

# OPERATION PLAN

COUNTY OF DARE  
U.S. 264 SOLID WASTE TRANSFER STATION  
DARE COUNTY, NORTH CAROLINA

For:

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**APPROVED**  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION  
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**TABLE OF CONTENTS**

	Page
I. INTRODUCTION	3
II. SECTION .0402 COMPLIANCE	
A. Operation Plan	3
B. Receivable Waste	6
C. Wastewater Disposal	7
D. Fire Control	8
E. Disease and Vector Control	9
F. Equipment	10
G. Control of Wind Blown Waste	10
H. Erosion Control	10
I. Sign and Safety Requirements	11
J. Open Burning of Waste	11
K. Fire Protection Equipment	12
III. CONTACTS	12
IV. HOURS OF OPERATION	13
V. PERMIT AND RECORDS	13

## **OPERATION PLAN**

### **County of Dare U.S. 264 Solid Waste Transfer Station Dare County, North Carolina**

#### **I. INTRODUCTION**

The purpose of this plan is to describe the operations of and provide general instructions for the County of Dare, and for the Transfer Station Operator, to properly operate the U.S. 264 Transfer Station in accordance with North Carolina Solid Waste Management Rules. Dare County will be the owner and will contract with a private waste management company to be the operator of the proposed U.S. 264 Transfer Station. This plan specifically addresses requirements of North Carolina Solid Waste Management Rules Section .0402- Operation Requirements.

#### **II. SECTION .0402 COMPLIANCE**

##### **A. OPERATION PLAN**

The Transfer Station will be operated in accordance with the approved Operation Plan and conditions of the Solid Waste Permit issued by the North Carolina Division of Solid Waste Management (DSWM).

Collection vehicles delivering residential, commercial, and industrial waste to the facility will enter the facility via the main entrance (Cub Road) off U.S. Highway 264. All collection vehicles are required to be weighed at the scales. All loads are subject to visual inspection as necessary to evaluate contents; either at the scale house or at the station floor, or both. Once vehicles have passed the scale house area, they will continue west along the access road (Cub Road) until reaching the tipping building access entrance and ramp at the east side of the Transfer Station. Normal traffic flow around the building will be clockwise.

Vehicles will turn left onto the entrance and access ramp, and proceed to the tipping building access apron. The tipping building apron provides access to the south side of the Transfer Station, which opens to the 14,000 square foot tipping floor. The tipping building has 10 foot high push walls running along the interior walls and in the center that direct the MSW to hoppers feeding the trailers on the lower level of the building. The building is divided into two separate tipping areas. Both tipping areas will be initially used for MSW loads containing household waste. One area may be converted to accept C&D and LCID mixed loads in the future.

### **GENERAL**

1. The Transfer Station attendant will direct vehicles, waiting to unload, to back into the facility through the south entrance. Adequate area is available in front of the Transfer Station for drivers to queue their vehicles into a backing maneuver. Station operating personnel will be on the station floor to guide the vehicles.
2. The vehicles will back onto the tipping floor to an area designated by the attendant. When converted to accept C&D/LCID waste, MSW vehicles will be directed to the east side of the floor, whereas C&D vehicles will be directed to the western side of the building.
3. Once a vehicle is in position, the waste load will be discharged directly onto the tipping floor.
4. A spotter will inspect the discharged waste before it is mixed with other waste on the tipping floor and pushed by a rubber-tired loader into the open top transfer trailers, specifically designed for hauling MSW and C&D wastes, respectively, located in the lower level of the Transfer Station. All MSW waste will stay in the covered area of the Transfer Station.

### **SOURCE-SEPARATION**

1. The track hoe, loader, or laborers will separate materials to be recycled and/or processed from the loads before the waste is pushed into the open top transfer trailers. It is anticipated that most of the recyclables and materials to be separated will arrive at the Transfer Station as C&D waste, once C&D processing begins.

2. Materials to be recycled and/or processed may stay on the floor of the building (not in containers) for no more than 48 hours or two working days.
3. LCID waste will be pulled from the waste delivered to the Transfer Station and loaded into open dump trailers or dump trucks to be transported to the C&D/LCID landfill located on the same property north of the Transfer Station. Treated wood (any wood other than virgin wood) waste must be discarded in the C&D trailer or at the adjacent C&D landfill site.
4. Materials to be recycled and/or processed will be pulled from the MSW/C&D waste and loaded into roll-off containers in the C&D floor area or immediately outside the C&D portion of the Transfer Station. These materials may include the following:
  - Cardboard (corrugated);
  - Metals (ferrous, white goods, and other);
  - Tires;
  - Concrete (including reinforced and painted as long as the paint is not lead-based<sup>1</sup>);
  - Asphalt/bituminous concrete pavement;
  - Clean wood (including pallets, lumber and engineered wood products that are not treated, painted, or stained); and
  - Wallboard
5. Containers (generally 8'X20' or 8'X15') holding wallboard, ferrous metals, and wood will be stored in the covered area of the Transfer Station. The boxes containing concrete, tires, and white goods will be stored in uncovered areas of the Transfer Station. Cardboard will be loaded into a compactor at the western-most C&D floor area.
6. The containers will be removed from the site as they are filled, but in no case will the containers remain on-site for more than 30 days without being emptied.

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<sup>1</sup> Based on Title X of the Housing and Community Development Act and the Toxic Substances Control Act as paint that contains less than 0.5% lead by weight (or 5,000 parts per million) or 1 mg/cm<sup>2</sup>.

7. The final destination of the recyclable materials separated from the waste may vary depending on market prices and the demand for such materials.

### **PROCESSING**

1. Wood pallets will be delivered and stockpiled at the southernmost limit of the Transfer Station property. Pallets will be shredded along with limbs, logs, stumps, and clean lumber. The processed material will subsequently be stockpiled in this same area until it is removed from the site for sale as fuel, compostable material, etc., or disposed in the C&D landfill.
2. Concrete (cement and asphaltic/bituminous) will be delivered and stockpiled at the southernmost limit of the Transfer Station property. The concrete waste will be crushed and subsequently stockpiled in this same area until it is removed from the site for sale as fill, aggregate, etc., as markets allow. Crushed cement concrete may be used as roadway fill material at the site or at the adjacent C&D landfill.

### **B. RECEIVABLE WASTE**

Wastes will be collected from routes primarily in Dare County, and from limited portions of Tyrrell and Hyde Counties. Dare County, several towns and municipalities, and a few private solid waste collection companies serve the routes. Residents, municipalities, industries, businesses, and other entities within the county generate the waste. The recyclables, construction/demolition debris, land clearing/inert debris, and white goods will be source-separated at the Transfer Station. These items will be disposed into an approved Construction & Demolition (C&D) Debris Landfill or the C&D/LCID Landfill owned by Dare County on the property. Recyclables separated at the station and transferred to containers will be shipped to local markets, as conditions dictate.

The Transfer Station will only accept waste for which it is permitted to receive. The station will not accept hazardous or liquid waste, asbestos, or other wastes not accepted at the final disposal facility unless a separate waste determination is made, applied for, and approved. The primary site for final disposal of the MSW

is the Addington Regional Disposal Landfill (Bertie County) in Aulander, North Carolina. The primary disposal site for C&D/LCID waste is the Dare County C&D Landfill on the same property as the Transfer Station. The DSWM will be notified of any changes in disposal sites.

Received waste may be screened as necessary on the station floor or at the scale house to evaluate contents. When operation personnel are in doubt as to contents, and upon receiving suspicious wastes or waste from a new hauler or customer, the contents will be inspected, and if necessary, photographed. An elevated waste inspection platform will be provided at the scale house for visual inspection of incoming loads. Barrels and drums will not be accepted unless they are empty, have been inspected, and are perforated to ensure that no liquid or hazardous waste is contained therein.

### **C. WASTEWATER DISPOSAL**

The tipping floor and transfer trailer staging area will be cleaned at the end of each operating day. The current design indicates that wastewater from the tipping floor will be collected by sweeping all water toward the front (south) of the facility and into the grated floor collection trenches. Wash down from trailer loading floor area will go to grated floor drains and to grated interceptor trenches surrounding the trailer loading area. The wastewater will then be directed to trench drains located at each end of the trailer loading areas. The system will effectively collect trailer drainage/wastewater separately from stormwater since these two areas will be isolated by grade changes and concrete berms. To prevent direct rainfall from entering the system, these two areas will be covered.

The above methodology is also an effective means of vector control. The facility will be swept down daily. The floor will be washed down as warranted to prohibit nuisance conditions. Grates and traps located at the floor drain inlets will be cleaned frequently and after wash down. Waste and debris collected from the floor drains and grates will be disposed of properly. Care will be taken not to allow wash water to leave the confines of the building.

The wastewater drains by gravity piping to an above-ground 10,000-gallon holding tank with secondary containment. To help prevent accidental overfills and for emergencies, the tank is sized to hold a minimum of two weeks' normal accumulation (approximately 7,000 gallons). A tank high water level alarm (visible and audible) will be automatically activated when the liquid volume reaches half-full (5,000 gallons). Twenty-four to thirty-six hours after the local alarm is activated, a remote alarm will be activated in the scale house or elsewhere. If the tank reaches 75 percent capacity, both the remote and local alarms will be activated simultaneously, and will indicate the 75 percent level has been reached.

The station operator shall inspect the holding tank for leaks and record the liquid level at least twice each operating day; once at the beginning of the day and once at the end of the day.

The accumulated wastewater and trailer drainage will be transported weekly or as needed to the Elizabeth City, North Carolina POTW. This is the current practice at the Manteo transfer station, and the practice is expected to continue at the U.S. 264 Transfer Station. Transport will be by a licensed, permitted, and insured hauler.

#### **D. FIRE CONTROL**

Fire fighting services will be provided by the local Manns Harbor Volunteer Fire Department and by the Roanoke Island Fire Department. Other municipal fire departments are also available for support as needed. The Transfer Station will also be equipped with fire extinguishers in various locations throughout the building for containment or control of small fires. Water from the county's on-site borrow pit, located approximately 1,500 feet east of the transfer station on Cub Road, is available for use in fire suppression, and is the source of wash down water.

In case of fire, immediately contact the local Fire Department. Dare County has 911 services to report fires and other emergencies. All personnel at the facility should be familiar with the use of the fire extinguishers on site. Fire extinguishers

should be routinely inspected, serviced, and operated in accordance with manufacturer's instructions. All fires shall be reported to the DSWM.

#### **E. DISEASE AND VECTOR CONTROL**

The Transfer Station operator shall 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, including insects, capable of transmitting disease to humans. Control of disease vectors will be maintained by implementation of a daily cleaning program that involves removal of waste, leachate, and wash 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. The Transfer Station operator will use wash water to keep the tipping floor and drive-through areas clean and free from rodents, flies, and other animals. The station operator may also use deodorizers and paint as needed to accomplish these goals. Stagnant ponding water shall be prevented from occurring to control mosquito breeding. If problems controlling disease vectors occur, Dare County mosquito control or a licensed exterminator shall be employed to control vectors.

Full or partially filled haul trailers will be covered if left on site overnight. No MSW trailers shall be parked overnight outside the security fence perimeter. Full or partially filled MSW haul trailers shall not be left on site more than 48 hours. Solid waste shall not be stored on the Transfer Station floor overnight. The front entrance to the Transfer Station and the entrance and exits of the loading bay, together with six large ventilation fans, will allow adequate ventilation of the station. All dumped MSW shall be removed from the floor at the end of each day and be contained in the waiting transfer trailer. All dumped non-MSW shall be contained in the building, either in the waiting transfer trailer, or on the floor.

The large exhaust fans should reduce nuisance odors and mitigate vector problems. The Transfer Station concrete floor should be thoroughly swept down at the end of operations each day. Any wastes that have increased the potential for attracting flies, rodents, animals, and other insects or vermin shall be disposed

in the transfer trailer as soon as possible. Under normal operating conditions, the station will be free of unconfined solid waste at the end of each day.

#### **E. EQUIPMENT**

The Transfer Station will utilize the following equipment for regular operation and maintenance:

- Four 48 feet – nominal 110 cubic yard walking floor transfer trailers with covers
- Three Road Tractors
- Axle scales and software
- Rubber-tired front end loader
- Site tractor for queuing transfer trailers
- Track hoe.

#### **G. CONTROL OF WIND BLOWN WASTE**

All incoming collection vehicles with waste are required to have their loads covered upon arrival at the site or to be fully enclosed. Outbound transfer trailers are also required to cover their loads. Throughout the day and at the end of each day, facility personnel will police the area for any wind blown litter. Since the Transfer Station is enclosed on three sides, wind blown trash should not be a major operation concern. Any wind blown trash discovered at the end of an operating day shall be collected and stored in a transfer trailer vehicle or an on-site trash bin.

#### **H. EROSION CONTROL**

The Dare County Construction and Demolition Landfill Facility has an existing erosion and sedimentation control plan for the entire site, which includes the proposed location of the transfer station and Cub Road, the main site and station entrance. The entire site is drained by a series of parallel sub-canals 300 feet apart, which discharge southward into two intercepting main canals. The main canal flows west on the site. These canals are part of a pumped drainage system operated by the U.S. Fish and Wildlife Service.

Since the entire site is relatively flat, the sub-canals collect stormwater runoff. Silt fencing is provided at the margins of the disturbed areas to reduced localized sediment transport to the sub-canals. For sub-canals with disturbed areas, sediment basins are located on the sub-canals immediately above the main canal intersection. These basins were designed to collect and convey the sediment-laden stormwater from the disturbed areas and from the associated sub-canal's drainage area.

A separate erosion and sedimentation control plan was also developed specifically for the transfer station site. Stormwater runoff from the parking area and access ramps is collected in a sediment pond (normally dry) on the north side of the transfer station. The pond discharge is piped to the south side of the station and dispersed onto the cropland as sheet flow. This area may also be used to contain excess water from fire fighting and from accidental overflow of the wash down water holding tank.

#### **I. SIGN AND SAFETY REQUIREMENTS**

Dare County and the Transfer Station operator will post signs at the Transfer Station entrance indicating operational procedures, hours of operation, tipping fee, and the permit number. Signs shall be clearly posted stating there are no hazardous or liquid wastes received at this location. Traffic signs and markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operation conditions.

A sign shall be posted at the western end of Cub Road immediately past the last station ramp entrance clearly indicating that transfer station traffic is prohibited past that point. A warning sign indicating that bears may be in the vicinity shall be posted at the station entrance. Signs shall be posted at the scale house and at the station gate entrance identifying the after hours emergency telephone number.

#### **J. OPEN BURNING OF WASTE**

Open burning of waste shall be prohibited at the Transfer Station.

### **K. FIRE PROTECTION EQUIPMENT**

Fire suppression equipment shall be provided to control accidental fires and arrangements have been made with the local fire protection agency to immediately provide fire-fighting services when needed. The Transfer Station building is equipped with 5 hose bibs: 4 located on each corner of the facility, one located on the center of the North wall, and with an appropriate number of fire extinguishers to effectively control accidental fires.

Fires that occur at the Dare County U.S. 264 Transfer Station require verbal notice to the Division of Solid Waste within 24 hours, and written notification shall be submitted within 15 days. Verbal and written notification shall be submitted to the Washington Regional Waste Management Specialist:

**N.C. Department of Environment and Natural Resources**  
Solid Waste Division  
943 Washington Square Mall  
Washington, North Carolina 27889-532  
(252) 946-6481

### **III. CONTACTS**

The appropriate person in responsible charge to contact is the station manger/operator. The phone number will be provided when the Transfer Facility is completed. Others in the order of priority to contact are:

Clyde E. Gard, Transfer Station Supervisor Dare County Public Works Dept.	(252) 475-5880 (252) 475-8728 cell
Edward L. Mann, Director Dare County Public Works Dept.	(252) 475-5888 (252) 473-0134 cell
Terry Wheeler, County Manager County of Dare	(252) 475-5800

#### IV. HOURS OF OPERATION

Dare County intends to staff the facility 50 hours per week. The Transfer Station will be closed for the observance of holidays as established by the County of Dare. The operating hours will normally be as follows:

Monday to Friday	7:00 A.M. until 4:30 P.M.
Saturday	8:00 A.M. until 12:00 P.M.
Sunday	Closed

These hours may be changed from time to time depending on conditions, or as may be dictated by special or extraordinary circumstances. All security fencing and station access gates shall be left in a closed and locked position outside of the established operating hours.

#### V. PERMIT AND RECORDS

In addition to the normal bookkeeping for invoices and weight records, the Transfer Station Operator will maintain a documents file and operating log. Items to be noted and kept in these records should include, but not be limited to, the following items:

**\* Documents File**

- Solid Waste Permit
- Operation Plan
- Inspection Reports
- Record Drawings of the Facility
- Waste Determination Records and Information on Rejected Waste
- Wastewater Pump & Haul Permit
- Wastewater Transportation Procedure Plan
- Wastewater Transportation Spill Plan
- Wastewater On-Site Spill Plan

**\* Operating Log**

- Date, Time, Truck Number, Hauler Company Name, Driver's Name, and Volume of Wastewater Transported Off-Site for Disposal
- Record of State and Regulatory Agency Personnel Inspection Visits
- Record twice-daily wash down holding tank liquid levels
- Record of Any Other Noteworthy, Special, or Unusual Occurrences