

**DIN 26017**

Approved by SWS 5/5/2016

**Mecklenburg County**  
**Compost Central**  
**5631 West Boulevard**  
**Charlotte, NC 28208**  
***Permit # 60-12***



MECKLENBURG COUNTY  
Land Use and Environmental Services Agency  
Solid Waste Services

February 18, 2016

TO: Tony Gallagher, Environmental Supervisor, Division of Waste Management  
Solid Waste Section

FROM: Darren J. Steinhilber, Solid Waste Services *DJS*

SUBJECT: Permit #60-12 – Permit Amendment  
Mecklenburg Compost Central - 5631 West Blvd.

Please find attached, for your review, a Permit Amendment for the Mecklenburg County Compost Central composting facility.

If you have any questions or require additional information, please contact me at (980) 314-3857.

## SOLID WASTE COMPOST FACILITY PERMIT APPLICATION SUBMITTAL

**Company Name:** Mecklenburg County  
**Site Name:** Compost Central  
**Site Address:** 5631 West Boulevard, Charlotte, North Carolina 28208

**Current Permit Number:** 60-12

**Summary:** This is an application submittal for the repermitting of an existing Type I facility. The current Permit number is 60-12 issued on February 28, 2012.

### REQUIRED SUBMITTAL INFORMATION

#### **.1405 APPLICATION REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES**

- (a)(1) *An aerial photograph or scaled drawing, where one inch is less than or equal to 400 feet, accurately showing the area within one-fourth mile of the proposed site's boundaries with the following specifically identified:*
- (A) *Entire Property owned or leased by the facility;*
  - (B) *Location of all homes, wells, industrial buildings, public or private utilities, roads, watercourses, dry runs, and other applicable information regarding the general topography within 500 feet of the proposed facility;*
  - (C) *Land use zoning of the proposed site.*

- An aerial view of the facility can be found in **Appendix VIII** as **Figure 1**. The figure shows the property boundaries of the facility as well as the area within one-fourth mile of the property boundary.
- The locations of all homes, wells, industrial buildings, and other off-site features are illustrated on **Figure 2** of **Appendix VIII**.
- The general topography of the site is illustrated on **Figure 3** of **Appendix VIII**.
- Land use zoning is illustrated on **Figure 2** of **Appendix VIII**.

- (a)(2) *A letter from the unit of government having zoning jurisdiction over the site which states that the proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval or permit has been obtained.*

A zoning verification letter provided by the City of Charlotte Zoning Office is included as **Appendix III**.

- (a)(3) *An explanation of how the site complies with siting and design standards in Rule .1404 of this Section.*

A detailed explanation documenting compliance with Rule .1404 is included as **Appendix I**

- (a)(4)(A) *A detailed report indicating the waste type(s), source and estimated quality of the solid waste to be composted, including the source and expected quantity of any bulking agent or amendment (if applicable), any expected recycle of bulking agent or compost, and any seasonal variations in the solid waste type or quantity;*

- This site is designed to accept up to 125,000 tons and up to 200,000 cubic yards of mulch materials per year of yard waste and similar vegetative materials, which includes leaves, limbs, grass, and land clearing debris. The source of the material includes properties (residential and commercial) located within Mecklenburg County as well as surrounding Counties.

**.1405 Continued**

- No bulking agents are used.
  - The seasonal variation of waste quantity is insignificant; however, the variation in waste type is estimated to be 70% grass in the spring and 85% leaves in the fall.
- (a)(4)(B) For facilities that utilize natural soils as a pad, a soil evaluation of the site conducted by a soil scientist down to a depth of four feet, or to bedrock or evidence of a seasonal high watertable, to evaluate all chemical and physical soil properties and depth of the seasonal high watertable.*

Composting operations are conducted on asphalt or concrete pads. Natural soil pads will not be used for the composting operations.

- (a)(5) Site plan at a scale where one inch is less than or equal to 100 feet to the inch that delineates the following:*
- (A) Existing and proposed contours, at intervals appropriate to the topography;*
  - (B) Location and elevations of dikes, trenches, and other water control devices and structures for the diversion and controlled removal of surface water;*
  - (C) Designated setbacks and property lines;*
  - (D) Proposed utilities and structures;*
  - (E) Areas of unloading, processing, active composting, curing, and storing of material.*
- A site plan delineating site topography and property lines is included as **Figure 3 in Appendix VIII**.
  - A site plan delineating processing areas is included as **Figure 4 in Appendix VIII**.
- (a)(6) A description of the operation of the facility, which must include at a minimum:*
- (A) Name, address and phone number for the person responsible for the operation of the facility;*

Steve Hoffman, Operations Manager  
2145 Suttle Ave  
Charlotte, North Carolina 28208  
(980) 314-3873

- (a)(6)(B) List of personnel required and the responsibilities of each position;*
- Maintenance and Operations Supervisor: Responsible for day to day operations and maintenance.
  - Maintenance and Operations Specialists: Responsible for operating equipment (wheel loaders, tub grinders, windrow turner, screening equipment, and trucks).
  - Senior Maintenance and Operations Technicians: Responsible for servicing and repairing the equipment. Mechanics can also be heavy equipment operators if they have the proper training.
  - Cashier: Responsible for collecting fees and recording incoming and outgoing tonnages.

*(a)(6)(C) Operation plan for the facility;*

The Operation and Maintenance Manual for the facility is included as **Appendix VII**.

*(a)(6)(D) Special precautions or procedures for operating during wind, heavy rain, snow, freezing or other adverse conditions;*

**.1405 Continued**

During inclement weather, facility operations will be modified to assure that the facility operates within the requirements of the Operating Permit.

*(a)(6)(E) A description of actions to be taken to minimize noise, vectors, air borne particulates, and odors; and*

Noise - To minimize noise, all equipment is maintained to factory specifications and under normal circumstances the equipment that generates the most noise is only operated Monday through Friday 7 AM to 4 PM. The facility is located in an industrial zoned area on the South side of Charlotte-Douglas International Airport runway. Composting activities will produce very little noise in comparison to jet noise.

Vectors - Vectors are rarely a problem for Type I compost facilities and historically have not been an issue for Compost Central. To ensure that vectors are minimized, putrescible garbage generated by customers and staff will be stored in closed containers and removed from the site on a regular basis. In addition, yard waste is ground and placed into windrows in a timely manner under normal operating conditions, as described in the Operation and Maintenance Manual included as **Appendix VII**.

Airborne Particles - To minimize airborne particles, moisture is incorporated into the composting material. Windrows tend to be turned only during wet conditions or at times when wind is at a minimum.

Odors - To minimize odors, incoming yard waste is ground daily, incorporating air into any material that has turned anaerobic. Ground yard waste is either placed in a windrow or removed from the site within 72 hours under normal operating conditions. Windrows are turned as needed, ensuring aerobic conditions prevail.

*(a)(6)(F) A description of the ultimate use for the finished compost, method for removal from the site, and a contingency plan for disposal or alternative usage of residues or finished compost that cannot be used in the expected manner due to poor quality or change in market conditions.*

The finished compost is sold in bulk to residents, landscapers, and landscape supply companies for use as a soil amendment.

Residues and off-spec materials generated from the composting process are sold as a supplemental fuel or disposed of in an approved disposal facility. As an alternative, the material could be used in the vegetative layers of final and intermediate cover for local landfills.

*(a)(7) A report on the design of the facility, including:*  
*(A) Design capacity of the facility;*

The composting design capacity for this facility is approximately 125,000 tons of material annually. In addition to the composted materials, approximately 200,000 cubic yards of mulch is processed at the facility.

*(a)(7)(B) A process flow diagram of the entire facility, including the type, size, and location of all major equipment, and feedstock streams. The flow streams shall indicate the quantity of materials on a wet weight and volumetric basis;*

A process flow diagram of the facility is included in Appendix VI. The material balance described in the process flow diagram is based on the current permit condition of 125,000 tons of yard waste and woody debris received at the Compost Central facility and a finished compost total, based on market projections, of 15,000 cubic yards (8100 tons using a finished compost density, measured directly through a bucket test, of 1080 lb/yd<sup>3</sup>. As shown on the process flow diagram, an approximate 69,000 tons (274,900 yd<sup>3</sup>) of woody waste has the potential to be processed and sold as hardwood mulch, based on the highest volume of total mulch sold for revenue or given to other County organizations in the last five years.

**.1405 Continued**

Other assumptions used in the process flow diagram include the following:

- A 60% reduction in volume of the compost windrows during the composting process.
- A 14% reduction in mass of the compost windrows during the composting process.
- 10% of finished compost is screened out of the finished product and is returned to the grinding process.
- Fresh ground material has a density of 500 lb/yd<sup>3</sup>
- Finished compost has a density of 1080 lb/yd<sup>3</sup>

*(a)(7)(C) The means for measuring, shredding, mixing, and proportioning input materials;*

- As the Compost Central facility is a Type I composting facility, input materials for composting consist of yard waste, garden waste, wood waste, and water. The amount of water that needs to be added (if any) to the composting material to attain a fifty (50) percent moisture content is determined by sight, feel, and experience.
- The composting process that occurs at the facility is described in the Operation and Maintenance Manual, included as **Appendix VII**.
- Major equipment used at the facility include the following:
  - Backhus 6.65 Windrow Turner
  - Diamond Z 1460B Tub Grinder
  - Powerscreen Phoenix 1600 Trommel screener
  - McCloskey 621 Trommel Screener
  - Airlift Separator (for removal of remaining plastics during the screening process.)
- Specifications for the major equipment used at the facility are included as **Appendix IV**.

*(a)(7)(D) Anticipated process duration, including receiving, preparation, composting, curing, and distribution;*

The composting process from reception to distribution takes approximately seven months.

*(a)(7)(E) A description of the location of all temperature, air and any other type of monitoring points, and the frequency of monitoring;*

As stated in the Operation and Maintenance Manual, attached as **Appendix VII**, temperatures of the windrows are typically measured at least once a week at three equally spaced distances along each windrow. The temperature is measured with a four-foot long analog thermometer fully inserted toward the cross-sectional center of the windrow. The indicator needle is allowed to stabilize (typically one minute), and the reading is recorded.

*(a)(7)(F) A description of how the temperature control and monitoring equipment will demonstrate that the facility meets the requirements in Rule .1406 Items (10), (11), or (12) of this Section, as appropriate for the feedstock;*

Temperature measurements collected at least once a week will ensure that compost is maintained at or above 55°C (131°F) for at least three (3) days. The windrows are aerated as needed using a Backhus compost turner to ensure elevated temperatures are being maintained.

*(a)(7)(G) The method of aeration provided the capacity of aeration equipment; and*

Windrows are turned using a Backhus compost turner that is capable of running approximately twenty-one (21) foot wide and ten (10) foot high windrows. All windrows at the facility can be turned within twelve (12) hours.

**.1405 Continued**

*(a)(7)(H) A description of the method to control surface water run-on and run-off; and the method to control, collect, treat, and dispose of leachate generated; and*

The facility discharges stormwater under NPDES General Permit No. NCG240000, issued on July 14, 2014. A copy of the permit is included in **Appendix III**.

- A swale exists upgradient of the composting pad to minimize surface water run-off onto the site.
- The windows are constructed in such a way as to minimize stormwater impacts on site.
- The windrows are generally turned when it is raining in order to incorporate the moisture throughout the windrow.
- Vegetative buffers and rock check dams are used in the low-lying areas of the composting pads to filter any stormwater runoff or leachate prior to leaving the site.

*(a)(8) A description of the label or other information source that meets the requirements of Rule .1407(g) of this Section.*

Documentation of compliance is included in **Appendix III**.

*(a)(9) Plans and specifications for the facility, including manufacturer's performance data for all equipment selected.*

- Major equipment used at the facility include the following:
  - o Backhus 6.65 Windrow Turner
  - o Diamond Z 1460B Tub Grinder
  - o Powerscreen Phoenix 1600 Trommel screener
  - o McCloskey 621 Trommel Screener
  - o Airlift Separator (for debugging of materials)
- Specifications for the major equipment used at the facility are included as **Appendix IV**.
- Additional information is maintained at the facility and will be made available upon request.

*(a)(10) A detailed operation and maintenance manual outlining:*

- (A) A quality assurance plan for the process and final product which lists the procedures used in inspecting incoming material, monitoring, sampling and analyzing the compost process and final product, testing schedule, and recordkeeping requirements;*
- (B) Contingency plans detailing corrective or remedial action to be taken in the event of equipment breakdown; non-conforming waste delivered to the facility; spills, and undesirable conditions such as fires, vectors and odors; and*
- (C) An explanation of how the facility will comply with operational requirements as outlined in Rule .1406 of this Section, detailed operational information and instruction, an outline of reports to be submitted in compliance with this Section, and safety instructions.*

An explanation of how the facility complies with operational requirements as outlined in Rule .1406 is included as **Appendix II**. An Operation and Maintenance Manual is included as **Appendix VII**.

Signature page of applicant –

Name of facility Compost Central

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that the information provided in this application is true, accurate, and complete to the best of my knowledge.

I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars (\$15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.

[Signature]                      Joseph S. Hack                      2/15/16  
Signature                                      Print Name                                      Date

Senior Project Manager  
Title

McKhan County Solid Waste  
Business or organization name

**Appendix I**  
**Section .1404 Compliance**

**SOLID WASTE COMPOST FACILITY  
SITING/DESIGN REQUIREMENTS SUBMITTAL**

**Company Name:** Mecklenburg County  
**Site Name:** Compost Central  
**Site Address:** 5631 West Boulevard, Charlotte, North Carolina 28208

**Current Permit Number:** 60-12

**.1404 SITING/DESIGN REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES**

*(a) A site shall meet the following requirements at the time of initial permitting and shall continue to meet these requirements throughout the life of the permit only on the property owned or controlled by the landowner(s) at the time of permitting:*

*(a)(1) A site located in a floodplain shall not restrict the flow of the 100-year flood; reduce the temporary storage capacity of the floodplain; or result in washout of solid waste so as to pose a hazard to human life, wildlife, land or water resources;*

As shown on **Figure 3** in **Appendix VIII**, the site is not located in a floodplain.

*(a)(2) A 100-foot minimum buffer is required between all property lines and compost areas for Type 3 and 4 facilities, 50-foot for Type 1 or 2 facilities;*

As Compost Central is a Type I facility, a 50-foot buffer is maintained between the composting areas and the property lines.

*(a)(3) A 500-foot minimum buffer is required between compost areas and residences or dwellings not owned and occupied by the permittee, except that Type 1 and Small Type 2 and 3 facilities shall have a 200-foot minimum buffer;*

As Compost Central is a Type I facility, a 200-foot minimum buffer is required between compost areas and residences or dwellings. As shown on **Figure 2** in **Appendix VIII**, no residences or dwellings exist within 200 feet of the facility.

*(a)(4) A 100-foot minimum buffer is required between all wells and compost areas, except monitoring wells;*

Charlotte Mecklenburg Utilities provides water service to the area. As a result, no potable water wells are located within 100 feet of the compost area, as shown on **Figure 2** in **Appendix VIII**.

*(a)(5) A 50-foot minimum buffer is required between perennial streams/rivers and compost areas;*

The nearest stream is an unnamed tributary of Coffey Creek that runs through the middle of the facility. All composting operations occur over 50-feet away from this tributary.

*(a)(6) A compost facility shall be located in accordance with 15A NCAC 2B .0200, Classification and Water Quality Standards Applicable to Surface Waters in North Carolina;*

The facility has been in operation since 1992 and was located in accordance with 15A NCAC 2B .0200 Classification and Water Quality Standards Applicable to Surface Waters in North Carolina.

**.1404 Continued**

- (a)(7) All portions of any compost facility located over a closed-out disposal area shall be designed with a pad adequate to protect the disposal area cap from being disturbed, as defined in Part (a)(10)(E) of this Rule, and there shall be no runoff from the pad onto the cap or side slopes of the closed out area;*

This composting facility is not located over a closed-out disposal area.

- (a)(8) A 25-foot minimum distance is required between compost areas and swales or berms to allow for adequate access of fire fighting equipment;*

This facility allows for a twenty-five (25) foot minimum distance between berms and compost areas for adequate access of fire fighting equipment.

- (a)(9) A site shall meet the following surface water requirements:*

- (a)(9)(A) A site shall not cause a discharge of materials or fill materials into waters or wetlands of the state that is in violation of Section 404 of the Clean Water Act;*

The Compost Central facility does not discharge dredged or fill materials into waters or wetlands of the state.

- (a)(9)(B) A site shall not cause a discharge of pollutants into waters of the state that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act; and*

The Compost Central facility discharges stormwater under NPDES General Permit No. NCG240000, issued on July 14, 2014. A copy of the permit is included in **Appendix III**.

- (a)(9)(C) A site shall not cause non-point source pollution of waters of the state that violates assigned water quality standards;*

Operations at the facility are designed to minimize the impact on the surface waters of the state. All stormwater is discharged from the facility through one of two stormwater outfalls, as described in the Stormwater Pollution Prevention Plan provided in **Appendix VI**. Windrows are constructed so as to minimize stormwater impacts to the site. Rain that falls directly on the windrows is absorbed into the windrows and does not run-off. The windrows are generally turned when it is raining in order to incorporate the moisture throughout the windrow. Vegetative buffers and rock check dams are used in the low-lying areas of the composting pads to filter any stormwater runoff or leachate prior to leaving the site.

- (a)(10)(A) A site shall not contravene groundwater standards as established under 15A NCAC 2L;*

Operations at the facility are designed to minimize the impact on the ground-waters of the state. Composting activities are performed on an asphalt or concrete pad. The ground-water levels at the facility range from 6.2 feet to 12.5 feet beneath the ground surface. Ground-water level readings are located in **Appendix V**.

**.1404 Continued**

- (a)(10)(B) Portions of a site used for waste receipt and storage, active composting, and curing shall have a soil texture finer than loamy sand and the depth to the seasonal high water table shall be maintained at least 12 inches for a Type 1 or 2 facility and 24 inches for a Type 3 facility, unless a pad is provided;*

All composting activities at this facility are performed on an asphalt or concrete pad. The ground-water levels at the facility range from 6.2 feet to 12.5 feet beneath the ground surface. Ground-water level readings are located in **Appendix V**.

- (a)(10)(C) A pad shall be provided for portions of a Type 4 facility used for waste receiving and storage, active composting, and curing;*

This facility will not process Type 4 waste.

- (a)(10)(D) A pad is not required for storage of finished product that is dried as to pass the Paint Filter Liquids Test (EPA Method 9095), and for which the storage area is prepared in such a manner that water does not collect around the base of the stored material, and where the depth to the seasonal high watertable is maintained at least 12 inches; and*

Finished product at this facility is stored on an asphalt or concrete pad.

- (a)(10)(E) The linear coefficient of permeability of pads required in accordance with this Rule shall not be greater than  $1 \times 10^{-7}$  centimeters per second. If natural soils are used, the liner must be at least 18 inches thick.*

Composting activities at this facility are primarily performed on asphalt or concrete pads with a linear coefficient of permeability greater than  $1 \times 10^{-7}$  centimeters per second.

- (b) For subparagraphs(a)(2) through (a)(4) and Part (a)(10)(B) of this Rule, (dependent upon waste type, facility design, and regional topography) alternative minimum buffers or requirements may be increased if deemed necessary by the Division in order to protect public health and the environment or to prevent the creation of a nuisance.*

The Division has not added additional buffers or requirements for this facility

- (c) A site shall meet the following design requirements:*

- (c)(1) site shall not allow uncontrolled public access;*

The site access is controlled through the use of fences and gates as well as natural barriers.

- (c)(2) A site shall meet the requirements of the Sedimentation Pollution Control Law (15A NCAC 4);*

The site was designed to meet requirements of the Sedimentation Pollution Control Law (15 NCAC 4) and was approved from the Mooresville Regional Office in June 1992. A copy of the Letter of Approval from the North Carolina Department of Environment, Health and Natural Resources is included as **Appendix III**.

- (c)(3) A site shall meet the requirements of the Air Pollution Control Requirements (15A NCAC 2D) to minimize fugitive emissions and odors; and*

The facility is operated in a manner that meets the requirements of the Air Pollution Control Requirements to minimize fugitive emissions and odors. To minimize airborne particles, moisture is

**.1404 Continued**

incorporated into the composting material, and interior roads are wetted as required by a water truck. No other air pollution control technologies are required.

*(c)(4) The site shall be designed to minimize odors at the property boundary.*

The Facility was designed and is operated in a manner to minimize odors at the property boundary. Incoming yard waste is ground daily, incorporating air into any material that has turned anaerobic. Ground yard waste is either placed in a windrow or removed from the site within 72 hours under normal operating conditions. Windrows are turned as needed, ensuring aerobic conditions prevail.

**Appendix II**  
**Section .1406 Compliance**

**SOLID WASTE COMPOST FACILITY  
OPERATIONAL REQUIREMENTS SUBMITTAL**

**Company Name:** Mecklenburg County  
**Site Name:** Compost Central  
**Site Address:** 5631 West Boulevard, Charlotte, North Carolina 28208

**Current Permit Number:** 60-12

**.1406 OPERATIONAL REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES**

*Any person who maintains or operates a solid waste compost facility shall maintain and operate the site to conform with the following practices:*

*(1) Plan and Permit Requirements*

*(1)(A) Construction plans and conditions of permit shall be followed; and*

*(1)(B) A copy of the permit, plans, and operational reports shall be maintained on site at all times.*

Conditions of the operating permit are followed at all times and a copy of the permit, plans, and operational reports are maintained on site at all times.

*(2) Adequate erosion control measures shall be practiced to prevent on-site erosion and to control the movement of soil or contaminants from the site.*

All primary processing areas are located on asphalt or concrete. The perimeter of the site is completely vegetated to prevent erosion. In addition, the windrows are formed and placed to minimize sheet flow.

*(3) Surface water shall be diverted from the operational, compost curing, and storage areas.*

A swale exists upgradient of the composting pad to minimize surface water run-off onto the site.

*(4) Leachate shall be contained on site treated to meet the standards of the off-site disposal method.*

Windows are constructed so as to minimize runoff. The windrows are generally turned when it is raining in order to incorporate the moisture throughout the windrow. Vegetative buffers and rock check dams are used in the low-lying areas of the composting pads to filter any stormwater runoff prior to leaving the site.

*(5) Access and Security Requirements:*

*(5)(A) Large sites shall be secured by means of gates, chains, berms, fences, or other security measures demonstrated to provide equivalent protection approved by the Division, to prevent unauthorized entry.*

An eight-foot chain link perimeter fence secures the site and entry is through security gates, which are locked after hours.

*(5)(B) An operator shall be on duty at the site at all times while the facility is open for public use to ensure compliance with operational requirements and access to such facilities shall be controlled.*

An operator is on duty at all times the facility is open for public use.

**.1406 Continued**

*(5)(C) The access road to the site shall be of all-weather construction and maintained in good condition.*

The operating areas of the site are constructed with asphalt and concrete to provide all weather access.

*(6) A site shall only accept those solid wastes that it is permitted to receive.*

This site will accept only Type I yard waste and woody waste, which includes leaves, limbs, grass, and land clearing debris.

*(7) Safety Requirements*

*(7)(A) Open burning of solid waste is prohibited.*

Open burning of anything is prohibited on site.

*(7)(B) Equipment shall be provided to control accidental fires and arrangements made with the local fire protection agency to immediately provide fire-fighting services when needed.*

All pieces of equipment include a fire extinguisher. A water truck is on site at all times to provide fire fighting capabilities. The City of Charlotte fire department is also available to provide immediate fire fighting services.

*(7)(C) Personnel training shall be provided to insure that all employees are trained in site specific safety, remedial, and corrective action procedures.*

Staff will receive the training required.

*(8) Sign Requirements:*

*(8)(A) Signs providing information on waste that can be received, dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.*

*(8)(B) Traffic signs/markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.*

*(8)(C) Signs shall be posted stating that no hazardous waste, asbestos containing waste, or medical waste can be received at the site.*

Signage includes hours of operation, materials accepted, fees, permit number, emergency contact information, traffic routing, "No Hazardous Waste" signage, "No Asbestos Containing Waste" signage, and "No Medical Waste" signage.

*(9) Monitoring Requirements:*

*(9)(A) Specified monitoring and reporting requirements shall be met.*

*(9)(B) The temperature of all compost produced shall be monitored sufficiently to ensure that the pathogen reduction criteria is met.*

Temperatures of the windrows are typically measured at least once a week at three equally spaced distances along each windrow. The temperature is measured with a four-foot long analog thermometer fully inserted toward the cross-sectional center of the windrow. The indicator needle is allowed to stabilize (typically one minute), and the reading is recorded. Annual reporting is submitted by August 1 of each year.

**.1406 Continued**

- (10) *Compost processed at Type 1 facilities shall be maintained at or above 55 degrees Celsius for 3 days and aerated to maintain elevated temperatures.*

Temperature measurements collected at least once a week will ensure that compost is maintained at or above 55°C (131°F) for at least three (3) days. The windrows are aerated as needed using a Backhus compost turner to ensure elevated temperatures are being maintained.

- (11) *Types 2, 3 and 4 facilities shall maintain the compost process at a temperature above 40 degrees Celsius (104 degrees F) for 14 days or longer and the average temperature for that time shall be higher than 45 degrees Celsius (113 degrees F) or, Types 2, 3 and 4 facilities shall meet the vector attraction reduction requirements in 40 CFR 503.33(b)(4) or (7). Requirements of 40 CFR 503.33(b)(4) and (7) are hereby incorporated by reference, including any subsequent amendments or additions.*

As this facility is a Type I facility, this section does not apply

- (12) *The composting process shall qualify as a process to further reduce pathogens for all Type 3 and Type 4 facilities. The following are acceptable methods:*

(12)(A) *The windrow composting method, in which the following requirements apply: Aerobic conditions shall be maintained during the compost process. A temperature of 131 degrees F (55 degrees Celsius) or greater shall be maintained in the windrow for at least 15 days. During the high temperature period, the windrow shall be turned at least five times.*

(12)(B) *The static aerated pile composting method, in which the following requirements apply: Aerobic conditions shall be maintained during the compost process. The temperature of the compost pile shall be maintained at 131 degrees F (55 degrees Celsius) or greater for at least three days.*

(12)(C) *The within-vessel composting method, in which the temperature in the compost piles shall be maintained at a minimal temperature of 131 degrees F (55 degrees Celsius) for at least three days.*

As this facility is a Type I facility, this section does not apply.

- (13) *Nitrogen bearing wastes shall be incorporated as necessary to minimize odor and the migration of nutrients.*

In normal operations, high nitrogen yard wastes are incorporated into windrows as soon as possible to minimize odors. All yard waste, including green waste (grass clippings), is processed through the tub grinder within seventy-two (72) hours of being received during normal operating conditions. The grinding process gives the material its initial charge of oxygen for its aerobic decomposition. The material is then incorporated into windrows within forty-eight (48) hours if space is available or sent out as boiler fuel within seventy-two (72) hours under normal operating conditions.

- (14) *Miscellaneous Requirements:*

(14)(A) *The finished compost shall meet the classification and distribution requirements outlined in Rule .1407 of this Section.*

The finished compost meets the classification of "Produced at Type I Facility".

(14)(B) *The quality of the final product shall determine the allowable uses as outlined in Rule .1407 of this Section.*

The finished compost has an "Unrestricted Application and Distribution" grade.

**.1406 Continued**

*(14)(C) The final product shall be approved by the Solid Waste Section as outlined in Rule .1407 Subparagraph (6)(b) of this Section.*

The final product will be approved by the Solid Waste Section. The product is certified under the U.S. Composting Council's Seal of Testing Assurance (STA) Program.

*(14)(C)(i) Non-compostable solid waste and unacceptable compost shall be disposed in a solid waste management facility permitted to receive the particular type of waste under 15A NCAC 13B.*

Should any non-compostable materials be detected by frontline staff during operations, the materials are loaded into a 40-yard open-top container located on site, which when full is removed from the site to be disposed in a proper solid waste management facility. Once the compost has reached maturity, the material is screened at 3/8 inch to remove any non-conforming waste that may have been missed during the original screening. The material not passing the 3/8-inch screen is sent back to the grinder for reprocessing.

*(14)(C)(ii) The amount of compost stored at the facility shall not exceed the designed storage capacity.*

The amount of compost stored at the facility will not exceed the design storage capacity.

# **Appendix III**

## **Supporting Regulatory Documentation**

- *Zoning Verification Letter*
- *NPDES Stormwater Discharge Permit*
- *Erosion and Sedimentation Control Plan Letter of  
Approval*
- *Compost Customer Handouts*



January 6, 2011

Re: Zoning Verification Letter

To: Whom It May Concern

The property located at 5631 West Blvd. and further identified as tax parcel 141-202-01 is zoned I-2 (General Industrial District):

Permitted uses include those listed in section 9.1102, 9.1103 and 9.1104 of the City of Charlotte Zoning Ordinance.

A Compost Central Facility is permitted in this zoning district.

As of the date of this letter, a computer search of records stored in this department indicates there are no known zoning violations or open cases at these locations.

If this office can be of any further assistance, please contact us at (704) 432-4392.

Sincerely,

A handwritten signature in cursive script that reads "Charles Hodges".

Charles Hodges  
Zoning Technician



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

John E. Skvarla, III  
Secretary

July 14, 2014

Mr. Darren Steinhilber  
Mecklenburg County  
700 North Tryon Street  
Charlotte, NC 28202

Subject: General Permit No. NCG240000  
Compost Central  
**COC NCG240016**  
**NCS000382 (Rescinded)**  
Mecklenburg County

Dear Mr. Steinhilber:

In accordance with your application for an NPDES stormwater discharge permit received on June 2, 2014, we are forwarding herewith the subject certificate of coverage to discharge under the subject state – NPDES general permit. This permit is issued pursuant to the requirements of North Carolina General Statute 143-215.1 and the Memorandum of Agreement between North Carolina and the US Environmental Protection Agency dated October 15, 2007 (or as subsequently amended).

Based on your representation in the permit application that Compost Central is a Type 1 compost facility, the provisions of the recently enacted Session Law 2012-200 pertain to the facility. Consistent with the provisions of SL 2012-200, DWQ will permit all the composting discharges from your Type 1 facility under the stormwater discharge provisions of the permit, and the General Permit requirements related to process wastewater discharges do not apply to the composting discharges from your Type 1 facility.

During our telephone discussions, your staff indicated the facilities operation has changed to processing only materials that qualify for the Type I designation; therefore, upon the issuance of this permit, your individual permit NCS000382 has been rescinded and is no longer required.

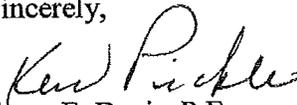
This permit does not affect the legal requirements to obtain other that may be required by the Division of Energy Mineral & Land Resources, or any other federal, state, or local governmental agency.

Please note that this certificate of coverage is not transferable except upon the specific action of the Division of Energy Mineral & Land Resources.

Division of Energy, Mineral, and Land Resources  
Energy Section • Geological Survey Section • Land Quality Section  
1612 Mail Service Center, Raleigh, North Carolina 27699-1612 • 919-707-9200 / FAX: 919-715-8801  
512 North Salisbury Street, Raleigh, North Carolina 27604 • Internet: <http://portal.ncdenr.org/web/lr/>  
An Equal Opportunity \ Affirmative Action Employer – 50% Recycled \ 10% Post Consumer Paper

If you have any questions concerning this permit, please contact Ken Pickle at telephone number (919) 807-6376, or at [ken.pickle@ncdenr.gov](mailto:ken.pickle@ncdenr.gov).

Sincerely,

  
for Tracy E. Davis, P.E.

cc: Mooresville Regional Office  
Central Files  
Stormwater Permitting Program Files

Enclosures

Certificate of Coverage NCG240016

Copy of General Permit NCG2400000, permittee only

4, Quarterly stormwater monitoring forms, permittee only

4, Visual monitoring forms, permittee only

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF ENERGY MINERAL & LAND RESOURCES

**CERTIFICATE OF COVERAGE No. NCG240016:** authorizing SURFACE WATER DISCHARGES under the National Pollutant Discharge Elimination System (NPDES) program.

In compliance with the provision of North Carolina General Statute 143-215.1 as amended by North Carolina Session Law 2012-200, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

Mecklenburg County

is hereby authorized to discharge from a Type 1 composting facility (as defined in 15A NCAC 13B .1400) located at

Compost Central  
5631 West Boulevard  
Charlotte  
Mecklenburg County

to receiving waters designated as Coffey Creek, a class C, water in the Catawba River Basin.

Pursuant to the provisions of Session Law 2012-200, a Type 1 composting facility is not required to have a NPDES permit for discharge of process wastewater. Notwithstanding any contrary provisions in the General Permit, all discharges of stormwater, including stormwater which comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product are authorized which comply with the stormwater pollution management requirements, monitoring requirements, reporting requirements, and other conditions set forth in Part I, Part II A - D, Part IV, Part V, Part VI, and Part VII of General Permit No. NCG240000. In accordance with the provisions of Session Law 2012-200, the process wastewater management requirements do not apply to the composting discharges from this Type 1 facility, and all composting operation discharges are authorized when the facility complies only with the stormwater provisions of the General Permit. To the extent any provisions may be read to impose the process wastewater standards in the General Permit to discharges from the permittee's facility, the provisions are suspended and do not apply.

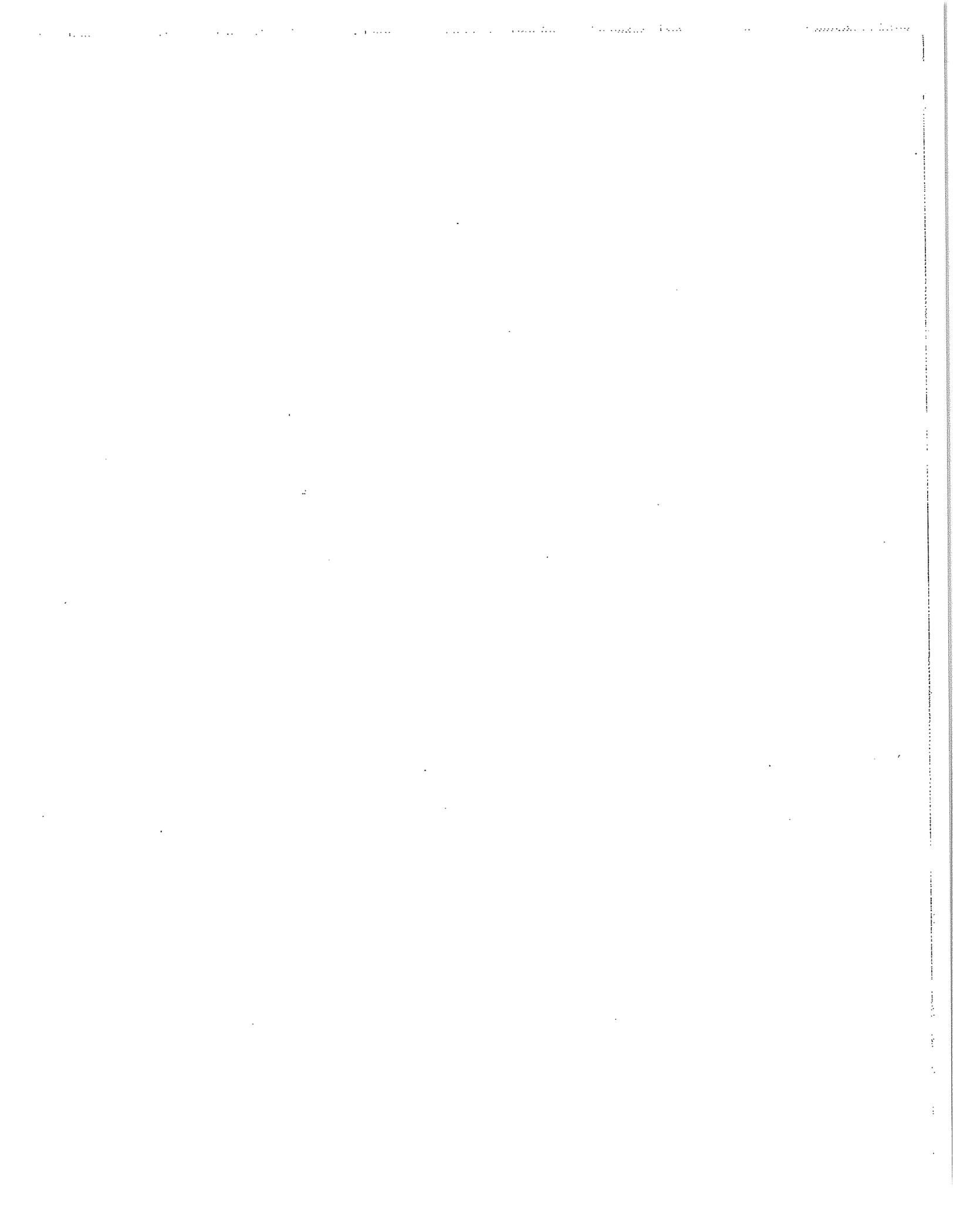
This Certificate of Coverage is an enforceable part of General Permit NCG240000, and shall become effective for the permittee on July 14, 2014.

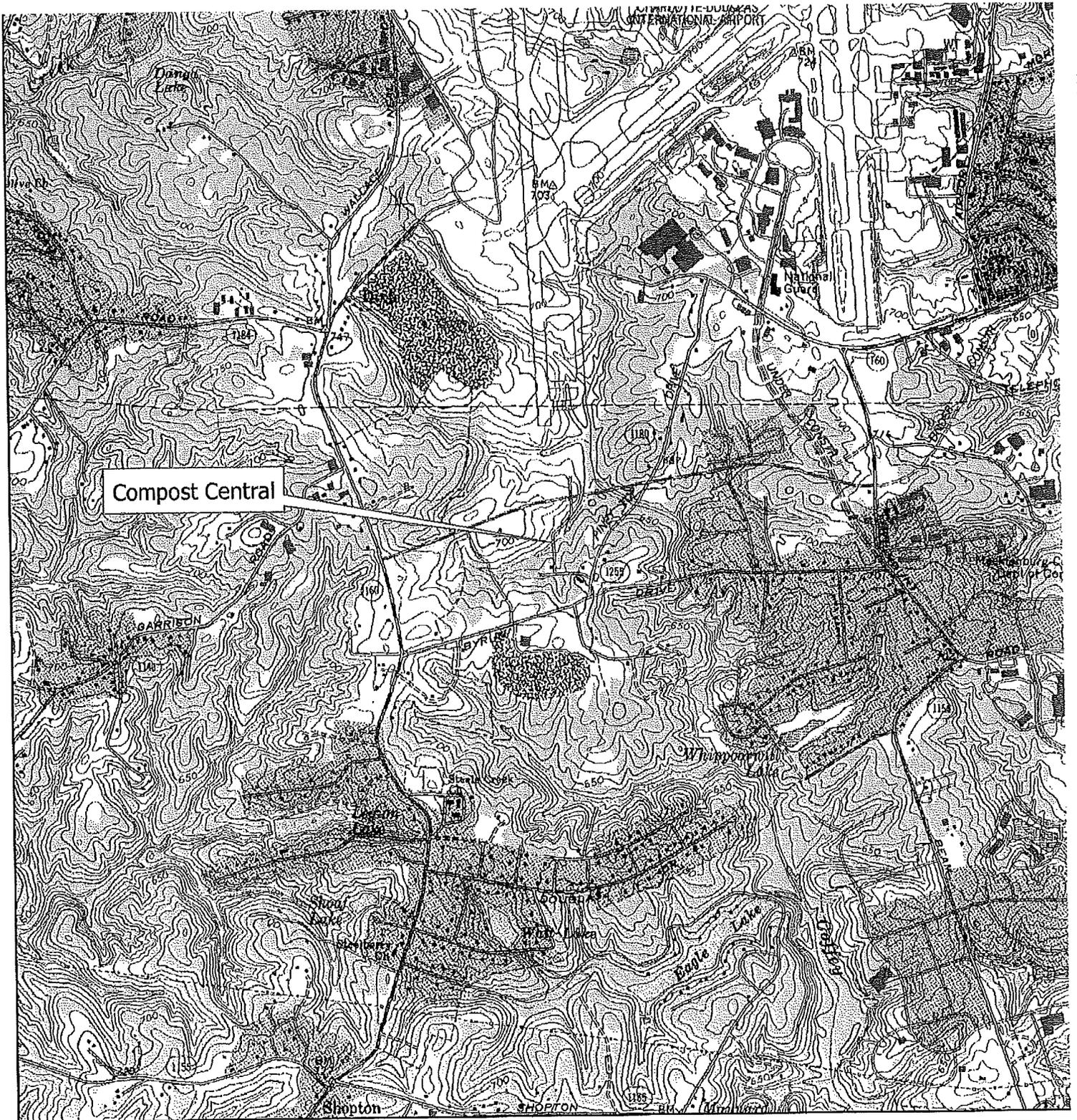
This Certificate of Coverage shall remain in effect for the duration of the General Permit.

Signed this day, July 14, 2014.



for Tracy E. Davis, P.E., Director  
Division of Energy Mineral & Land Resources  
By the Authority of the Environmental Management Commission





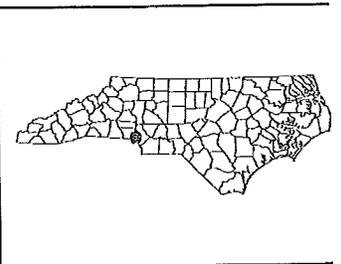
**NCG240016**



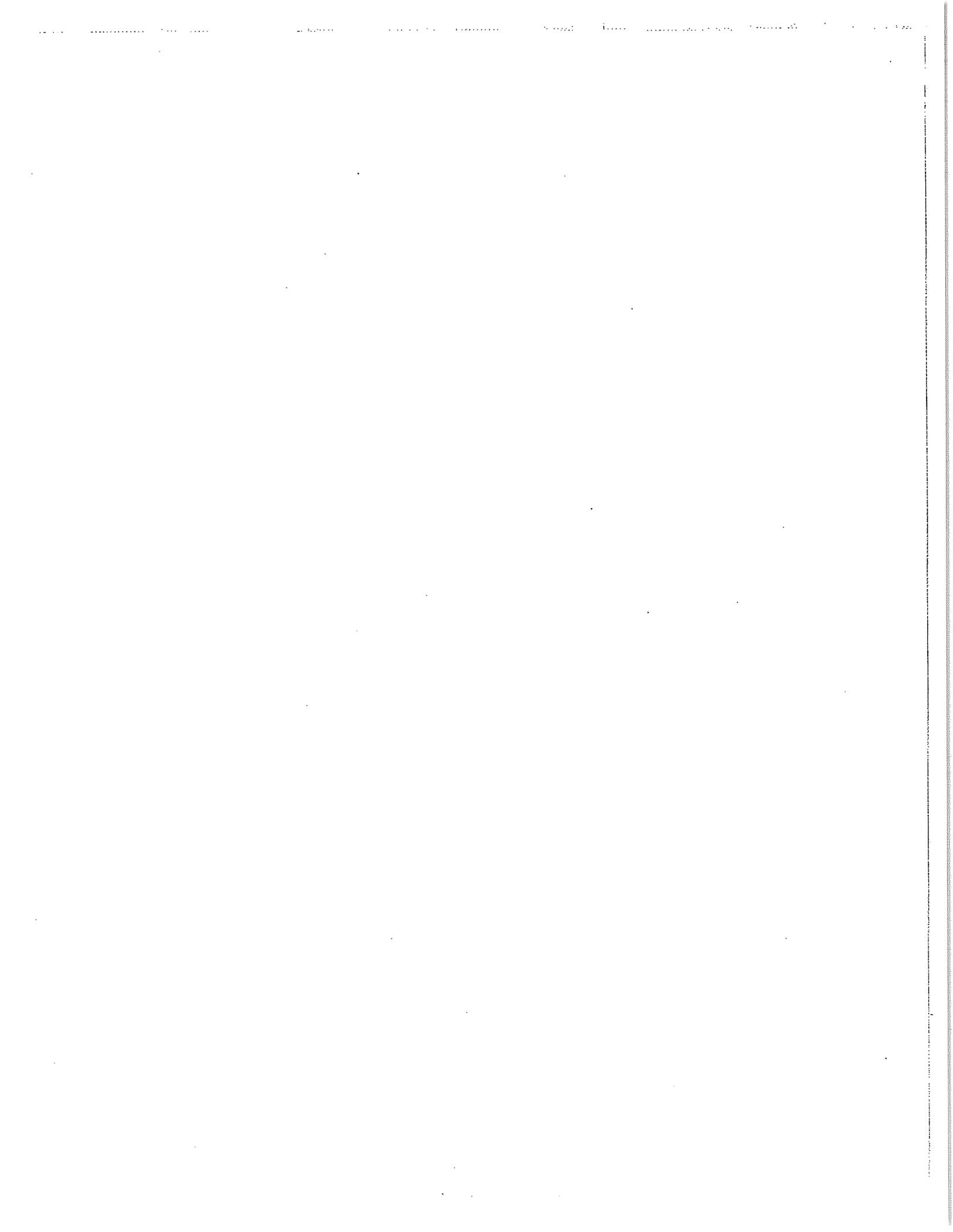
Map Scale 1:24,000

**Mecklenburg County  
Compost Central**

Latitude: 35° 11' 39" N  
 Longitude: -80° 57' 01" W  
 County: Mecklenburg  
 Receiving Stream: Coffey Creek  
 Stream Class: C  
 Sub-basin: 03-08-34 (Catawba River Basin)



**Facility Location**



STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WATER QUALITY  
**GENERAL PERMIT NO. NCG240000**

TO DISCHARGE STORMWATER AND PROCESS WASTEWATER UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
for  
**Compost Facilities**

**IMPORTANT CHANGES & GUIDANCE**

December 8, 2011:

In response to Section 9 of Session Law 2011-394, DWQ will not implement some of the **Authorization to Construct** requirements in the current version of the permit, and we will revise the printed text of the General Permit to be consistent at the next scheduled renewal period. Specifically:

- a. In the permit text, Part III Section A items 1, 2, 3, 4, 6, and 7 will be of no effect.
- b. The permit text will retain the requirement for Regional Office notification before a process wastewater system comes on-line, as required by Part III Section A item 5.
- c. Part III Section B generally as to the requirements to effectively operate any wastewater system remains in effect.
- d. DWQ will implement any other internal references in the permit as to Authorization to Construct, or as to Part III, in accordance with items a, b, and c above.
- e. Other DWQ development and supporting documentation outside of the permit text will be amended to reflect the implementation of these changes as time allows.

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WATER QUALITY  
**GENERAL PERMIT NO. NCG240000**

TO DISCHARGE STORMWATER AND PROCESS WASTEWATER UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
for  
**Compost Facilities**

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission and the Federal Water Pollution Control Act, as amended, this permit is hereby issued to all owners or operators, hereinafter permittees, which are covered by this permit as evidenced by receipt of a Certificate of Coverage by the Environmental Management Commission to allow the **discharge of stormwater and process wastewater to the surface waters of North Carolina** or to a separate storm sewer system conveying discharges to surface waters in accordance with the terms and conditions set forth herein.

**Coverage under this General Permit is applicable to:**

- ◆ Stormwater point source discharges associated with composting operations (Standard Industrial Classification 2875) classified as: large Type 1, Type 2, and small Type 3 Facilities as described in regulations administered by the Division of Waste Management and found at 15A NCAC 13B .1402(f); and associated vehicle and equipment maintenance activities;
- ◆ Process wastewater discharges associated with the same composting operations;
- ◆ Stormwater point source discharges and process wastewater discharges from like industrial activities deemed by DWQ to be similar to composting operations in the process, or the discharges, or the exposure of raw materials, intermediate products, by-products, products, or waste products.

**Except upon DWQ determination of similarity as provided immediately above, the following activities and associated discharges are excluded from coverage under this General Permit:**

- ◆ Composting operations classified as small Type 1 Facilities as also described in 15A NCAC 13B .1402(g);
- ◆ Backyard composting and on-farm composting as also described in 13B .1402(g);
- ◆ Composting operations classified as Type 4 and large Type 3 Facilities in 13B .1402(f).
- ◆ Composting operations for residuals management as described in regulations administered by the Aquifer Protection Section of DWQ and found at 15A NCAC 2T .1100.
- ◆ Composting operations with discharges to especially protected receiving waters classified as ORW, HQW, trout waters, PNA waters, or zero-flow streams as described at 15A NCAC 2B .0206.
- ◆ Stand-alone mulching-only facilities with no accelerated biological decomposition.

The General Permit shall become effective on October 1, 2011.

The General Permit shall expire at midnight on September 30, 2016.

Signed this day September 23, 2011.

*Original signed by Matt Matthews*  
\_\_\_\_\_  
for Coleen H. Sullins, Director  
Division of Water Quality  
By the Authority of the Environmental Management Commission

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## PART I - INTRODUCTION

### SECTION A: GENERAL PERMIT COVERAGE

All persons desiring to have facilities covered by this General Permit must register with the Division of Water Quality (DWQ) by the filing of a Notice of Intent (NOI) and applicable fees. The NOI shall be submitted and a certificate of coverage issued prior to any point source discharge of stormwater associated with industrial activity or process wastewater.

This General Permit covers composting operations that discharge stormwater that has come in contact with qualifying finished compost, and site stormwater which has not come in contact with any raw materials, intermediate products, final products, by-products, or waste products during the compost manufacturing process; and stormwater runoff from vehicle and equipment maintenance activities.

This General Permit also covers composting operations with discharges of process wastewater arising from raw materials, intermediate products, final products not qualifying as finished compost, by-products, or waste products.

This General Permit also authorizes the construction and operation of process wastewater treatment facilities.

Any owner or operator not wishing to be covered or limited by this General Permit may make application for an individual NPDES permit in accordance with NPDES procedures in 15A NCAC 2H .0100, stating the reasons supporting the request. Any application for an individual permit should be made at least 180 days prior to commencement of discharge.

This General Permit does not cover activities or discharges covered by an individual NPDES permit until the individual permit has expired or has been revoked. Any person conducting an activity covered by an individual permit but which could be covered by this General Permit may request that the individual permit be revoked and coverage under this General Permit be provided.

Any facility may apply for new or continued coverage under this permit until a Total Maximum Daily Load (TMDL) for pollutants for stormwater or wastewater discharges is established. A TMDL sets a pollutant-loading limit that affects a watershed, or portion of a watershed, draining to a specific impaired water. **For discharges to watersheds affected by a TMDL, coverage under this permit may depend on the facility demonstrating it does not have reasonable potential to violate applicable water quality standards for those pollutants as a result of discharges.** If DWQ determines that discharges have reasonable potential to cause water quality standard violations, the facility shall apply for an individual permit 180 days prior to the expiration date of this General Permit. Once that individual permit is effective, the facility will no longer have coverage under this General Permit. Note that the permittee must identify impaired waters (scheduled for TMDL development) and waters already subject to a TMDL in the Site Plan, as outlined in the Stormwater Pollution Prevention Plan, Part II, Section A.

### SECTION B: PERMITTED ACTIVITIES

Until coverage under this permit expires or is modified or revoked, the permittee is authorized to discharge stormwater and process wastewater to the surface waters of North Carolina, or to a separate storm sewer system, which has been adequately treated and managed in accordance with

the terms and conditions of this General Permit. **The types of authorized discharges are dependent upon DWQ approval and are detailed in the permittee's individual Certificate of Coverage (COC); where applicable, the COC also details DWQ's Authorization to Construct (ATC) and authorization to operate process wastewater treatment facilities.**

Any other point source discharge to surface waters of the state is prohibited unless it is an allowable non-stormwater discharge or is covered by another permit, authorization, or approval. If composting operations will expand or change such that the types of discharges are affected, the permittee shall contact DWQ in advance to determine if modifications to the COC are necessary.

Where wetlands are located on, or nearby, composting operations, discharges allowed by this permit, and site operations, must meet applicable wetland standards as outlined in 15A NCAC 2B .0230 and .0231 and water quality certification requirements as outlined in 15A NCAC 2H .0500.

**The discharges allowed by this General Permit shall not cause or contribute to violations of Water Quality Standards.**

This permit does not relieve the permittee's responsibility for compliance with any other applicable federal, state, or local law, rule, standard, ordinance, order, or decree.

### **SECTION C: COMPLIANCE SCHEDULE FOR NEW AND EXISTING DISCHARGERS**

For the first term of this permit from October 1, 2011 until September 30, 2016 (or as the term may subsequently be administratively extended, or shortened, by DWQ action), the permit provides for the following different compliance schedules for new and existing dischargers.

1. **New dischargers.** New dischargers are subject to the compliance schedule contained in Part IV Section A 1. A new discharger is any regulated composting facility initiating the discharge of stormwater or process wastewater on or after January 1, 2011.
2. **Existing dischargers.** Existing dischargers are subject to the following compliance schedule in lieu of the schedule contained in Part IV Section A 1. An existing discharger is any regulated composting facility that discharged stormwater or wastewater before January 1, 2011.
  - (a) The permittee is required to come into full compliance with this permit as soon as possible.
  - (b) Within 6 months of DWQ's issuance of the permittee's COC the permittee shall submit to the DWQ Regional Office Surface Water Protection Supervisor a schedule of activities to achieve full compliance with the requirements of this permit.
    - a. The permittee's proposed schedule for full compliance may present considerations related to annual budgeting constraints, and/or additional sampling requirements; however, the Regional Office Surface Water Protection Supervisor will evaluate whether such considerations, in his/her judgment, unreasonably delay the permittee's pursuit of expedited full compliance as soon as possible.

- b. The Regional Office Surface Water Protection Supervisor may require revisions to the permittee's proposed plan for full compliance, and may withhold approval of it.
  - c. The permittee shall comply with the requirements of the approved plan for full compliance.
  - d. The permittee shall submit to DWQ all analytical data collected if a sampling plan is part of the plan for full compliance;
- (c) For stormwater discharges, the quarterly monitoring and reporting actions required in Part II Section B remain in effect under this compliance schedule. The requirement for Tiered response actions are stayed until a date set in the approved plan for full compliance.
- (d) For wastewater discharges, the quarterly monitoring and reporting actions required in Part II Section E remain in effect under this compliance schedule. The requirement to comply with the effluent limitations is stayed until a date set in the approved plan for full compliance.
- (e) This General Permit does not allow the continuation of the required compliance schedule beyond four years from the date of the initial issuance of the COC.

## **PART II – MONITORING, CONTROLS, AND LIMITATIONS FOR PERMITTED DISCHARGES**

### **SECTION A: STORMWATER DISCHARGES: STORMWATER POLLUTION PREVENTION PLAN**

The permittee shall **develop and implement** a Stormwater Pollution Prevention Plan (SPPP). The SPPP is public information in accordance with Part IV, Standard Conditions, Section E, paragraph 3 of this General Permit. The SPPP shall include, at a minimum, the following items:

1. **Site Plan.** The site plan shall provide a description of the physical facility and the potential pollutant sources that may be expected to contribute to contamination of stormwater discharges. The site plan shall contain the following:
  - (a) A general location map (USGS quadrangle map or appropriately drafted equivalent map), showing the facility's location in relation to transportation routes and surface waters, the name of the receiving waters to which the stormwater outfalls discharge, or if the discharge is to a municipal separate storm sewer system, the name of the municipality and the ultimate receiving waters, and accurate latitude and longitude of the points of discharge. The general location map (or alternatively the site map) shall identify whether each receiving water is **impaired** (on the state's 303(d) list of impaired waters) or is located in a **watershed for which a TMDL has been established**, and what the parameters of concern are.
  - (b) A narrative description of storage practices, loading and unloading activities, outdoor process areas, dust or particulate generating or control processes, and waste disposal practices. A narrative description of the potential pollutants that could be expected to be present in the stormwater discharge from each outfall.
  - (c) A site map drawn at a scale sufficient to clearly depict: the site property boundary, the stormwater discharge outfalls, all on-site and adjacent surface waters and wetlands, industrial activity areas (including but not limited to scales, receiving, staging, blending, storage, composting, screening, rejects, curing, warehousing, packaging, labeling, loading, and other manufacturing activities ), site topography and finished grade, all drainage features and structures, drainage area boundaries and total contributing area for each outfall, direction of flow in each drainage area, industrial activities occurring in each drainage area, buildings, stormwater Best Management Practices (BMPs) with design capacities, process wastewater treatment facilities, and permanent impervious surfaces, such as roads or process areas that are unlikely to change frequently. The site map shall include a graphic scale indication and north arrow. In addition, the following industrial activity areas must also be identified on the site map: fueling, vehicle and equipment maintenance and repair, washing, painting, welding, and metal fabrication.
  - (d) A list of significant spills or leaks of pollutants that have occurred during the previous three (3) years and any corrective actions taken to mitigate spill impacts. A list of the occurrence and duration of every process wastewater bypass or diversion from treatment units, along with the on-site rain gauge reading on the day before, the day(s) of, and the day after the bypass or diversion. The permittee must insert the written record of the bypass or diversion into the SPPP within 24 hours of the beginning of the bypass or diversion, and must note the end of the bypass or diversion as part of the same written record.

- (e) Certification that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges. **The permittee shall re-certify annually that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges.** The certification statement will be signed in accordance with the requirements found in Part IV, Standard Conditions, Section B, paragraph 5.
2. **Stormwater Management Plan.** The stormwater management plan shall contain a narrative description of the materials management practices employed which control or minimize the stormwater exposure of significant materials, including finished compost as well as materials that may be present on site but not intentionally within the manufacturing process (i.e., wind-blown, tracked-out, dragged-out, or otherwise accidentally dispersed on-site materials). The stormwater management plan, at a minimum, shall incorporate the following:
- (a) **Feasibility Study.** A review of the technical and economic feasibility of changing the methods of operations and/or storage practices to eliminate or reduce exposure of materials and processes to rainfall and run on flows. Wherever practical, the permittee shall prevent exposure of all storage areas, material handling operations, and manufacturing or fueling operations. In areas where elimination of exposure is not practical, the stormwater management plan shall document the feasibility of diverting stormwater run on away from areas of potential contamination.
- (b) **Secondary Containment Requirements and Records.** Secondary containment is required for: bulk storage of liquid materials; storage in any amount of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) water priority chemicals; and storage in any amount of hazardous substances, in order to prevent leaks and spills from contaminating stormwater runoff. A table or summary of all such tanks and stored materials and their associated secondary containment areas shall be maintained. If the secondary containment devices are connected to stormwater conveyance systems, the connection shall be controlled by manually activated valves or other similar devices (which shall be secured closed with a locking mechanism), and any stormwater that accumulates in the containment area shall be at a minimum visually observed for color, foam, outfall staining, visible sheens and dry weather flow, prior to release of the accumulated stormwater. Accumulated stormwater shall be released if found to be uncontaminated by any material. Records documenting the individual making the observation, the description of the accumulated stormwater, and the date and time of the release shall be kept for a period of five years.
- (c) **BMP Summary.** A listing of site structural and non-structural Best Management Practices (BMP) shall be provided. The installation and implementation of BMPs shall be based on the assessment of the potential for sources to contribute significant quantities of pollutants to stormwaters discharges and data collected through monitoring of stormwater discharges. The BMP Summary shall include a written record of the specific rationale for installation and implementation of the selected site BMPs. The BMP Summary shall be reviewed and updated annually.
- (d) **Rain gauge.** The permittee shall maintain a rain gauge and daily rainfall amount records on site.

3. **Spill Prevention and Response Plan.** The Spill Prevention and Response Plan (SPRP) shall incorporate an assessment of potential pollutant sources based on a materials inventory of the facility. Facility personnel responsible for implementing the SPRP shall be identified in a written list incorporated into the SPRP and signed and dated by each individual acknowledging their responsibilities for the plan. A responsible person shall be on-site at all times during facility operations that have the potential to contaminate stormwater runoff through spills or exposure of materials associated with the facility operations. The SPRP must be site stormwater specific. Therefore, an oil Spill Prevention Control and Countermeasure plan (SPCC) may be a component of the SPRP, but may not be sufficient to completely address the stormwater aspects of the SPRP. The common elements of the SPCC with the SPRP may be incorporated by reference into the SPRP.
4. **Preventative Maintenance and Good Housekeeping Program.** A preventative maintenance and good housekeeping program shall be developed and implemented. The program shall ensure that equipment present on the site must be operated and maintained to prevent potential pollution of the surface water or groundwaters of the state. Fuels, lubricants, coolants, hydraulic fluids, or any other petroleum products shall not be discharged on the ground or into surface waters. Spent lubricants and fuels shall be disposed of properly and in accordance with applicable federal disposal regulations. Spilled fluids shall be cleaned up to the maximum extent practicable and properly disposed of to prevent entry to surface waters or groundwaters of the state. The program shall establish schedules of inspections, maintenance, and housekeeping measures for vehicle and equipment maintenance and industrial activity areas (including material storage and handling areas, disposal areas, process areas, loading and unloading areas, and haul roads), where not already addressed under another element of the SPPP. Schedules for inspections, maintenance, and housekeeping, and documentation that these program elements are being implemented, shall be recorded and maintained in the SPPP.
5. **Employee Training.** Training programs shall be developed and training provided at a minimum on an annual basis for facility personnel with responsibilities for: spill response and cleanup, preventative maintenance activities, and for any of the facility's operations that have the potential to contaminate stormwater runoff. Where the materials or activities are present, specific training is required for: used oil management, spent solvent management, spent abrasives management, fueling, sanding, painting, and used battery management. The facility personnel responsible for implementing the training shall be identified, and their annual training shall be documented by the signature of each employee trained.
6. **Responsible Party.** The SPPP shall identify a specific position responsible for the overall coordination, development, implementation, and revision to the SPPP. Responsibilities for all components of the SPPP shall be documented and position assignments provided.
7. **SPPP Amendment.** The permittee shall amend the SPPP whenever there is a change in design, construction, operation, waste receipts, site drainage, maintenance, or configuration of the physical features, which may have a significant effect on the potential for the discharge of pollutants to surface waters. All aspects of the SPPP shall be reviewed and updated on an annual basis. The annual update shall include:
  - (a) an updated list of significant spills or leaks of pollutants for the previous three (3) years, or the notation that no spills have occurred;
  - (b) a written re-certification that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges;

- (c) a documented re-evaluation of the effectiveness of the on-site stormwater BMPs.

The Director may notify the permittee when the SPPP does not meet one or more of the minimum requirements of the permit. Within 30 days of such notice, the permittee shall submit a time schedule to the Director for modifying the SPPP to meet minimum requirements. The permittee shall provide certification in writing (in accordance with Part IV, Standard Conditions, Section B, paragraph 5) to the Director that the changes have been made.

8. **Facility Inspections.** Inspections of the facility and all stormwater systems shall occur as part of the Preventative Maintenance and Good Housekeeping Program at a minimum on a quarterly schedule. These facility inspections are different from, and in addition to, the stormwater discharge characteristic qualitative monitoring required in Part II Section D of this permit.
9. **SPPP Implementation.** The permittee shall implement the SPPP and all appropriate BMPs to ensure that contaminants do not enter surface waters via stormwater. Implementation of the SPPP shall include documentation of all monitoring, measurements, inspections, maintenance activities, and training provided to employees, including the log of the sampling data and of actions taken to implement BMPs associated with the industrial activities, including vehicle and equipment maintenance activities. Such documentation shall be kept on-site for a period of five years and made available to the Director or the Director's authorized representative immediately upon request.

## SECTION B: STORMWATER DISCHARGES: ANALYTICAL MONITORING REQUIREMENTS

Analytical monitoring for stormwater discharges shall be performed as specified in **Tables 1 through 3**. All analytical monitoring shall be performed during a measurable storm event. This Section B does not apply to process wastewater discharges which may originate as precipitation on materials during the manufacturing process.

**Table 1 Analytical Monitoring Requirements for Stormwater Discharges**

| Discharge Characteristics   | Units           | Measurement Frequency <sup>1</sup> | Sample Type <sup>2</sup> | Sample Location <sup>3</sup> |
|-----------------------------|-----------------|------------------------------------|--------------------------|------------------------------|
| Total suspended solids      | mg/L            | Quarterly                          | Grab                     | SDO                          |
| Chemical oxygen demand      | mg/L            | Quarterly                          | Grab                     | SDO                          |
| Fecal coliform              | colonies/100 mL | Quarterly                          | Grab                     | SDO                          |
| Total nitrogen              | mg/L            | Quarterly                          | Grab                     | SDO                          |
| Total phosphorus            | mg/L            | Quarterly                          | Grab                     | SDO                          |
| Total copper                | mg/L            | Quarterly                          | Grab                     | SDO                          |
| Total lead                  | mg/L            | Quarterly                          | Grab                     | SDO                          |
| Total zinc                  | mg/L            | Quarterly                          | Grab                     | SDO                          |
| pH                          | standard units  | Quarterly                          | Grab                     | SDO                          |
| Total rainfall <sup>4</sup> | inches          | Quarterly                          | --                       | --                           |

**Footnotes:**

1. Measurement Frequency: Four times per year during a measurable storm event. *The permittee may petition DWQ to reduce the monitoring frequency for any parameter after four consecutive quarters of analytical results below the benchmark values in Table 3.*
2. Grab samples shall be collected within the first 30 minutes of discharge.
3. Sample Location: Samples shall be collected at each stormwater discharge outfall (SDO) unless representative outfall status (ROS) has been granted in writing by DWQ. A copy of the letter granting ROS shall be kept on site in the SPPP.
4. For each sampled measurable storm event the total precipitation must be reported. An on-site rain gauge reading must be recorded. Where isolated sites are unmanned for extended periods of time, a local rain gauge reading may be substituted for an on-site reading. *The permittee is not required to sample stormwater discharges resulting from a rainfall greater than the 25-yr, 24-hr event for the site location.*

**A measurable storm event** is a storm event that **results in an actual** discharge from the permitted site outfall. The time between this storm event and the previous storm event must have been **at least 48 hours**. One storm event may have a time period within it that has no precipitation. This time period may last up to 10 hours. For example, if it rains but stops before producing any collectable discharge, a sample may be collected if the next rain producing a discharge begins within 10 hours.

The permittee shall complete the analytical samplings in accordance with the schedule specified in **Table 2**. A minimum of 30 days must separate each sample event unless monthly monitoring has been instituted under a Tier 2 response. Failure to comply with quarterly monitoring is a violation of the terms and conditions of this permit, unless adverse weather conditions (e.g., lightning storms, or no rain and/or no discharge) prevent sample collection during the sample collection period. Inability to sample due to adverse weather conditions must be documented in the SPPP with date, time, and written narrative and reported on the quarterly Discharge Monitoring Reports (DMR).

**Table 2 Stormwater Annual Monitoring Schedule**

| Quarterly Monitoring Events <sup>1,2</sup> | Start Date <sup>3</sup> | End Date <sup>3</sup> |
|--|-------------------------|-----------------------|
| 1  | January 1               | March 31              |
| 2  | April 1                 | June 30               |
| 3  | July 1                  | September 30          |
| 4  | October 1               | December 31           |

**Footnotes:**

1. The permittee is required to maintain quarterly monitoring during the permit renewal process (unless tiers prompt monthly monitoring).
2. *If no discharge occurs during the sampling period, the permittee must record "No Flow" or "No Discharge" within 30 days of the end of the quarterly sampling period in the SPPP. "No Flow" or "No Discharge" shall be reported on the individual quarterly DMRs.*
3. Annual monitoring periods remain constant throughout the five-year permit term.

In all cases, the permittee shall report (as required in Part IV, Section E) the analytical results from each sample within the monitoring period. The permittee shall compare those results to the benchmark values in **Table 3**.

**Table 3 Benchmark Values for Stormwater Discharges**

| Discharge Characteristics | Benchmark Values     |
|---------------------------|----------------------|
| Total suspended solids    | 100 mg/L             |
| Chemical oxygen demand    | 120 mg/L             |
| Fecal coliform            | 1000 colonies/100 mL |
| Total nitrogen            | 30 mg/L              |
| Total phosphorus          | 2 mg/L               |
| Total copper              | 0.007 mg/L           |
| Total lead                | 0.03 mg/L            |
| Total zinc                | 0.067 mg/L           |
| pH                        | 6 - 9 standard units |

| <b>Tier One</b>   |
|---|
| <p><b>If:</b> The first valid sampling results are above a benchmark value, or outside of the benchmark range, for any parameter at any outfall;</p>  |
| <p><b>Then:</b> The permittee shall</p> <ol style="list-style-type: none"> <li>1. Conduct a stormwater management inspection of the facility <b>within two weeks of receiving sampling results.</b></li> <li>2. Identify and evaluate possible causes of the benchmark value exceedence.</li> <li>3. Identify potential and select the specific: source controls, operational controls, or physical improvements to reduce concentrations of the parameters of concern, or to bring concentrations within the benchmark range.</li> <li>4. Implement the selected actions <b>within two months of the inspection.</b></li> <li>5. Record each instance of a Tier One response in the SPPP. Include the date and value of the benchmark exceedence, the inspection date, the personnel conducting the inspection, the selected actions, and the date the selected actions were implemented.</li> </ol> |

### Tier Two

**If:** During the term of this permit, the first valid sampling results from **two (2) consecutive** monitoring periods are above the benchmark values, or outside of the benchmark range, for any specific parameter at a specific discharge outfall;

**Then:** The permittee shall

1. Repeat all the required actions outlined above in Tier One.
2. Immediately institute monthly monitoring for all parameters at every outfall where a sampling result exceeded the benchmark value for two (2) consecutive samples. Monthly (analytical and qualitative) monitoring shall continue until three (3) consecutive samples are below the benchmark values or within the benchmark range for all parameters at that outfall.
3. If no discharge occurs during the sampling period, the permittee is required to record "No Flow" or "No Discharge" in the SPPP for the sampling the period to comply with monthly monitoring requirements and must submit reports in accordance with this permit.
4. Maintain a record of Tier Two responses in the SPPP.

### Tier Three

During the term of this permit, if the valid sampling results required for the permit monitoring periods exceed the benchmark value, or are outside the benchmark range, for any specific parameter at any specific outfall on **four (4) occasions**, the permittee shall notify the DWQ Regional Office Supervisor in writing **within 30 days of receipt of the fourth analytical result.** DWQ may but is not limited to:

- Require that the permittee revise, increase, or decrease the monitoring frequency for the remainder of the permit;
- Rescind coverage under the General Permit, and require the permittee to apply for an individual stormwater discharge permit;
- Require the permittee to install or modify structural stormwater controls; or
- Require the permittee to implement other stormwater control measures;
- Require the permittee to install process wastewater treatment facilities for the flow, or portions of the flow, not successfully treated by the stormwater control measures.

### SECTION C: STORMWATER DISCHARGES: ON-SITE VEHICLE AND EQUIPMENT MAINTENANCE MONITORING REQUIREMENTS

Facilities which have any on-site vehicle and equipment maintenance activity that uses more than 55 gallons per month total of new motor oil and/or new hydraulic oil when averaged over the calendar year shall perform analytical monitoring as specified below in **Table 4**.

The permittee shall complete the analytical samplings in accordance with the schedule specified in **Table 2**. Failure to comply with quarterly monitoring is a violation of the terms and conditions of the permit, unless adverse weather conditions (e.g., lightning storms, or no rain and/or no discharge) prevent sample collection during the sample collection period. Inability to sample due to adverse weather conditions must be documented in the SPPP with date, time, and written narrative and reported on the quarterly Discharge Monitoring Reports (DMR). This monitoring shall be performed at all outfalls discharging stormwater runoff from vehicle and equipment maintenance activities.

**Table 4 Analytical Monitoring Requirements from On-Site Vehicle and Equipment Maintenance Activities**

| Discharge Characteristics  | Units         | Measurement Frequency <sup>1</sup> | Sample Type <sup>2</sup> | Sample Location <sup>3</sup> |
|--|---------------|------------------------------------|--------------------------|------------------------------|
| pH   | standard      | Quarterly                          | Grab                     | SDO                          |
| Total petroleum hydrocarbons<br><i>EPA Method 1664 (SGT-HEM)</i> | mg/L          | Quarterly                          | Grab                     | SDO                          |
| Total suspended solids   | mg/L          | Quarterly                          | Grab                     | SDO                          |
| Total rainfall <sup>4</sup>                                      | inches        | Quarterly                          | Grab                     | --                           |
| New oil usage  | gallons/month | Quarterly                          | Estimate                 | --                           |

**Footnotes:**

1. Measurement Frequency: Four times per year during a measurable storm event. A minimum of 30 days must separate each sampling event. *The permittee may petition DWQ to reduce the monitoring frequency for any parameter after four consecutive quarters of analytical results below the benchmark values in Table 5.*
2. Grab samples shall be collected within the first 30 minutes of discharge.
3. Sample Location: Samples shall be collected at each stormwater discharge outfall (SDO) that discharges stormwater runoff from vehicle and equipment maintenance activities.
4. For each sampled measurable storm event the total precipitation must be recorded. An on-site rain gauge reading must be recorded. Where isolated sites are unmanned for extended periods of time, a local rain gauge reading may be substituted for an on-site reading. *The permittee is not required to sample stormwater discharges resulting from a rainfall greater than the 25-yr, 24-hr event for the site location.*

In all cases, the permittee shall report (as required in Part IV, Section E) the analytical results from each sample within the monitoring period. The permittee shall compare those results to the benchmark values in **Table 5**. Exceedences of benchmark values require the permittee to comply with the tiered response actions identified above in Section B.

**Table 5 Benchmark Values for On-Site Vehicle and Equipment Maintenance Activities**

| Discharge Characteristics    | Benchmark Values     |
|------------------------------|----------------------|
| pH                           | 6 - 9 standard units |
| Total petroleum hydrocarbons | 15 mg/L              |
| Total suspended solids       | 100 mg/L             |

#### SECTION D: STORMWATER DISCHARGES: QUALITATIVE MONITORING REQUIREMENTS

Qualitative monitoring requires a visual inspection of each stormwater outfall regardless of representative outfall status and shall be performed as specified below in **Table 6**.

Qualitative monitoring of stormwater outfalls must be performed during a measurable storm event, unless adverse weather conditions prevent monitoring during the monitoring period. Inability to monitor due to adverse weather conditions must be documented in the SPPP with date, time and written narrative. Qualitative monitoring will be performed four times per year, in accordance with the schedule in **Table 2**.

**Table 6 Qualitative Monitoring Requirements**

| Discharge Characteristics                        | Frequency <sup>1</sup> | Monitoring Location <sup>2,3</sup> |
|--|------------------------|------------------------------------|
| Color  | Quarterly              | SDO                                |
| Odor   | Quarterly              | SDO                                |
| Clarity  | Quarterly              | SDO                                |
| Floating Solids                                  | Quarterly              | SDO                                |
| Suspended Solids                                 | Quarterly              | SDO                                |
| Foam   | Quarterly              | SDO                                |
| Oil Sheen  | Quarterly              | SDO                                |
| Deposition at or immediately below the outfall   | Quarterly              | SDO                                |
| Erosion at or immediately below the outfall      | Quarterly              | SDO                                |
| Other obvious indicators of stormwater pollution | Quarterly              | SDO                                |

**Footnotes:**

1. A minimum of 30 days must separate each monitoring event.
2. Monitoring Location: Qualitative monitoring shall be performed at each stormwater discharge outfall (SDO) regardless of representative outfall status. *The quarterly monitoring frequency for qualitative monitoring is not eligible for a reduced monitoring frequency.*
3. *The permittee is not required to monitor stormwater discharges resulting from a rainfall greater than the 25-yr, 24-hr event for the site location.*

Qualitative monitoring records shall be on facsimiles of the forms supplied by DWQ, and shall be maintained on site as part of the SPPP. Qualitative monitoring records shall not be submitted to DWQ except upon request.

If the permittee's qualitative monitoring indicates either that existing stormwater BMPs are ineffective, or that significant stormwater contamination is present, the permittee shall investigate potential causes, evaluate the feasibility of corrective actions, and implement those corrective

actions appropriate. **A written record of the permittee's investigation, evaluation, and response actions shall be kept in the SPPP.**

Qualitative monitoring is for the purposes of evaluating the effectiveness of the SPPP, assessing new sources of stormwater pollution, and prompting the permittee's response actions to pollution. If the permittee repeatedly fails to respond effectively to correct problems identified by qualitative monitoring, or if the discharge causes or contributes to a water quality standard violation, DWQ may, but is not limited to:

- Require that the permittee revise, increase, or decrease the monitoring frequency for the remainder of the permit;
- Rescind coverage under the General Permit, and require the permittee to apply for an individual stormwater discharge permit;
- Require the permittee to install or modify structural stormwater controls; or
- Require the permittee to implement other stormwater control measures.

**SECTION E: PROCESS WASTEWATER DISCHARGES: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

Process wastewater discharges are discharges that have contacted any raw materials, intermediate products, final products not qualifying as finished compost, by-products, or waste products during compost manufacturing. Discharges of leachates, wash waters, and rinse waters are considered process wastewater discharges.

**Finished Compost**

'Finished compost' is a specific level of compost maturity, or degree of completion of the compost degradation process. Not all final products produced at composting operations are necessarily 'finished compost' as the term is used in this permit. DWQ relies on the Division of Waste Management to determine whether the final product from a composting operation is 'finished compost', or not. Discharges arising from qualifying 'finished compost' may be permitted as stormwater discharges. Other discharges from final products will be permitted as process wastewater discharges under this Section E.

Analytical monitoring for process wastewater discharges shall be performed as specified below in **Table 7**. For each parameter, the process wastewater effluent limitation is contained in **Table 8**. An exceedence of a process wastewater effluent limitation is a violation of the permit conditions and may be subject to enforcement action as specified in Part IV, Section A.2 of this permit.

**Table 7 Monitoring Requirements for Process Wastewater Discharges**

| Discharge Characteristics        | Units          | Measurement Frequency <sup>1</sup> | Sample Type | Sample Location <sup>2</sup> |
|----------------------------------|----------------|------------------------------------|-------------|------------------------------|
| Biochemical oxygen demand, 5-day | mg/L           | Quarterly                          | Grab        | E                            |
| Total suspended solids           | mg/L           | Quarterly                          | Grab        | E                            |
| Fecal coliform                   | colonies/100mL | Quarterly                          | Grab        | E                            |
| pH                               | standard units | Quarterly                          | Grab        | E                            |
| Total flow <sup>3</sup>          | MG             | Quarterly                          | -           | E                            |

**Footnotes:**

1. Measurement frequency: Four times per year, in accordance with the periods identified in **Table 9**. *The quarterly monitoring frequency for process wastewater discharges is not eligible for a reduced monitoring frequency.*
2. Sample Location: E – Effluent
3. Total Flow volume shall be recorded by a continuous flow measurement instrument. Alternatively, pump curves and pump logs may be used as a means to calculate flow volume; alternate means of calculating the total flow may be approved by DWQ on a case-by-case basis. Permittee shall not calculate total flow based on an assumed runoff coefficient or other similar methodology that attempts to correlate surface conditions with total flow.

**Table 8 Effluent Limitations for Process Wastewater Discharges**

| Discharge Characteristics        | Effluent Limitations <sup>1</sup> |                     |
|----------------------------------|-----------------------------------|---------------------|
|                                  | Quarterly Average                 | Daily Maximum       |
| Biochemical oxygen demand, 5-day | 30 mg/L                           | 45 mg/L             |
| Total suspended solids           | 30 mg/L                           | 45 mg/L             |
| Fecal coliform                   | 200 colonies/100mL                | 400 colonies/100 mL |
| pH <sup>2</sup>                  | --                                | --                  |

**Footnote:**

1. Effluent limitations do not apply for discharges directly generated by rainfall greater than the 2-year, 24-hour event, provided that the permittee has a rainfall record establishing that the actual rainfall amount at the time of the discharge or bypass exceeded the 2-year, 24-hour event.
2. The pH for freshwater classifications shall be within the range of 6.0 to 9.0 standard units. The pH for saltwater classifications shall be within the range of 6.8 to 8.5 standard units.

The permittee shall complete the analytical samplings of process wastewater discharges in accordance with the schedule in **Table 9**. Failure to comply with quarterly monitoring is a violation of the terms and conditions of the permit.

**Table 9 Process Wastewater Discharge Monitoring Schedule**

| Quarterly Monitoring Events <sup>1,2</sup> | Start Date <sup>3</sup> | End Date <sup>3</sup> |
|--|-------------------------|-----------------------|
| 1  | January 1               | March 31              |
| 2  | April 1                 | June 30               |
| 3  | July 1                  | September 30          |
| 4  | October 1               | December 31           |

**Footnotes:**

1. The permittee is required to maintain quarterly monitoring during the permit renewal process.
2. *If no discharge occurs during the sampling period, the permittee must record "No Flow" or "No Discharge" within 30 days of the end of the quarterly sampling period in the SPPP. "No Flow" or "No Discharge" shall be reported on the individual quarterly DMR.*
3. Annual monitoring periods remain constant throughout the five-year permit term.

**PART III – AUTHORIZATION TO CONSTRUCT AND OPERATE A PROCESS  
WASTEWATER TREATMENT FACILITY**

**SECTION A: REQUIREMENTS TO CONSTRUCT A PROCESS WASTEWATER TREATMENT  
FACILITY AT A NEW COMPOSTING FACILITY**

1. Existing facilities that discharged stormwater or process wastewater before January 1, 2011 are not required to obtain DWQ's authorization to construct (ATC) process wastewater treatment facilities. New facilities that initiated discharges of stormwater or process wastewater on or after January 1, 2011 must submit process wastewater facility construction plans and design calculations as part of the permit application, and are subject to the requirements of this Section A.
2. The permittee shall cause the authorized process wastewater treatment facility to be constructed in accordance with the conditions of this permit, approved plans and calculations, and other supporting data.
3. The process wastewater treatment facility shall be constructed to meet the effluent limitations in Part II, Section E of this General Permit.
4. Upon completion of construction and prior to operation of the process wastewater treatment facility, the permittee shall submit a certification by the designing professional engineer in accordance with G.S. 89-25, certifying that the permitted facility has been installed in accordance with this permit, the approved plans and specifications, and other supporting materials. The permittee shall deliver the engineer's certification to the Division of Water Quality, Stormwater Permitting Unit, 1617 Mail Service Center, Raleigh, NC 27699-1617.
5. The permittee shall notify the DWQ Regional Office Supervisor at least seventy-two (72) hours in advance of operation of the installed facility so that an in-place inspection can be made if the Regional Office so desires. Such notification to the Regional Office Supervisor shall be made during normal business hours from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding state holidays.
6. The permittee shall retain the approved plans and calculations on site for the life of the process wastewater treatment facility.
7. This permittee is not required to obtain subsequent ATCs for any subsequent additions to the process wastewater treatment facility identified in the initial COC.

**SECTION B: REQUIREMENTS FOR OPERATION OF A PROCESS WASTEWATER  
TREATMENT FACILITY**

1. For both existing and new composting facilities: For composting sites with a process wastewater treatment facility, the permittee shall operate and maintain the process wastewater treatment facility in accordance with the requirements of this General Permit.
2. The diversion or bypass of untreated process wastewater from the process wastewater treatment facility is prohibited except under provisions of this permit in Part IV, Section C.4 and Part IV, Section E.7.

3. In the event that the process wastewater treatment facility fails to perform satisfactorily, including the creation of nuisance conditions, the permittee shall take immediate corrective action, including those actions that may be required by DWQ, such as the construction of additional or replacement treatment or disposal facilities.
4. The issuance of this permit does not relieve the permittee of the responsibility for damages to surface waters of the State resulting from the operation of the process wastewater treatment facility.

**PART IV – STANDARD CONDITIONS**

**SECTION A: COMPLIANCE AND LIABILITY**

1. Compliance Schedule

The permittee shall comply with Limitations and Controls specified for stormwater and wastewater discharges in accordance with the following schedule:

Existing facilities already operating, but applying for coverage under this General Permit for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented within 12 months of the effective date of the initial Certificate of Coverage issued pursuant to this General Permit and updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, paragraph 2(b) of this permit, shall be accomplished within 12 months of the effective date of the initial Certificate of Coverage.

New facilities applying for permit coverage for the first time and existing facilities previously permitted and applying for renewal under this General Permit: All requirements, conditions, limitations, and controls contained in this permit become effective immediately upon issuance of the Certificate of Coverage. The Stormwater Pollution Prevention Plan shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, paragraph 2(b) of this permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

2. Duty to Comply

The permittee must comply with all conditions of this General Permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for certificate of coverage termination, revocation and reissuance, or modification; or denial of a certificate of coverage upon renewal application.

- a. The permittee shall comply with standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- b. The Clean Water Act provides that any person who violates a permit condition is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates any permit condition is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. Also, any person who violates a permit condition may be assessed an administrative penalty not to exceed \$10,000 per violation with the maximum amount not to exceed \$125,000. [Ref: Section 309 of the Federal Act 33 USC 1319 and 40 CFR 122.41(a).]
- c. Under state law, a daily civil penalty of not more than ten thousand dollars (\$10,000) per violation may be assessed against any person who violates or fails to act in accordance with the terms, conditions, or requirements of a permit. [Ref: North Carolina General Statutes 143-215.6A]
- d. Any person may be assessed an administrative penalty by the Director for violating section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for

each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this General Permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Civil and Criminal Liability

Except as provided in Section C of this permit regarding bypassing of stormwater control facilities, nothing in this General Permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties for noncompliance pursuant to NCGS 143-215.3, 143-215.6A, 143-215.6B, 143-215.6C or Section 309 of the Federal Act, 33 USC 1319. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

5. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under NCGS 143-215.75 et seq. or Section 311 of the Federal Act, 33 USC 1321.

6. Property Rights

The issuance of this General Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

7. Severability

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

8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the certificate of coverage issued pursuant to this General Permit or to determine compliance with this General Permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this General Permit.

9. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this General Permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

10. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both.

**SECTION B: GENERAL CONDITIONS**

1. General Permit Expiration

The permittee is not authorized to discharge after the expiration date. In order to discharge beyond the expiration date, the permittee shall submit forms and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date. Any permittee that has not requested renewal at least 180 days prior to expiration, or any permittee that does not have a permit after the expiration and has not requested renewal at least 180 days prior to expiration, will be subjected to enforcement procedures as provided in NCGS §143-2153.6 and 33 USC 1251 et. seq.

2. Transfers

The certificate of coverage issued pursuant to this General Permit is not transferable to any person except after notice to and approval by the Director. The Director may require modification or revocation and reissuance of the certificate of coverage to change the name and incorporate such other requirements as may be necessary under the Clean Water Act. **Permittee is required to notify DWQ within 90 days in the event the permitted facility is sold or closed.**

3. When an Individual Permit May be Required

The Director may require any owner/operator authorized to discharge under a certificate of coverage issued pursuant to this General Permit to apply for and obtain an individual permit or an alternative General Permit. Any interested person may petition the Director to take action under this paragraph. Cases where an individual permit may be required include, but are not limited to, the following:

- a. The discharger is a significant contributor of pollutants;
- b. Conditions at the permitted site change, altering the constituents and/or characteristics of the discharge such that the discharge no longer qualifies for a General Permit;
- c. The discharge violates the terms or conditions of this General Permit;
- d. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
- e. Effluent limitations are promulgated for the point sources covered by this General Permit;
- f. A water quality management plan containing requirements applicable to such point sources is approved after the issuance of this General Permit.
- g. The Director determines at his or her own discretion that an individual permit is required.

4. When an Individual Permit May be Requested

Any permittee operating under this General Permit may request to be excluded from the coverage of this General Permit by applying for an individual permit. When an individual permit is issued to an owner/operator the applicability of this General Permit is automatically terminated on the effective date of the individual permit.

5. Signatory Requirements

All applications, reports, or information submitted to the Director shall be signed and certified.

a. All notices of intent to be covered under this General Permit shall be signed as follows:

- (1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (a) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (b) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the General Permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described above;
- (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
- (3) The written authorization is submitted to the Director.

c. Any person signing a document under paragraphs a. or b. of this section shall make the following certification; which shall not be modified in any way:

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

6. General Permit Modification, Revocation and Reissuance, or Termination

The issuance of this General Permit does not prohibit the Director from reopening and modifying the General Permit, revoking and reissuing the General Permit, or terminating the General Permit as allowed by the laws, rules, and regulations contained in Title 40, Code of Federal Regulations, Parts 122 and 123; Title 15A of the North Carolina Administrative Code, Subchapter 2H .0100; and North Carolina General Statute 143-215.1 et. al.

After public notice and opportunity for a hearing, the General Permit may be terminated for cause. The filing of a request for a General Permit modification, revocation and reissuance, or termination does not stay any General Permit condition. The certificate of coverage shall expire when the General Permit is terminated.

7. Certificate of Coverage Actions

The certificate of coverage issued in accordance with this General Permit may be modified, revoked and reissued, or terminated for cause. The notification of planned changes or anticipated noncompliance does not stay any General Permit condition.

**SECTION C: OPERATION AND MAINTENANCE OF POLLUTION CONTROLS**

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with this General Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the General Permit.

2. Need to Halt or Reduce not a Defense

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

3. Bypassing of Stormwater Control Facilities at Compost Sites Covered by NCG240000

Bypass is prohibited and the Director may take enforcement action against a permittee for bypass unless:

- a. Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;  
and
- b. There were no feasible alternatives to the bypass, such as the use of auxiliary control facilities, retention of stormwater or maintenance during normal periods of equipment downtime or dry weather. This condition is not satisfied if adequate backup controls should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance;  
and
- c. The permittee submitted notices as required under Section E of this Part.

If the Director determines that it will meet the conditions listed above, the Director may approve an anticipated bypass after considering its adverse effects.

4. Bypassing of Process Wastewater Treatment Facilities at Compost Sites Covered by NCG240000

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part IV, Section C.4.a and Part IV, Section C.4.b.

a. Notices

- (1) Anticipated bypass. If the permittees knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass, including an evaluation of the anticipated quality and affect of the bypass.
- (2) Unanticipated bypass. The permittees shall submit notice within 24 hours of becoming aware of an unanticipated bypass as required in Part IV, Section E.7.

b. Prohibition of Bypass

- (1) Bypass is prohibited and the Director may take enforcement action against the permittees for bypass, unless:
  - (a) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage; and
  - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary control facilities, retention of untreated waste or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - (c) Treatment facilities have been designed, operated, and maintained to treat and control the flow from the 2-year, 24-hour storm, plus 2 feet of freeboard for treatment units where the treatment unit function will accommodate freeboard. A bypass may not be considered unavoidable except upon satisfaction of this condition; and
  - (d) The permittee has a rain gauge record establishing that the bypass occurred as a result of rainfall in excess of the 2-year, 24-hr storm; and
  - (e) The permittees submitted notices as required under Part IV, Section C.4.a of this permit.
- (2) The Director may approve an anticipated bypass, after considering its adverse affects, if the Director determines that it will meet the conditions listed in Part IV, Section C.4.b.(1) of this permit.

**SECTION D: MONITORING AND RECORDS**

1. Representative Sampling

Samples collected and measurements taken, as required herein, shall be characteristic of the volume and nature of the permitted discharge. Analytical sampling shall be performed during a measurable storm event. Samples shall be taken on a day and time that is characteristic of the discharge. All samples shall be taken before the discharge joins or is diluted by any other waste stream, body of water, or substance.

2. Recording Results

For each measurement, sample, inspection or maintenance activity performed or collected pursuant to the requirements of this General Permit, the permittee shall record the following information:

- a. The date, exact place, and time of sampling, measurements, inspection or maintenance activity;
- b. The individual(s) who performed the sampling, measurements, inspection or maintenance activity;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

3. Flow Measurements

Where required, appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the EMC regulations published pursuant to NCGS 143-215.63 et. seq, the Water and Air Quality Reporting Acts, and to regulations published pursuant to Section 304(g), 33 USC 1314, of the Federal Water Pollution Control Act, as Amended, and Regulation 40 CFR 136.

To meet the intent of the monitoring required by this General Permit, all test procedures must produce minimum detection and reporting levels and all data generated must be reported down to the minimum detection or lower reporting level of the procedure.

5. Representative Outfall

If a facility has multiple discharge locations with substantially identical stormwater discharges that are required to be sampled, the permittee may petition the Director for representative outfall status. If it is established that the stormwater discharges are substantially identical and the permittee is granted representative outfall status, then analytical sampling requirements may be performed at a reduced number of outfalls.

6. Records Retention

Qualitative monitoring shall be documented and records maintained at the facility along with the Stormwater Pollution Prevention Plan. Copies of analytical monitoring results shall also be maintained on-site. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous

monitoring instrumentation, and copies of all reports required by this General Permit for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. If this volume of records cannot be maintained on-site, the documents must be made available to an inspector upon request as immediately as possible.

7. Inspection and Entry

The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), or in the case of a facility which discharges through a municipal separate storm sewer system, an authorized representative of a municipal operator or the separate storm sewer system receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to;

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this General Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this General Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this General Permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring General Permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

**SECTION E: REPORTING REQUIREMENTS**

1. Discharge Monitoring Reports

Samples analyzed in accordance with the terms of this permit shall be recorded on Discharge Monitoring Report (DMR) forms provided by the Director, and delivered to the Division **no later than 30 days from the date the facility receives the sampling results from the laboratory.**

When no discharge has occurred from one or more outfalls during the report period, the permittee is required to submit a DMR indicating "NO FLOW" or "NO DISCHARGE" within 30 days of the end of the sampling period.

The permittee shall record the required qualitative monitoring observations on the SDO Qualitative Monitoring Report form provided by DWQ, and shall retain the completed forms on site. Qualitative monitoring results should not be submitted to DWQ, except upon DWQ's specific direction to do so.

The permittee shall include the signed certification statement described in Part IV, Section B.5.c.

2. Submitting Reports

A signed original and a copy of the Discharge Monitoring Report (DMR) shall be submitted to:

Central Files  
Division of Water Quality  
1617 Mail Service Center  
Raleigh, North Carolina 27699-1617

Qualitative (visual) monitoring results should **not** be submitted to the DWQ Central Files unless specifically directed by DWQ.

3. Availability of Reports

Except for data determined to be confidential under NCGS 143-215.3(a)(2) or Section 308 of the Federal Act, 33 USC 1318, all reports prepared in accordance with the terms shall be available for public inspection at the offices of DWQ. As required by the Act, analytical data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NCGS 143-215.6B or in Section 309 of the Federal Act.

4. Non-Stormwater Discharges

If the storm event monitored in accordance with this General Permit coincides with a non-stormwater discharge, the permittee shall separately monitor all parameters as required under the non-stormwater discharge permit and provide this information with the stormwater discharge monitoring report.

5. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned changes at the permitted facility which could significantly alter the nature or quantity of pollutants discharged. This notification requirement includes pollutants which are not specifically listed in the General Permit or subject to notification requirements under 40 CFR Part 122.42 (a).

6. Anticipated Noncompliance

The permittee shall give notice to the Director as soon as possible of any planned changes at the permitted facility which may result in noncompliance with the General Permit requirements.

7. Bypass

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass; including an evaluation of the anticipated quality and affect of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice within 24 hours of becoming aware of an unanticipated bypass.

8. Twenty-four Hour Reporting

The permittee shall report to the central office or the appropriate regional office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances.

The written submission shall contain a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time compliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

9. Spills

The permittee shall report to the local DWQ Regional Office, within 24 hours, all significant spills as defined in Part VII of this permit. Additionally, the permittee shall report spills including: any oil spill of 25 gallons or more, any spill regardless of amount that causes a sheen on surface waters, any oil spill regardless of amount occurring within 100 feet of surface waters, and any oil spill less than 25 gallons that cannot be cleaned up within 24 hours.

10. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under 24 hour reporting at the time monitoring reports are submitted.

11. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a Notice of Intent to be covered under this General Permit or in any report to the Director, it shall promptly submit such facts or information.

**PART V – LIMITATIONS REOPENER**

This General Permit shall be modified or alternatively, revoked and reissued, to comply with any applicable effluent guideline or water quality standard issued or approved under Sections 302(b) (2) (c), and (d), 304(b) (2) and 307(a) of the Clean Water Act, if the effluent guideline or water quality standard so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the General Permit; or
- b. Controls any pollutant not limited in the General Permit.

The General Permit as modified or reissued under this paragraph shall also contain any other requirements in the Act then applicable.

**PART VI – ADMINISTERING AND COMPLIANCE MONITORING FEE REQUIREMENTS**

The permittee must pay the administering and compliance monitoring fee within 30 (thirty) days after being billed by DWQ. Failure to pay the fee in timely manner in accordance with 15A NCAC 2H .0105(b)(4) may cause DWQ to initiate action to revoke the Certificate of Coverage.

**PART VII – DEFINITIONS**

1. Act

See Clean Water Act.

2. Adverse Weather

Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as a drought. When adverse weather conditions prevent the collection of samples during the sample period, the permittee must take a substitute sample or perform a visual assessment during the next qualifying storm event. Documentation of an adverse event and the rationale must be included with your SPPP records. Adverse weather does not exempt the permittee from having to file a monitoring report in accordance with the sampling schedule. Adverse events and failures to monitor must be explained on the DMR and recorded and explained in the SPPP records.

3. Arithmetic Mean

The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.

4. Allowable Non-Stormwater Discharges

a. Non-stormwater discharges which shall be allowed in the stormwater conveyance system are:

- (a) All other discharges that are authorized by a non-stormwater NPDES permit.
- (b) Uncontaminated groundwater, foundation drains, air-conditioner condensate without added chemicals, springs, discharges of uncontaminated potable water, waterline and fire hydrant flushings, water from footing drains, flows from riparian habitats and wetlands.
- (c) Discharges resulting from fire-fighting or fire-fighting training.

5. Best Management Practices (BMPs)

Measures or practices used to reduce the amount of pollution entering surface waters. BMPs may take the form of a process, activity, or physical structure. More information on BMPs can be found at: <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>.

6. Bypass

A bypass is the known diversion of stormwater or wastewater from any portion of a stormwater or wastewater control facility including the collection system, which is not a designed or established operating mode for the facility.

7. Bulk Storage of Liquid Products

Liquid raw materials, manufactured products, waste products or by-products with a single above ground storage container having a capacity of greater than 660 gallons or with multiple above ground storage containers located in close proximity to each other having a total combined storage capacity of greater than 1,320 gallons.

8. Certificate of Coverage

The Certificate of Coverage (COC) is the cover sheet which accompanies the General Permit upon issuance and lists the facility name, location, receiving stream, river basin, effective date of coverage under the permit and is signed by the Director.

9. Clean Water Act

The Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), as amended, 33 USC 1251, et. seq.

10. Division or DWQ

The Division of Water Quality, Department of Environment and Natural Resources.

11. Director

The Director of the Division of Water Quality, the permit issuing authority.

12. EMC

The North Carolina Environmental Management Commission.

13. Grab Sample

An individual sample collected instantaneously. Grab samples that will be analyzed (quantitatively or qualitatively) must be taken within the first 30 minutes of discharge.

14. Hazardous Substance

Any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

15. Landfill

A disposal facility or part of a disposal facility where waste is placed in or on land and which is not a land treatment facility, a surface impoundment, an injection well, a hazardous waste long-term storage facility or a surface storage facility.

16. Measurable Storm Event

A measurable storm event is a storm event that results in an actual discharge from the permitted site outfall. The time between this storm event and the previous storm event must be at least 48 hours. One storm event may have a time period with no precipitation. This time period may last up to 10 hours. For example, if it rains but stops before producing any collectable discharge, a sample may be collected if the next rain producing a discharge begins within 10 hours.

17. Municipal Separate Storm Sewer System

A stormwater collection system within an incorporated area of local self-government such as a city or town.

18. No Exposure

A condition of no exposure means that all industrial materials and activities are protected by a storm resistant shelter or acceptable storage containers to prevent exposure to rain, snow, snowmelt, or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. DWQ may grant a No Exposure Exclusion from NPDES Stormwater Permitting requirements only if a facility complies with the terms and conditions described in 40 CFR §122.26(g)

19. Notice of Intent

The state application form which, when submitted to DWQ, officially indicates the facility's notice of intent to seek coverage under a General Permit.

20. Permittee

The owner or operator issued a certificate of coverage pursuant to this General Permit.

21. Point Source Discharge of Stormwater

Any discernible, confined and discrete conveyance including, but not specifically limited to, any pipe, ditch, channel, tunnel, conduit, well, or discrete fissure from which stormwater is or may be discharged to waters of the state.

22. Process Wastewater

Process wastewater is defined in 40CFR122.2 as, "Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product."

23. Representative Outfall Status

When it is established that the discharge of stormwater runoff from a single outfall is representative of the discharges at multiple outfalls, the DWQ may grant representative outfall status. Representative outfall status allows the permittee to perform analytical monitoring at a reduced number of outfalls.

24. Rinse Water Discharge

The discharge of rinse water from equipment cleaning areas associated with industrial activity. Rinse waters from vehicle and equipment cleaning activities are process wastewaters.

25. Secondary Containment

Spill containment for the contents of the single largest tank within the containment structure plus sufficient freeboard to allow for the 25-year, 24-hour storm event.

26. Section 313 Water Priority Chemical

A chemical or chemical category which:

- a. Is listed in 40 CFR 372.65 pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, also titled the Emergency Planning and Community Right-to-Know Act of 1986;
- b. Is present at or above threshold levels at a facility subject to SARA title III, Section 313 reporting requirements; and
- c. Meets at least one of the following criteria:
  - (1) Is listed in appendix D of 40 CFR Part 122 on Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols) or Table IV (certain toxic pollutants and hazardous substances);
  - (2) Is listed as a hazardous substance pursuant to section 311(b)(2)(A) of the CWA at 40 CFR 116.4; or
  - (3) Is a pollutant for which EPA has published acute or chronic water quality criteria.

27. Severe Property Damage

Means substantial physical damage to property, damage to the control facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

28. Significant Materials

Includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

29. Significant Spills

Includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (Ref: 40 CFR 110.10 and CFR 117.21) or section 102 of CERCLA (Ref: 40 CFR 302.4).

30. Stormwater Discharge Outfall (SDO)

The point of departure of stormwater from a discernible, confined, or discrete conveyance, including but not limited to, storm sewer pipes, drainage ditches, channels, spillways, or channelized collection areas, from which stormwater flows directly or indirectly into waters of the State of North Carolina.

31. Stormwater Runoff

The flow of water which results from precipitation and which occurs immediately following rainfall or as a result of snowmelt.

32. Stormwater Associated with Industrial Activity

The discharge from any point source which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw material storage areas at an industrial site. Facilities considered to be engaged in "industrial activities" include those activities defined in

40 CFR 122.26(b)(14). The term does not include discharges from facilities or activities excluded from the NPDES program.

33. Stormwater Pollution Prevention Plan (SPPP)

A comprehensive site-specific plan which details measures and practices to reduce stormwater pollution and is based on an evaluation of the pollution potential of the site.

34. Total Maximum Daily Load (TMDL)

TMDLs are written plans for attaining and maintaining water quality standards, in all seasons, for a specific water body and pollutant.

35. Toxic Pollutant

Any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

36. Treatment Facilities

Treatment facilities include any pit, pond, lagoon, basin, or containment structure used to treat or contain process wastewater. They must be used to meet Effluent Limitations and are not Stormwater Best Management Practices (BMPs).

37. Vehicle and Equipment Maintenance Activity

Vehicle or vessel or equipment rehabilitation, mechanical repairs, painting, fueling, lubrication, cleaning operations, or airport deicing operations.

38. Visible Sedimentation

Solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin which can be seen with the unaided eye.

39. 2-year, 24 hour storm event

The maximum 24-hour precipitation event expected to be equaled or exceeded, on the average, once in 2 years.

END



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Mooresville Regional Office

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

Albert F. Hilton, Regional Manager

DIVISION OF LAND RESOURCES  
LAND QUALITY SECTION

June 11, 1992

Mr. Bobbie Shields, P.E.  
Director of Engineering  
Mecklenburg County  
700 North Tryon Street  
Charlotte, North Carolina 28202

RE: LETTER OF APPROVAL  
Project Name: Compost Central Expansion Area  
Location: Steele Creek Road - Mecklenburg County  
Submitted By: Mecklenburg County  
Date Received: May 18, 1992  
New Submittal:  X  Revision      

Dear Mr. Shields:

This office has reviewed the subject erosion and sedimentation control plan. We find the plan to be acceptable and hereby issue this letter of approval.

Please be advised that Title 15 NCAC 4B .0017(a) requires that a copy of the approved erosion control plan be on file at the job site. Also, you should consider this letter to give the Notice required by G.S. 113A-61(d) of our right of periodic inspection to insure compliance with the approved plan.

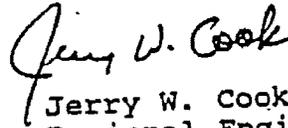
North Carolina's Sedimentation Pollution Control Program is performance oriented, requiring protection of the natural resources and adjoining properties. If following the commencement of this project it is determined that the erosion and sedimentation control plan is inadequate to meet the requirements of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statute 113A-51 thru 66), this office may require revisions to the plan and implementation of the revisions to insure compliance with the Act.

Page Two

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form which you have provided. You are requested to file an amended form if there is any change in the information included on the form. In addition, it would be helpful if you notify this office of the proposed starting date for this project.

Your cooperation is appreciated, and we look forward to working with you on this project.

Sincerely,



Jerry W. Cook  
Regional Engineer

cc: Mr. Bill Tingle, P.G.

BKN/kr



## USING COMPOST IN THE LANDSCAPE

**C**ompost has been used by gardeners in backyard landscaping and gardening for many years. The benefits are substantial, especially when compost is used on the compacted, nutrient-deficient soils common in many urban areas and on red clay soil such as we have in Mecklenburg County.

**Y**our product. The compost you have purchased is classified as "unrestricted application and distribution" and can be used on any soil. The compost is made from yard waste, including leaves, limbs, grass clippings and brush. It has been treated by pathogen-free requirement procedures (PFRP), which means it is maintained at 131 F for a minimum of 72 hours. This treatment ensures that the compost is free of disease-causing organisms.

**B**enefits. Compost enhances the physical, chemical and biological properties of soils. In clay soils, organic materials such as compost increase drainage and air space. Compost tends to raise PH and increase the soil's biological activity. In sandy soils, compost increases the ability to hold moisture and nutrients. Landscapers find that all these characteristics help ornamental plants become established and develop a good root system.

### **H**ow to use.

1. For landscape use and vegetable gardening: (a) apply compost in a 3 to 4 inch layer spread over the soil surface; (b) incorporate it into the root zone
2. For over seeding established lawns: (a) core aerate; (b) apply a 1/2 inch layer of compost over the lawn; (c) incorporate the seed and fertilizer into this layer
3. For new lawns: (a) apply a 1 inch layer of compost over the soil surface; (b) incorporate it into the top 1 inch of soil; (c) apply the seed and fertilizer per manufacturers' recommendations

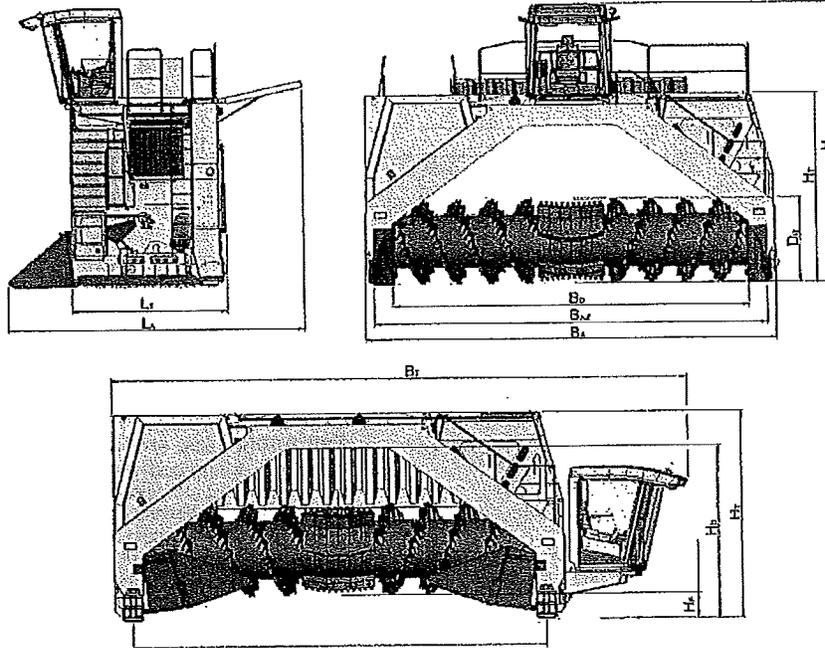
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Call 588-9070 for more information about Mecklenburg County's compost and mulch operations. Mecklenburg County also offers information and workshops on backyard composting and other environmental yard care techniques. Call 336-5359 for more information or visit our web site at [www.co.mecklenburg.nc.us/coeng](http://www.co.mecklenburg.nc.us/coeng).

Mecklenburg County Solid Waste Management  
700 North Tryon Street  
Charlotte, NC 28202



**Appendix IV**  
**Manufacturer's Performance Data**



|  |                   |  | 6.65                            | 6.70          | 6.75          |
|--|-------------------|--|---------------------------------|---------------|---------------|
| <b>working data</b>                    |                   |  |                                 |               |               |
| heap width up to                       | B <sub>auf</sub>  | m (ft)   | 6,5 (21.3)                      | 7,0 (23.0)    | 7,5 (24.6)    |
| heap height up to                      |                   | m (ft)   | 3,0 (9.8)                       | 3,3 (10.8)    |               |
| heap cross section*                    |                   | m <sup>2</sup> (yd <sup>2</sup> )                                  | 10,5 (12.6)                     | 12,2 (14.6)   | 13,9 (16.6)   |
| surface utilization*                   |                   | m <sup>2</sup> /m <sup>2</sup> (yd <sup>2</sup> /yd <sup>2</sup> ) | 1,69 (1.85)                     | 1,74 (1.9)    | 1,85 (2.02)   |
| width track clearer                    |                   | m (inch)   | 2x0,35 (2x13.8)                 |               |               |
| clearing share*                        |                   | %  | 1,1                             | 1,0           | 0,9           |
| granular size up to                    |                   | mm (inch)  | 300 (11.8)                      |               |               |
| longitudinal heap displacement approx. |                   | m (ft)   | 3,0 (9.8)                       |               |               |
| displacement capacity up to            |                   | m <sup>3</sup> /h (yd <sup>3</sup> /h)                             | 5.000 (6,700)                   | 5.800 (7,700) | 6.800 (8,900) |
| rotor torque                           |                   | Nm (lbf ft)  | 24.200 (17,800) 30.000 (22,100) |               |               |
| number of firm throwing tools          |                   | -  | 100                             | 112           | 124           |
| number of firm throwing rakes          |                   | -  | 18                              |               |               |
| <b>dimensions - work</b>               |                   |  |                                 |               |               |
| rotor diameter                         | D <sub>R</sub>    | mm (Inch)  | 1.600 (63.0)                    |               |               |
| length                                 | L <sub>A</sub>    | mm (ft)  | 5.700 (18.7)                    |               |               |
| width                                  | B <sub>A</sub>    | mm (ft)  | 6.900 (22.6)                    | 7.400 (24.3)  | 7.900 (25.1)  |
| height                                 | H <sub>A</sub>    | mm (ft)  | 4.850 (15.9)                    | 5.350 (17.6)  |               |
| clearance width                        | B <sub>D</sub>    | mm (ft)  | 5.800 (19)                      | 6.300 (20.7)  | 6.800 (22.3)  |
| clearance height                       | H <sub>D</sub>    | mm (ft)  | 2.800 (8.2)                     | 3.000 (9.8)   |               |
| ground clearance max.                  | H <sub>F</sub>    | mm (inch)  | 30 - 400 (1.2 - 15.7)           |               |               |
| <b>dimensions - transport</b>          |                   |  |                                 |               |               |
| length                                 | L <sub>T</sub>    | mm (ft)  | 2.980 (9.8)                     |               |               |
| width                                  | B <sub>T</sub>    | mm (ft)  | 9.000 (29.5)                    | 9.500 (31.2)  | 10.000 (32.8) |
| height                                 | H <sub>T</sub>    | mm (ft)  | 3.600 (11.8)                    |               |               |
| track width                            | B <sub>spur</sub> | mm (ft)  | 6.160 (20.2)                    | 6.660 (21.9)  | 7.160 (23.5)  |
| Turning radius                         | R <sub>T</sub>    | mm (ft)  | 3.700 (12.1)                    | 3.950 (13.0)  | 4.150 (13.6)  |
| forward feed speed forward / backward  |                   | m/min (ft/min)   | 0-70 (0-230)                    |               |               |
| weight approx.                         |                   | t  | 20                              | 24            | 26            |
| ground pressure approx.                |                   | kg/cm <sup>2</sup> (PSI)   | 1,32 (18.8)                     | 1,53 (21.7)   | 1,67 (23.7)   |

\* at a dumping angle of 45 deg



## Technical Data / Delivery Volume

|                       |                    | 6.65                                 | 6.70                     | 6.75 |
|-----------------------|--------------------|--------------------------------------|--------------------------|------|
| engine                |                    | Cummins Turbo-Diesel<br>water cooled |                          |      |
| type                  |                    | QSX 15-C450                          | QSX 15-C600              |      |
| cylinder              |                    | 6                                    |                          |      |
| cubic capacity        | l                  | 15                                   |                          |      |
| nominal capacity      | kW (HP)<br>RPM     | 336 (450)<br>@ 2,100                 | 447 (600)<br>@ 2,100     |      |
| maximum capacity      | kW (HP)<br>RPM     | 358 (480)<br>@ 1,800                 | 455 (610)<br>@ 1900      |      |
| max. torque           | Nm (lbf ft)<br>RPM | 2.102 (1,550)<br>@ 1,200-1,400       | 2.542 (1,875)<br>@ 1,400 |      |
| three-phase generator | V / A              | 24 / 70                              |                          |      |
| battery               | V / Ah             | 4x12 / 143                           |                          |      |
| fuel tank             | l                  | 1,000                                |                          |      |

### Frame

box construction type portal frame  
corrosion-resistant 2-color lacquer coating  
RAL1004 golden yellow and RAL6029 mint green  
Steel surfaces (except wear areas)  
Sa 2 1/2 blasted with DIN EN ISO 12944-4  
Coating in accordance with DIN EN ISO 12944-5  
Category C2  
Coat thickness 120µm

### Engine

high-power CUMMINS-Diesel engine  
exhaust gas certification level:  
III A (EuroMot) / Tier 3 (U.S. EPA)  
4-valve technology  
Common Rail fuel injection system  
waste gas turbocharger  
charge air cooling  
electronic engine management  
flexible engine mounting  
side-by-side cooling system with large mesh size  
trapezoidal perforated sheet for pre-cleaning cooling air

### Undercarriage

compact caterpillar track drives with rubber-lined track shoes  
independent hydraulic drives in closed circuit, infinitely variable adjustable

### Rotor

hydraulic drive in closed circuit  
RPM adjustable and reversible under load  
infinitely variable adjustable in height under load  
rotor height indicator  
screwed tools  
easily and quickly exchangeable  
throwing rake  
for best possible heap arrangement

### Hydraulic rear flap

#### Track clearer

independently hydraulically swivelling and height adjustable  
automatic ground contour adaptation

### Hydraulics

reflux suction filtration with fiber glass filter cells  
electric level and filter monitoring  
magnetic valve with LED-performance indicator

### Panorama-ease and convenience cabin

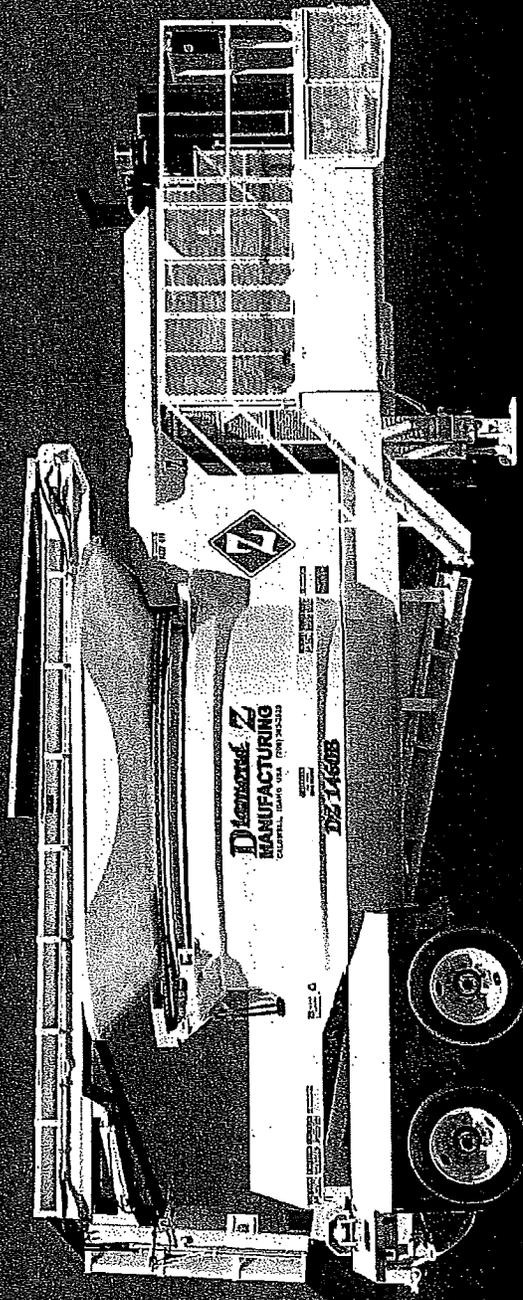
adjustable spring born seat for driver  
arm rests with operating elements  
one-lever steering with joystick  
CD/MP3/radio mounting kit with 2 stereo loudspeakers  
cabin filter according to G4 (EU4)  
according to DIN EN 779 (DIN 24 185)  
warm water heating with three-stage ventilation  
air-conditioning system  
side window can be opened  
sun protection front and back  
2 halogen head lamps in cabin roof

### Accessories

2 halogen head lamps front  
4 halogen head lamps back  
intake air pre-filter  
machine monitoring with visual and acoustic warning  
acoustic operation warning  
acoustic back up warning  
first-aid box  
Console with rapid changing device  
For the transportation the cabin can be put into transport position by a loading crane.  
widely opening engine bonnet  
dismountable tool box  
operating instructions and spare part catalogue according to CE-standard  
Operating instructions are enclosed in German and in the native language of the European country of application (outside of Europe: English).  
introduction in the machine  
instructions on theoretical and practical knowledge about the machine in practical operation  
amply access and rails according to standards

Subject to technical alterations!

# Diamond Z Tub Grinder



The 1460B is a workhorse that out-produces all other grinders in its class. It features a 14 foot tub and up to 1,050 horsepower applied to a 60 inch hammermill. One of the most versatile grinders in the market, the 1460B makes short work of C&D material, railroad ties, green waste, stumps, and many other materials.

# MODEL 1460B



# 1460B

## Power Train

- Engines Available:
- ◆ Caterpillar C27 ACERT EPA Tier II  
1649 ci (27.0 liters)  
875 hp @ 2000 rpm
- ◆ Caterpillar C27 ACERT EPA Tier II  
1649 ci (27.0 liters)  
1050 hp @ 2000 rpm
- Transmissions Available:
- ◆ Fluid Coupling Drive OR
- ◆ Friction Disc Clutch

## Fluid Capacities

- ◆ Fuel Tank Capacity 457 gallons
- ◆ Hydraulic Tank Capacity 115 gallons

## Tub Feed System

- ◆ Inner:  
Top Diameter 14"  
Base Diameter 10' 5"  
Depth 65"
- ◆ Outer:  
Diameter 11' 2"

## Hammer Milling System

- ◆ Mill Swing Diameter 28' 1/2"
- ◆ Mill Rod Diameter 8 @ 1 5/16" ea.
- ◆ Hammer Weight 26 @ 40 lbs ea.
- ◆ Hammer Tips 26 @ 7 lbs ea.
- ◆ Mill Feed Opening 27 X 60"
- ◆ Screen Area (Total) 2 @ 3,960 sq in

## Operating Dimensions

- ◆ Length 57' 1"
- ◆ Width 14'
- ◆ Height 14'
- ◆ Weight 63,000 lbs

## Transporting Dimensions

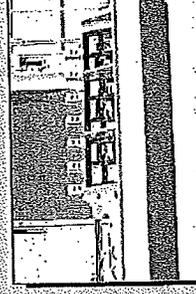
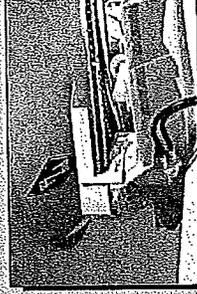
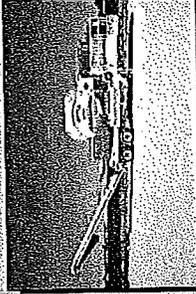
- ◆ Length 33' 6"
- ◆ Width 11' 11"
- ◆ Height 13' 2"
- ◆ Kingpin Weight 27,000 lbs
- ◆ Tri-Axle Weight 36,000 lbs
- ◆ Total Weight 63,000 lbs

## Discharge System

- Phase I:
- ◆ Length 16'
- ◆ Width 42"
- Phase II:
- ◆ Length 28'
- ◆ Width 30"
- ◆ Output Height 4' to 14'

## Production Rates

- ◆ Construction Waste Up to 95 tons/hr  
Or 665 cubic yards
- ◆ Brush & Yard Waste Up to 85 tons/hr  
Or 340 cubic yards
- ◆ Stumps & Logs Up to 70 tons/hr  
Or 210 cubic yards



Diamond Z reserves the right to improve our products and make changes without notice. Actual products offered for sale may vary in design. Pictures may not be an actual representation of equipment. Available optional items, required attachments, and safety features.



11299 Bass Lane • Caldwell, Idaho 83605  
208-585-2929 • www.diamondz.com



**Proven  
Performance**

# **McCloskey** INTERNATIONAL **621**



# McCloskey

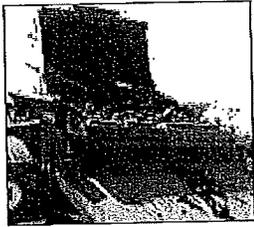
INTERNATIONAL

## 621 High Performance Trommel

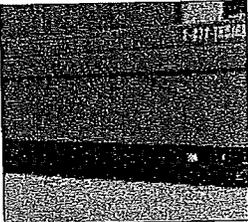
The 621 Trommel Screener is suited for large heavy duty applications where production rates can reach 200+ tph in topsoil and sticky material or 300tph in sand and gravel.

"The McCloskey Trommel Screens are simply awesome in their throughput, speed and ease of use. Our new 621 processes 150 tonnes of lightweight compost material, per hour, separating oversize, blending, and aerating in a single operation to produce a top quality, clean, green, peat free product in demand by the horticultural industry and domestic gardener alike."

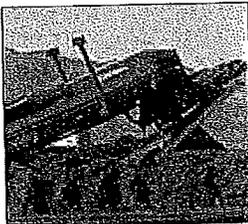
Andy Foster  
Site Supervisor, White Moss Horticultural Ltd, England



Options  
Livehead.



Tracks.



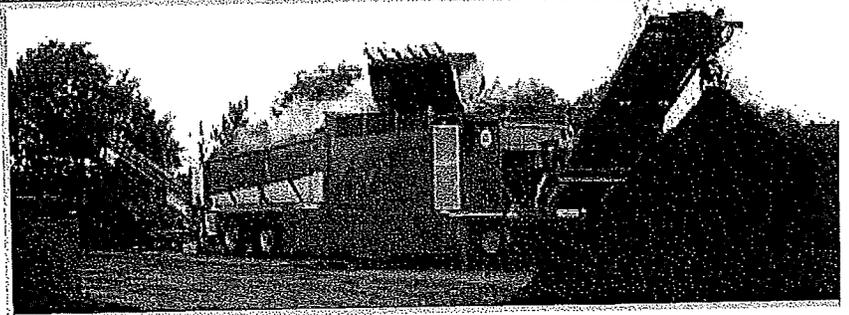
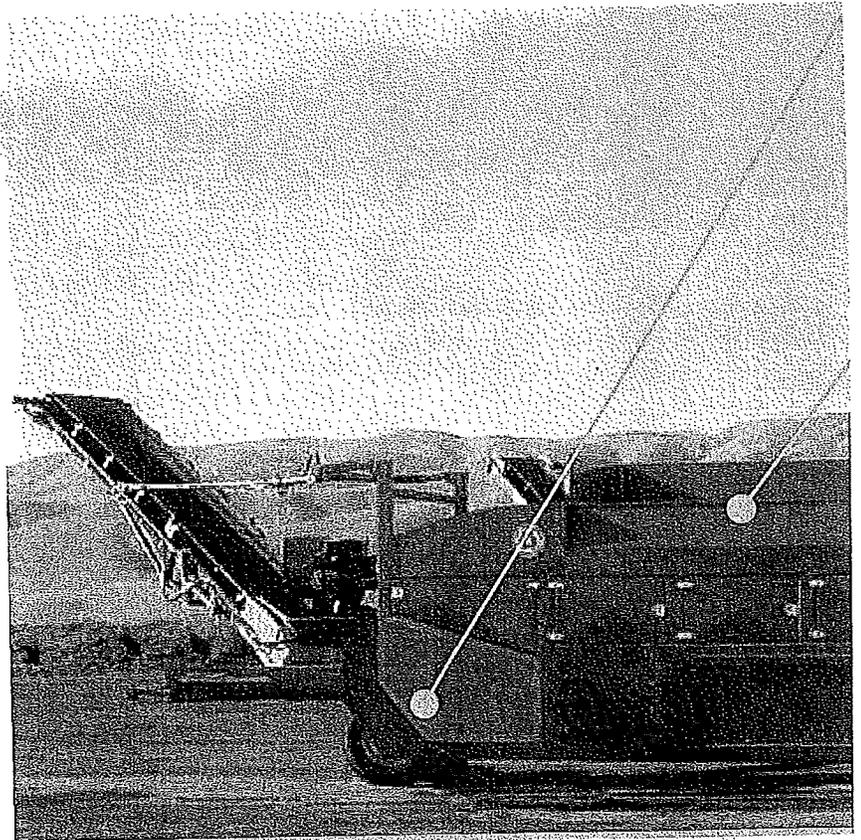
De-stoning belt.



Vacuum system.



Drum  
- Standard  
- Heavy duty  
- Smooth aggregate  
- Punch plate



**Features & benefits**

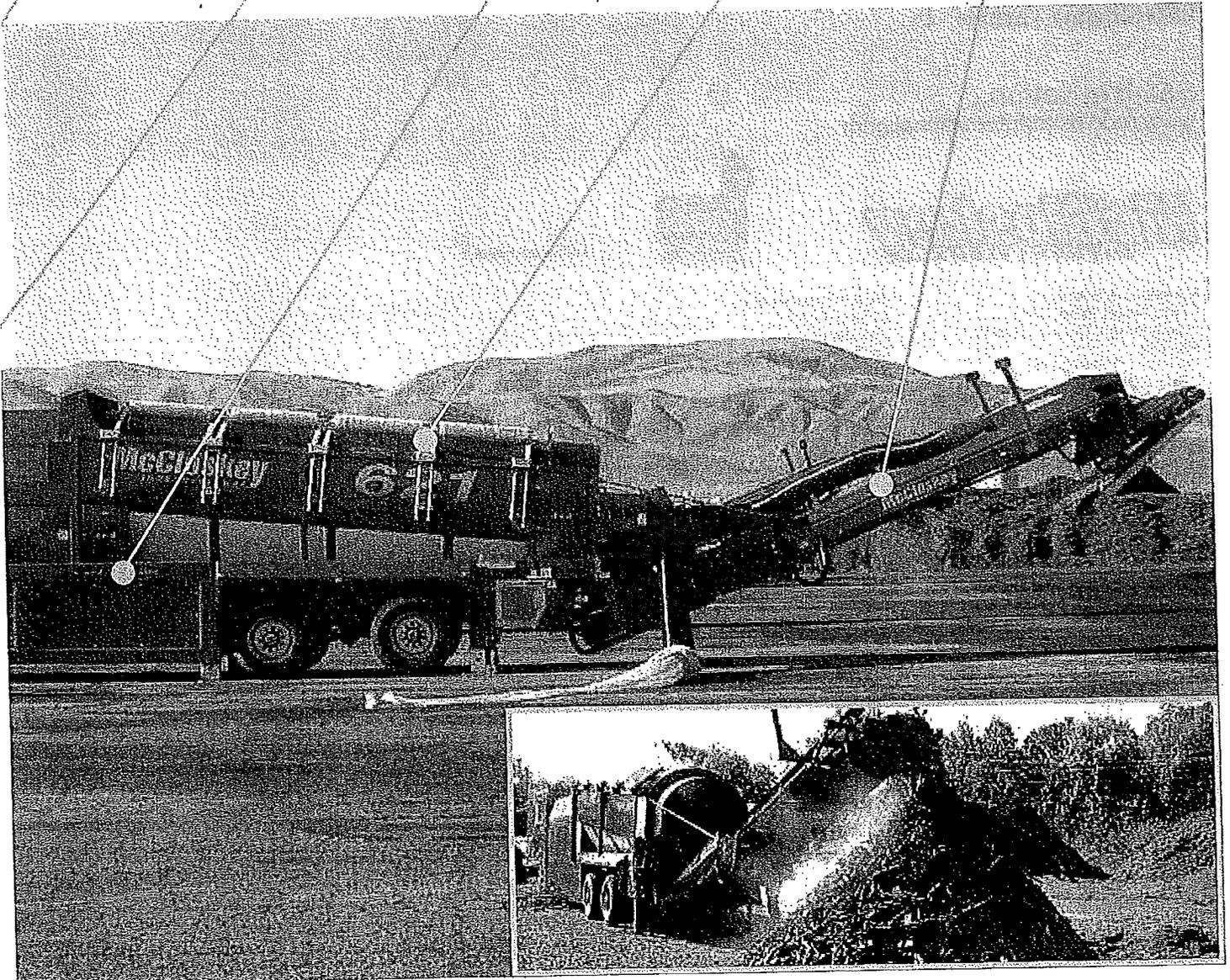
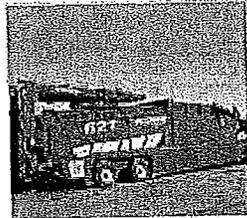
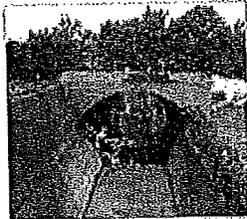
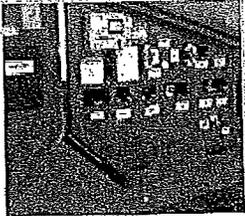
**Powerunit-**  
New ground level powerunit features 174Hp CAT Teir III engine with LCD display and automatic emergency shutdowns.

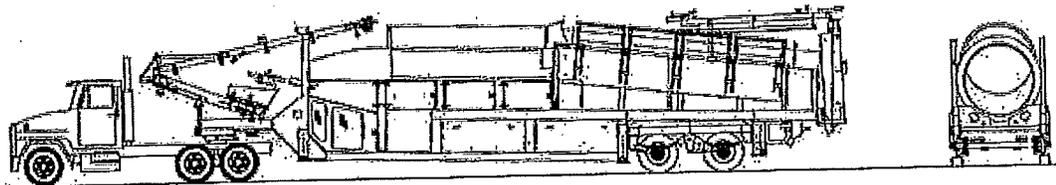
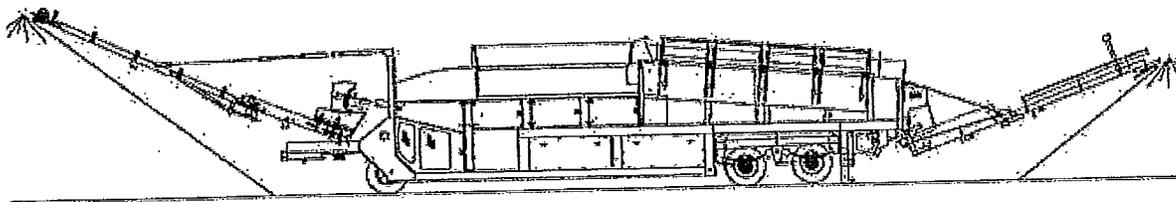
**Feed Conveyor -**  
New 42" wide feed conveyor fitted with internal drive replaces external chain drive system to improve maintenance.

**Chassis -**  
New design chassis complete with tandem or tri-axle running gear and mounts a larger 320 US gal diesel fuel tank.

**Adjustable Brushes -**  
User friendly ground level adjustable brushes.

**Oversize Conveyor -**  
New 36" wide oversize reject conveyor at the end of the trommel offering magnetic pulley, vacuum system and high speed de-stoning belt.





### 621 Dimensions and weight

Trommel Screen - 1.8m x 6.4 (6ft diameter x 21ft long)  
 Weight - 27,796kgs (61,280lbs)  
 Height transport - 4.10m (13' - 6")  
 Length transport - 18.24m (60')  
 Width transport - 2.60m (8' - 6")

### Working Dimensions

Height working - 4.61m (15' - 1.5")  
 Length working - 29.37m (96' - 4.3")  
 Width working - 2.60m (8' - 6.4")

See it in action...

[www.mccloskeyinternational.com](http://www.mccloskeyinternational.com)

**McCloskey**  
INTERNATIONAL

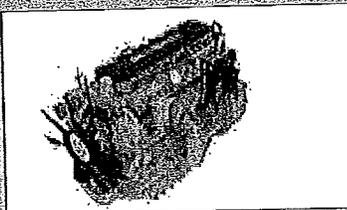


**N.America & S.America**  
 #1 McCloskey Road, RR#7  
 Peterborough, Ontario Canada,  
 K9J 6X8  
 Toll Free 1-877-876 6635  
 T (705) 295-4925  
 F (705) 295-4777  
[mccloskey@mccloskeyinternational.com](mailto:mccloskey@mccloskeyinternational.com)

**UK & International**  
 47 Moor Road,  
 Coalisland,  
 Co Tyrone,  
 N.Ireland BT71 4QB  
 T +44 (0) 2887-740-926  
 F +44 (0) 2887-747-242  
[salesuk@mccloskeyinternational.com](mailto:salesuk@mccloskeyinternational.com)

Authorized dealer:

McCloskey International reserves the right to make changes to the information and design of the machines on this brochure without reservation and notification to the users. McCloskey International assumes no liability resulting from errors or omissions in this document.



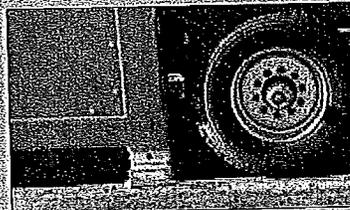
#### Durability

- Branded components throughout, including CAT Engine.
- High efficiency diesel hydraulic system allows higher throughput and lower fuel consumption.
- 4-wheel drive system eliminating chain drives.
- Vulcanized belts with high quality scrapers.

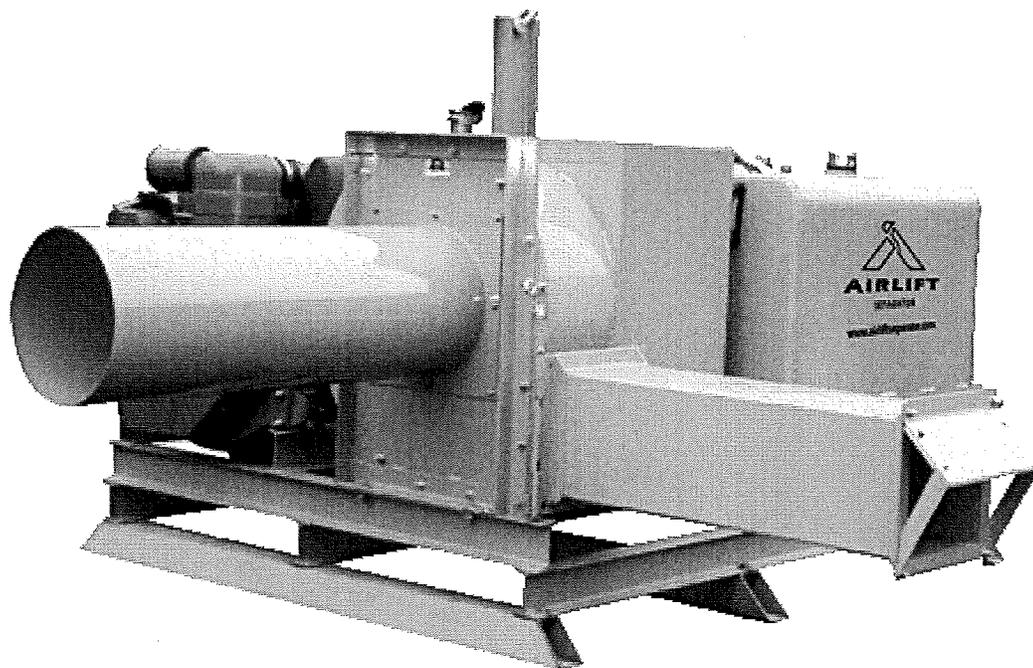


#### Maintenance/User friendly

- Remote control radial conveyor.
- Accessible engine bays at ground level.
- Universal user friendly controls throughout the McCloskey line.
- Quick setup time.
- Highly maneuverable on site.
- Unique user friendly belt adjusters.



- Chain free design.
- Ground level grease points.
- Stabilizer support legs.



### Power

- 46HP Diesel Engine
- Air Cooled
- 12 Volt Electric Start
- Temperature Gauge
- Manual Throttle Control
- Engine rpm Gauge

### Hydraulic System

- 50 Gallon Hydraulic Reservoir
- Hydraulic Pump
- Auto Controlled Hydraulic Cooling System

### Electrical Lockout

- Key Switch
- Remote Mount Emergency Stop Switch

### Approximate Shipping Weight

- 2465 lbs.

### Fan Controller

- Variable Speed rpm
- Digital Display
- Hour Meter
- Volt Meter
- Soft Start and Stop Technology

### Diesel Fuel Tank 35 Gallon w/Fuel Gauge

### Fuel Consumption 1.9 gph Inlet 14" Suction Tube

### Discharge Containment

- Filter Stock
- Container Adapter (Optional)

### Physical Dimensions of Skid

- Length: 78"
- Width: 68"
- Height: 46"

Note: Dimensions do not include Inlet and Discharge Assemblies

## Why Airlift?

**Appendix V**  
**Groundwater Level Readings**



Westinghouse Environmental  
and Geotechnical Services, Inc.

9751 Southern Pine Boulevard  
Charlotte, North Carolina 28273  
P.O. Box 7668  
Charlotte, North Carolina 28241-7668  
(704) 523-4726  
FAX (704) 525-3953

July 12, 1991

Mecklenburg County  
Engineering Department  
700 North Tryon Street  
Charlotte, North Carolina 28202

Attention: Mr. David K. Morton, P.E.

Reference: Groundwater Level Readings  
Proposed Yard Waste Facility  
Mecklenburg County, Charlotte, NC  
Westinghouse Job No. CHW-C-043

Gentlemen:

Westinghouse Environmental and Geotechnical Services, Inc. has completed the auger borings at the subject project. The borings were located by Mecklenburg County personnel. Please find attached the boring logs for the four auger borings performed.

Groundwater levels measured in the standpipes after 3 days ranged from 6.2 feet to 12.5 feet beneath the ground surface. For the groundwater level at a specific location please refer to the appropriate boring log. The temporary PVC Standpipes were abandoned on July 2, 1991 and the auger borings were backfilled with grout.

We appreciate this opportunity to be of service to Mecklenburg County. If you should have questions or require additional information, please contact us.

Sincerely,

WESTINGHOUSE ENVIRONMENTAL AND  
GEOTECHNICAL SERVICES, INC.

Dan E. Brewer, P.E.  
Project Engineer

J. Reid Owen, P.E.  
Engineering Department Manager

DEPTH FT.                      DESCRIPTION                      ELEV. ● PENETRATION-BLOWS PER FT.

| DEPTH FT. | DESCRIPTION  | 0 | 10 | 20 | 30 | 40 | 60 | 80 | 100 |
|-----------|--|---|----|----|----|----|----|----|-----|
| 0.0       | Orange Brown Sandy SILT (Fill)   |   |    |    |    |    |    |    |     |
| 1.0       | Tan Brown Silty SAND   |   |    |    |    |    |    |    |     |
| 12.0      | Tan Gray Very Fine Sandy SILT (Moist)  |   |    |    |    |    |    |    |     |
| 15.0      | Gray Silty CLAY  |   |    |    |    |    |    |    |     |
| 20.0      | Boring terminated  |   |    |    |    |    |    |    |     |
|           | Note: 2" PVC Standpipe set to a depth of 18.5'<br>Screened interval from 8.0' to 18.5' |   |    |    |    |    |    |    |     |
|           | Soil classifications based on driller's description of auger cuttings                  |   |    |    |    |    |    |    |     |
|           | Standpipes were abandoned and backfilled with grout on 7/2/91                          |   |    |    |    |    |    |    |     |

6.2  
7/2  
11.

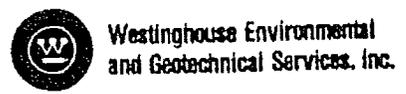
Proposed Yard Waste Facility **TEST BORING RECORD**

BORING AND SAMPLING MEETS ASTM D-1586 Mecklenburg County, NC  
CORE DRILLING MEETS ASTM D-2113

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

BORING NO. GW-1  
DATE DRILLED 6/28/91  
JOB NO. CHW-C-04

- UNDISTURBED SAMPLE
- ▨ 50% ROCK CORE RECOVERY
- ◀ LOSS OF DRILLING WATER
- ≡ WATER TABLE-24HR.
- ≡ WATER TABLE-1HR.
- HOLE CAVE







DEPTH FT.                      DESCRIPTION                      ELEV. ● PENETRATION-BLOWS PER FT.

| DEPTH FT. | DESCRIPTION  | PENETRATION-BLOWS PER FT. |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
|-----------|--|---------------------------|----|----|----|----|----|----|-----|--|--|--|--|--|--|--|--|--|--|--|
|           |  | 0                         | 10 | 20 | 30 | 40 | 60 | 80 | 100 |  |  |  |  |  |  |  |  |  |  |  |
| 0.0       | Orange Red Silty CLAY  |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
| 3.0       | Orange Tan Sandy SILT with occasional clay seams                                       |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
| 7.0       | Tan Brown Sandy SILT   |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
| 13.5      | Boring terminated  |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
|           | Note: 2" PVC Standpipe set to a depth of 13.5'<br>Screened interval from 3.0' to 13.5' |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
|           | Soil classifications based on driller's description of auger cuttings                  |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |
|           | Standpipes were abandoned and backfilled with grout on 7/2/91                          |                           |    |    |    |    |    |    |     |  |  |  |  |  |  |  |  |  |  |  |

7/2  
12:  
12.

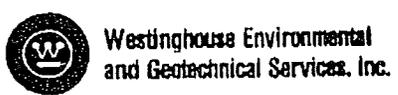
Proposed Yard Waste Facility  
Mecklenburg County, NC

**TEST BORING RECORD**

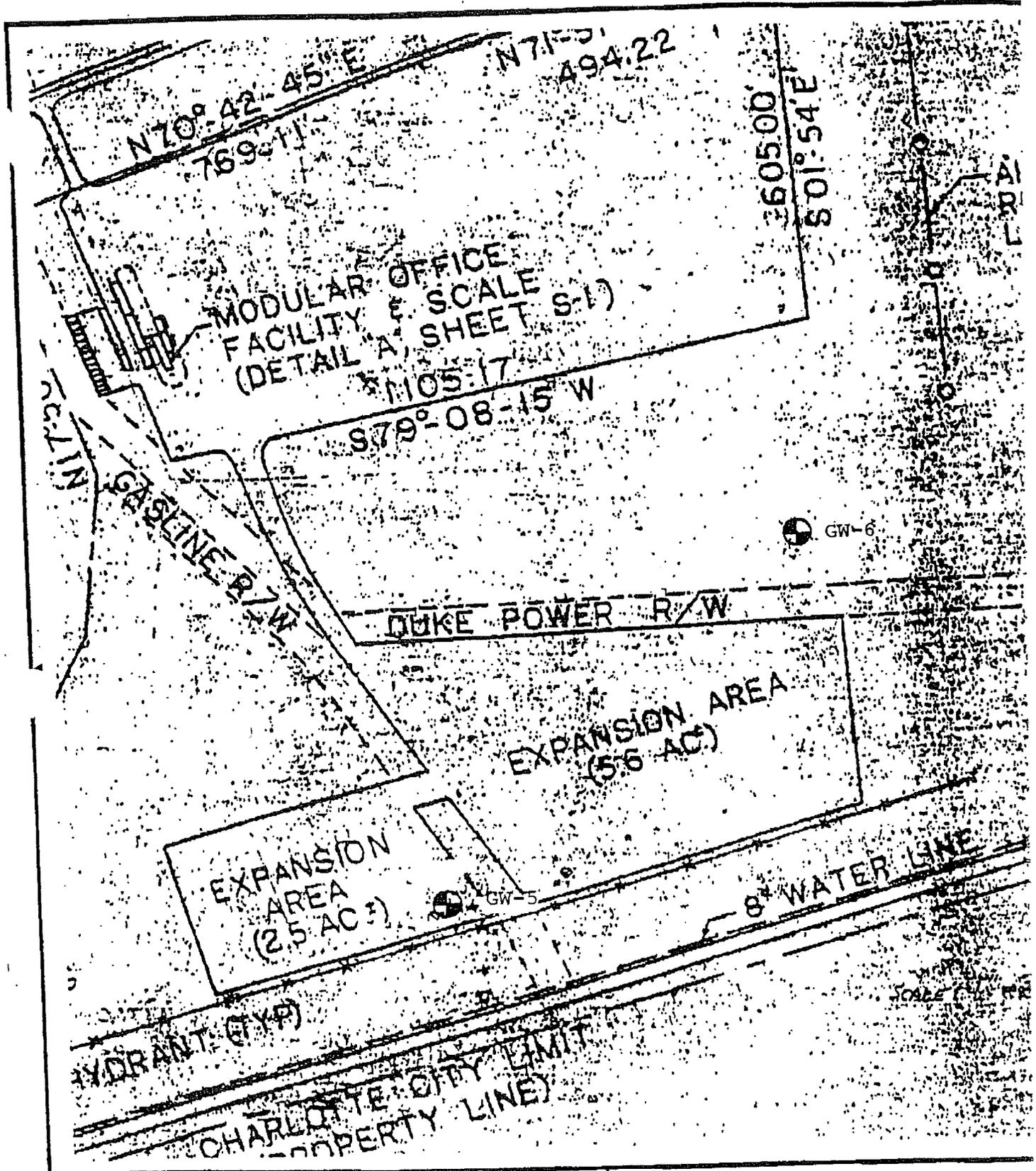
BORING AND SAMPLING MEETS ASTM D-1586  
CORE DRILLING MEETS ASTM D-2113  
PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

BORING NO. GW-4  
DATE DRILLED 6/28/91  
JOB NO. CHW-C-043

- UNDISTURBED SAMPLE
- ▨ 50% ROCK CORE RECOVERY
- ◀ LOSS OF DRILLING WATER
- ≡ WATER TABLE-24 HR.
- ≡ WATER TABLE-1 HR.
- HOLE CAVE



101.51 3



|               |          |  |                     |            |
|---------------|----------|--|---------------------|------------|
|               |          | <b>BORING LOCATION PLAN</b><br>MECKLENBURG COUNTY YARD<br>WASTE FACILITY |                     |            |
|               |          | SCALE: 1"=200'   | APPROVED BY:        |            |
| DRAWN BY: MFP | REVISED: | DATE: 5-27-92  | JOB NO: 1356-92-341 | FIGURE NO: |

| FT   |   | BPF | PB | W |
|------|---|-----|----|---|
| 0.0  | Reddish Brown Sandy Very Clayey SILT                              |     |    |   |
| 8.0  | Gray Sandy Silty CLAY   |     |    |   |
| 15.0 | Boring terminated at 15 feet<br>Temporary PVC standpipe installed |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |

Boring Number GW-5  
 Job Name Yard waste facility  
 Date Drilled 5-22-92  
 GS Elevation 717.67  
 Water Level @ TOB 13 feet  
 Water Level on 5-27-92 6.5 feet

Job Number 1356-92-341  
 Job Location Charlotte, NC  
 Drill Rig B-57  
 Drill Method 4-1/4" HSA  
 Hole Cave-In \_\_\_\_\_

PB = Plot blows to the nearest tenth of a foot.



| FT   |   | BPF | PB | W |
|------|---|-----|----|---|
| 0.0  | Brown Sandy Clayey SILT   |     |    |   |
| 6.5  | Reddish Brown Sandy Very Clayey SILT                                |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |
|      |   |     |    |   |
| 10.5 | Boring terminated at 30.5 feet<br>Temporary PVC standpipe installed |     |    |   |
|      | NOTE: Soil descriptions based on driller's field classification     |     |    |   |

Boring Number GW-6  
 Job Name Yard Waste Facility  
 Date Drilled 5-22-92  
 GS Elevation 688.05  
 Water Level @ TOB 24 feet  
 Water Level on 5-27-92 20.4 feet

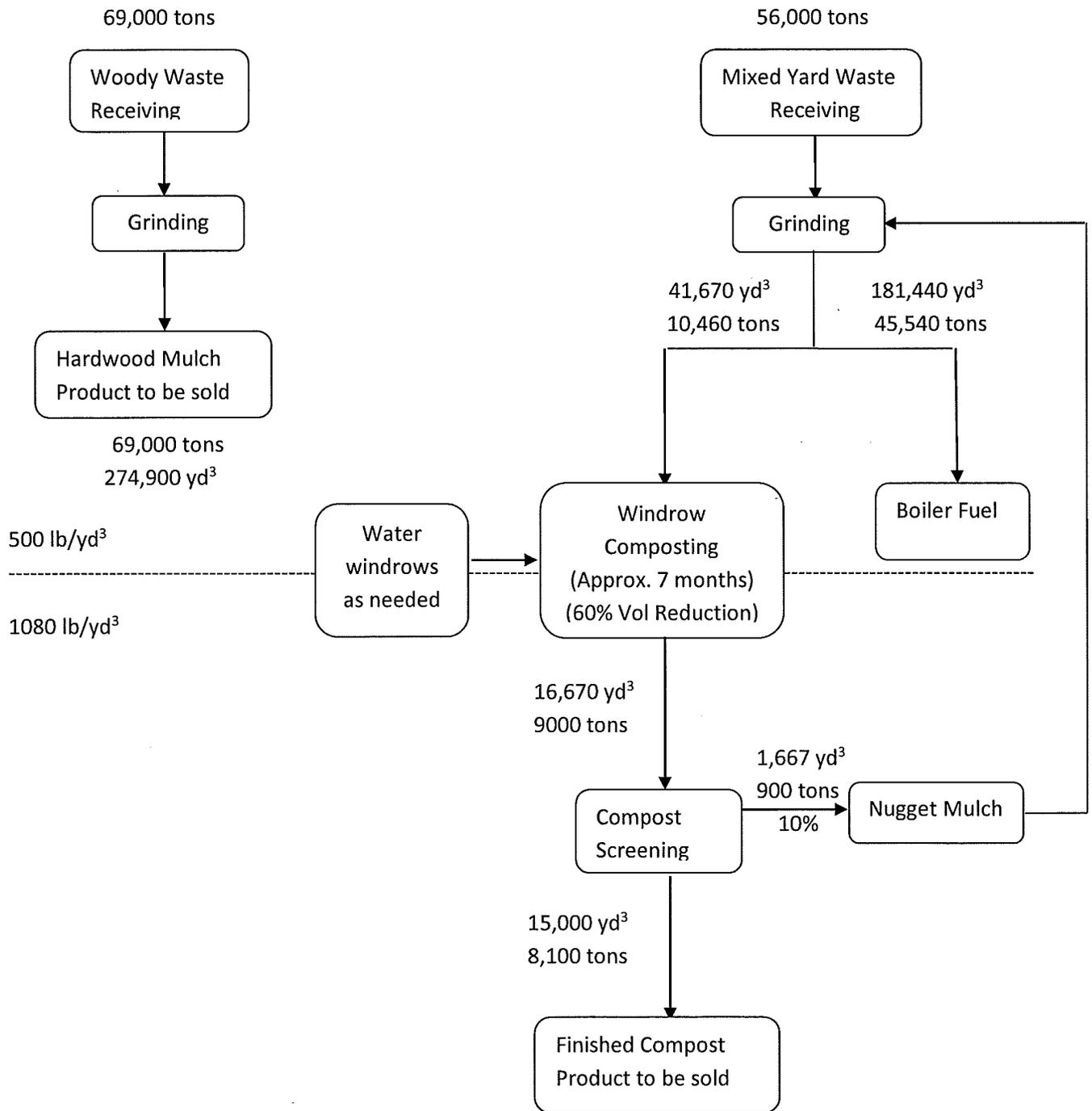
Job Number 1356-92-341  
 Job Location Charlotte, NC  
 Drill Rig B-57  
 Drill Method 4-1/4" HSA  
 Hole Cave-In \_\_\_\_\_

PB = Plot blows to the nearest tenth of a foot.



**Appendix VI**  
**Compost Central Process Flow Chart**

## Mecklenburg County Compost Central Process Flow Chart



# **Appendix VII**

## **Operational Manual**



**Mecklenburg County**  
**Operation and Maintenance Manual**  
**for**  
**Compost Central**  
***Permit # 60-12***

**Updated February 2016**

**Operation & Maintenance Manual  
Mecklenburg County  
Compost Central  
Permit # 60-12**

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## **General Information**

Mecklenburg County's compost facility, Compost Central, is located on 86 acres leased from the City of Charlotte, Charlotte/Douglas International Airport. The land is located within the limits of the City of Charlotte. An additional portion of the land is used for a full service, staffed recycling center. The land is situated across West Boulevard from the end of one of the airport runways.

Compost Central's operating area consists of approximately 33 acres,. The facility receives approximately 105,000 tons of yard waste and clearing debris and produces over 14,000 cubic yards of compost and an additional 200,000 cubic yards of mulch which is sold to citizens, landscape contractors, and as boiler fuel.

There are currently two scales at Compost Central. All customers disposing of material and customers purchasing products must cross the scale at the scalehouse.

All incoming material is weighed with the exception of pick-up and automobile traffic. These customers are charged by the size of vehicle and their weight is based upon historical data. Material being sold (compost, mulch, nuggets, and etc.) are sold on a per cubic yard basis. In addition, material sent out as boiler fuel in tractor trailers is tracked on a per load basis (100 cubic yards per load).

## **Quality Assurance Plan**

### ***Inspection of Incoming Material***

1. The cashier initially performs visual screening of incoming material at the time it is being weighed. The inspection is to insure that no municipal solid waste, recyclables, household hazardous waste, treated wood, dirt or other contaminants are in the load.
2. If any of these items are detected at this time, the customer is directed to dispose of the materials in an approved disposal facility.
3. The heavy equipment operators perform the second and primary screening on the tipping pad. These operators inspect the material both at the time of tipping as well as immediately before the material is placed into the tub grinders to ensure that material type as well as size are appropriate to be processed by the grinders.
4. Should any non-conforming waste be detected by the operators during grinding operations, the waste is loaded into a 40-yard open top container located on site, which when full is removed from the site to be disposed properly.

### ***Material Preparation***

1. After inspection, the material is ground in the tub grinders using a 2" x5" screen for sizing.
2. The ground material is then removed from the processing area and placed into windrows for composting.
3. Upon placement of the material into windrows, moisture requirements are determined by performing a squeeze test of the material:
  - a. A handful of material is gathered and squeezed in one hand.
  - b. If the material does not stay in a ball, but falls apart after squeezing it, the moisture is probably below 50%.
  - c. If the material stays in a ball and little or no moisture drips from the ball, then this is interpreted as 50%-60% moisture – the optimum moisture content.
  - d. If water is dripping from the ball of material, then moisture content is most likely above 65%.
4. Natural rainfall usually provides enough water to keep the moisture content of the material at optimum conditions. In the event of a low rainfall period, a water truck

would be used to provide additional water to maintain optimal moisture content of the windrows.

5. In normal operations, high nitrogen yard wastes are incorporated into windrows as soon as possible to minimize odors. All yard waste, including green waste (grass clippings), under normal operating conditions is processed through the tub grinder within twenty-four hours of being received. The grinding process gives the material its initial charge of oxygen for its aerobic decomposition. Under normal operating conditions, the material is then incorporated into windrows within seventy-two (72) hours if space is available or is sent out as boiler fuel.
6. During the high green waste season (spring) incoming materials have enough woody waste content that the processed material can be sold as boiler fuel.

### ***Composting Process***

1. Generally, the windrowed material is turned as needed using a Backhus windrow turner. This is necessary so that the temperature of the material remains at or above 55°C (131 °F). In addition, windrow turning keeps the process aerobic, which minimizes odor problems.
2. Throughout the composting process the material is monitored qualitatively for moisture content and aesthetics.
3. Temperatures of the windrows are typically measured at least once a week at three equally spaced distances along each windrow. The temperature is measured with a four-foot analog thermometer fully inserted toward the cross-sectional center of the windrow. The indicator needle is allowed to stabilize (typically one minute), and the reading is recorded.

### ***Final Product***

1. The compost material is turned regularly until the internal temperature falls below 55 °C.
2. Upon reaching the desirable temperature the material is screened at three-eighths (3/8) inch to remove any non-conforming waste that may have been missed during the original screening.
3. The material passing the 3/8-inch screen is placed in a curing pile separate from the rest of the facility for approximately one month and is then ready for distribution.

4. The material not passing the 3/8-inch screen is returned to the grinding area for reprocessing.

***Reporting and Record keeping***

1. An annual report, covering the period from July 1 to June 30, will be submitted to the North Carolina Department of Environment and Natural Resources (NCDENR) by August 1 for the prior year. The annual report shall contain the information as contained in Section 1408 of the North Carolina Solid Waste Management Rules.

**Note:** *Monitoring records are maintained for five years and are available for inspection by division personnel. Records include daily quantity of processed material, temperature data, quantity and source of material received, and the quantity and type of material removed for the use or disposal by product classification and the market or permitted disposal facility.*

## **Contingency Plan**

### ***Equipment Breakdown***

1. All equipment has at least one backup with the exception of the Backhus windrow turner. The concern that all pieces of a specific kind of equipment are out of service for any period of time is minimal.
2. If the Backhus windrow turner is out of service for a period of time a unit will be rented.

### ***Non-conforming Waste***

1. All waste is screened as described in the Quality Assurance Plan. Non-conforming waste is not accepted at the facility.
2. Should non-conforming waste be received at the tipping area, any contaminants are immediately loaded back onto the vehicle from which it came.
3. Should any non-conforming waste be detected by the operators during grinding operations, the waste is loaded into a 40-yard open top container located on site, which when full is removed from the site to be disposed properly.

### ***Fire Contingency***

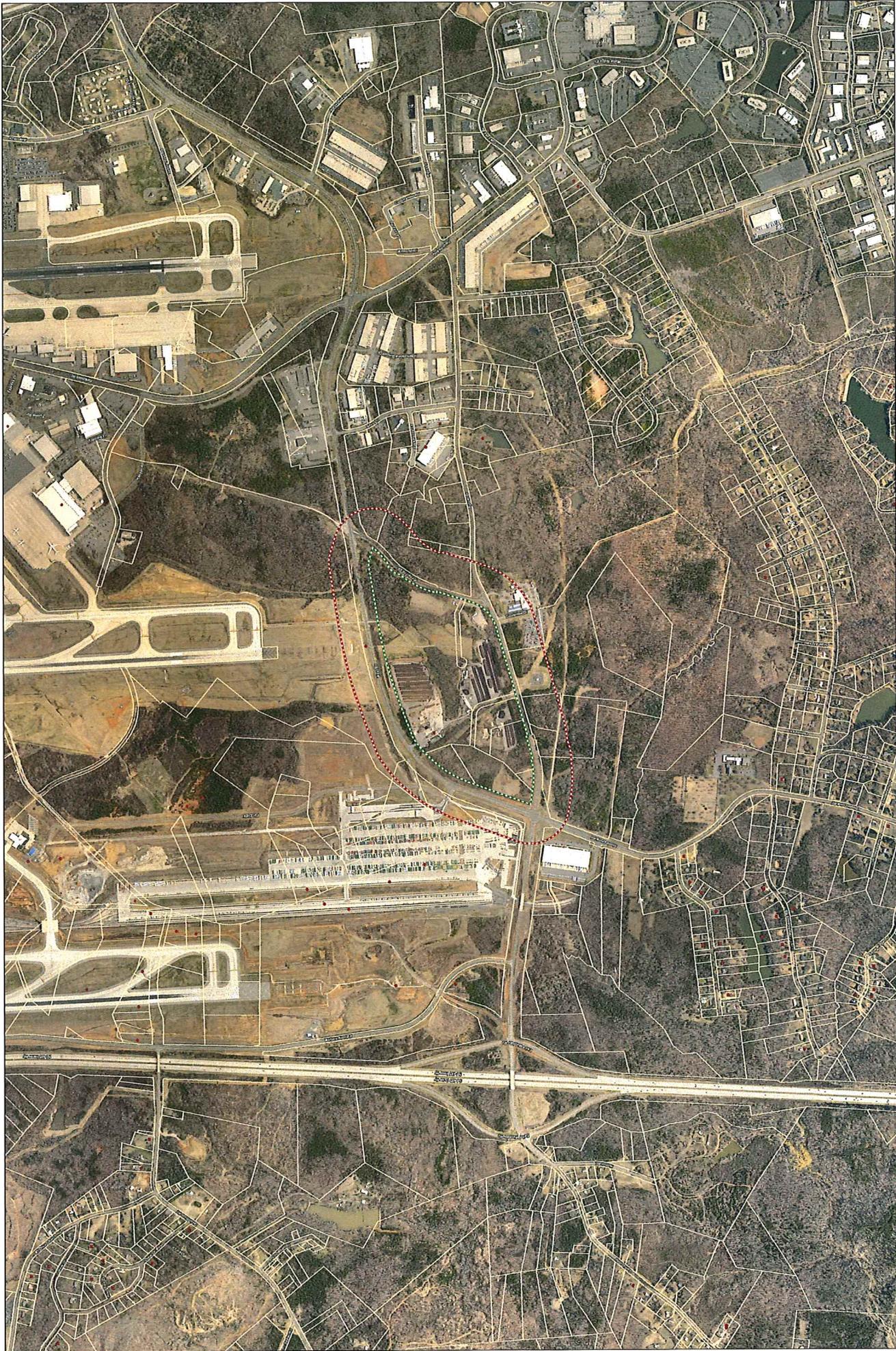
1. The local Fire Department station has been made aware of Compost Central and the nature of its operation.
2. Threat of fire is minimized by not allowing stock piles to age over four weeks and by keeping its volume to a minimum.

### ***Vectors and Odors***

1. Vectors are rarely a problem for yard waste (Type I) composting facilities and have never been an issue at Compost Central.
2. The timely manner in which yard waste is ground and placed into windrows assists in the prevention of vectors.
3. Odor is minimized by the timely manner in which yard waste is ground and placed into windrows. In addition, the windrows are turned weekly to insure the composting process is aerobic.

# **Appendix VIII**

## **Maps & Drawings**



**Figure 1 - Area Plan : Compost Central - 5631 West Blvd**

- Legend**
- Private Wells
  - Permitted Septic Systems
  - Monitoring Wells
  - Subject Property
  - 500 Foot Radius
  - Parcel Boundaries

400 200 0 400 800 1,200  
 Feet  
 Scale: 1in = 400ft

Ortho Photography: March, 2015





**Figure 2 - Zoning Map : Compost Central - 5631 West Blvd**

**Legend**

- Private Wells
- Permitted Septic Systems
- Monitoring Wells
- Subject Property
- 500 Foot Radius
- Parcel Boundaries
- Zoning Designations
- Storm Water Drainage



Scale: 1in = 150ft

Ortho Photography: March 2015





**Figure 3 - Site Plan and Topographic Map : Compost Central - 5631 West Blvd**

- Legend**
- Subject Property
  - Water Quality Buffers
  - FEMA Floodway
  - 30 Feet
  - Community Encroachment
  - 100 Yr Floodplain
  - 50 Feet
  - Future 100 Yr Floodplain
  - 100 Yr Floodplain
  - 50 Feet
  - 10 Feet
  - 100 Feet
  - Contour Lines (2012)
  - Parcel Boundaries

Scale: 1in = 100ft  
 100 50 0 100 200 300 Feet

Ortho Photography: March, 2015





Ortlio Photography: March 2015

Figure 4 - Operations Site Plan : Compost Central - 5631 West Blvd

