



September 14, 2007

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SOLID WASTE SECTION  
ASHEVILLE REGIONAL OFFICE

Mr. Jim Coffey, Regional Engineer  
NC Dept. of Environment and Natural Resources  
Division of Waste Management  
2090 US Highway 70  
Swannanoa, North Carolina 28778

**APPROVED**  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION  
DATE 12/1/07 BY LY Frost

|                               |                        |                            |
|-------------------------------|------------------------|----------------------------|
| Scanned by<br><u>LY Frost</u> | Date<br><u>12/1/07</u> | Doc ID #<br><u>RCO3437</u> |
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RE: Modifications to Operating Permit  
Highlands Construction & Demolition Landfill  
Macon County, North Carolina  
Permit # 57-04

Dear Mr. Coffey:

On behalf of Macon County, McGill Associates is pleased to present to you this request for modifications to the Operating Permit of the Highlands Construction & Demolition Landfill (CDLF). The County would like to include in its Operating Permit a new MSW and C&D transfer station, which will serve the residents of the Highlands area. Currently, the County operates a household drop-off center at the C&D Landfill. The individual roll-off containers are hauled to the Macon County MSW Landfill in Franklin. Under the new operations plan, MSW and C&D wastes will be funneled through the transfer station and then be transferred to the landfill. The Operations Plan for the Macon County MSW Landfill will be modified to accept Construction Demolition waste.

At the new transfer station, leachate will be collected in a tank at the facility and transported to the Town of Franklin Waste Water Treatment Facility. The existing household drop-off center located at the Highlands CDLF will be operated in the same manner as current operations with the exception that roll-offs will be tipped at the transfer station rather than at the Macon County MSW Landfill in Franklin. The Operations Plan for the transfer station is included. The transfer station will reduce the number of haul trips to the landfill and make the transportation of MSW and C&D wastes from the Highlands area to the Macon County MSW Landfill more economical for the County and the Town. We have included the following items for your review:

1. Design plans for the MSW & C/D Solid Waste Transfer Station
2. The Operations Plan for the transfer station
3. Wastewater acceptance letter from the Town of Franklin
4. Zoning letter from Macon County

Engineering • Planning • Finance

McGill Associates, P.A. • P.O. Box 2259, Asheville, NC 28802 • 55 Broad Street, Asheville, NC 28801

828-252-0575 • Fax: 828-252-2518

The County is finalizing the erosion control submittal for the project and will submit to you the erosion control permit when that is received from NCDENR-Land Quality Section. We look forward to obtaining approval for this modification to the Operating Permit for the Highlands CDLF. Please let us know if you have any questions regarding this submittal or if you require additional information.

Sincerely,

McGILL ASSOCIATES, P.A.



JEFFREY R. BISHOP, P.E.  
Senior Project Manager

Enclosures

cc: Ed Mussler, NCDENR Solid Waste Section  
Chris Stahl, Macon County Solid Waste Director, w/1 copy of enc  
Sam Greenwood, Macon County Manager, w/o enc  
James Patterson, NCDENR, w/1 copy of enc

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SOLID WASTE SECTION  
ASHEVILLE REGIONAL OFFICE

OPERATIONS PLAN

MSW AND C&D SOLID WASTE TRANSFER STATION  
AT THE HIGHLANDS C&D LANDFILL

MACON COUNTY, NORTH CAROLINA

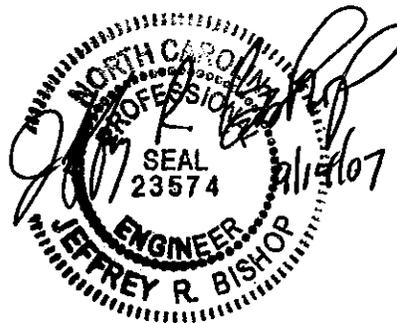
JEFFREY R. BISHOP, P.E.



Engineering • Planning • Finance  
*Asheville, North Carolina*

September 2007

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**OPERATIONS PLAN**  
**MSW AND C&D SOLID WASTE TRANSFER STATION**  
**AT THE HIGHLANDS C&D LANDFILL**  
**MACON COUNTY, NORTH CAROLINA**

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## OPERATIONS PLAN

### **MSW AND C&D SOLID WASTE TRANSFER STATION AT THE HIGHLANDS C&D LANDFILL MACON COUNTY, NORTH CAROLINA September 2007**

#### **I. INTRODUCTION**

##### **A. Purpose of Plan**

This operations plan has been developed for the proposed Highlands Solid Waste Transfer Station located in Macon County, North Carolina. This plan has been prepared in accordance with the requirements of the North Carolina Department of Environment and Natural Resources (DENR), Division of Solid Waste Management, Solid Waste Rules (15A NCAC 13B).

The purpose of this plan is to provide the owner and operator with a reference manual that includes necessary information and procedures for properly operating the Transfer Station and complying with the applicable rules concerning the operation of processing facilities. All personnel involved with the management or supervision of operations at the facility will be required to review the Operations Plan and to maintain the facility in conformance with applicable requirements. A copy of the Operations Plan will be kept in the vicinity of the Transfer Station at all times.

##### **B. Facility Location**

The Solid Waste Transfer Station is located on property owned by Macon County along Rich Gap Road approximately 1.5 miles from the intersection with NC Hwy 28. This property will contain the transfer station, a recycling center, scale house facility, household drop-off dumpsters, and a tire drop-off area.

##### **C. Service Area**

The Transfer Station will provide service in the area of the Town of Highlands in Macon County.

#### **II. OPERATIONS PROCEDURES**

##### **A. Overview**

The Transfer Station will consist of a pre-engineered metal building with an approximate 3,600 ft<sup>2</sup> tipping floor and lowered access/loading corridor for transfer trucks. Incoming waste collection vehicles will deposit municipal solid waste

(MSW) and construction and demolition (C/D) waste directly onto the concrete tipping floor of the facility. Once the MSW & C/D has been dumped onto the tipping floor, it will be inspected for illegal wastes and/or hazardous wastes. Illegal and hazardous wastes will be diverted from the waste stream and disposed of properly in a hazardous waste landfill. Once the waste has been inspected for unacceptable materials, a loader will push the remaining waste to the rear of the tipping floor where it will be dropped into a transfer truck on the lower level. The waste will then be transferred to the Macon County MSW Landfill in Franklin North Carolina.

The normal working hours for the Transfer Station are 8:00 a.m. to 2 p.m., Monday through Friday. The transfer station is closed on Saturday and Sunday, however, the drop-off center for household waste and recycling will continue its present operating hours, Monday through Friday, 7:30 a.m. to 4:30 p.m. and Saturday, 8:00 a.m. to 2 p.m. Both facilities will be closed on the following holidays: Christmas and Thanksgiving and when the following holidays do not fall on Monday or Friday: New Year's Day and Independence Day.

#### **B. Personnel**

The facility is owned and operated by Macon County. Three full-time Macon County employees are used to staff the new transfer station and solid waste collection area so that a minimum of 2 employees are on site at any given time. These employees are properly trained in safety procedures and the inspection of incoming wastes (refer to section D, "Inspection of Wastes"). Training material published by the Solid Waste Association of North America (SWANA) is utilized for initial training of on-site personnel and for continuing education. The Transfer Station employees also direct and coordinate the movement of collection vehicles into and out of the Transfer Station.

#### **C. Characterization of Waste Stream**

Macon County currently receives approximately 37,000 tons of waste each year. Approximately 10,000 tons (27%) of the County's waste stream is construction/demolition waste. Approximately 27,000 tons (73%) of the County's waste stream is MSW waste. Based on the existing MSW waste stream at the Highlands Convenience Center and the C&D waste stream received at the Highlands C/D Landfill the combined annual waste stream is projected to be 7,500 tons.

On or before August 1<sup>st</sup> of each year, the owner or operator shall report to the North Carolina Solid Waste Section, for the previous year beginning July 1<sup>st</sup> and ending June 30<sup>th</sup>, the amount by weight of the solid waste that was received at the facility and transported to the Macon County landfill.

The transfer station will only accept municipal solid waste, construction/demolition waste, and non-hazardous industrial waste generated in Macon County. Macon County will notify the division within 24 hours of any attempts to dispose of non-permitted waste.

The following wastes are prohibited from disposal at the transfer facility:

- 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,
- 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)
  - whole scrap tires
  - lead-acid batteries
- Asbestos waste,
- And Wastewater sludges.

#### **D. Inspection of Wastes**

Access to the Transfer Station is controlled by properly trained employees, located at the entrance of the 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. 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.

Macon County shall implement a program at the transfer station for detecting and preventing the disposal of unacceptable waste, especially hazardous or liquid waste. The program will include the following:

- Transfer station personnel will conduct random inspections of incoming loads. Inspections will occur at the transfer station on the tipping floor.

The load will be carefully spread by a front-end loader with personnel trained to identify unacceptable waste, especially hazardous and liquid waste. 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. The frequency of the random inspections will be based on the type and quantity of waste, but not less than one inspection per week.

- If hazardous waste is identified during vehicle dumping, facility personnel will immediately notify the driver and if necessary, contact DENR and the Hazardous Materials Emergency Response Team. 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. A sign with the words "No Hazardous or Liquid Wastes Accepted" shall be posted on an entrance sign.
- Transfer station personnel will maintain records of each load inspection. These records will be maintained in the operating record of the transfer facility. A copy of the Waste Inspection Form has been included in Appendix 4.
- Waste shall not be stored on the tipping floor after operating hours and the tipping floor and the transfer trailer loading area shall be maintained in sanitary, clean condition.
- Infectious or medical waste haulers are advised that the Transfer Station 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 discharged onto the tipping floor. The vehicle operator will be advised to move the vehicle to a paved area located outside the Transfer Station where the load will be discharged. The local fire department will be notified prior to discharge to identify the cause of the problem and extinguish the load fire. Once the load has been extinguished and the cause determined, the load will be taken into the facility for disposal. No asbestos or animal wastes will be accepted at the Transfer Station.

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.

#### **E. Traffic Control**

Site personnel control access to the Transfer Station. A gate controls the entrance to the transfer station facility. As vehicles arrive at the Transfer Station, 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 Transfer Station.

During times when several vehicles are at the Transfer Station 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 for two (2) trucks to dump simultaneously.

#### **F. Housekeeping, Litter, and Vector Control**

Incoming wastes will be transported to the Transfer Station in covered or enclosed vehicles. Outgoing transfer trailers will also be covered or enclosed. 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 will be available to wash down the concrete tipping floor and adjacent equipment areas when needed. The equipment used for pushing trash on the tipping floor will also have a bucket equipped with a squeegee. The wash water flows into a trench drain located just inside of the building entrance. The drain will be covered by a metal grate to block large debris that might clog the drain. The metal grate is raked periodically and the collected trash is placed into containers for proper disposal. The drain is connected to a six (6)-inch sewer line. The sewer line drains to a wastewater storage tank outside the Transfer Station. A wastewater hauling truck will be scheduled to pump out wastewater as needed, at a minimum of one trip per week. The frequency that the tank is pumped out may be modified based on wastewater production, but the County will empty the tank when it has reached approximately 50% capacity.

Odors are controlled by prompt unloading and transfer of all delivered wastes at the Transfer Station. The open sides of the building and wall mounted ventilation fans located above the transfer trailer will provide adequate fresh air exchange to control odor problems.

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, readily cleanable material. Floor and equipment wash-downs at the Transfer Station will also reduce both odor and vector problems. As described previously, wash water will be diverted to the wastewater storage tanks located outside the building. Licensed exterminators will also be available to visit the Transfer Station as needed.

#### **G. Dust and Fire Control**

Periodic wash down of the tipping floor and equipment will prevent excessive build-up of dirt and dust at the facility.

Fire control is provided by portable hand-held fire extinguishers as well as a yard hydrant located on both levels of the building, just outside of the building structure. 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. The telephone numbers of local fire, police, ambulance and hospital facilities are posted in and around the facility at all times. In the event of a fire at the facility the DENR will be notified within 24 hours and written notification will be submitted within 15 days.

#### **H. Wastewater Collection**

Wastewater flow at the Transfer Station will consist of wash down water from the tipping floor. Wash down water will be collected by a trench drain and flow through gravity lines to a 5,000-gallon concrete storage tank. To ensure that rainwater does not enter the storage tank, a metal roof covers the tipping floor and the approaches to the station are sloped away from the transfer station building. The maximum usage of wastewater and wash down water is estimated to be 1,000 gallons per day, with an estimated average of approximately 500 gallons per day. The storage tank will provide approximately 5 days of storage at the maximum usage rate.

A wastewater hauling truck will be scheduled to pump out wastewater based on the actual amount of wastewater produced. The County will empty the tank when it has reached approximately 50% capacity. The pumping schedule will insure that the tank will have adequate reserve capacity at all times. The wastewater will be hauled to the Town of Franklin Wastewater Treatment Plant. A copy of the acceptance letter is included in Appendix 1.

#### **I. Storm Water Management and Erosion Control**

Areas adjacent to the Transfer Station are graded away from the building. Gutters and downspouts will also be positioned on the building to divert discharge of storm water to diversion ditches and storm drains.

The construction site is approximately 7.8 acres in size. The Transfer Station will require cut and fill of approximately 75,000 cubic yards of earthen material. An erosion control permit has been received from the NCDENR, Land Quality Section for the Transfer Station site. Standard erosion control practices, such as sediment traps, silt fencing, vegetating slopes, and diversion ditches will be utilized at the site. A copy of the approval letter is included in Appendix 2.

#### **J. Zoning**

Macon County has no zoning requirements for the Transfer Station property. Correspondence from Macon County concerning zoning is included in Appendix 3. The Transfer Station is located on the property of a permitted Construction & Demolition Landfill facility.

**K. Facility Inspections**

Regular maintenance inspections of the facility will be conducted. The inspections will be conducted by site personnel who are familiar with the buildings and equipment at the site, as well as operations of the facility. Monthly inspections, at a minimum, will include inspections of the following:

- Building, foundation, and push walls
- Ventilation system
- Fire equipment
- Electrical systems
- Floor drains, well, pressure tank, and yard hydrant
- Wastewater storage tank

If unsatisfactory conditions are noted during the inspection or by Transfer Station personnel at any other time, 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 Transfer Station will be suspended temporarily until the proper corrective actions have been taken. In the unlikely event of a severe accident, the proper authorities will be notified and off-site support requested.

## **APPENDIX 1**

Flow Acceptance Letter from Town of Franklin WWTP

Town Of Franklin  
Wastewater Treatment Plant  
70 West Main Street  
Franklin, NC 28734

August 15, 2007

NCDENR – Solid Waste Section  
Permitting Branch  
1646 Mail Service Center  
Raleigh, NC 27699-1646

Dear Sir or Madam:

This letter is in response to a request from the Macon County Solid Waste Department for approval of approximately 2000 gallons per week of leachate from wash water from the proposed Highlands Transfer Station to be accepted and treated at this facility.

The Town and County have an existing agreement to accept up to 40,000 gallons per day of leachate from the Solid Waste Department. The volume of additional leachate requested for treatment will be accepted under the existing agreement and should have a negligible impact on the total volume of leachate accepted.

Sincerely,

A handwritten signature in black ink that reads "Wayne Price". The signature is written in a cursive style with a large, prominent "W" and "P".

Wayne Price  
ORC Franklin Wastewater  
Treatment Plant

## **APPENDIX 2**

### **Erosion Control Approval Letter & Permit**

The approval of the erosion control plan for this project is pending and will be submitted to the NCDENR – Solid Waste Section upon receipt.

## **APPENDIX 3**

Zoning Letter From Macon County

# MACON COUNTY PLANNING DEPARTMENT



Macon County Courthouse Annex  
5 West Main Street  
Franklin, NC 28734  
Phone 828.349.2212  
[squffey@macconnc.org](mailto:squffey@macconnc.org)

To: DENR Solid Waste Section  
Permitting Branch

September 14, 2007

To Whom It May Concern:

Outside the city limits of the towns of Highlands and Franklin, Macon County currently has no zoning regulations. Therefore, the C & D (Construction & Demolition) Landfill, located at 1080 Rich Gap Road, Highlands, NC is not subject to any zoning regulations. The C & D landfill is in compliance with all Macon County Codes and Regulations.

If you have any questions, or if this office can be of further assistance, please feel free to contact me.

Sincerely,

Stacy J. Guffey  
Macon County Planning Director

## **APPENDIX 4**

Waste Screening Inspection Form

MSW AND C&D TRANSFER STATION  
AT THE HIGHLANDS C&DLF  
MACON COUNTY, NORTH CAROLINA

RECORD OF WASTE INSPECTION

Date: \_\_\_\_\_ Time Crossed Scales: \_\_\_\_\_  
Truck Owner: \_\_\_\_\_ Driver's Name: \_\_\_\_\_  
Truck Type: \_\_\_\_\_  
Vehicle ID# or Tag #: \_\_\_\_\_  
Gross Weight: \_\_\_\_\_ Tare Weight: \_\_\_\_\_ Net Weight: \_\_\_\_\_ Tons: \_\_\_\_\_  
Waste Generating Company/Source: \_\_\_\_\_

Reason Load Inspected: \_\_\_\_\_ random inspection \_\_\_\_\_ staff initials  
\_\_\_\_\_ detained by scale house \_\_\_\_\_ staff initials  
\_\_\_\_\_ detained by T.S. operating staff \_\_\_\_\_ staff initials

Description of wasteload: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Disposition: Load Accepted (signature): \_\_\_\_\_ Date: \_\_\_\_\_  
Load Not Accepted (signature): \_\_\_\_\_ Date: \_\_\_\_\_

**\*\* Reason Load Not Accepted: (completed this section only if waste NOT ACCEPTED)**

Description of Suspicious Contents:

\_\_\_\_\_ color \_\_\_\_\_ Haz. Waste markings \_\_\_\_\_  
\_\_\_\_\_ texture \_\_\_\_\_ smell \_\_\_\_\_  
\_\_\_\_\_ drums present

Approximate cu. yds. in load \_\_\_\_\_

Approximate tons present in load \_\_\_\_\_

Macon County Emergency Management Contacted: \_\_\_\_\_ Yes \_\_\_\_\_ No

Hazardous or dangerous materials present: \_\_\_\_\_

Hauler notified (if waste accepted): \_\_\_\_\_

Phone #: \_\_\_\_\_ Time person contacted: \_\_\_\_\_

Other observations: \_\_\_\_\_

Final Disposition: \_\_\_\_\_

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Waste Screening Inspector or Supervisor)

cc: Director of Solid Waste