify by telephone the Control Authority and/or Municipality immediately of all discharges that could cause problems to the POTW including any slug loadings as defined by in the Sewer Use Ordinance. If the permittee experiences such a discharge, they shall inform the Control Authority immediately upon the first awareness of the commencement of the discharge. Notification shall include location of the discharge, type of waste, concentration and volume if known and corrective actions taken by the permittee. A written follow-up report thereof shall be filed by the permittee within five (5) days, unless waived by the Control Authority and/or Municipality.

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## Industrial User Pretreatment Permit (IUP)

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### PART III

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#### Special Conditions

**1. Monitoring by Control Authority**

The control authority may collect samples for analysis as deemed appropriate. All samples collected and properly analyzed by the permittee and/or control authority may be used as the basis of compliance with this permit and other applicable regulations.

**2. Certified Laboratory Analysis**

Pollutant analysis shall be performed by a North Carolina Division of Water Resources Certified Laboratory that is certified in the analysis of the pollutant in wastewater.

**3. Total Toxic Organics (TTO) Definition**

"TTO", or Total Toxic Organics, is the sum of the concentrations of the toxic organic compounds tested for by methods EPA 608, EPA 624, EPA 625 that are found in the permittee's process discharge at a concentration greater than 0.01 mg/l.

**4. Flow Measurement Requirements**

The permittee shall maintain appropriate discharge flow measurement devices and methods consistent with approved scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Devices installed shall be a continuous recording flow meter capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. The devices shall be installed, calibrated, and maintained to ensure accuracy. The meter shall be calibrated once per year. Modifications to the flow metering equipment shall be approved by the Control Authority prior to installation. If a required flow measurement device fails, the Control Authority shall be notified within 24 hours.

## IUP Synopsis

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### A. IUP Basic Information

Receiving POTW name: Town of Franklin WWTP	POTW NPDES#: NC0021547
IUP name: Macon County Landfill	IUP Number: 0002
IUP Effective date: August 1, 2016	Pipe Numbers, list all regulated pipes: 001
IUP expiration date: July 31, 2021	IUP 40 CFR#, if applicable: N/A

### B. IUP Survey and Application Form

See attached.

### C. IU Inspection Form

See attached.

### D. RATIONALE FOR LIMITATIONS:

As listed on the IUP Limits Page(s), PART I, Section F of the IUP.

#### RATIONALE #1:

Review of IU Monitoring Data, with no Over Allocation situation:

The following pollutants were assigned numerical limits in this IUP based on a review of monitoring data for the permittee to determine what ranges of concentrations are currently being discharged. To account for sample variability a factor was applied to the monitoring data to determine the permit limit. Permit limits assigned by the Local IUP Control Authority can not result in an Over Allocation situation for any pollutants.

BOD, TSS, Cadmium, Chromium, Copper, Cyanide, Lead, Nickel, Silver, Zinc, Oil & Grease
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## IUP Synopsis

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### RATIONALE #2a:

Categorical Industrial Limits, with no Over Allocation situation:

Check here if Combined Wastestream Formula (CWF) or other categorical limits calculations were used. If used, Please attach calculations: (see CWF Spreadsheet, Appendix 6-F)

Were used (attach calculations)	
Were not used	X

The following pollutants were assigned numerical limits in this IUP based on the categorical regulations. These limits do not result in over allocations.

N/A

### RATIONALE #3a:

Over Allocation Prevention, with IU pollutant reduction:

The following pollutants were assigned numerical limits in this IUP based on allocating the Maximum Allowable Industrial Loading (MAIL) determined with the Headworks Analysis (HWA) among all Industrial Users. The total loading of each pollutant from all permitted discharges does not exceed the MAIL. These limits do not result on over allocations.

Mercury

### RATIONALE #3b:

Interim Limits for IU pollutant reduction:

The following pollutants were assigned interim numerical limits in this IUP to allow time for the industry to come compliance with final limits that will not in over allocations.

N/A

## IUP Synopsis

**RATIONALE #4:**

4.) Other Rationale for Limitations:

The following rationale was used for developing IUP Limits.

Parameter	Rationale
pH	Sewer Use Ordinance
Temperature	Sewer Use Ordinance

**RATIONALE #5a:**

Non-Categorical Parameters where No Limit needed or assigned in an IUP:

The following pollutants were not assigned numerical limits in this IUP because the loadings for these pollutants from this IU were less than 5% of the MAHL. The loading of these pollutants from this IU is considered insignificant at this time.

Pollutant	Avg SIU mg/l	Avg SIU lbs/day	5% MAHL, lbs/day

**RATIONALE #5b:**

Categorical Parameters with Waived Monitoring:

Monitoring is waived for the following categorical parameters (attach documentation of waiver justification).

N/A
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## **Macon County Department of Solid Waste Management**

109 Sierra Drive, Franklin, North Carolina 28734

Phone: (828) 349-2100; Fax: (828) 349-2185

Email: [cstahl@maconnc.org](mailto:cstahl@maconnc.org)

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April 18, 2016

Mr. Bill Deal; ORC  
Town of Franklin – WWTP  
399 Sierra Drive  
Franklin, NC 28734

Mr. Deal:

Please accept the following application in request of renewal of the Macon County Industrial User Pretreatment Permit (IUP) #0.0002. The purpose of this request is to allow Macon County to continue to discharge leachate from the MSW Landfill into the Town of Franklin sanitary sewer collection system.

If you have any questions or require additional information regarding this permit renewal, please contact me at your convenience.

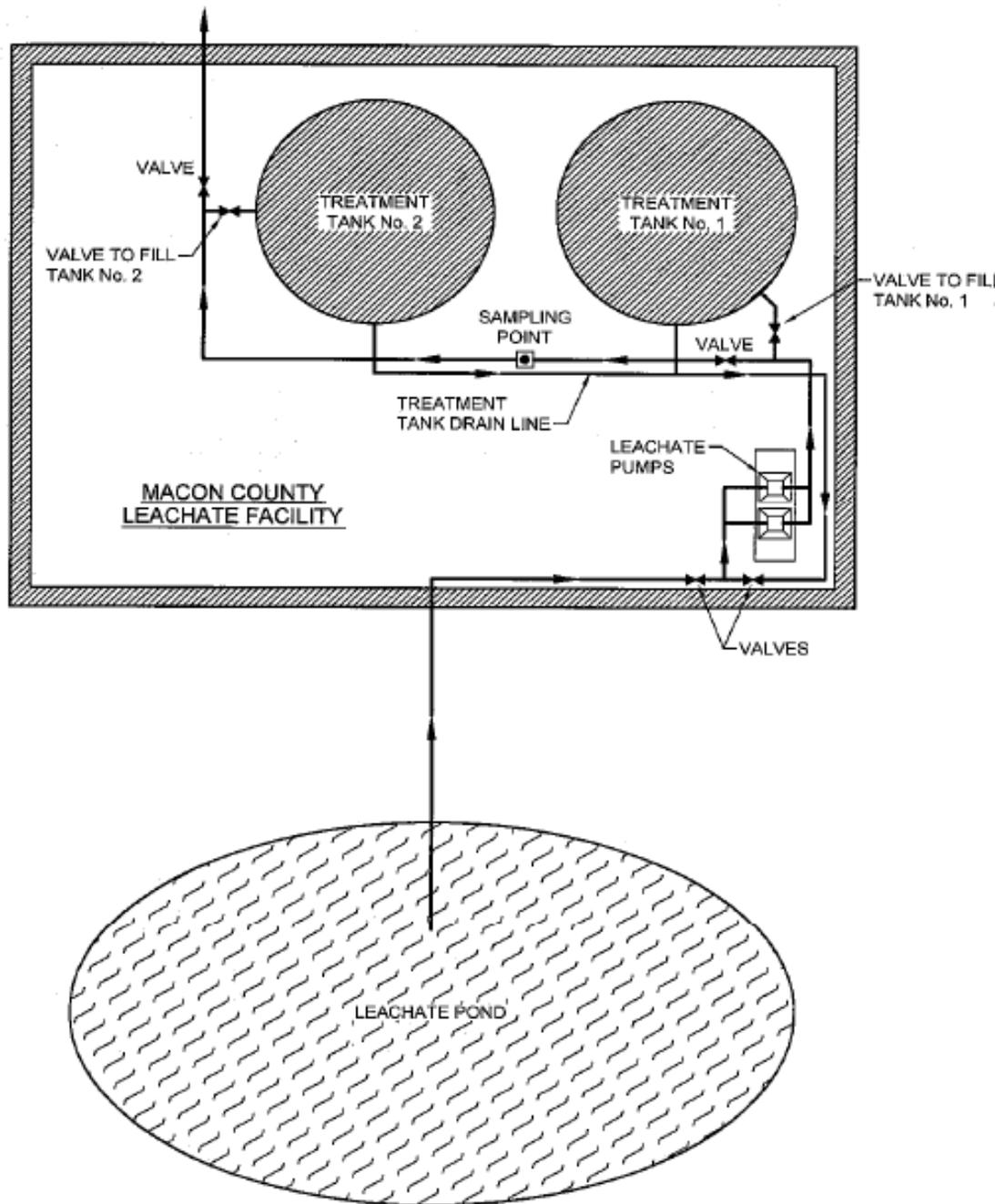
Sincerely,

M. Chris Stahl  
Macon County Director of Solid Waste Management

CC: Derek Roland, Macon County Manager  
Summer Woodard, Town of Franklin Manager  
Lee Hill, NC DEQ; Solid Waste Section

MACON COUNTY LANDFILL  
SAMPLING POINT DIAGRAM  
TOWN OF FRANKLIN  
PRETREATMENT PROGRAM

MACON COUNTY, NORTH CAROLINA





## Industrial User Wastewater Survey & Permit Application

### COVER PAGE

Company Name: <b>Macon County Solid Waste</b>					
Name of responsible person on site at the facility authorized to represent the company in official dealings with the Sewer Authority and/or the City. <b>Michael C. Stahl</b>			Name of alternative on site person familiar with the day to day operations, environmental permitting requirements, monitoring, record keeping, and data management. <b>June Cassada</b>		
Title <b>Director of Solid Waste Management</b>		Years with firm <b>15</b>	Title <b>Solid Waste Business Manager</b>		Years with firm <b>18</b>
Phone # <b>828-349-2100</b>		Fax # <b>828-349-2185</b>		Phone # <b>828-349-2215</b>	
Physical street address of facility  <b>1448 Lakeside Drive</b>			Official mailing address, if different. Note if same.  <b>109 Sierra Drive</b>		
City <b>Franklin</b>		State <b>NC</b>	Zip <b>28734</b>	City <b>Franklin</b>	
				State <b>NC</b>	
				Zip <b>28734</b>	

The information provided by you on this questionnaire serves two functions:

1. The information is used to determine if your facility needs an Industrial User Pretreatment Permit (IUP) for the discharge of wastewater to the local sewer.
2. If an Industrial User Pretreatment Permit (IUP) is required, this survey serves as the application for an Industrial User Pretreatment Permit (IUP).

Requests for confidential treatment of information provided on this form shall be governed by procedures specified in 40 CFR Part 2. In accordance with Title 40 of the Code of Federal Regulations Part 403, Section 403.14 and the Local Sewer Use Ordinance (SUO), information and data provided in this questionnaire which identifies the content, volume and frequency of discharge shall be available to the public without restriction.

This is to be signed by an authorized official of your firm, as defined in the Local Sewer Use Ordinance or the NC Model Sewer Use Ordinance, Section 1.2, after completion of this form.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment for knowing violations.

  
 Signature of Authorized Representative  
 listed above (seal if applicable)

5-2-16  
 Date

## Industrial User Wastewater Survey & Permit Application

1. Provide a brief narrative description of the type of business, manufacturing processes, or service activities your firm conducts at this site.

Municipal Solid Waste Landfill

2. List the primary products produced at this facility:

MSW Landfill Leachate

3. List raw materials and process additives used:

Municipal Solid Waste; Construction and Demolition Waste

4. Are biocides added to any water discharged to the POTW, if yes describe:

Yes	
No	X

5. Describe weekly production schedule, including shifts worked per day, employees per shift, and primary operation during shift.

Waste accepted: 7:30 am – 4:30 pm; Monday through Friday  
8:00 am – 2:00 pm; Saturday

6. Production process is: Check, if all continuous

Check, if all batch

If both please enter, % continuous =  %    % Batch =

X

**Industrial User Wastewater Survey  
& Permit Application**

7. Does production vary significantly (+- 20 %) by season. Describe.

Yes	
No	

8. Are any significant (+- 20 %) changes in production that will affect wastewater discharge expected in the next 5 years. If yes, please describe.

Rainfall dependent.

Yes	X
No	

9. List all current waste haulers. Give name, address, phone numbers, volume and materials hauled off.

N/A.

10. Attach a copy of laboratory analyses performed in the last year on the wastewater discharge(s) from your facilities. Summarize data on the attached Data Summary Form.

Attached.

11. Attach sketch or schematic showing sampling points and all connections to the sewer.

Attached.

12. Complete the Wastewater Pollutants Checklist attached to this Survey.

See survey.

## Industrial User Wastewater Survey & Permit Application

13. Do you have, or have you ever applied for, been issued, or been denied an NPDES permit to discharge to the surface waters or storm sewers of North Carolina? If yes, list all other NPDES permits, permit numbers, dates, and names used to apply for them, or reason denied.

If yes: Permit , #, date, applicant name NCG120083; 11/13/2009; Macon County	Yes	<input checked="" type="checkbox"/>
If yes: Permit , #, date, applicant name	No	<input type="checkbox"/>

14. Do you have, or have you ever applied for or been issued an Industrial User Pretreatment Permit (IUP) to discharge wastewater to the sewer collection system. If yes, list all other IUP permits, permit numbers, dates, and names used to apply for them.

If yes: Permit , #, date, applicant name IUP Permit #: 0002	Yes	<input checked="" type="checkbox"/>
If yes: Permit , #, date, applicant name	No	<input type="checkbox"/>

15. Do you have, or have you ever applied for or been issued any other Environmental Permits (for example; air, RCRA, groundwater, stormwater, general, Non-Discharge, septic tank, etc.). If yes, list all other permits, permit numbers, dates, and names used to apply for them.

If yes: Permit type, #, date, applicant name Non-discharge: WQ0005075; 12/10/1992; Macon County.	Yes	<input checked="" type="checkbox"/>
If yes: Permit type, #, date, applicant name	No	<input type="checkbox"/>
If yes: Permit type, #, date, applicant name		

16. Is a Spill Prevention Control and Countermeasure (SPCC) Plan prepared for this facility?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>

17. Is a Spill /Slug Control Plan required by the POTW, prepared for this facility?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>

## Industrial User Wastewater Survey & Permit Application

18. Do you have any underground storage tanks at your facility? If yes, list contents and volume of each tank.

Yes	
No	X

19. Do you have any above ground storage tanks at your facility? If yes, for each tank, list the contents, volume, whether the tank has any spill prevention or containment devices, such as dikes, and procedures for draining any containment devices.

Yes	X	# of Tanks	2
No			

Leachate Storage Tanks: Tank 1: 1,100 gallon; Tank 2: 800 gallon.  
 The tanks are for storage of excess leachate, and have never been used.  
 Spillage from the tanks would drain directly back into the leachate pond.

## Industrial User Wastewater Survey & Permit Application PART II, Water Supply, Use, & Disposal Worksheet:

Water Used for:	Water Source(s)	Avg. gal/day	Max. gal/day	Measured	Estimated	Disposal Method(s)	Avg. gal/day	Max. gal/day	Measured	Estimated	
1. Process water 2. Washdown water 3. Water into product 4. Air Quality Permitted units 5. Domestic - toilets, drinking, cafe 6. Cooling water, Process NON-Contact 7. Boiler / Cooling tower blowdown 8. Cooling water, HVAC 9. Other:	(see Source List below)					(see Disposal List below)					
	Totals =>		4,000	40,000	X		1. San. Sewer, w/ pre.	4,000	40,000	X	
	Totals =>		4,000	40,000			Totals =>	4,000	40,000		

### Typical Water Sources:

1. City / Public supply
2. Private wells, drinking
3. Groundwater remediation wells
4. Private ponds
5. Surface waters of NC, please identify
6. Include others if applicable

### Possible Water Disposal Methods

1. Sanitary sewer, with pretreatment
2. Sanitary sewer, without pretreatment
3. Storm sewer
4. Surface waters of NC
5. Evaporation
6. Land applied
7. To groundwater
8. Septic Tank
9. Waste Haulers (identify)
10. Water into Product
11. Include others, if applicable



**PART III, PRETREATMENT FACILITIES:**

Are there any pretreatment devices or processes used for treating wastewater before being discharged to the sewer? Check all that are present, and describe.

No pretreatment facilities =>

1. Flow equalization

Aerated equalization =>

NON-Aerated equalization =>

Total volume of equalization (million gal.) =>

2. Activated Carbon	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
3. Activated Sludge	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
4. Air Stripping	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
5. Centrifugation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
6. Chemical Precipitation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
7. Chlorination	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
8. Cyanide Destruction	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
9. Cyclone	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
10. Dissolved Air Floatation	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
11. Filtration	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
12. Flocculation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
13. Grease Trap	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
14. Grit Removal	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
15. Ion Exchange	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
16. Neutralize, pH adjust	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
17. Other Biological Treatment	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
18. Ozonation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
19. Reverse Osmosis	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
20. Screening	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
21. Sedimentation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
22. Septic Tank	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
23. Silver Recovery	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
24. Solvent Separation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
25. Spill protection	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

List any others.

Describe any, if present.

10) Aeration pumps located in the leachate pond.

11) Leachate passes through waste; cover soil, and a 2-foot sand layer in the landfill prior to discharge.

**PART IV, CATEGORICAL INFORMATION:**

1. When were operations started at this facility Facility start up date

2. List all Standard Industrial Classification (SIC) codes for your facility. These may be found on State Unemployment forms, tax forms, accounting records, or from the Chamber of Commerce.

4953		

3. Has this facility ever been considered a Categorical Industrial User (CIU) as described by the Code of Federal Regulations (40 CFR)?

If yes, give complete 40 CFR number =>

No <input checked="" type="checkbox"/>

4. Are any other facilities owned and/or operated by your company permitted as Categorical Industrial Users (CIUs) as described by the Code of Federal Regulations (40 CFR)?

If yes please give name(s), location, and 40 CFR number.

Yes <input type="checkbox"/>
No <input checked="" type="checkbox"/>

**PART IV, CATEGORICAL INFORMATION:**  
(continued)

5. Check any activities listed below that are performed at your facility:

Check below	40 CFR#	Industrial Activity	Check below	40 CFR#	Industrial Activity
<input type="checkbox"/>	467	Aluminum Forming	<input type="checkbox"/>	432	Meat products
<input type="checkbox"/>	427	Asbestos Manufacturing	<input type="checkbox"/>	433	Metal finishing
<input type="checkbox"/>	461	Battery Manufacturing	<input type="checkbox"/>	464	Metal molding and casting
<input type="checkbox"/>	431	Builders paper & board mills	<input type="checkbox"/>	436	Mineral mining and processing
<input type="checkbox"/>	407	Canned & preserved fruits & veg.	<input type="checkbox"/>	471	Nonferrous Metal, Form & Powders
<input type="checkbox"/>	408	Canned & preserved seafood	<input type="checkbox"/>	421	Nonferrous Metals Manufacturing
<input type="checkbox"/>	458	Carbon black Manufacturing	<input type="checkbox"/>	414	OCPSF, Organic Chemicals, Plastics, & Synthetic Fiber Manufacturing
<input type="checkbox"/>	411	Cement Manufacturing	<input type="checkbox"/>	435	Oil & gas extraction
<input type="checkbox"/>	437	Centralized Waste Treatment	<input type="checkbox"/>	440	Ore mining and dressing
<input type="checkbox"/>	434	Coal Mining	<input type="checkbox"/>	446	Paint formulating
<input type="checkbox"/>	465	Coil Coating	<input type="checkbox"/>	443	Paving and roofing materials Mfg.
<input type="checkbox"/>	468	Copper Forming	<input type="checkbox"/>	455	Pesticide Manufacturing
<input type="checkbox"/>	405	Dairy products processing	<input type="checkbox"/>	419	Petroleum Refining
<input type="checkbox"/>	469	Electrical, electronic components	<input type="checkbox"/>	439	Pharmaceutical Manufacturing
<input type="checkbox"/>	413	Electroplating	<input type="checkbox"/>	422	Phosphate Manufacturing
<input type="checkbox"/>	457	Explosives Manufacturing	<input type="checkbox"/>	459	Photographic supplies
<input type="checkbox"/>	412	Feedlots	<input type="checkbox"/>	463	Plastics molding and forming
<input type="checkbox"/>	424	Ferro alloy Manufacturing	<input type="checkbox"/>	466	Porcelain enameling
<input type="checkbox"/>	418	Fertilizer Manufacturing	<input type="checkbox"/>	430	Pulp, paper, and paperboard
<input type="checkbox"/>	464	Foundries, Metal Mold & Casting	<input type="checkbox"/>	428	Rubber Manufacturing
<input type="checkbox"/>	426	Glass Manufacturing	<input type="checkbox"/>	417	Soap & Detergent Manufacturing
<input type="checkbox"/>	406	Grain mills	<input type="checkbox"/>	423	Steam Electric power Generation
<input type="checkbox"/>	454	Gum & Wood Chemicals Mfg.	<input type="checkbox"/>	409	Sugar processing
<input type="checkbox"/>	460	Hospitals	<input type="checkbox"/>	410	Textile Mills
<input type="checkbox"/>	447	Ink formulating	<input type="checkbox"/>	429	Timber products processing
<input type="checkbox"/>	415	Inorganic chemical Manufacturing	<input type="checkbox"/>	442	Transportation Equipment Cleaning
<input type="checkbox"/>	420	Iron & Steel Manufacturing	<input checked="" type="checkbox"/>	Others	Municipal Solid Waste Landfill.
<input type="checkbox"/>	425	Leather Tanning & Finishing			

## Wastewater Pollutant Checklist

Chemical Name	EPA Storet Code	Check if Present at Facility	Check if Absent at Facility	Check if Present in Discharge	Check if Absent in Discharge	Concentration in Discharge if Known (mg/l)
---------------	-----------------	------------------------------	-----------------------------	-------------------------------	------------------------------	--

### Acid Extractable Organics

2-Chlorophenol	34586				✓	
2,4-Dichlorophenol	34601				✓	
2,4-Dimethylphenol	34606				✓	
2,4-Dinitrophenol	34616				✓	
2-Methyl-4,6-dinitrophenol	34657				✓	
4-Chloro-3-methylphenol	34452				✓	
2-Nitrophenol	34591				✓	
4-Nitrophenol	34646				✓	
Pentachlorophenol	39032				✓	
Phenol	34694				✓	
2,4,6-Trichlorophenol	34621				✓	

### Base Neutral Organics

1,2,4-Trichlorobenzene	34551				✓	
1,2-Dichlorobenzene	34536				✓	
1,2-Diphenylhydrazine	34346				✓	
1,3-Dichlorobenzene	34566				✓	
1,4-Dichlorobenzene	34571				✓	
2,4-Dinitrotoluene	34611				✓	
2,6-Dinitrotoluene	34626				✓	
2-Chloronaphthalene	34581				✓	
3,3-Dichlorobenzidine	34631				✓	
4-Bromophenyl phenyl ether	34636				✓	
4-Chlorophenyl phenyl ether	34641				✓	
Acenaphthene	03405				✓	
Acenaphthylene	34200				✓	
Anthracene	34220				✓	
Benzidine	39120				✓	
Benzo (a) anthracene	34526				✓	
Benzo (a) pyrene	34247				✓	
Benzo (b) fluoranthene	34230				✓	
Benzo (ghi) perylene	34521				✓	
Benzo (k) fluoranthene	34242				✓	
Bis(2-chloroethoxy) methane	34278				✓	
Bis(2-chloroethyl) ether	34273				✓	
Bis(2-chloroisopropyl) ether	34283				✓	
Bis(2-ethylhexyl) phthalate	39100				✓	
Butyl benzyl phthalate	34292				✓	
Chrysene	34320				✓	
Di-n-butyl phthalate	39110				✓	

## Wastewater Pollutant Checklist

Chemical Name	EPA Storet Code	Check if Present at Facility	Check if Absent at Facility	Check if Present in Discharge	Check if Absent in Discharge	Concentration in Discharge if Known (mg/l)
---------------	-----------------	------------------------------	-----------------------------	-------------------------------	------------------------------	--

### Base Neutral Organics (continued)

Di-n-octyl phthalate	34596				✓	
Dibenzo (a,h) anthracene	34556				✓	
Diethyl phthalate	34336				✓	
Dimethyl phthalate	34341				✓	
Fluoranthene	34376				✓	
Fluorene	34381				✓	
Hexachlorobenzene	39700				✓	
Hexachlorobutadiene	34391				✓	
Hexachlorocyclopentadiene	34386				✓	
Hexachloroethane	34396				✓	
Indeno(1,2,3-cd) pyrene	34403				✓	
Isophorone	34408				✓	
N-nitroso-di-n-propylamine	34428				✓	
N-nitrosodimethylamine	34438				✓	
N-nitrosodiphenylamine	34433				✓	
Naphthalene	34696				✓	
Nitrobenzene	34447				✓	
Phenanthrene	34461				✓	
Pyrene	34469				✓	

### Metals

Aluminum	01104				NSF	
Antimony	01097			✓		0.0013
Arsenic	01002			✓		0.0067
Beryllium	01012				✓	
Cadmium	01027				✓	
Chromium	01034			✓		0.016
Copper	01042			✓		0.006
Lead	01051				✓	
Mercury	71900				✓	
Molybdenum	01062				NSF	
Nickel	01067			✓		0.092
Selenium	01147				✓	
Silver	01077				✓	
Thalium	00982				✓	
Zinc	01092			✓		0.035

## Wastewater Pollutant Checklist

Chemical Name	EPA Storet Code	Check if Present at Facility	Check if Absent at Facility	Check if Present in Discharge	Check if Absent in Discharge	Concentration in Discharge if Known (mg/l)
---------------	-----------------	------------------------------	-----------------------------	-------------------------------	------------------------------	--

### Other Inorganics

Barium	01007			✓		0.841
Chloride	00940				NSF	
Cyanide	00720			✓		0.033
Fluoride	00951				NSF	

### Purgeable Volatile Organics

1,1,1-Trichloroethane	34506				✓	
1,1,2,2-Tetrachloroethane	34516				✓	
1,1,2-Trichloroethane	34511				✓	
1,1-Dichloroethane	34496				✓	
1,1-Dichloroethylene	34501				✓	
1,2-Dichloroethane	34531				✓	
1,2-Dichloropropane	34541				✓	
2-Chloroethyl vinyl ether	34576				✓	
Acrolein	34210				✓	
Acrylonitrile	34215				✓	
Benzene	34030				✓	
Bromodichloromethane	32101				✓	
Bromoform	32104				✓	
Bromomethane	34413				✓	
Carbon tetrachloride	32102				✓	
Chlorobenzene	34301				✓	
Chloroethane	34311				✓	
Chloroform	32106				✓	
Chloromethane	34418				✓	
cis 1,3-Dichloropropene	34704				✓	
Dibromochloromethane	32105				✓	
Ethylbenzene	34371				✓	
Methylene chloride	34423				✓	
Tetrachloroethylene	34475				✓	
Toluene	34010				✓	
trans 1,3-Dichloropropene	34699				✓	
trans-1,2-Dichloroethylene	34546				✓	
Trichloroethylene	39180				NSF	
Trichlorofluoromethane	34488				✓	
Vinyl chloride	39175				✓	

### Others

Xylene					✓	

## Data Summary Form

Town of Franklin <= Receiving POTW  
 0021547 <= Receiving NPDES #  
 0002 <= Specific Sample Location!  
 i.e., Give IU Name, IUP#, and/or pipe#

Sample ID, or Count	Date Sample Collected	Notes about Sample	Q = Flow			BOD	TSS	Ammonia			
			M = Metered	E = Estimated	gal/day				Conc. Results from Lab	Conc. Results from Lab	Conc. Results from Lab
1	2/10/2015		M		13,600	<?	30.1	<?	34	<?	N/A
2	5/12/2015		M		7,000		57.8		39.2		N/A
3	8/18/2015		M		25,700		96.3		170		N/A
4	10/27/2015		M		27,100		32.3		83		N/A
5											
6											
7											
8											
9											
10											
11											
12											
etc											

Lab => Laboratory performing analysis =>  
 MDL => Laboratory Method Detection Limits =>  
 Notes => Notes =>

TNS => Total number of samples => 4  
 Max. value => Maximum data value (mg/l) => 96.3  
 Avg. (use 1/2 BDL) => Avg. data value, Include BDL values as 1/2 detection limit => 81.6



## Data Summary Form

Town of Franklin
<= Receiving POTW
0021547
<= Receiving NPDES #
0002
<= Specific Sample Location!
i.e., Give IU Name, IUP#, and/or pipe #

Sample ID or Count	Date Sample Collected	Notes =>	Arsenic		Copper		Chromium		Cadmium		COD		Copper	
			Conc. Results from Lab	mg/l	Conc. Results from Lab	mg/l	Conc. Results from Lab	mg/l	Conc. Results from Lab	mg/l	Conc. Results from Lab	mg/l	Conc. Results from Lab	mg/l
1	2/10/2015	Lab =>	<?	N/A	<?	0.006	<?	0.025	<?	0.001	<?	N/A	<?	0.006
2	5/12/2015	MDL =>		N/A	<	0.004	<	0.019	<	0.001		N/A		0.004
3	8/18/2015	Notes =>		N/A	<	0.007	<	0.031	<	0.001		N/A		0.007
4	10/27/2015			N/A	<	0.001	<	0.005	<	0.001		N/A	<	0.001
5														
6														
7														
8														
9														
10														
11														
12														
etc														

TNS =>	N/A	4	4	4	N/A	4	4
Max. Value =>	N/A	0.007	0.031	<0.001	N/A	<0.001	0.007

Avg. (use 1/2 BDL) =>

## Data Summary Form

Town of Franklin
0021547
0002

<= Receiving POTW  
 <= Receiving NPDES #  
 <= Specific Sample Location!  
 i.e., Give IU Name, IUP#, and/or pipe #

Sample ID or Count	Date Sample Collected	Notes =>	Cyanide	Lead	Mercury	Nickel	Silver	Zinc
1	2/10/2015		<?	<?	<?	<?	<?	<?
2	5/12/2015		0.041	<	0.0002	0.122	0.005	0.041
3	6/16/2015		0.068	<	0.0002	0.11	0.005	0.036
4	8/18/2015		0.039	<	0.0002	0.138	0.005	0.059
5	10/27/2015		0.038	<	0.0002	0.122	0.005	0.039
6								
7								
8								
9								
10								
11								
12								
etc								

TNS =>



Max. Value =>	0.068	<0.0002	0.138	0.005	0.059
Avg. (use 1/2 BDL) =>	0.045	0.0001	0.123	0.0025	0.044

<0.0002	0.0001
0.138	0.123

<0.0002	0.0001
0.138	0.123

<0.0002	0.0001
0.138	0.123

<0.0002	0.0001
0.138	0.123

<0.0002	0.0001
0.138	0.123

<0.0002	0.0001
0.138	0.123

<0.0002	0.0001
0.138	0.123

## Data Summary Form

Town of Franklin
<= Receiving POTW
<= Receiving NPDES #
<= Specific Sample Location!
i.e., Give IU Name, IUP#, and/or pipe #

Sample ID or Count	Date Sample Collected	Lab => MDL => Notes =>	Oil & Grease	Other	Other	Other	Other	Other
			Conc. Results from Lab mg/l					
1	2/10/2015		<?	<?	<?	<?	<?	<?
2	5/12/2015		5.0					
3	8/18/2015		5.0					
4	10/27/2015		5.0					
5								
6								
7								
8								
9								
10								
11								
12								
etc								



TNS =>  
Max. Value =>  
Avg. (use 1/2 BDL) =>

4
<5.0
2.5








## Industrial User Wastewater Survey & Permit Application

### Part V, Waste Reduction Information :

State Pretreatment Rule 15A NCAC 2H.0916 (c)(1)(M) requires Significant Industrial Users to include a description of current and projected waste reduction (pollution prevention) activities. The codes listed are standard EPA codes found on Toxic Release Inventory and other environmental forms. Please check all applicable codes for your facility related to wastewater discharge.

Current	Projected	Code	Description
		W13	Improved maintenance scheduling recordkeeping, or procedures
		W14	Changed production schedule to minimize equipment and feeds changeovers
		W19	Other changes in operating practices (explain briefly in comments)
		W21	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life
		W22	Began to test outdated material-continue to use if still effective
		W23	Eliminated shelf-life requirements for stable materials
		W24	Instituted better labeling procedures
		W25	Instituted clearinghouse to exchange materials that would otherwise be discarded
		W29	Other changes in Inventory control (explain briefly in comments)
		W31	Improved storage or stacking procedures
		W32	Improved procedures for loading, unloading and transfer operations
		W33	Installed overflow alarms or automatic shutoff valves
		W34	Installed secondary containment
		W35	Installed vapor recovery systems
		W36	Implemented inspection or monitoring program of potential spill/leak sources
		W39	Other spill and leak prevention (explain briefly in comments)
		W41	Increased purity of raw materials
		W42	Substituted raw materials
		W49	Other raw material modifications (explain briefly in comments)
		W51	Instituted recirculation within a process

## Industrial User Wastewater Survey & Permit Application

Current	Projected	Code	Description
		W52	Modified equipment, layout, or piping
		W53	Use of a different process catalyst
		W54	Instituted better controls on operating bulk containers to minimize discarding of empty containers
		W55	Changed from small volume containers to bulk containers to minimize discarding of empty containers
		W58	Other process modifications (explain briefly in comments)
		W59	Modified stripping / cleaning equipment
		W60	Changed to mechanical stripping / cleaning devices (from solvent or other materials)
		W61	Changed to aqueous cleaners ( from solvents or other materials)
		W62	Reduced the number of solvents used to make waste more amenable to recycling
		W63	Modified containment procedures for cleaning units
		W64	Improved draining procedures
		W65	Redesigned parts racks to reduce dragout
		W66	Modified or installed rinse systems
		W67	Improved rinse equipment design
		W68	Improved rinse equipment operation
		W71	Other cleaning and degreasing operation (explain briefly in comments)
		W72	Modified spray systems or equipment
		W73	Substituted coating materials used
		W74	Improved application techniques
		W75	Changed from spray to other system
		W78	Other surface preparation and finishing (explain briefly in comments)
		W81	Changed product specifications
		W82	Modified design or composition of product
		W83	Modified packaging
		W89	Other product modifications (explain briefly in comments)
		W99	Other (specify in comments )

**Comments (Please list corresponding code)**

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## SIU INSPECTION FORM

**Name Of Industry:** Macon County **IUP #** 002  
**Address Of Industry:** Macon County **IUP Expiration Date:** July 31st 2016  
1448 Lake Slide Drive  
Franklin, NC  
**Industry Representatives:** Wes Peck **Title** Solid Waste Manager  
**POTW Representatives:** Bill Deal **Title** ORC/Pretreatment Coord  
**Date Of Inspection:** 10/27/2015 **Time Of Inspection:** 11:25A (am/pm)  
**Purpose of Inspection:** Annual  Other (Describe) \_\_\_\_\_  
**POTW to which IU discharges** Town of Franklin **NPDES #** NC0021547  
**Is SIU currently in SNC?** NO **If yes, for what?** N/A

### PART I - INITIAL INTERVIEW

Has anything changed since the last inspection or IUP application in the following:

	YES	NO	COMMENTS
Product	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Garbage / Solid Waste</u>
Raw materials used	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Manufacturing processes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Categorical, if applicable	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Production rate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Number of employees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Number of shifts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Comments: \_\_\_\_\_

**PART II - PLANT TOUR -** Visit all areas where wastewater is generated or where there are drains to the POTW.

### Plant Tour Section A - PRODUCTION AND STORAGE AREAS

1. Are there floor drains in the production area?  YES /  NO Where do they go? They go back to leachate pond
2. Are production areas diked, contained, or otherwise constructed in such a way as to prevent harm to the WWTP, especially from spills or slugs?  YES /  NO Comments: \_\_\_\_\_
3. Are there floor drains in the storage area?  YES /  NO Where do they go? \_\_\_\_\_
4. Are storage tanks and areas diked, contained, or otherwise constructed in such a way as to prevent harm to the WWTP, especially from spills or slugs?  YES /  NO Comments: No chemicals stored
5. Are process and storage tanks and pipes labeled?  YES /  NO
6. How are off-spec raw materials, and products disposed of? N/A
7. When is the production area cleaned? Monthly
8. Is the wastewater from cleaning the production area discharged to the POTW?  YES /  NO
9. What non-process wastewaters are discharged to POTW? None

Comments: \_\_\_\_\_

## SIU INSPECTION FORM

### PART II - Plant Tour Section B - PRETREATMENT SYSTEM

Ask the operator to describe pretreatment system.

1. Does operator seem knowledgeable about the system?  YES / NO Comments: \_\_\_\_\_
2. Are all units operational?  YES / NO
3. How often does operator/maintenance person check system? Daily
4. Is there an operator for each shift? YES  NO
5. How and when is sludge disposed of? No Sludge
6. Is there a schedule for preventative maintenance?  YES / NO

Comments: \_\_\_\_\_

### PART II - Plant Tour Section C - SAMPLING POINT(S) AND FLOW MEASUREMENT

(Collect a sample if desired.)

1. Does an outside lab complete sampling?  YES / NO If yes, name of lab. Earth Environmental / Se
2. If industry completes sampling, ask the industry representative to describe sampling procedures. Comments: N/A
3. Is flow measurement equipment operational?  YES / NO Comments: \_\_\_\_\_
4. Is there a calibration log for the flow meter?  YES / NO Comments: It is keep at the WWTP

Comments: \_\_\_\_\_

### PART III - EXIT INTERVIEW

Review monitoring records and other SIU records required by IUP.

1. Are files well organized?  YES / NO Comments: \_\_\_\_\_
  2. Are sample collection / chain-of-custody forms filled out properly?  YES / NO Comments: \_\_\_\_\_
  3. Do results in files agree with reports sent to POTW?  YES / NO Comments: \_\_\_\_\_
  4. Who has authority to shut down production should a spill or slug discharge occur? ORC Bill Deal
  5. How does SIU inform employees of whom to call as POTW in case of spill/slug? WWTP operates the facility N/A
- If slug/spill plan is already required by POTW, review procedures!
6. Is SIU implementing slug/spill plan? YES  / NO Comments: \_\_\_\_\_

Comments: \_\_\_\_\_

### INSPECTION RESULTS

Slug/Spill Control Plan Needed? YES  / NO

Comments, Required Or Recommended Actions: \_\_\_\_\_

Signature Of Inspector(s) Bill Deal Date: 10/27/15

## **Appendix 6**

**Correspondence regarding approved methods of Alternate Daily Cover**



## **Macon County Department of Solid Waste Management**

109 Sierra Drive, Franklin, North Carolina 28734, Ph.:(828)349-2100, Fax:(828)349-2185

October 9, 2006

Mr. James Coffey, Regional Engineer  
NCDENR  
Division of Solid Waste Management  
Asheville Regional Office  
2090 US Highway 70  
Swannanoa, North Carolina 28778

**Re: Request for Demonstration and Approval of Alternate Daily Cover  
Macon County MSW Landfill; Permit # 57-03**

Dear Mr. Coffey:

The Macon County Department of Solid Waste Management (Department) is formally requesting the use of an Alternate Daily Cover (ADC) at the Macon County MSW Landfill. The Department proposes a 90-180 day demonstration period, during which Field Specialists with the Solid Waste Section will be able to verify the ADC's effectiveness in meeting the requirements of Rule .1626(2)(a).

The proposed ADC will consist of a Landfill Tarp system. The tarp will be approximately 50'x50' in size, and 6.5-8.5 oz/sq ft. The tarp is constructed of a woven polypropylene that is puncture, tear and U.V. resistant. Actual material specifications will be available for inspection at the time of implementation of the tarp system.

Macon County has recently abandoned our Bale Facility, and waste is being diverted directly to the landfill working face. In conjunction with the direct fill, Macon County has purchased a Terex 110,000 pound Compactor. Currently, we have approved as an ADC a 2 mil polyethylene film designed to drape over the vertical face of the bale fill. Under the direct fill method currently employed, the open or working face is at a 4:1 to 5:1 slope, rendering the film ineffective as an ADC. The tarp, therefore, would replace the film as an ADC, and would be utilized in much the same manner as the film.

As we have already made the above changes, we would like to begin the demonstration period for approval of the ADC as soon as possible. The tarp will be put into use once we receive permission to proceed with the demonstration. An amended operating plan detailing the tarping system operational procedures will be submitted to your office upon successful completion of the demonstration period and final approval of the tarp as an ADC. Use of the tarp will follow the general operations listed below, and will be designed to ensure protection of public and environmental health and all requirements of Rule .1626(2)(a).

*Operations Plan: ADC; Polypropylene Tarp.*

*By the end of each day of operations, the horizontal or lateral expansion of the working face will be covered with at least six (6) inches of earthen material, or an earthen material and ground LCID mixture; as approved. The working face will be maintained at a minimum of a 4:1 slope and compacted to reach maximum waste density possible to minimize the size of the working face; preserve*

**Macon County Department of Solid Waste Management**

109 Sierra Drive, Franklin, North Carolina 28734, Ph.: (828)349-2100, Fax: (828)349-2185

*landfill space; and deter wind-blown litter. At the end of each operating day, a 50'x50', 8.5 oz/sq ft tarp will be pulled over the slope of the working face. The tarp will cover all exposed portions of the working face, and the corners and sides of the tarp will be weighted with dirt and/or small stones to prevent the wind from exposing any waste. At the beginning of the next operating day, the tarp will be walked off of the working face and stored in an adjacent area to the working face.*

Thank you for your time and consideration of this request. Please contact me at your convenience should you need any additional information or have any additional requirements of this department with regards to the request. I look forward to your response.

Sincerely,



Michael Chris Stahl  
Director of Solid Waste Management, Macon County

CC: Sam Greenwood, County Manager  
Mark Cathey, Jeff Bishop, McGill & Associates  
Jim Patterson, Waste Specialist, NC DENR

# PACTEC

P.O. Box 8069 Clinton, LA 70722 (800) 272-2832 Fax (225) 683-8711 www.pactecinc.com

## 6 oz. Coated Woven Polypropylene

<u>Properties</u>	<u>Test Method</u>	<u>Value</u>
Coating		1.5 Mil, one side
Weight		7.5 oz/yd <sup>2</sup> coated
Thickness		20 Mil
Color		White
Warp Grab	ASTM D 5034-90	370 lbs
Weft Grab	ASTM D 5034-90	380 lbs
Warp Tear	ASTM D 2261-83	170 lbs
Weft Tear	ASTM D 2261-83	160 lbs
Mullen Burst	ASTM D 3786-87	800 psi
Puncture	ASTM D 4833	106 lbs
Accelerated UV Weathering	ASTM G53	>70% @ 1200 hrs

This product is manufactured for the sole purpose described in this spec sheet. The buyer or user of this product is solely responsible for determining whether this product is suitable for any intended use and for its proper installation and use.



**North Carolina Department of Environment and Natural Resources**

Dexter R. Matthews, Director

Division of Waste Management  
Solid Waste Section

Michael F. Easley, Governor  
William G. Ross Jr., Secretary

October 20, 2006

Mr. Chris Stahl, Director  
Macon County Solid Waste Management  
109 Sierra Drive  
Franklin, NC 28734

Re: Alternate Daily Cover Demonstration Authorization Letter,  
Macon County Municipal Solid Waste Landfill, Permit Number 57-03

Dear Mr. Stahl:

This letter is in response to your request for approval to demonstrate the capability of an alternate daily cover (ADC) at the referenced landfill. This Authorization Letter conditionally approves the Demonstration Project as described in your letter dated October 6, 2006, for a period of nine (9) months. This period of time provides the operator with six (6) months of time to perform the Demonstration Project, and three (3) months to compile and submit the certified Demonstration Report to the Solid Waste Section for review.

After six (6) months of using the conditionally approved ADC, the facility operator may then either:

- (1) provide a written report demonstrating the feasibility and request approval for the use of the ADC material on a full-time basis, or
- (2) cease use of the ADC material, properly dispose of any remaining ADC material, and provide a written report detailing the findings of the use of the material during the approval period and what actions were taken to dispose of the material.

If the operator decides to request approval for the use of the ADC material on a full-time basis, a Demonstration Report and revised facility Operation Plan that incorporates the ADC operation, both certified by a professional engineer licensed in North Carolina, shall be submitted to the Solid Waste Section for review and approval.

The certified Demonstration Report would include documentation addressing the performance and effectiveness of the material, the number of times the ADC material was used, the quantities of the ADC material, and other supportive information, including photographs.

Following satisfactory demonstration of the ADC material and application, the Solid Waste Section would issue a modified permit for the facility that includes the ADC operation.



Mr. Chris Stahl  
ADC Demonstration Authorization Letter  
October 20, 2006  
Page 2

If you have any questions, please call me, phone number 828-296-4703 or Jim Patterson, phone number 828-296-4700 at the Asheville Regional Office.

Sincerely,

James C. Coffey

Digitally signed by James C. Coffey  
DN: CN = James C. Coffey, C = US  
Date: 2006.10.20 07:50:17 -0400

James C. Coffey  
Asheville Regional Engineer  
Solid Waste Section

cc. Jim Patterson

## **Appendix 7**

### **Airspace Volume Calculations – Five-Year Permitting Period**

## Appendix 7 Airspace Volume Calculations – Five-Year Permitting Period

Notes:

- 1) Five-Year permitting period runs from 2017 through 2021.
- 2) Assume a 1% annual increase in waste growth for 2016, 1.5% for 2017 through 2021.
- 3) Assume compaction rate of 0.5 tons/cy

### Waste Trends

May 1, 2014 through April 30, 2015 waste tonnage: 29,974 tons.  
Waste tonnage projected for 2016 (@1.0% annual increase: 30,274  
Total waste tonnage projected (@1.5% annual increase) through  
end of five-year permitting period: 158,318 tons

### Airspace Summary

Airspace available for the disposal of waste,  
as measured from the top of the stone drainage layer  
to the bottom of either the intermediate or final cap grades  
utilizing ACAD Civil 3D Software 450,000 cy

### Lifetime Estimate

Estimated lifetime of cell based on  
31,663 tons/yr and 0.5 tons/cy compaction: 7.1 years\*

\*note: estimate is to bottom of cap grades noted on Permit Drawings,  
which are not feasible to obtain efficiently. Additional  
landfill airspace will be required in approximately 5 years.

## **Appendix 8**

### **Management of Universal Wastes: Mercury Containing Lamps and Devices**

## **Appendix 8: Mercury Containing Products**

### 1. General Conditions:

- a) The Macon County Solid Waste Department will accept waste Mercury Containing Devices (MCD) and Lamps Containing Mercury (LCM) from residents and commercial entities. MCD's and LCM's will be accepted at the Materials Recovery Facility (MRF), located at the MSW Landfill facility at 1448 Lakeside Drive, Franklin, North Carolina during normal operating hours (Monday through Friday from 7:30am until 4:30pm, and Saturday 8:00am until 2:00pm). An Operator on staff will oversee and assist the receiving of MCD's and LCM's to insure that wastes are intact (not broken or leaking); insure proper storage in a storage box or container; and provide a count of items received for the purposes of inventory tracking and invoicing, if applicable.
- b) Universal Waste Storage: A section of the tipping floor in the MRF is being used as a Universal Waste Handling Area. This area is secured by a fenced enclosure with locking doors. The area will be signified by a sign located on the door. Appropriate containers will be located in the secured area for the temporary storage of the wastes. A label will be placed on each container once the first waste has been placed in the container. The label will detail the following information: Notification that the container holds a Universal Waste (-Mercury Containing Equipment; or – Used Lamps), and the date the first waste was placed in the container.
- c) Training and Emergency Response: Landfill staff will be trained in the proper handling and storage procedures associated with management of LCM's and MCD's as well as spill containment and decontamination procedures. Additionally, materials for cleaning up a mercury spill and a sign detailing cleanup procedures will be provided in the storage area.
- d) Universal Waste Recycling: LCM's and MCD's will be shipped to or collected by a company authorized to manage and recycle these materials. A further description of these companies is listed below.

### 2. Management of Mercury Containing Devices (MCD):

- a) Acceptance: Waste MCD's are defined as thermostat switches which contain an ampule of mercury as a functioning part of the device. The devices must be received with the ampule intact so that mercury is not released into the environment. MCD's will be accepted at no charge at the Materials Recovery Facility (MRF), located at the MSW Landfill facility at 1448 Lakeside Drive, Franklin, North Carolina during normal operating hours.
- b) Packaging and Storage: MCD's will only be stored in the designated Universal Waste Handling Area at the MRF. The devices will be placed into a sealed bag and then into a plastic recycling bin provided by the vendor. A label will be placed on the container once the first MCD is placed in the container. The label will contain information identifying that the container holds a Universal Waste – Mercury Containing Device, and the date of the first device being placed in the container. The bins will remain closed at

all times that devices are not being added to the bin. Storage of the bins will be limited to one-year or until the bin is full; whichever occurs first.

c) Recycling Vendor: The Macon County Solid Waste Department is partnered with the Thermostat Recycling Corporation (TRC) for the recycling of waste thermostats containing Mercury. Bins are shipped from TRC to the Solid Waste Department. Once full, the Solid Waste Department will contact TRC to make arrangements for the pick-up of the bins.

d) Emergency Response and Cleanup: In the event a mercury containing thermostat is broken at the facility, the following procedures will be followed. An operator will put on latex gloves and put any pieces in a sealable bag. Any remnants will be collected in a dustpan by use of a squeegee and placed in the bag. Any visible liquid mercury will be collected by placing duct tape over the area. The tape will then be added to the bag. Finally, a wet scrubbing towel will be used to wipe down the area as well as the dustpan, squeegee, and the wipe will be placed in the bag. The bag and its contents will then be placed in container with sealing lid, and the date will be noted on the container. The container will be transferred to Southeast Recycling Technologies within ninety (90) days.

### 3. Management of Lamps Containing Mercury (LCM):

a) Acceptance: Unbroken waste LCM's will be accepted at the Materials Recovery Facility (MRF), located at the MSW Landfill facility at 1448 Lakeside Drive, Franklin, North Carolina during normal operating hours. Residential quantities of lamps will be accepted at no charge at the facility. Commercial conditionally-exempt small quantity lamps will be accepted for a fee to cover the costs of recycling, materials and handling. Broken bulbs are not accepted. Broken lamps from residential generators will be placed in the landfill as household exempted wastes. Commercial quantities of broken bulbs are hazardous waste. They will be rejected from delivery and must be taken to a hazardous waste handling facility.

b) Packaging and Storage: LCM's will only be stored in the designated Universal Waste Handling Area at the MRF. Waste lamps will be placed into suitable containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. The containers will be kept closed unless actively being filled with waste lamps. Upon the first lamp being placed in a container, a label will be applied signifying that the container holds Universal Waste Lamps, and the date. Filled containers will be transferred to a locked storage trailer just outside of the MRF in order to keep the handling area from becoming overly cluttered and to further reduce the potential of breaking the lamps during operations. The lamps will be stored until sufficient quantities are amassed to contact the vendor for collection, or before the oldest containers have been stored for one year; whichever occurs first.

c) Recycling Vendor: Macon County has partnered with Southeast Recycling Technologies as an approved vendor under the State Convenience Contract 926B for the

recycling of LCM's. Macon County may wish to contract with other vendors for this service, but will only select vendors that are approved under the State Contract.

d) Emergency Response and Cleanup: In the event a mercury containing lamp(s) is(are) broken at the facility, the following procedures will be followed. An operator will put on latex gloves and put the pieces of the lamp into a sealable bag. Smaller pieces and any powder from the lamp will be collected in a dustpan with a squeegee and also placed in the bag. Finally, the operator will use a moistened scrubbing towel to wipe down any residual waste and the squeegee and dustpan. The towel will then be placed in the bag along with the latex gloves. The bag will be sealed and placed, along with its contents into a container with a sealing lid. The date will be recorded on the container, and the container will be forwarded to the universal waste lamp recycler within ninety (90) days.



As part of the Macon County Solid Waste program to accept Universal Waste Mercury Containing Lamps and Devices; this sign will be posted on the secured enclosure delineating the waste handling area:

## Universal Waste Handling Area

Macon County is a small quantity universal waste handler. Please ask for assistance. **DO NOT** disturb this area if you are not part of staff trained in proper handling of universal waste bulbs.

**STAFF:** Each Container must be labeled with the following information

**UNIVERSAL WASTE LAMPS/DEVICES**

**Macon County Solid Waste**

**Accumulation Start Date**

**CONTAINER MUST BE CLOSED AT ALL TIMES WHEN NOT ACTIVELY  
FILLING CONTAINER**

**DO NOT STORE NEW AND USED BULBS IN THE SAME CONTAINER**

**DO NOT PLACE LAMPS IN CONTAINERS THAT ARE TAPED OR BOUND  
TOGETHER**

**ALWAYS FOLLOW EMERGENCY RESPONSE PROCEDURES IN THE EVENT  
OF BULB BREAKAGE**

**Appendix IX**

Asphalt Shingle Supplier Certification Form/Information Flyer

**MACON COUNTY MUNICIPAL SOLID WASTE LANDFILL  
SHINGLE SUPPLIER CERTIFICATION FORM**

**Supplier of Whole Tear-off Asphalt Shingles**

**( Hand-written ORIGINAL form required for each  
load of tear-off shingles received. )**

Supplier Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_

**We the undersigned certify that (check appropriate boxes):**

- The tear-off shingles are from a NESHAP regulated facility and documentation stating that the shingles do not contain >1% asbestos is attached. (Documentation is a letter from the North Carolina accredited asbestos inspector or roofing supervisor that collected the samples with the analytical results attached.)
  
- The tear-off shingles are from a single family home or residential building having four or fewer dwelling units that is not regulated by NESHAP.

**Tear-off shingles were removed from the following address:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Please use a separate sheet for each address from which shingles in this load were generated.)**

\_\_\_\_\_

\_\_\_\_\_  
Shingle Supplier (signature)

\_\_\_\_\_  
Date

Landfill Staff Use ONLY: Please Initial Appropriate Box Below

Tear-off shingles received were properly source separated and documented: Approved for Recycling.

Tear-off shingles were not source separated; must be landfilled: NOT Approved for Recycling.

Tear-off shingles are from NESHAP regulated facility, but documentation not attached. Load directed to landfill for disposal per non-friable asbestos disposal procedures. NOT Approved for Recycling.

# Macon County Department of Solid Waste Management

109 Sierra Drive, Franklin, North Carolina 28734

Phone: (828) 349-2100; Fax: (828) 349-2185

The Macon County Solid Waste Department would like to announce a new recycling program for asphalt shingles. We are seeking the assistance of roofing contractors and construction/remodeling companies in helping to make this program a success. Please read the following information about this program and feel free to contact Chris Stahl, Solid Waste Director, at the number above with any questions.

- **Why is the Solid Waste Department offering this recycling program?**

**Recycling Shingles Diverts Materials From Our Landfills:**

*The E.P.A. estimates that the U.S. manufactures and contractors dispose up to **11 million tons** of asphalt shingles annually. This represents the single largest, non-degradable solid-waste source entering your landfills.*

**Recycling Shingles Reduces Our Dependence On Foreign Oil:**

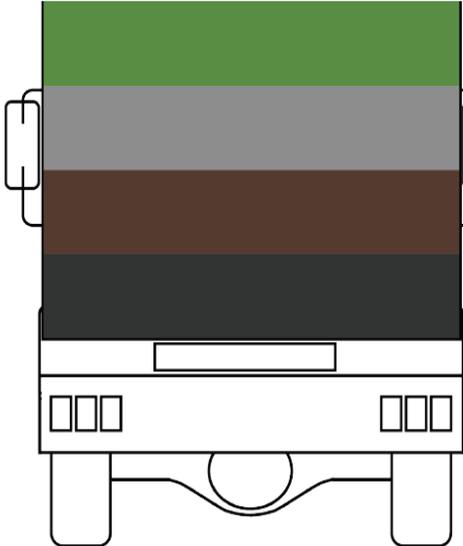
*The recycled shingles from your home will recapture the equivalent amount of asphalt that comes from four barrels of oil.*

**Recycling Shingles Provides Raw Materials Used In Road Paving:**

*The recycled shingles from your home will repurpose enough raw materials to produce 200 feet of a two-lane highway*

- **How do roofing contractors participate?**

Users of the landfill really shouldn't see much change. Shingles would still be delivered to the Recovery Facility at the Macon County Landfill for drop-off. Landfill staff will place the clean shingle loads into a storage bunker rather than into the transfer trailer. The potential change for contractors is in how they load out their waste containers or beds. **Please note:** Shingles delivered for recycling **must** be source separated by the Contractor. Only clean loads can be recycled, and our Operations Plan will not allow for sorting at our facility.

How to Load Shingles for Recycling		Unacceptable Materials in loads
	<p><b>Paper &amp; Plastics</b> (Please bag loose items)</p> <p><b>Metal Waste</b> (Aluminum, Steel, Copper)</p> <p><b>Wood Debris</b> (Plywood, Pallets)</p> <p><b>Shingles, Felt, Nails</b></p>	<ul style="list-style-type: none"><li>• Household Trash</li><li>• Built up Asphalt Roofing and Flat Roofing</li><li>• Full Rolls of Felt Paper or Ice and Water Shield</li><li>• Asbestos / Any Material Containing Asbestos</li><li>• Cedar Shingles</li></ul>
	<p>Plastic and aluminum drink containers; pallets; and other metals are also recyclable. Please sort these materials by type in your loads.</p>	<p>These materials should be delivered separately. Loads containing these materials will not be accepted under this program and normal tipping fees will apply to these loads.</p>

- **What's in it for the contractor?**

In addition to the reasons above, the Solid Waste Department will implement a lower tipping fee of \$40.00/ton for shingle loads that comply with the program. Loads that are not source separated by the Contractor **cannot** be accepted for recycling and normal tipping fees will apply.

- **What about other construction materials?**

We are continuously seeking outlets for additional recycling commodities. We currently recycle carpet and padding, but our costs to send out these materials match our current tipping fee. We would like to add clean wood waste recycling at a lower tipping fee. However, such a program would require a great deal more effort from the contractor to remove contaminating materials than are anticipated with the shingle recycling program. Please contact me with interest, or for more details.