

Henderson County,
North Carolina

45-04-T

EXPANSION

**Henderson County Municipal
Solid Waste Transfer Station
Phase II Construction Project**

CDM Project No. 10002-45472

February 22, 2006



Permit No.	Date	Document ID No.
45-04T	August 4, 2008	5454

APPROVED DOCUMENT
Division of Waste Management
Solid Waste Section
Date September 4, 2008 By LY Frost

Approved
JL

Permit Application



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February 22, 2006

Mr. Jim Coffey
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Solid Waste Section
2090 US Highway 70
Swannanoa, North Carolina 28778

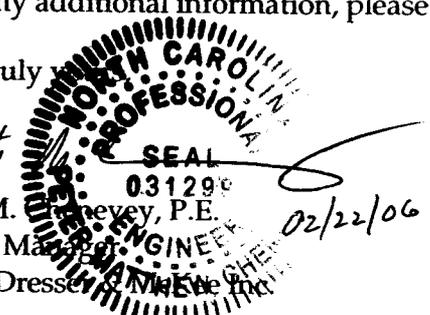
Subject: MSW Transfer Station Phase II, Permit Application
Henderson County Solid Waste Management Facility

Dear Mr. Coffey:

On behalf of Henderson County, CDM presents the following Permit Application for the Henderson County Phase II Transfer Station located in Hendersonville, North Carolina. The purpose of this application is to present the general design concepts related to construction and operation of the facility as required by Rules .0401 and .0402 of 15A NCAC 13B of the North Carolina Solid Waste Management Rules. The construction drawings have been provided under separate cover.

We trust that this submittal is sufficient for your review. If you should have any questions or need any additional information, please do not hesitate to contact us at your convenience.

Very truly yours,


Peter M. McNevey, P.E.
Project Manager
Camp Dresser & McKee Inc.

cc: Mr. Ed Mussler (NCDENR)
Mr. Gary Tweed (Henderson County)
Mr. Tim Grant (CDM)

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Section 1

Introduction

1.1 Purpose

The purpose of the Permit Application for the Henderson County Municipal Solid Waste Transfer Station (Phase II) is to comprehensively define the existing and proposed development of the facility and present the general design concepts related to construction and operation of the facility as required by Rules .0401 and .0402 of 15A NCAC 13B of the North Carolina Solid Waste Management Rules.

1.2 Project Description and Site Conditions

The Henderson County Transfer Station (Permit No. 4504-T) is located at the County landfill property on Stoney Mountain Road near Hendersonville, North Carolina. The existing transfer station (Phase I) is located near the southern portion of the site near the main gate and scale house. The site also contains a closed municipal solid waste (MSW) landfill, an active construction and demolition debris (C&D) landfill, convenience center, white goods areas, and wood waste area. Zoning information for the site is provided in Appendix A. The Henderson County Landfill is shown on Sheet 1 provided in Appendix B.

The existing transfer station was constructed in 1997 and consists of an approximately 71-foot by 77-foot structure. Waste is deposited inside the building on the upper level tipping floor through an opening on the north side. Waste is loaded into transfer vehicles through an open pit located at the south end of the tipping floor. The existing transfer station uses one, lower level drive-thru lane for loading operations.

The Phase II transfer station will abut the west side of the existing structure. The proposed structure will be approximately 16 feet longer than the existing building in order to accommodate an additional lower level drive-thru lane.

1.3 Construction Plans

A complete set of civil, architectural, structural, plumbing, and HVAC drawings have been provided with this Permit Application.

Section 2

Waste Acceptance Criteria

In accordance with 15A NCAC 13B.0402(2), the transfer station facility will only accept those wastes which it is permitted to receive. The Henderson County Transfer Station will only accept municipal solid waste (MSW) generated within the Henderson County service area. MSW generally consists of residential, commercial, and non-hazardous industrial waste.

2.1 Handling Capacity

Based upon historical disposal records, the County initially processed between approximately 40,000 and 50,000 tons per year at the existing transfer station when it began operations. Over the last few years, the rate has increased to about 63,000 tons in 2004 and 69,000 tons in 2005. It is anticipated that the annual tonnage will remain relatively consistent with these values for the near future. However, the transfer stations will begin handling the waste stream currently going to the C&D landfill once it closes, which will result in an increase of about 15,000 tons per year.

Based on 312 operating days per year, the average daily tonnage is estimated to be on the order of 220 tons per day for current conditions and about 270 tons per day once the C&D landfill closes. Both the existing and proposed transfer station structures have been designed to handle a maximum average tonnage rate of 350 tons per day per building to account for daily surges in waste flow. The transfer station buildings will serve only commercial vehicles.

Residents bringing waste will be directed to the convenience center located to the east of the transfer station buildings for drop-off of waste. The residential vehicles will generally consist of pickup trucks and cars.

2.2 Recyclable Material

Henderson County owns and operates a convenience center at the landfill site. The convenience center accepts waste and recyclables delivered primarily by private homeowners. The center will continue to operate after closure of the landfill. The types of materials that will be delivered to the convenience center include recyclables, lead acid batteries, yard wastes, white goods, and whole scrap tires.

A trained inspector capable of recognizing hazardous and liquid wastes will be available during all operating hours. The transfer station will not handle or store recyclable materials. The County convenience center will continue to act as an additional waste screening measure for the Henderson County Transfer Station.

2.3 Prohibited Wastes

The Henderson County Transfer Station will only accept waste which it is permitted to receive. The County shall notify the Division of Waste Management within 24

hours of attempted disposal of any waste the transfer facility is not permitted to receive, including waste from outside the area the landfill is permitted to serve. No hazardous, liquid, or infectious waste shall be accepted. Wastes prohibited for handling include those hazardous wastes defined in 15A NCAC 13A (including hazardous waste from conditionally exempt small quantity generators), polychlorinated biphenyls as defined in 40 Code of Federal Regulations (CFR) 761, septic waste, waste oil or any waste that is determined to contain "free liquids" as defined by EPA Method 9095 (Paint Filter Liquids Test), S.W. 846. In addition, the transfer station will not accept medical wastes, animal carcasses, hatchery waste or other animal waste.

Section 3

Transfer Station Operation

3.1 Hours of Operation

The Henderson County Transfer Station will be open Monday through Saturday from 8:00 a.m. to 4:00 p.m. The convenience center is open until 4:30 p.m. for self unloading, flat rate, and recycling customers. A sign is posted at the entrance to the facility identifying the hours of operation.

3.2 Tipping Floor Operations

Collection vehicles delivering residential, commercial, and industrial waste to the facility will proceed to the scale to be weighed. Once vehicles have passed the scale house area, they will continue along the access road until reaching the tipping building apron at the two transfer station buildings. The tipping building apron provides access to the north side of each building. The areas of the tipping floors are approximately 3,600 square feet for the existing (Phase I) transfer station and 4,500 square foot for the proposed expansion (Phase II) transfer station building. The transfer station buildings have 13-foot high push walls that lead to the open pits at the south end of each building above the drive-thru areas. The open pits are 33 feet by 6 feet for Phase I and 45 feet by 6 feet for Phase II.

The transfer station attendant will direct vehicles to an area to unload. The vehicles will back directly on the tipping floor to the area designated by the attendant. Once the vehicle is in position and the waste has been inspected by the attendant, the waste load will be discharged directly onto the tipping floor. The transfer station operator will push the deposited waste towards the open pit located at the south end of the upper level tipping floor.

The lower level of the transfer station facility will have two drive-thru lanes (one for each building) for transfer trailer truck access. The open-top transfer trailer trucks will pull through the drive-thru area and align themselves beneath the open pit. Once the trailer truck is in position, the operator will load the waste into the transfer trailer. The lower drive-thru area has been designed to provide sufficient space for drivers to exit their vehicles and walk to safety in the event of an emergency. Once the transfer trailer has been completely loaded, the vehicle will be driven to a landfill for disposal.

3.3 Site Cleaning

The tipping floor and drive-thru areas will be washed down periodically throughout the day and also at the end of each operating day. Wash down water will be collected by trench drains located on the upper level and by driveway drains located in the drive-thru areas on the lower level of the transfer station buildings. The wash down water will be conveyed by a sanitary sewer line to an onsite pump station located to the southeast of the transfer station buildings. The pump station ultimately discharges to the Hendersonville wastewater treatment plant.

3.4 Equipment

Since the Henderson County Transfer Station will be operated as a tipping floor facility, the only equipment required for safe and effective operation of the facility are rubber-tired front end loaders, transfer trailer trucks, and the existing pump station. The pump station is designed to house two (2) pumps, one primary and one secondary. In the event that the primary pump is inoperable, the secondary pump is automatically activated and placed on-line to maintain discharge of the sanitary sewer.

Section 4

Erosion and Sediment Control

The Henderson County Landfill facility has an existing Erosion and Sedimentation (E&S) Control Plan for the proposed location of the transfer station expansion which will be used for the project. In addition, a separate E&S Control Plan for construction of the expansion is not required since construction activities will result in a disturbance area of less than one acre.

The Landfill area has several drainage ditches and sediment ponds which convey and filter sediment-laden stormwater runoff. Stormwater runoff from the transfer station will be diverted to two (2) drop inlets located on the east and west sides of the buildings. Reinforced concrete pipes (RCP) convey the stormwater under the access roads to a rip rap lined ditch which empties into a drainage ditch. All unpaved areas will be established with vegetative cover to prevent the erosion of the underlying soil material.

During construction activities, silt fencing will be installed along all fill slopes until vegetative cover has been established. In addition, silt fence barriers will be placed around the two drop inlet structures. The erosion and sediment control measures are provided on the construction drawings.

Section 5

Drainage Control and Water Protection

In accordance with Rule .0402(3), the Henderson County Transfer Station will be operated such that any water that comes in contact with waste will be contained prior to being properly discharged.

The tipping floors of the two transfer station buildings are sloped away from the push pit area and towards the trench drains located along the northern edge of the upper level concrete floor slab. The floor drains will collect any wash down water (leachate) generated from rinsing and cleaning the tipping floor during and after daily operations. The trench drains connect to a sanitary sewer line that travels from the northwest corner of the expansion building to the existing grit trap interceptor located west of the transfer facility.

The lower level of the transfer station contains two drive-thru lanes for the transfer trailer vehicles. The drive-thru lanes will be equipped with driveway drains to collect wash water. The drains connect to a sanitary sewer line that travels from the southwest corner of the expansion building to the existing grit trap interceptor.

Collected wash water will be conveyed from the grit trap interceptor to existing pump station where it will be conveyed to the Hendersonville wastewater treatment plant.

Section 6

Disease, Vector, and Litter Controls

6.1 Disease and Vector Control

In accordance with Rule .0402(5), the Henderson County Transfer Station will provide effective vector control measures for the protection of human health and the environment. Disease vectors are defined as any rodent, flies, mosquitoes, or other animals and insects, capable of transmitting disease to humans.

Control of disease vectors will be maintained by implementation of a daily cleaning program which involves removal of waste, leachate, and ponded water from the facility operating areas. The removal of waste at the end of each operating day will protect against migration of vectors into and from the transfer station. Henderson County will utilize deodorizers, paint, and wash water to keep the tipping floor and drive-thru areas clean and free from rodents, flies, and other animals and insects. Stagnant, ponded water shall be prevented from occurring to control mosquito breeding. If problems controlling disease vectors persist, the County's mosquito control unit or a licensed exterminator shall be employed to control the vectors.

6.2 Litter Control

In accordance with rule .0402(7), the County will implement measures to confine material within the area. Since the transfer station structures are enclosed on three sides, wind blown trash should not be a significant operational concern. Any wind blown trash observed at the end of each operating day will be collected and stored in a transfer trailer or an on-site trash bin.

Section 7

Sign and Safety Requirements

7.1 Sign Requirements

Signs providing information on disposal procedures, the hours that the site is open for public use, the permit number, stating that no hazardous or un-permitted waste can be received without written permission from the State Division of Waste Management, and other pertinent information will be posted at the site entrance. Traffic signs and markers are provided as necessary to promote an orderly traffic pattern to and from the discharge area and maintain efficient operating conditions.

7.2 Fire Control Equipment

In accordance with Rule .0402(4), equipment shall be provided to control accidental fires and arrangements shall be made with the local fire department to immediately provide fire-fighting services. The two transfer station buildings will be equipped with an appropriate number of fire extinguishers.

7.3 Fire Notification

Any fire that occurs at the transfer station shall be reported to the Division within 24 hours and a written notification will be submitted within 15 days by the County.

Section 8

Access and Security Requirements

8.1 Access and Security

The site is enclosed by a fence with access controlled by means of gates. A security check station and weigh scale are located at the site entrance to evaluate the incoming waste for proper disposal. All vehicles delivering waste to the transfer station will enter and exit through this gate. Unauthorized vehicle access to the facility is prevented around the remaining portion of the transfer station and landfill property by buffer areas and a fence at the landfill entrance.

8.2 Attendant

Henderson County utilizes a full-time Scale Operator at the site entrance during operating hours. The Operator has control of the vehicles entering the facility.

An attendant will also be on duty at the transfer station at all times while the transfer station is open to ensure compliance with operational requirements. Facilities currently in place will remain operational.

8.3 Access Road

The access roads for the transfer station will be constructed of an all-weather surface (asphalt and concrete) and will be maintained in good condition. Potholes, ruts, and any debris on the roads shall receive immediate attention in order to avoid damage to the vehicles.



Appendix A
Zoning Information



Henderson County, North Carolina Development & Enforcement Department Zoning Administration

Zoning Administration
Land Development Building
101 East Allen Street
Hendersonville, North Carolina 28792

February 14, 2006

Gary Tweed, PE
County Engineer
Landfill
802 Stoney Mountain Road
Hendersonville, NC 28791

RE: Permitting for expansion to County Municipal Solid Waste Transfer Station in C-2 zoning and WS IV PA

Dear Mr. Tweed;

After reviewing the proposed plan for the expansion to the Henderson County Municipal Solid Waste Transfer Station, the current Henderson County Zoning Ordinance definition for "Solid Waste Management Facilities" states:

Solid Waste Management Facilities [Added 5-16-2001]:

(1) Land, personnel and equipment used in the management of solid waste. Incinerators and drop-off recycling centers are specifically excluded from this definition. Solid waste management facilities include the following:

- (a) Transfer station;
- (b) Landfill; or
- (c) Materials recovery facility.

(2) Specifically excluded from this definition and any regulation under this chapter are those solid waste management facilities that are constructed and/or operated by or on behalf of any federal, state or local governmental entity; provided, however that the exclusion from regulation only applies to those solid waste management facilities not operating as a hazardous waste disposal facility or radioactive waste disposal facility (which is prohibited in all zoning districts). [Added 5-16-2001].

The Solid Waste Management Facility (transfer station) would not be regulated by the Henderson County Zoning Ordinance. However, the Water Supply Watershed Ordinance still does apply. I have included a permit issued to Henderson County to construct the expansion of the transfer station. The Henderson County Landfill is made up of 5 parcels. The parcels are listed below:

9650.72-7217	62.40 acres	(transfer station)
9650.83-0296	12.03 acres	
9650.92-0038	37.60 acres	
9650.62-9650	5.78 acres	
9650.71-6325	<u>6.41 acres</u>	

124.22 acres

Current percentage of impervious surface is as follows:

Entrance, Shop and transfer station	1.75 acres
Recycling Center	1.00 acre

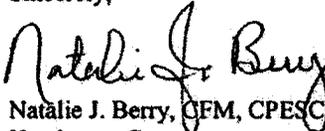
Stoney Mountain Activity Center	0.75 acre
Haul road to White Goods	6.00 acres
Haul road to C&D Landfill	<u>1.00 acre</u>
	10.50 acres

Percentage of impervious area $10.50 \text{ acres} / 124.22 \text{ acres} = 08.45$

WS-IV Protected Area allows for non-residential development up to 24 % impervious surface by right. The watershed permit will be attached to the 62.40 acre parcel since that is where the transfer station will be located. The proposed expansion to the current transfer station will take up 0.15 acres which will not increase the impervious surface due to being constructed on existing impervious surface.

It is in my opinion that the project is in full compliance of the Henderson County Zoning and Water Supply Watershed ordinances. If you have any additional questions please do not hesitate to ask.

Sincerely,



Natalie J. Berry, CFM, CPESC
Henderson County
Zoning Administrator
Watershed Administrator



Henderson County (Planning) – Watershed Permit

101 East Allen Street, Hendersonville, NC 28792
Phone : (828) 697-4819

Permit No: 06280101880 **Appl. Dt.:** 2/14/2006 **Exp. Dt.:** 8/14/2006
Status: ISSUED **Status Dt.:** 2/14/2006

Owner Information

Name : Henderson Co Landfill
Address : 806 Stoney Mtn Road
Hendersonville NC 28739
Phone(W) :
Phone(H) :
Phone(M) :

Applicant Information

Name : Gary Tweed
Address : 802 Stoney Mountain Road
Hendersonville NC 28791
Phone(W) : 828 6985115
Phone(H) :
Phone(M) :

Property Information

PIN # : 00965072721755
Address : 806 Stoney Mountain Rd
Hendersonville NC 28791
Subdivision :
Lot # :
Acreage : 61.89
Directions : SR1383 ON STONEY MTN RD
Zoning Districts : C-2

Occupant Information

Name : Henderson Co Landfill

Permit Information

WS Type : IV
WS Area Class : Protected Area
WS Name : Upper French Broad River
(Asheville)
Proposed units per acre :
Proposed Built Upon Area :
Land Disturb : 0

Work Desc : Construct an addition to the existing transfer station. The new expansion is 71' x 93' or 6,603 SF. Being constructed on already impervious surface.

Notes : No increase. Current conditions 8.45 percent impervious surface being used at this time.

Inspections Conducted

Inspections	Signed Off/User ID	Date	Status	Reason
Watershed Inspection				

Payment Information

Permit	Receipt No.	Fee	Ref#1	Amount	Status	Ref#2	Amount	Status	Ref#3	Amount	Status
MAINPERMIT	06280101307	0	CASH	0	PAID						
Total		0									

READ CAREFULLY AND SIGN BELOW

I certify that the information shown above is true and accurate and is in compliance with the conditions for a subdivision of land as defined in the Watershed Protection Ordinance. If permit is granted, _____ agree to conform to all Ordinances of Henderson County, North Carolina, and the Laws of the State of North Carolina regulating such work.

Signature: _____
(Applicant/Occupant/Agent of owner)
Approved/Rejected: Natalie G. Berry
(Watershed Administrator)

Date: _____
Date: 2/14/2006

Remarks: _____

Upon completion of the project, a Watershed Protection Compliance Permit must be issued by the Henderson County, North Carolina, Watershed Administrator before a structure can be occupied or an existing use changed to another use.



Henderson County (Planning) – Zoning Permit

101 East Allen Street, Hendersonville, NC 28792
 Phone : (828) 697-4819

Permit No: 06020101879 **Appl. Dt.:** 2/14/2006 **Exp. Dt.:** 8/14/2006
Status: ISSUED **Status Dt.:** 2/14/2006

Owner Information

Name : Henderson Co Landfill
Address : 806 Stoney Mtn Road
 Hendersonville NC 28739
Phone(W) :
Phone(H) :
Phone(M) :

Property Information

PIN # : 00965072721755
Address : 806 Stoney Mountain Rd
 Hendersonville NC 28791
Subdivision :
Lot # :
Acreage : 61.89
Directions : SR1383 ON STONEY MTN RD
Zoning Districts : C-2

Applicant Information

Name : Gary Tweed
Address : 802 Stoney Mountain Road
 Hendersonville NC 28791
Phone(W) : 828 6985115
Phone(H) :
Phone(M) :

Occupant Information

Name : Henderson Co Landfill

Permit Information

Type & Use : Public Facilities, & Public Buildings
Permission : Permitted by Right, zoning permit required
Purpose : Not Applicable
Year of Manuf. Home :
Condition : setbacks: do not apply to governmental ran solid waste management facilities.
Work Desc. : Section 200-7B definition exempts Solid Waste Management Facilities from Zoning Regulations.

Other Information

Site Plan : Yes

Notes : Water Supply Watershed permit does apply and is attached.

Inspections Conducted

Inspections	Signed Off/User ID	Date	Status	Reason
Zoning Inspection				

Payment Information

Permit	Receipt No.	Fee	Ref#1	Amount	Status	Ref#2	Amount	Status	Ref#3	Amount	Status
MAINPERMIT	06020101306	0	CASH	0	PAID						
Total		0									

READ CAREFULLY AND SIGN BELOW

The information shown herein and on any other application materials and plans submitted is, to the best of my knowledge, true and accurate. and is in compliance with the terms, requirements, standards and conditions of the Henderson County Zoning Ordinance for a zoning compliance permit. By my signature below, I agree to conform to all applicable ordinances of Henderson County, North Carolina, and the laws of the State of North Carolina related to the use of land and/or structure(s) indicated herein.

Signature: _____
 (Applicant/Occupant/Agent of owner)
Approved: *Natalie J. Berry*
 (Zoning Official Name & Title)
Denied: _____
 (Zoning Official Name & Title)

Date: _____
Date: *2/14/2006*
Date: _____

