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OPERATIONS PLAN

WCA OF HIGH POINT
CONSTRUCTION AND DEMOLITION LANDFILL
RECLAMATION AREA AND
PHASE 2 EXPANSION
PERMIT NO. 41-16
GUILFORD COUNTY, NORTH CAROLINA

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1.0 INTRODUCTION

The WCA of High Point facility is located along the eastern border of the City of High Point, along the west side of Riverdale Drive, SR 1145, beginning approximately 800 feet south of the intersection of Riverdale Drive and E. Kivett Drive in southern Guilford County, North Carolina (See Drawing OP-1). WCA owns and operates a material recovery center and a construction and demolition (C&D) landfill at the facility. This Operations Plan describes how the Facility, Engineering, and Closure Plans prepared for the WCA of High Point, LLC, Construction and Demolition Landfill will be implemented during the life of the facility. The plan has been prepared in compliance with Rules .0535 and .0542 of the North Carolina Solid Waste Management Regulations and consists of drawings and accompanying text that illustrates existing conditions, cell progression, waste placement and daily operations, stormwater control, special waste management, buffer zones and soil borrow procedures.

2.0 RECLAMATION AREA OPERATIONS PLAN

This section of the Operations Plan discusses the operation of WCA of High Point, LLC material recovery facility. The recovery facility proposes to accept non-hazardous construction and demolition debris for the purpose of screening, separating, redistributing, and marketing certain components of this select waste stream.

2.1 GENERAL OPERATIONS

2.1.1 Conditions of Acceptance:

The waste accepted at the proposed site will be debris from building construction, remodeling, repair, and structure demolition. Prior to separation, the debris from each load will be screened visually by trained personnel for potential hazardous materials. Haulers will be notified of acceptable or unacceptable loads and materials prior to dumping.

Acceptable materials include wood, roofing, plastic, ferrous & nonferrous metals, drywall, concrete, cardboard, brick, asphalt, carpet, dirt and other miscellaneous construction and demolition materials. Unacceptable wastes include any regulated quantity of hazardous waste, friable asbestos, any liquid waste, or other materials banned from disposal in C&D landfills by North Carolina rules or statutes. By-pass materials are materials that the facility will accept, but cannot be reclaimed, recycled or sold. Examples of by-pass materials include treated wood, asphalt, roofing materials, visqueen and carpet. The by-pass materials will be disposed of in the construction and demolition landfill.

In order to comply with North Carolina's guidelines for treatment and processing facilities, each load entering and exiting the site will be weighed at the scalehouse. This will be done in order to help document the facility's capability to process and remove recyclable material from the waste stream. Records of weight, material type, and use will be made by the scalehouse attendant. The operator of the facility will review these records monthly and submit them to the North Carolina Solid Waste Section for review on an annual basis.

2.1.2 Waste Disposal Sites:

Materials which cannot be reclaimed or recycled will be disposed of in the WCA of High Point, LLC, C&D Landfill; the landfill sharing Permit Number 41-16. The Coble Sandrock Construction and

Demolition Landfill located at 5833 Foster's Store Road; Liberty, NC; Permit Number 0105 will be used as an emergency backup facility, should the need arise.

2.1.3 Facility Operators:

Mr. Mike McFeeley, the on-site manager, is responsible for site operations and has received training to recognize hazardous and asbestos-containing material.

2.1.4 Air Quality:

A water line and misting system will be installed to control dust during dry periods. A water truck will also be used as needed. This equipment is expected to be on the site full time between the C&D landfill and reclamation facility.

2.1.5 Storage of Materials:

The following is a list of materials and maximum capacities for designated storage areas prior to removal. Please see Drawing OP-1 for a layout of the designated storage areas on the 425' x 425' reclamation facility pad:

Material	**Area/Quantities**
Hazardous Material	As needed basis
C&D Residual/By-pass Material	75' x 150' x 20' / approx 8,330 yd^3
C&D Material (Unprocessed)	125' x 125' x 20' /approx 11,330 yd^3
Clean Wood	
-Unprocessed (Stockpiled)	75' x 75' x 20' / approx 4,166 yd^3
-Processed (shredded chips)	75' x 150' x 20' / approx 8,330 yd^3
Non-Ferrous Metals	
-Insulated Wire	
-UBC (aluminum cans)	50' x 50' x 20' / approx 1,850 yd^3
-Misc. Aluminum	
-Copper	
Ferrous Metals	75' x 75' x 20' / approx 4,166 yd^3
Drywall*	50' x 50' x 20' / approx 1,850 yd^3
Concrete, Asphalt, and Brick	75' x 75' x 20' / approx 4,166 yd^3
OCC (cardboard)	20' x 50' x 15' / approx 1,500yd^3
Fines (RSM – Recovered Screened Material)	75' x 150' x 20' / approx 8,330yd^3
Recoverable Items (doors, lumber, etc…)	25' x 150' x 20' / approx 8,330 yd^3

*Due to market considerations there are no plans currently to recover drywall, but the capacity exists to include this material as conditions warrant.

- Commodities should be stored in designated areas only.
- Commodities recovered have a positive monetary value, and are not considered waste products.
- Recovered commodities are sold when market conditions (commodity price/volume) will maximize the economic return on the cost of reclamation.

Therefore the time that each commodity will remain stockpiled varies depending on market conditions.

2.1.6 Separation and Processing of Material:

Material will enter the site by first passing over the scales, where total weight, source of the load and material type will be noted. After leaving the scales material will be unloaded onto a concrete pad where it will be screened for unacceptable wastes. Incoming trucks will be held until their loads can be screened, unless there is a high traffic volume. The reclamation center will be responsible for managing unacceptable waste on-site. Materials placed on the processing pad will be processed within two days under normal operating conditions.

Large quantities of non-recoverable material may be taken directly from the scalehouse to the landfill and not subjected to the screening and picking process.

An initial gross separation will occur in the tipping area where dimensional lumber and recoverable items (doors, competent brick/block, and pipe etc…) will be pulled and placed into a designated storage area (See Drawing OP-1). After this gross sort, material will be moved from the tipping area and loaded into a surge/feed hopper which distributes the waste across the conveyer belt leading to the screener. The conveyor moves the material to a heavy duty screener where material that is less than two (2) inches in diameter (fines) is separated. Fines containing large quantities of dirt may be further screed and resold for use in soil applications. If appropriate markets are not available, excess fines will be placed in the landfill.

After screening, a conveyor moves the “overs” material to the picking stations where hand separation of recyclable materials from by-pass (waste) materials occurs. The picking line will be elevated over five (5) separate steel bins. It is anticipated that the configuration of the bins will be as follows: two (2) for clean wood, and one (1) each for ferrous/non-ferrous metal, cardboard, and concrete/asphalt/brick. Materials such as treated wood (i.e. wood that has stains, varnishes, creosote, etc.), roofing, dirt, carpet and other miscellaneous materials that are not hand separated (by-pass material), are deposited at the end of the picking line. By-pass material will be disposed of in the on-site landfill.

During high winds, snowfall events or other unusual circumstances that endanger the safety of personnel and/or clients, the clients will be notified that operations will be discontinued. When dust emissions are high due to dry weather, steps will be taken to reduce the amount of emissions by wetting access and ancillary roads. During wet conditions waste will not be tipped into accumulated precipitation to avoid compromising product quality.

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2.1.7 Final Disposition of Unacceptable Material:

Because of the possibility that hazardous material could be received at the site, the reclamation center will be considered a small quantity generator, as defined by the United States Environmental Protection Agency (EPA). Under these regulations, the site may accumulate between 100 and 1000 kilograms of hazardous material per month for a 90-day period. The owners plan to contract the transport and disposal of this material to licensed and qualified transporters and permitted treatment, storage and disposal facilities.

2.1.8 Final Disposition of By-pass Material:

By-pass material will be shipped as needed or when over 8,333 cubic yards is accumulated, to the on-site construction and demolition debris landfill associated with this application. In the event of a major disturbance to the on-site landfill, by-pass material will be shipped to Coble's Sandrock, as described in the Section (A) (3).

2.1.9 Final Disposition of Recyclables:

Material that is recovered from this process will be sold and hauled to various parties that WCA has developed business relationships with using the experience from WCA's Raleigh, North Carolina Facility. Depending on economic considerations and market fluctuations, WCA intends to market the following materials to the companies identified in Table 1.

Material	Market/Company	Comment
Ferrous/Non-Ferrous Metals		
OCC-Cardboard		
Wood Waste		
Crushed (brick, block, concrete)		

Drywall		
Plastic – Film & Rigid		
Recoverable Materials – Brick, Block, Doors, R-Board, etc…		
Fines		

(Continued on following page.)

2.2 MATERIAL SCREENING PLAN:

2.2.1 Purpose:

The purpose of this plan is to comply with NCAC T15A.13B.0302(2). The key elements of the plan include:

1) Visual inspection of each load that enters the facility,
2) Records of all inspections,
3) Training of facility personnel to recognize regulated hazardous and unacceptable waste, including asbestos containing materials; and,
4) A contingency plan to properly manage any unacceptable wastes.

2.2.2 Procedure for Visual Inspections:

1) Initial visual inspections will begin as each truck unloads their shipment onto a concrete pad, and prior to the shipment being loaded onto the processing equipment. The truck and driver will be detained if unacceptable material is discovered during the unloading process.

2) The shipment will be spread with a Bobcat and/or hand tools as appropriate. Loads that include items such as large, closed containers will be hand-raked to avoid possible rupturing of the containers. Minimum safety equipment will include:

- Leather or Rubber gloves,
- Safety boots,
- Safety glasses,
- Long handled hoe,
- Hardhats,
- Dust masks and,
- Fire Extinguishers.

3) The Shipment will be examined for unacceptable and/or hazardous waste and safety hazards:

- Containers with hazardous placarding or markings,
- Asbestos-containing material,
- Household garbage,
- Containers with liquids, oils, varnishes, stains, or paints,
- Sludges,
- Regulated biomedical (red bag) waste,
- Material with “chemical odors,” powders, smoke, dusts, or vapors,
- Drums or commercial-sized containers,
- Materials with bright or unusual colors,
- Household hazardous wastes and,
- Waste banned from landfill disposal by North Carolina statute or rule.

4) In the event that unacceptable wastes are found in a shipment, the appropriate actions are as follows:

- Hold suspect waste for identification by on-site personnel and, if necessary, confirmation by others such as a contract laboratory, hazardous waste management firm, or state and/or federal regulator,
- Interview driver and hauler to identify the source of suspect waste in the load,
- Hold rejected shipment for generator,
- Arrange for a hazardous or liquid waste collection by a licensed collector and,
- Properly clean the screening area to prevent contamination.

5) Document Actions:

- Record inspection results,
- Retain reports and,
- Report hazardous or unacceptable shipments to the Solid Waste Section – DENR

2.2.3 Record Keeping:

Report forms for record-keeping purposes are included in Appendix OP-1. These forms will be completed when unacceptable materials are observed. All reports and resulting correspondence will be maintained at the WCA of High Point, LLC.

2.3 MANAGEMENT PLAN FOR UNACCEPTABLE MATERIALS:

In the event that unacceptable material is unloaded on the processing pad, the entire shipment will immediately be isolated. The waste will be held until it can be shipped to a hazardous waste disposal unit. During the interim, the waste will be properly secured against unauthorized removal, segregated from all other operations and protected against inclement weather conditions. In addition, proper storage will be dictated by RCRA 40 CFR 264 (Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities) and other applicable regulations. It will be the hauler's responsibility to pay for the disposal of unacceptable materials. It will be the responsibility of the facility owner to contract the proper transport and disposal of the unacceptable material by qualified personnel.

2.4 MANAGEMENT PLAN FOR BY-PASS MATERIAL:

By-pass material includes treated wood, roofing materials, dirt, carpet, wet drywall and other miscellaneous material. The by-pass material will be taken to the on-site landfill.

2.5 MANAGEMENT PLAN FOR RECYCLABLE/RECLAIMABLE MATERIAL:

Reclaimable material will include clean wood, plastic, nonferrous metals, ferrous metals, drywall, cardboard, concrete, brick and asphalt. Clean wood products that have been deemed recyclable will be ground for shipment and then shipped as boiler fuel, furniture pressboard or mulch. Concrete and asphalt will be stored on-site and when quantities reach an appropriate level, a mobile crushing unit will be brought to the site for further processing. The crushed material will be stockpiled on site for use as road base material. Other reclaimable material will be shipped off-site as the quantities and market conditions reach an appropriate level.

2.6 EQUIPMENT INFORMATION:

2.6.1 Capability and Arrangement of Processing Equipment:

The system includes the following equipment or equivalent:

One 15 cubic yard feed hopper – Complete with variable speed hydraulic or electric motor. Hopper consists of an open feed hopper with heavy-duty 3-ply belt and spring loaded impact plate. The support frame and hopper sides will be engineered with heavy-duty materials designed for the C&D application.

One 56'x60" Incline Belt – Hydraulic or electric driven belt will carry material from the hopper to the screen. The feed section will consist of a heavy-duty impact plate to absorb impact of material from the hopper and high skirt boards with 35-degree troughing idlers to prevent spillage.

One 6x20 Step Deck Incline Screen with Punch Plate Screens – Screen box will be mounted in a support tower with walkways for access and maintenance. Approximate weight: 25,000 lbs.

One 4030 Conveyor – Hydraulic/electric powered radial stacking conveyor to stockpile fines from screen.

One 60"x100', 5 bay Elevated Picking Belt – Complete with 20' of transfer belt from screen and 80' of picking belt. Includes roof and walkway with 10-drop chutes for sorting. Safety rails and emergency stop cables included.

Portable Grizzly Grinding Mill (or equivalent) – Vertical grinder processes wood, rigid plastics, and other commodities to 4" minus.

The throughput capacity for the recycling equipment is 60 tons per hour. This would give the facility the ability to process approximately 480 tons during an eight-hour shift. A general schematic of the picking line is attached.

2.6.2 Loading Equipment:

1) Caterpillar 322 Hydraulic Excavator or equal: The primary function of this equipment will be to load material from the tipping area to the feed hopper.

Pertinent specifications of this equipment include:

- Maximum operating weight: 35,900 lbs.
- Gross diesel engine power: 102 HP
- Minimum bucket size: 0.48 cy
- Shipping length: 27’ -9 ½”
- Shipping height: 9’ -1 25/64”
- Maximum loading height is approximately 28’
- Track-based undercarriage

2) Caterpillar Wheel Loader 938 & 950 or equal: The primary function of this piece of equipment will be to push material on the tipping pad towards the excavator and presorted material away from the excavator. In addition, it will be used to load reclaimed and by-pass material on to receiving trucks to be shipped from the site.

Pertinent specifications of this equipment include:

- Maximum operating weight: 27,510 lbs.
- Gross diesel engine power: 137 HP
- Maximum shipping length with bucket: 24’ – 5”
- Shipping height: 10’ – 8”
- Maximum loading height is 16’ -8”
- Wheel-based undercarriage

2.6.3 Other Equipment:

1) A mobile crushing unit will be brought on-site on an as needed basis for crushing concrete.

2) 330-gallon portable water tank: Provide water at various locations.

2.7 FIRE DEPARTMENT RESPONSE:

A letter from the City of High Point’s Fire Department concerning the ability of the department to respond to an emergency at the facility is included in the Construction Plan Application.

2.8 ASBESTOS CONTAINING MATERIALS MANAGEMENT:

The purpose of this section is to describe the asbestos awareness training, and handling of asbestos-containing materials (ACM’s) that potentially are in the C&D waste stream when processing construction and demolition materials.

2.8.1 Awareness Training

All employees associated with C&D processing will undergo awareness training, and there will be an onsite employee/representative who will have completed an approved Contractor/Supervisor training class. The components of the processing employee’s Asbestos Awareness Training shall include (1) types of asbestos. (2) health effects of asbestos, and (3) common uses in building materials. Onsite employees will also take annual refresher training courses.

2.8.2 Operations

Operation of the reclamation facility as related to management of ACM is outlined as follows:

- Upon receipt of waste, all trucks will be properly covered until such time that unloading is required.
- All incoming loads to the processing area will be examined by the pre-sort area employee.
- Initial visual inspection will occur when the vehicles dump their loads onto the waste receiving pad and pre-sort area.
- The pre-sort area employee will serve as the asbestos inspector whose duties include checking each load for possible asbestos containing materials.
- The equipment operator responsible for loading material from the processing area into the feed hopper will perform another visual inspection during the loading process.
- Appropriate facilities and operations will be in place to minimize dust. A hydrant and a hose bib are located at the processing area, and misters will be provided at the loading hopper.
- All screening employees will be provided protective breathing masks for use while processing/screening waste.
- Should suspected ACM be observed, the material will be immediately dampened until there is no visible dust and will then be covered or bagged and segregated from all activities.
- A licensed asbestos inspector will take a sample for analysis.
- Upon discovery of regulated asbestos, the reclamation facility will alter operations as necessary for the asbestos to be properly removed by a licensed company.
- The designated licensed company is Demolition & Asbestos Removal Inc. (DARI) located in Greensboro, NC.

2.9 FINANCIAL ASSURANCES:

The facility proposes to use a financial assurance bond with a company acceptable to the State. This bond will be issued with the Division of Waste Management – Solid Waste Section as the benefactor for the purpose of remedial clean up at the site and will include the on-site landfill.

3.0 PHASE 2 EXPANSION

This section of the Operations Plan discusses the operation of the proposed Phase 2 disposal area of the WCA of High Point, LLC facility. The facility proposes to accept non-hazardous construction and demolition debris for disposal.

3.1 OPERATION DRAWINGS

3.1.1 Existing Conditions

WCA of High Point, LLC owns and operates the WCA of High Point C&D Landfill in Guilford County. Approximately 700 tons of C&D solid waste is managed daily at the site, which is located at 5830 Riverdale Drive; High Point, NC. Based on their experience at the facility, approximately 40% of the C&D waste brought to the facility will be reclaimed; the remaining 60% will be disposed of in the proposed Phase 2 Expansion. The facility began accepting waste in February 2001 and contains a 12.1-acre, active, unlined landfill (Phase 1).

On-site development consists of a C&D disposal area, a main entrance road, access roads, scale and scalehouse, recycling processing area, material storage area, and erosion and sediment control features. See Drawing OP-1 for an illustration of existing conditions at the site.

3.1.2 Proposed Phase 2

The Phase 2 disposal area described in the Engineering Plan consists of 9.4 acres immediately north and east of the active Phase 1 area. The Phase 2 area shall be filled using the area method. The initial waste placement area, transition contours, cell access, and final contours for Phase 2 are detailed on Drawing OP-2.

Uncontaminated stormwater will be collected and conveyed along the perimeter of the active cells to the existing sediment basin and proposed sediment trap(s) as shown on Drawing OP-3.

3.1.3 Proposed Future Development

Five additional phases of development for C&D solid waste disposal are proposed for the site. The proposed development is located in areas that have previously been designated as suitable for landfill development and has been described in more detail in the previously submitted Site Plan Application (Joyce Engineering, Inc, last revised April 2003). Development of subsequent phases (3 through 7) will progress west to east.

3.2 SITE OPERATION

3.2.1 Owner and Operator

The facility is owned and operated by WCA of High Point, LLC; 5830 Riverdale Drive; Jamestown, North Carolina. WCA of High Point, LLC, will be responsible for operations and notifying the Solid Waste Section of the identity of the operator in charge. Mr. Michael R. McFeeley, a certified landfill operator, will be directing the contained landfill operations; his phone number is 336.886.3560. In accordance with Rule .0542(j)(2) and N.C.G.S.130A-309.25, Mr. McFeeley or another individual trained in landfill operations shall be on duty at the site while the facility is open for public use and at all times during active waste management operations to ensure compliance with operational requirements.

3.2.2 Operating Hours

The landfill is open to private waste haulers and the public from 7:00 a.m. to 4:30 p.m., Monday through Friday, and on Saturday from 7:00 a.m. to 1:00 p.m. The facility will be closed on the following major holidays: New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. If the facility will be closed during other holidays, third party haulers will be notified in advance.

3.2.3 Site Access and Safety

Access to the landfill is controlled through a single access road with a secure gate to prevent access when the landfill is not open. A sign containing information required in Rules .0542(j)(5) and .0542(j)(6) (i.e., dumping procedures, hours, permit number, etc.) is posted at the landfill entrance. Traffic signs or markers shall be provided as necessary to promote orderly traffic patterns to and from the disposal area and to maintain efficient operating conditions. During operating hours, traffic is routed from the entrance gate and scalehouse to a paved and gravel road leading to the disposal area. The road is maintained so that it is passable during all weather conditions.

3.2.4 Landfill Equipment

Operation and maintenance of the site will be the responsibility of the landfill operator. The minimum operations heavy equipment available to support landfill operations is as follows:

- Dozer
- Water truck
- Steel wheel compactor
- Track excavator
- Track loader
- Articulated on-site truck

Other equipment will be purchased or rented as required for the facility operations.

3.2.5 Dust, Odor, Vector and Litter Control

3.2.5a Dust Control

Dust will be controlled by wetting or placing stone in areas susceptible to dusty conditions. Oil cannot be used for dust control.

3.2.5b Odor and Vector Control

Odors and disease vectors will be controlled in order to protect human health and the environment by minimizing the working face size and by the use of weekly cover. Cover requirements are described in more detail in Section 5.3 of this plan.

3.2.5c Litter Control

Prompt compaction of waste at the working face is the primary method used to control blowing litter. Temporary fencing and/or diking may be provided to contain windblown waste during operations. In addition, windblown material resulting from the operation shall be collected and disposed of properly by the owner and operator.

3.2.6 Fire Control

Incoming waste loads shall be observed by site operators for evidence of fire, such as flames, smoke, or the odor of burning material. Burning loads will be extinguished before dumping, if possible. If there is evidence of fire in the landfill itself, the landfill operator will be notified immediately. If possible, the waste will be removed or segregated from other waste in the disposal area. The landfill operator will evaluate the situation to determine whether the fire can be extinguished using fire extinguishers or equipment present at the site, or if off-site equipment will be needed. If necessary, the local fire department will be called to render assistance in extinguishing the fire.

If there is a fire or explosion at the landfill, the operator must notify the Division of Solid Waste Management and report whether the fire has been controlled and what (if any) environmental damage may have occurred. The Division of Waste Management Rule .0542(i)(4) requires that fires or explosions that occur at the landfill be reported verbally to the Division within 24 hours and in writing within 15 days. Written notification shall include the suspected cause of fire or explosion, the response taken to manage the incident, and the action(s) to be taken to prevent the future occurrence of fire.

Fire extinguishers shall be located on each piece of equipment on site. Equipment operators shall be trained in the use of these extinguishers. Fire extinguishers will be used for small, localized fires. A stockpile of soil shall be maintained near the working face to be used for extinguishing small surface fires that may be too large to control with the fire extinguishers carried on the landfill equipment.

Emergency equipment will be called in the case of fires too large to be extinguished with fire extinguishers or soil as described above. Water contained in the sedimentation ponds or inactive borrow areas can be used in an emergency to aid local firefighters in extinguishing large fires.

3.2.7 Open Burning

Open burning of solid waste, except for the approved burning of land clearing debris generated on-site or debris from emergency clean-up operations is prohibited. (See Division of Waste Management Rule .0542(i)(2).) No instance of such burning may be undertaken without prior approval from the Division.

3.2.8 Scavenging/Salvaging

The unauthorized removal of waste and scavenging at the landfill is prohibited by Rule .0542(j)(8). Removal of recyclable or reusable items may be authorized by the Division when recovery of such items can be accomplished with no risk to landfill staff or the general public and must be completed

prior to disposal on the working face. No removal/scavenging of recyclable or reusable items will be permitted from the working face.

3.3 WASTE ACCEPTANCE AND DISPOSAL REQUIREMENTS

The WCA of High Point C&D Landfill shall only accept those solid wastes which it is permitted to receive. The landfill owner or operator shall notify the Division within 24 hours of attempted disposal of any waste the landfill is not permitted to receive, including waste from outside the area the landfill is permitted to serve. Wastes which may be disposed of at the facility as well as prohibited wastes and a waste screening program are described as follows.

3.3.1 Prohibited Wastes

The following wastes shall not be disposed of in the facility:

- Containers such as tubes, drums, barrels, tanks, cans, and bottles unless they are empty and perforated to ensure that no liquid, hazardous or municipal solid waste is contained therein,
- Garbage as defined in N.C.G.S.130A-290(a)(7),
- Hazardous waste as defined in N.C.G.S.130A-290(a)(8), to also include hazardous waste from conditionally exempt small quantity generators,
- Industrial solid waste unless a demonstration has been made and approved by the Division that the landfill meets the requirements of Rule .0503(2)(d)(ii)(A),
- Liquid wastes,
- Medical waste as defined in N.C.G.S.130A-290(a)(18),
- Municipal solid waste as defined in N.C.G.S.130A-290(a)(18a),
- Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761,
- Radioactive waste as defined in N.C.G.S. 104E-5(14),
- Septage as defined in N.C.G.S.130A-290(a)(32),
- Sludge as defined in N.C.G.S.130A-290(a)(34),
- Special wastes as defined in N.C.G.S.130A-290(a)(40),
- White goods as defined in N.C.G.S.130A-290(a)(44), and
- Yard trash as defined in N.C.G.S.130A-290(a)(45).
- The following wastes cannot be received if separate from C&D waste: lamps or bulbs including but not limited to halogen, incandescent, neon or fluorescent; lighting ballast or fixtures; thermostats and light switches; batteries including but not limited to those from exit and emergency lights and smoke detectors; lead pipes; lead roof flashing; transformers; capacitors; and copper chrome arsenate (CCA) and creosote treated woods.

Waste accepted for disposal at the WCA of High Point C&D Landfill shall be readily identifiable as C&D waste and shall not have been shredded, pulverized, or processed to such an extent that the composition of the original waste cannot be readily ascertained except, as specified as follows.

C&D waste that has been shredded, pulverized or otherwise processed may be accepted for disposal from a facility that has received a permit from an authorized regulatory authority which specifies such activities are inspected by the authority, and whose primary purpose is recycling and reuse of the

C&D material. A detailed waste screening plan and waste acceptance plan shall be made available to the Division upon request.

Further, the WCA of High Point C&D Landfill shall not knowingly dispose any type or form of C&D waste that is generated within the boundaries of a unit of local government that by ordinance:

- Prohibits generators or collectors of C&D waste from disposing that type or form of C&D waste; or
- Requires generators or collectors of C&D waste to recycle that type or form of C&D waste.

3.3.2 Acceptable Wastes

The proposed landfill is to receive C&D waste from Guilford County and portions of Forsyth, Davidson and Randolph Counties. The landfill will accept only C&D solid waste which, as defined in Rule .0532(8), includes only solid waste generated solely from the construction, remodeling, repair, or demolition operations on pavement, and buildings or structures. C&D waste does not include municipal and industrial wastes that may be generated by the on-going operations at buildings or structures.

Generally, wastewater treatment sludge shall not be accepted for disposal. However, wastewater treatment sludge may be accepted, with the approval of the Division, for utilization as a soil conditioner and incorporated into or applied onto the vegetative growth layer. The wastewater treatment sludge shall neither be applied at greater than agronomic rates nor to a depth greater than six inches. Prior to any placement of wastewater treatment sludge, WCA will contact the Division for approval and will detail the amount of sludge to be accepted and the area upon which the sludge will be placed.

3.3.3 Waste Screening Program

WCA of High Point has developed a waste screening program in accordance with North Carolina's Solid Waste Management Regulations, Rule .0544(e). This Rule states that owners/operators of a C&D Landfill must implement a program at the facility for detecting and preventing the disposal of industrial, hazardous, liquid, municipal solid waste and excluded wastes, except as specifically authorized by the effective facility permit or by the Operating Plan. This program shall include, at a minimum:

- Random inspections of incoming loads or other comparable procedures;
- Records of any inspections;
- Training of facility personnel to recognize industrial, hazardous, liquid, municipal and excluded waste; and
- Development of a contingency plan to properly manage any identified industrial, hazardous, liquid, municipal or excluded waste. The plan must address identification, removal, storage and final disposition of the waste.

3.3.3a Random Selection

Random inspection of vehicles will be conducted on a regular basis. The selection must be at least one vehicle per week, but not less than one percent by weight of the waste stream based on the previous week's total. The personnel conducting the inspection will randomly select the load at the working face of the landfill; the inspection will be completed in a designated area near the working face. A random truck and time will be selected (e.g., the second load after 8:00 a.m.) on the day of inspections.

3.3.3b Record Keeping

Results of random inspections shall be recorded; sample report forms are included in Appendix OP-1. One form shall be completed for each inspection. All reports and resulting correspondence are to be maintained at the WCA of High Point C&D Landfill office for the life of the landfill and during the post-closure period. The presence of any industrial, hazardous, liquid, municipal solid waste or otherwise prohibited wastes identified during random inspections shall be reported to DENR Solid Waste Section.

3.3.3c Training

Inspections will be carried out and supervised by landfill staff trained to identify and manage hazardous and liquid waste.

3.3.3d Random Waste Inspection

The following action plan required by Rule .0544(e)(4) details the procedure for conducting random waste inspections.

- Stop the selected vehicle prior to the working face of the landfill.
- Notify the driver of the inspection.
- Direct the vehicle to the inspection area. The inspection area may be either a permanently designated location or a temporary location adjacent to the working face.
- If possible, perform a visual observation of the waste prior to unloading. If unauthorized waste is observed, or suspected, the vehicle shall be prohibited from unloading, and shall be directed out of the facility.
- If no unauthorized waste is observed or suspected from the visual observation, or if a visual observation is not possible, the vehicle shall discharge the load at the inspection area. The driver shall remain at the inspection area while the inspection is performed, unless a safety concern requires evacuation of the area. Equipment shall spread and turn the waste to facilitate a visual observation of the load contents. If no unauthorized waste is identified, the waste shall be transferred to the working face for disposal.
- If unauthorized waste is identified in the load, and the unauthorized waste is not a regulated hazardous waste, a regulated medical waste, a regulated toxic waste, a regulated nuclear waste, or a waste which requires special handling, the waste shall be loaded back into the vehicle and removed from the facility.

- If acceptability of the waste cannot be determined by visual observation, the waste can either be rejected and loaded back into the vehicle and removed from the facility, or samples of the waste can be taken to determine acceptability. Testing shall be selected based on the reason for the suspicion of unacceptability.
- Unauthorized wastes suspected of being a regulated hazardous waste, a regulated medical waste, a regulated toxic waste, or a regulated nuclear waste shall be managed in accordance with all applicable federal, state and local regulations. WCA will contact the Guilford County HAZMAT by calling 911. Response personnel shall have all appropriate licenses and/or certifications and will respond within 24 hours.

3.4 Annual Report

In accordance with NCGS 130A-309.09D, on or before August 1 of each year, WCA of High Point will report to the Solid Waste Section the amount of waste received in tons at this facility and disposed in the landfill units. Data will be transmitted on forms prescribed by the Section. The reporting period shall be for the previous year beginning July 1 and ending on June 30 and shall detail the amount of waste received and disposed in the landfill in tons, compiled on a monthly basis by county or transfer station of origin and by specific waste type if diverted to a specific unit within the permitted facility. The completed report shall be forwarded to the Regional Waste Management Specialist for the facility.

3.5 WASTE PLACEMENT

3.5.1 Cell Progression

The Phase 2 area will be filled using the area method in general accordance with the Annual Phasing Plan (Drawing OP-2).

Uncontaminated stormwater will be collected and removed along the western portion of the active cells as shown on Drawing OP-3. Stormwater will be diverted or pumped from the collection area into the stormwater channels that convey flow into the sediment basin or sediment traps that support the facility.

3.5.2 Waste Placement and Compaction

Solid wastes will be tipped as closely as possible to the working face of landfill, then spread. The size (length and width) of the working face will vary depending on the rate of waste acceptance on a given day, weather conditions and other factors, but will be maintained as small as possible. Compactors will be used to maximize in-place waste density by compacting wastes in thin flat lifts, typically less than ten (10) feet thick.

Previous estimates have determined that the approximate in-place density of waste and soil achieved at the site is approximately 1,300 pounds per cubic yard. The waste density calculation will be reviewed periodically, and operational procedures may be revised to improve the efficiency of the site.

3.5.3 Cover Material

3.5.3a Weekly Cover

As required by Rule .0542(f), the owners or operators of all C&D Landfills must cover disposed solid waste with either six (6) inches of earthen material or an approved alternate daily cover when the waste disposal area exceeds one-half acre and at least once weekly. Cover shall be placed at more frequent intervals if necessary to control disease vectors, fires, odors, blowing litter, and scavenging. A notation of the date and time of the cover placement shall be recorded in the operating record as specified in Rule .0542(n).

3.5.3b Intermediate Cover

Areas which will not have additional wastes placed on them for three (3) months or more, but where final termination of disposal operations has not occurred, shall be covered and stabilized with vegetative ground cover or other stabilizing material as approved by the Division as specified in Rule .0542(f)(2).

3.5.4 Alternate Cover

Alternative materials of an alternative thickness (other than at least six inches of earthen material) may be approved by the Division if the owner or operator demonstrates that the alternative material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

Approved alternate cover includes ‘fines’ from WCA of High Point’s material recovery facility (operations described in Section 2.0) for alternate weekly cover. These fines are a material generated during processing of C&D material and are largely composed of soil and minor fractions of the C&D waste stream. In addition, WCA of High Point proposes to use mulch mixed with soil as an alternate weekly cover If a mixture of mulch and soil is used as an alternate cover, the mulch content of the weekly cover shall not exceed fifty percent (50%).

3.6 EROSION AND SEDIMENT CONTROL

Erosion and sediment will be controlled on the site to prevent the discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act. This includes, but is not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, Section 402. In addition, the site shall not cause the discharge of nonpoint sources of pollution to waters of the United States, including wetlands, that violates any requirement of an 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. Surface water shall be diverted from the operational area and shall not be impounded over or in waste.

All vegetative and structural erosion and sediment control practices have been designed to prevent excessive on-site erosion and to control sediment from leaving the facility. All sediment control devices shall be constructed and maintained according to the North Carolina Erosion and Sediment Control Planning and Design Manual. A copy of the *WCA of High Point C&D Landfill, Phase 2 Expansion, Erosion and Sediment Control Plan* has been prepared and sent to the Land Quality

Section for approval. A copy of the Plan is included as Appendix EP-4 of the Engineering Plan, with drainage structures, slope drains, diversion berms and other pertinent details shown on drawings EP-4 and EP-8 through EP-10.

3.7 ENVIRONMENTAL MONITORING PLANS

Rule .0544 requires preparation of a Monitoring Plan which addresses groundwater monitoring, surface water monitoring, landfill gas monitoring, and waste acceptability program. The Monitoring Plan consists of individual plans discussed as follows:

3.7.1 Groundwater Monitoring Plan

A Groundwater Monitoring Plan, including information on the proposed ground-water monitoring system(s), sampling and analysis requirements, and detection monitoring requirements that fulfills the requirements of Part (1)(A) through (1)(E) of Rule .0544(b) is included as the WCA of High Point C&D Landfill *Water Quality Monitoring Plan*, Appendix DH-E of the *Design Hydrogeologic Report*, prepared for the Phase 2 Expansion.

3.7.2 Surface Water Monitoring Plan

A Surface Water Monitoring Plan has been designed to detect the effects of the facility on surface water in the area in general accordance with Rule .0544(c). This plan is included as the WCA of High Point C&D Landfill *Water Quality Monitoring Plan*, Appendix DH-E of the *Design Hydrogeologic Report*, prepared for the Phase 2 Expansion.

3.7.3 Landfill Gas Control Plan

Landfill gas is a by-product from the decomposition of organic waste in a landfill. To protect public health and safety in the vicinity of the landfill, landfill gas produced by the decomposition of C&D waste will be controlled and monitored during the operational, closure, and post-closure periods. A gas management plan, including gas monitoring, will be implemented for the purpose of maintaining the concentration of methane gas below the following regulatory levels:

1) The concentration of methane gas generated is not to exceed 25 percent of the lower explosive limit (LEL) for methane in on-site structures (excluding gas control or recovery system components);
2) The concentration of methane gas is not to exceed the LEL for methane at the facility property boundary; and
3) The facility does not release methane gas or other explosive gasses in any concentration that can be detected in off-site structures.

The landfill gas management plan is currently proposed to include monitoring and passive gas vents in the landfill. Remedial measures will be implemented as required to mitigate a potential gas migration problem.

3.7.3a General

Landfill gas monitoring at the WCA of High Point C&D Landfill will be performed during the active life of the landfill and throughout the post-closure care period. At a minimum, quarterly monitoring

will be conducted at all subsurface gas detection probes and in all structures located on the landfill property.

Gas detection probes will be installed on the site as shown on Drawing No. EP-5; additional probes shall be installed as additional phases are constructed. Gas detection probes will be installed to a depth at least equal to the maximum depth of waste in the area of the monitoring point or the water table, whichever is encountered first. Probe locations will likely be field engineered due to varying topography adjacent to expansion areas that may limit access with a drill rig. A gas detection probe detail can be found on Drawing No. EP-7. Construction records for the gas probes will be submitted to the Division upon completion.

Passive landfill gas vents will be installed along with the final cover system to allow release of gas to the atmosphere. These vents will be installed at a density of approximately one per two acres of cap surface area. A construction detail of these vents is included on Drawing No. EP-7.

3.7.3b Landfill Gas Monitoring Procedure

Record Keeping: The operator will record the date, time, location, sampling personnel, atmospheric temperature, reported barometric pressure, and general weather conditions at the time of sampling, in addition to the concentration of combustible gases (See Boundary Gas Probe Monitoring Log, Appendix OP-2). The records will be maintained in the landfill operating record.

On-site Structures: Gas monitoring in on-site structures will be conducted during regular quarterly monitoring events at the earliest possible time after the structure has been unused (e.g., morning). The monitoring locations will be in corners along floors and ceilings, at cracks in the floor, and at other areas likely to accumulate gas. Gas monitoring will also be conducted in any confined space requiring the entry of personnel for maintenance or inspection. The monitoring will take place prior to entry by personnel, and entry into confined spaces will be conducted in accordance with OSHA's confined space entry regulations.

Gas Detection Probes: Gas monitoring in detection probes will consist of attaching the monitor to each tubing within the probes, and recording both the initial concentration and steady state concentration of combustible gases. Solid Waste Association of North America (SWANA) guidelines for purging wells and other monitoring procedures will be followed.

Equipment: A portable combustible gas monitor, measuring the concentration of combustible gases in units of percent of lower explosive limit, shall be used to conduct gas monitoring. Lower explosive limit (LEL) means the lowest percent by volume of a mixture of combustible gas in air that will propagate a flame at 25 degrees Celsius and atmospheric pressure. The gas monitor shall be calibrated to methane using the manufacturer's calibration kit and procedure before the monitoring activities begin.

3.7.3c Response to Landfill Gas Exceedances

The regulatory maximum levels for methane gas are the LEL at the facility boundary and 25% LEL in on-site structures. At a minimum, the following actions will be taken if methane gas levels exceed those standards:

- The Solid Waste Section will be notified immediately;

- Immediate steps necessary to protect human health will be identified and implemented. If the standard in structures is exceeded, these will include:
- Elimination of smoking materials and all ignition sources;
- Evacuation of all personnel;
- Ventilation of the structure;
- Personnel will not be allowed to reenter the building except to perform gas monitoring until the results of additional monitoring indicate that methane concentrations are stabilized below 25% LEL; and
- Assess the origin and pathways of the gas migration.

Within seven days of detection, the monitoring results will be placed in the Operating Record and WCA of High Point will indicate actions taken and actions proposed to resolve the problem. Within 60 days of detection, WCA of High Point will develop and implement a landfill gas remediation plan for the combustible gas releases and notify the Division that the plan has been implemented. The plan will describe the nature and extent of the problem and the proposed remedy.

3.8 SURVEY FOR COMPLIANCE

Within 60 days of the permittee's receipt of the Division's written request and as may be required by Rule .0542(m), WCA of High Point shall conduct a survey of active or closed portions of unit or units at the facility in order to determine whether operations are being conducted in accordance with the approved design and operational plans. The permittee shall report the results of such survey, including a map produced by the survey, to the Division within 90 days of receipt of the Division's request. The survey shall be performed by a registered land surveyor duly authorized under North Carolina law to conduct such activities.

The survey may be required by the Division:

1) If there is reason to believe that operations are being conducted in a manner that deviates from the plan listed in the effective permit, or
2) As a verification that operations are being conducted in accordance with the plan listed in the effective permit.

3.9 RECORDKEEPING REQUIREMENTS

The owner and operator of a C&D Landfill shall record and retain at the facility, or in an alternative location near the facility approved by the Division, in an operating record the following information which shall be furnished to the Division according to the permit or upon request, or be made available for inspection by the Division:

- Records of random waste inspections, monitoring results, certifications of training, and training procedures required by Rule .0544 and Section 4.3 of this Plan;
- Amounts by weight of solid waste received at the facility to include, County or transfer station of generation, consistent with NCGS 130A-309.09D and as required by Section 4.4 of this Plan;
- Any demonstration, certification, finding, monitoring, testing, or analytical data required by Rules .0544 through .0545 and the facility *Water Quality Monitoring Plan;*
- Any closure or post-closure monitoring, testing, or analytical data as required by Rule .0543 and the facility *Closure/Post-Closure Care Plan;*

- Any cost estimates and financial assurance documentation required by Rule .0546;
- Notation of date and time of placement of cover material; and
- All audit records, compliance records and inspection reports.

The operating record shall also include:

- A copy of the approved operation plan required by 15A NCAC 13B .0542 and the engineering plan required by Rule .0539 of this Section;
- A copy of the current Permit to Construct and Permit to Operate; and
- The Monitoring Plan, in accordance with Rule .0544 of this Section.

(end.)