

BEFORE THE  
OHIO ENVIRONMENTAL PROTECTION AGENCY DIRECTOR'S JOURNAL

In the Matter of:

Norton Environmental Company : Director's Final Findings  
6200 Rockside Woods Blvd. : and Orders  
Independence, Ohio 44131 :

Respondent

PREAMBLE

It is agreed by the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders (Orders) are issued to Norton Environmental Company (Respondent) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under Ohio Revised Code (ORC) 3704.03, ORC Chapter 3734., ORC 3745.01.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the facility owned by Respondent (as hereinafter defined) shall in any way alter Respondent's obligations under these Orders.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapters 3704 and 3734 and the rules promulgated thereunder.

IV. FINDINGS

All of the findings of fact necessary for the issuance of these Orders have been made and are outlined below. Nothing in these findings of fact shall be considered to be an admission by Respondent of an fact, violation, or liability. The Director of Ohio EPA (Director) has determined the following findings:

Respondent operates Mount Eaton Sanitary Landfill (a municipal solid waste landfill) and Mt. Eaton Construction and Demolition Debris Landfill, both located at 8544 TR 105, Paint Township, Wayne County, Ohio (the facility). The facility, as that term is defined in Ohio

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: [Signature] Date 2-8-06

Administrative Code (OAC) Rule 3745-15-01(P), for the purpose of these Orders includes both the municipal solid waste ("MSW") and construction and demolition debris ("CDD") landfills. The facility is an air contaminant source as defined by ORC 3704.01(C) and OAC Rule 3745-31-01(I).

2. On March 17, 1993, air pollution Permit to Install ("PTI") Number 02-6705 was issued to Respondent for the installation of the MSW landfill as an air contaminant source.
3. On June 7, 1995, solid waste PTI Number 02-6450 was issued to Respondent for the lateral expansion of the MSW landfill.
4. OAC Rule 3745-15-07(A) prohibits a person from causing or permitting to cause or maintain any public nuisance that is described as an emission or escape into the open air from any source or sources whatsoever, of smoke, ashes, dust, dirt, grime, acids, fumes, gases, vapors, odors or any other substance or combination of substances, in such a manner or such amounts as to endanger the health, safety, or welfare of the public, or cause unreasonable injury or damage to property.
5. ORC 3704.05(G) prohibits a person from violating any order, rule, or determination of the Director that is issued, adopted, or made under ORC Chapter 3704.
6. In 2004 and 2005, Ohio EPA collected ambient hydrogen sulfide monitoring data near the perimeter of the Facility. A handheld Jerome Meter, Model 631A, was used to obtain the field samples. The results were not subject to all of Ohio EPA's quality assurance/quality control protocols. Results included, but were not limited to:

TABLE 1

*Roving Monitoring Data with 1-hour Averages Greater than 30 Parts Per Billion (ppb)*

<u>Date</u>	<u>1-Hour Average, ppb</u>
February 2, 2005	59
February 13, 2005	49
February 27, 2005	62
March 16, 2005	31
May 20, 2005	78

TABLE 2

*Stationary Monitoring Data with 24-hour Averages Greater than 10 ppb*

<u>Date</u>	<u>24-Hour Average, ppb</u>
February 2, 2005	11

7. Activities at Respondent's Facility have resulted in hydrogen sulfide being emitted as a fume, gas, or vapor at concentrations that pose a public nuisance and result in violations of OAC Rule 3745-15-07(A) and ORC 3704.05(G).
8. On October 27, 2005, Respondent submitted a request, dated October 25, 2005, for an exemption from the requirement to obtain an air pollution PTI for the installation of an environmentally beneficial project pursuant to OAC Rule 3745-31-01(PPP)(1)(a)(vi). The submittal, prepared by a Licensed Professional Engineer, proposes to install a gas collection system and flare to be used to control the migration of landfill gas. Control of the gas will result in the reduction of methane, non-methane organic compounds, and hydrogen sulfide emissions, which would otherwise be released to the ambient air. The gas control system is designed to:
  - a. Collect gas at a sufficient extraction rate from each area, cell, or group of cells at the Facility which is contributing to hydrogen sulfide emissions from the Facility, and is designed to minimize off-site migration of hydrogen sulfide; and
  - b. Route all collected gas to a control system that complies with the requirements in either of the following:
    - i. An open flare designed and operated in accordance with 40 Code of Federal Regulations (CFR) 60.18; or
    - ii. A device other than an open flare that has operating parameters and proper performance to meet the ambient hydrogen sulfide standards established in Order Number 2.
9. Pursuant to OAC Rule 3745-31-01(PPP)(1)(a)(vi), the Director may determine that a pollution control or prevention project is environmentally beneficial and does not constitute a modification of the air contaminant source. The proposed project may not:
  - a. Cause or contribute to a violation of a national ambient air quality standard;
  - b. Cause or contribute to a violation of an increment per OAC Rule 3745-31-11(B);

- c. Adversely impact a visibility limitation; or
  - d. Be expressly prohibited under any Ohio EPA or Federal Clean Air Act permit condition or applicable requirement.
10. The Director has determined that the gas collection system and flare, as proposed in Respondent's October 25, 2005 request, meet the design specifications in Finding Number 8 and Order Number 4, are environmentally beneficial, and satisfy the requirements of OAC Rule 3745-31-01(PPP)(1)(a)(vi). Therefore, the Director has determined that the installation of this equipment, as proposed, does not require an air pollution PTL. This does not exempt nor preclude the gas collection system and flare from meeting the requirements of 40 CFR, Part 60, Subpart WWW, should the requirements become applicable in the future.
  11. On November 7, 2005, Respondent submitted a request, dated October 31, 2005, to alter solid waste PTI Number 02-6450 for the purpose of expanding the Facility's gas control system. The Director has determined that an alteration of the PTI would be appropriate to accomplish the work required under these Orders. The Director, through issuance of these Orders, hereby alters the PTI in a manner consistent with these Orders for the purpose of accomplishing the work required under Section V, Orders, herein.
  12. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their benefits to the people of the State to be derived from such compliance.

## **V. ORDERS**

The Director hereby issues the following Orders:

### **NUISANCE:**

1. Respondent shall achieve compliance with the nuisance prohibition requirements of OAC Rule 3745-15-07(A), through timely implementation of the following Orders.

### **GAS CONTROL SYSTEM:**

2. Unless an alternative deadline has been approved by the Director (which shall not be unreasonably withheld or delayed), Respondent shall, within one-hundred-eighty (180) days of the effective date of these Orders, install, maintain, and operate a gas control system, in accordance with these Orders that collects and controls hydrogen sulfide emissions from all portions of the Facility such that the following ambient concentrations of hydrogen sulfide at and beyond the Facility property line are not exceeded:

- a. 30 ppb by volume as a 1-hour rolling average; and
- b. 10 ppb by volume as a 24-hour rolling average.

Respondent may submit for Ohio EPA's consideration an extension request that includes justification for any additional time.

- 3. The gas control system shall be installed in conformance with the design requirements specified in the October 25, 2005 request, Finding Number 8, and Order Number 4, unless prior written approval of alternative provisions is obtained from Ohio EPA Northeast District Office (NEDO) Division of Air Pollution Control (DAPC) and Division of Solid and Infectious Waste Management (DSIWM) pursuant to Order Numbers 7.c and 7.d.
- 4. The gas collection system shall meet the following design specifications:
  - a. Respondent shall site collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by NEDO-DAPC as provided in these Orders:
    - i. The collection devices within the interior and along the perimeter areas shall be certified by a Licensed Professional Engineer to achieve comprehensive control of surface gas emissions. The design shall address: depths of refuse, refuse gas generation rates and flow characteristics, landfill cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the decomposition heat of refuse.
    - ii. The sufficient density of gas collection devices shall address landfill gas migration and expansion of the collection system through the use of a system at the Facility perimeter or exterior.
  - b. Respondent shall construct/install the gas collection devices using the following equipment or procedures:
    - i. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal

collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated to prevent excessive air infiltration.

Vertical wells shall be placed to not endanger underlying landfill liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed to not allow indirect short circuiting of air into the cover, or refuse into the collection system, or gas into the air. Any gravel used around pipe perforations should be of a dimension to not penetrate or block perforations.

- iii. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings, and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
  - c. Respondent shall convey the landfill gas to a control system in compliance with these Orders through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
    - i. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in Order Number 8.a.i shall be used.
    - ii. For new collection systems, the maximum flow rate shall be calculated pursuant to Order Number 8.a.i.
  - d. Respondent shall install the gas control system in a manner which allows construction of the final cap system in compliance with the final grades shown on plan sheet 4D of PTI Number 02-6450, issued on June 7, 1995 and altered on August 8, 2000.
5. Respondent shall submit to Ohio EPA:
- a. Prior to installation of the gas system, a complete slope stability analysis demonstrating that the installation and operation of the gas control system will not result in failure of the MSW landfill slopes. The analysis shall contain all

information required by OAC Rule 3745-27-06(C)(4)(c), effective June 18, 2004, and demonstrate that the applicable construction criteria contained in OAC Rule 3745-27-08(C)(7) have been met; and

- b. Within sixty (60) days of the effective date of these Orders, revisions to the document referenced in Finding Number 11 as necessary for consistency with these Orders.
6. Respondent shall comply with the following operational standards for the gas control system:
- a. The gas control system shall be operated such that gas is collected from each area, cell, or group of cells at the Facility which is contributing to hydrogen sulfide emissions from the Facility.
  - b. Except as provided in Order Number 6.b.v, the gas control system shall be operated with negative pressure at each wellhead. To demonstrate whether the gas collection system flow rate is sufficient to prevent fires and to maintain compliance with these Orders, Respondent shall measure gauge pressure in the gas collection header at each individual well, on a monthly basis.
    - i. If positive pressure exists, action shall be initiated to correct the exceedance within five (5) calendar days, except as allowed pursuant to these Orders.
    - ii. If negative pressure cannot be achieved without excess air infiltration within fifteen (15) calendar days of the first measurement of positive pressure, the gas collection system shall be expanded to correct the exceedance within one-hundred-twenty (120) days of the initial measurement of positive pressure. Respondent is not required to expand the system during the first sixty (60) days after gas control system start-up.
    - iii. Any attempted corrective measure shall not cause violations of other requirements contained in these Orders.
    - iv. Respondent may establish an alternative time line for correcting the exceedance, upon approval from NEDO-DAPC.
    - v. Positive pressure at a wellhead shall not be considered a violation of Order Number 6.b if it occurs under the following conditions:
      - (1) Fire or increased well temperature - Respondent shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as specified in Order Number 9.b;

Use of a geomembrane or other synthetic cover - Respondent shall develop acceptable pressure limits in the design plan;

Decommissioned well - A well may experience a static positive pressure after shutdown to accommodate declining flows.

- c. Respondent shall operate each interior wellhead in the collection system with a landfill gas temperature of less than fifty-five (55) degrees Celsius and with either a nitrogen level of less than twenty (20) percent or an oxygen level of less than five (5) percent. Respondent may establish a higher operating temperature, nitrogen, or oxygen value at a particular well, upon approval from NEDO-DAPC. A higher operating value demonstration shall show supporting data that the elevated parameter would not cause fires nor significantly inhibit anaerobic decomposition by killing methanogens.
- i. The nitrogen level shall be determined using United States Environmental Protection Agency (U.S. EPA) Federal Reference Method (FRM) 3C, as specified in 40 CFR, Part 60, Appendix A, unless an alternative test method is approved by NEDO-DAPC.
- ii. Unless an alternative test method is approved by NEDO-DAPC, the oxygen level shall be determined by an oxygen meter using FRM 3A or 3C, pursuant to 40 CFR, Part 60, Appendix A, except that:
- The span shall be set so that the regulatory limit is between twenty (20) and fifty (50) percent of the span;
- (2) A data recorder is not required;
- Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
- A calibration error check is not required; and
- The allowable sample bias, zero drift, and calibration drift are plus or minus ten ( $\sqrt{10}$ ) percent.
- d. To identify whether excess air infiltration into the landfill is occurring, Respondent shall monitor each well monthly for temperature, and nitrogen or oxygen as provided in this Order.

- i. If a well exceeds one of the operating parameters specified in Order Number 6.c, action shall be initiated to correct the exceedance within five (5) calendar days.
  - ii. If correction of the exceedance cannot be achieved within fifteen (15) calendar days of the first measurement of the exceedance, the gas collection system shall be expanded to correct the exceedance within one-hundred-twenty (120) days of the initial exceedance.
  - iii. Any attempted corrective measure shall not cause violations of other requirements contained in these Orders.
  - iv. Respondent may establish an alternative time line for correcting the exceedance, upon approval from NEDO-DAPC.
- e. The gas control system shall be operated such that all collected gases are vented to a control system designed and operated in compliance with these Orders. In the event the gas collection system or flare is inoperable, the gas mover system shall be shut down and all valves in the gas control system contributing to venting of the gas to the atmosphere shall be closed within one (1) hour.
  - f. The control or treatment system shall be operated at all times when the collected gas is routed to the system.
  - g. Any scheduled maintenance of air pollution control equipment shall be performed in accordance with OAC Rule 3745-15-06(A). Except as provided by this rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

If corrective action is taken as specified in this Order for an exceedance of a wellhead pressure, temperature, nitrogen, or oxygen value, the exceedance shall not constitute a violation of the operational requirements in this Order.

- 7. Respondent shall comply with the following monitoring requirements for the gas control system. Except as otherwise provided in these Orders:
  - a. Respondent shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and:

- i. Measure the gauge pressure in the gas collection header on a monthly basis, as described in Order Number 6;
  - ii. Monitor the nitrogen or oxygen concentration in the landfill gas on a monthly basis, as described in Order Number 6; and
  - iii. Monitor the temperature of the landfill gas on a monthly basis, as described in Order Number 6.
- b. When using an open flare, Respondent shall install, calibrate, maintain, and operate the following monitoring equipment according to the manufacturer's specifications:
- A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame;
  - ii. A device that records flow to or bypass of the flare. Respondent shall either:
    - (1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or
    - (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- c. If Respondent seeks to install a collection system that does not meet the specifications in these Orders or seeks to monitor alternative parameters to those required by these Orders, Respondent shall provide information satisfactory to NEDO-DAPC and NEDO-DSIWM describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. NEDO-DAPC and NEDO-DSIWM shall review the information and either approve it, or request that additional information be submitted. Ohio EPA may specify additional appropriate monitoring procedures.
- d. If Respondent seeks to demonstrate compliance with these Orders using a device other than an open flare, Respondent shall provide information satisfactory to NEDO-DAPC and NEDO-DSIWM describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. NEDO-DAPC and NEDO-DSIWM shall review the information and either approve it, or request that additional information be submitted.

Ohio EPA may specify additional appropriate monitoring procedures.

8. Respondent shall comply with the following record-keeping requirements for the gas control system:
- a. Except as provided, Respondent shall keep up-to-date, readily accessible records, for the life of the control equipment, of details of the equipment installed pursuant to these Orders as measured during initial performance tests or system adjustments. Records of subsequent tests or monitoring shall be maintained for a minimum of five (5) years. Records of the control device vendor specifications shall be maintained until removal of the control device.
    - i. Respondent may use any method to determine the maximum gas generation flow rate, provided the method has been approved by Ohio EPA.
    - ii. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices shall be determined using the procedures specified in Order Number 4.
    - iii. When using an open flare, records of the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18, required only if a performance test is requested by Ohio EPA; continuous records of the flare pilot flame or flare flame monitoring; and records of all periods of operations during which the pilot flame or the flare flame is absent shall be maintained.
  - b. Except as provided, Respondent shall keep for five (5) years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in these Orders.
    - i. Respondent shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device, or the indication of bypass flow, or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in Order Number 7.b.
    - ii. When using an open flare, Respondent shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified in Order Number 7.b, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

- c. Except as provided, Respondent shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector. Respondent shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors.
  - d. Except as provided, Respondent shall keep for at least five (5) years up-to-date, readily accessible records of all gas control system exceedances of the operational standards in these Orders, the reading in the subsequent month regardless of whether the subsequent reading is an exceedance, and the location of each exceedance.
9. Respondent shall comply with the following reporting requirements for the gas control system:
- a. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to Ohio EPA in accordance with OAC Rule 3745-15-06(B).
  - b. Respondent shall submit to Ohio EPA annual reports of the recorded information in this paragraph. The initial annual report shall be submitted within one-hundred-eighty (180) days of installation and start-up of the gas control system. Each annual report shall contain the following information:
    - i. The value and length of time for each exceedance of applicable parameters monitored;
    - ii. A description and the duration of all periods when the gas stream is diverted from the control device through a bypass line or there is an indication of bypass flow;
    - iii. A description and the duration of all periods when the control device was not operating for a period exceeding one (1) hour;
    - iv. All periods when the collection system was not operating in excess of five (5) days; and
    - v. The date of installation and the location of each well or collection system expansion.
  - c. Respondent shall submit to Ohio EPA quarterly deviation reports for the gas control system pursuant to Order Number 28.

- d. Respondent shall include the following information with each subsequent gas control system modification:
  - i. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
  - ii. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
  - iii. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area;
  - iv. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
  - v. The provisions for the control of off-site migration.
10. The standards established pursuant to Order Numbers 2.a, 2.b, and 6 shall not apply during periods of start-up, shutdown, or malfunction of the gas control system, provided that the duration of start-up, shutdown, or malfunction shall not exceed five (5) days for collection systems and shall not exceed one (1) hour for treatment or control devices.
11. All solid waste excavated, moved, collected, removed, or otherwise disturbed during any activities conducted pursuant to these Orders shall be disposed of at a permitted and licensed sanitary landfill other than the Facility in accordance with ORC Chapter 3734. and the regulations promulgated thereunder; or, be disposed of within the permitted limits of waste placement authorized through PTI Number 02-6450 at the Mt. Eaton Sanitary Landfill, provided Respondent complies with all of the following:
  - a. At least seven (7) days prior to movement of any waste, Respondent shall submit to Ohio EPA:
    - i. A topographic map of the MSW landfill showing existing grades of waste placement determined by a survey conducted by a Licensed Professional Surveyor after September 1, 2005. One topographic map shall clearly depict the existing topography and the authorized final limits of waste placement. The topographic map shall clearly depict the existing topography without any adjustments made for intermediate cover.

- ii. A separate plan drawing clearly depicting the cut and fill depths between the authorized limits of waste placement and the existing topography. The cut and fill depths shall be based strictly on the existing topography and the authorized limits of waste placement without any adjustments made for intermediate cover.
  - iii. Calculations determining the volume in cubic yards between the authorized final limits of waste placement and existing topography above the authorized final limits of waste placement, and the volume in cubic yards between the authorized final limits of waste placement and the existing topography below the authorized final limits of waste placement. The calculations shall be based strictly on the existing topography and the authorized limits of waste placement without any adjustments made for intermediate cover.
  - iv. The estimated amount of waste in cubic yards to be disturbed during all construction activities conducted pursuant to these Orders.
  - v. A plan drawing clearly depicting the area of the Facility where waste will be deposited pursuant to these Orders, the cut and fill grade, and calculations determining the total volume available for placement and required cover soil.
  - vi. The information submitted pursuant to this Order shall be prepared and sealed by a Licensed Professional Surveyor and a Licensed Professional Engineer.
- b. During construction activities of the gas extraction system conducted pursuant to these Orders, Respondent shall:
- Prepare a daily report including: (a) the volume of waste disturbed, the volume of waste removed for disposal offsite, the volume of waste disposed of at the Mt. Eaton Sanitary Landfill, and (b) a plan sheet showing the areas where waste was disturbed and waste was disposed of onsite; and
  - ii. Conduct a survey by a Licensed Professional Surveyor at least once a week in any area where waste is deposited; and
  - iii. Prepare a weekly summary of the information required in Orders 11.b.i and 11.b.ii, above, and submit it to Ohio EPA by the Wednesday of the following week.
- c. Within thirty (30) days of completion of construction of the gas control system, Respondent shall submit to Ohio EPA a topographic map prepared by a Licensed

Professional Surveyor of the existing topography after completion of the gas control system and restoration of cover.

- d. For the purposes of Order Number 11, all drawings, information, and calculations requested must depict, and only pertain to, the entire expansion unit of the Mt. Eaton Sanitary Landfill Facility authorized on June 7, 1995 in PTI Number 02-6450. The closed unit may not be disturbed for the purpose of waste disposal and is therefore not required to be depicted on information submitted pursuant to Order Number 11.
12. Respondent shall implement a program to monitor for landfill cover integrity and implement landfill cover repairs as necessary on a monthly basis.
13. After a minimum of fifteen (15) years of operation of the gas control system during the solid waste landfill post-closure care period as defined in OAC Rule 3745-27-14, Respondent may submit to the Director a request to cap or remove the gas control system. Sufficient justification shall be submitted and Director=s written approval shall be obtained prior to discontinuing the operation of the gas control system.

**LEACHATE MANAGEMENT:**

14. Respondent shall maintain Facility leachate collection and disposal system(s) to ensure that leachate over the liner(s) never exceeds a depth of one (1) foot, excluding the leachate sump collection point(s).
15. Respondent shall not recirculate leachate on any portion of the Facility without prior written approval from NEDO-DAPC and NEDO-DSIWM.
16. Respondent shall not use leachate as a dust suppressant at the Facility without prior written approval from NEDO-DAPC and NEDO-DSIWM.
17. Respondent shall collect and record the following information each week for both landfills:
  - a. The depth of leachate on the landfill(s) liner(s); and
  - b. Documentation of where any removed leachate was shipped.

Respondent may, upon receipt of written approval from NEDO-DAPC, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

18. Respondent shall submit deviation reports that identify any of the following occurrences:

- a. Each week when the height of leachate on the liner was not recorded; and
- b. Each day when leachate was recirculated on any portion of the Facility.

The deviation reports shall be submitted in accordance with Order Number 28.

**PERIMETER MONITORING SYSTEM AND METEOROLOGICAL (MET) STATION:**

19. Within forty-five (45) days after the effective date of these Orders, Respondent shall submit to Ohio EPA an approvable hydrogen sulfide continuous perimeter monitoring and met station plan.
20. Within one-hundred-twenty (120) days of the effective date of these Orders, Respondent shall implement the continuous perimeter monitoring and met station plan in accordance with these Orders, unless an alternative deadline has been approved by the Director. Respondent may submit for Ohio EPA's consideration an extension request that includes justification for any additional time.
21. Respondent shall install ambient hydrogen sulfide monitor(s) for this Facility, and establish and operate the monitor(s) pursuant to the following:
  - a. The number and location of monitoring site(s) shall be based on accepted modeling practice and shall adequately monitor areas of maximum concentration of hydrogen sulfide at and beyond the Facility property line. Determination of the hydrogen sulfide sampling location(s) shall be coordinated with, and subject to, the prior approval of NEDO-DAPC.
  - b. The continuous perimeter monitoring and met station plan shall provide documentation detailing the criteria and reasoning for the number and location of monitoring site(s).
  - c. All samplers shall be sited and located in accordance with the requirements of 40 CFR, Part 58, Appendix E, and any subsequent amendments. Upon request, variation from these requirements may be approved by NEDO-DAPC.
  - d. Unless Respondent complies with the requirements for alternative hydrogen sulfide monitors pursuant to Order Numbers 21.i or 21.j, the sampler(s) shall be of an automated and continuous type that measure(s) the concentration of sulfur dioxide (SO<sub>2</sub>) in the ambient air. The hydrogen sulfide (H<sub>2</sub>S) monitor(s) shall have an H<sub>2</sub>S to SO<sub>2</sub> converter integrated within an SO<sub>2</sub> analyzer. H<sub>2</sub>S readings shall be the result of converting H<sub>2</sub>S in the sample to SO<sub>2</sub> with subsequent detection by the analyzer using:  $H_2S + 3/2(O_2) \rightarrow SO_2 + H_2O$ . Detection of SO<sub>2</sub> shall be based upon the measurement of the fluorescence of SO<sub>2</sub> produced by its absorption of ultraviolet

radiation in the 2300 Angstrom to 1900 Angstrom region. The perimeter monitor(s) shall meet reference or equivalent method criteria for SO<sub>2</sub> as specified in 40 CFR, Part 53. Proof of meeting these criteria shall consist of the monitor(s) being designated as either reference or equivalent for SO<sub>2</sub> by U.S. EPA. The monitor(s) designation number(s) shall be submitted as meeting this criteria.

- e. Unless Respondent complies with the requirements for alternative hydrogen sulfide monitors pursuant to Order Numbers 21.i or 21.j, Respondent shall operate the perimeter monitors pursuant to the operating procedures identified in 40 CFR, Part 58 and the "Quality Assurance Handbook for Air Pollution Measurement Systems" Volume I - Principles (EPA-600/9-76-005) and Volume II Ambient Air Specific Methods (EPA-600/4-77-027a). The Facility shall meet the quality assurance activities specified in 40 CFR, Part 58, Appendix A. Independent audit results (accuracy) and precision results must be submitted quarterly to Ohio EPA within forty-five (45) days after the end of each calendar quarter, beginning with the quarter that coincides with the effective date of these Orders.
- f. Ohio EPA shall be provided with access to each site location. The site operator and/or supervisor shall accompany Ohio EPA on any site inspection or audit, and respond to inquiries regarding instrument operations and maintenance.
- g. Appropriate corrective actions shall be taken by Respondent following the identification of any problem by the independent auditor (when an auditor is hired by Respondent to maintain Respondent's hydrogen sulfide ambient air perimeter monitors), or Ohio EPA.
- h. Upon request, NEDO-DAPC shall provide Respondent with a copy of Ohio EPA's hydrogen sulfide analyzer specifications as they are written in Ohio EPA's request for quote (RFQ) number RFQ01 H2 S2005, as approved by U.S. EPA, for use as a reference.
- i. In lieu of the monitor required pursuant to Order Number 21.d, Respondent may install a Jerome Meter, Model 651 hydrogen sulfide monitor (manufactured by Arizona Instruments, Inc.), provided the following requirements are met:

The Jerome Meter, Model 651 is maintained and operated pursuant to manufacturer's specifications;

- ii. Independent audits shall be performed on a quarterly basis. After one (year) from the issuance of these Orders, Respondent may submit a revised audit schedule to the Director for consideration. NEDO-DAPC may require additional audits be performed upon request;

- iii. Not later than thirty (30) days prior to the proposed audit date(s), Respondent shall notify Ohio EPA of the audit date(s). Failure to submit such notification may result in Ohio EPA's refusal to accept the audit results;
  - iv. The audits shall be performed using Arizona Instruments, Inc's low level hydrogen sulfide functional test module. The audits shall follow the manufacturer's instructions pursuant to the most recent version of manual number 700-0095-A, or any publication that may replace this manual; and
  - v. Audit results shall be submitted to Ohio EPA within forty-five (45) days after the date of the audit.
- j. If Respondent seeks to install a hydrogen sulfide monitor that does not meet the specifications in these Orders, Respondent shall provide information satisfactory to NEDO-DAPC describing the design and operation of the monitor, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. NEDO-DAPC may specify additional appropriate monitoring procedures.
  - k. If additional data demonstrates the necessity to expand the system, Ohio EPA reserves the right to require additional hydrogen sulfide monitor(s) be installed pursuant to a revised continuous perimeter monitoring and met station plan.
22. Respondent shall install the met station(s) for this Facility, and establish and operate the met station(s) pursuant to the following:
- a. The number and location of met station(s) shall be based on accepted modeling practice and shall adequately monitor weather at the Facility, and be representative of the met conditions affecting the transport of emissions from the sources of hydrogen sulfide. Determination of the met station location(s) shall be coordinated with, and subject to the prior approval of NEDO-DAPC.
  - b. This plan shall provide documentation detailing the criteria and reasoning for the number and location of the met station(s).
  - c. All met station(s) shall be sited and located in accordance with the requirements of EPA-454/R-99-005, Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000 and/or, EPA-450/4-87-007, Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), May 1987. Upon request, variation from this standard may be approved by NEDO-DAPC.
  - d. Each met station shall meet the following criteria:

The met station shall be capable of accurately measuring temperature, wind speed, wind direction, and barometric pressure on a continuous basis;

- ii. The met station shall record wind direction in one degree (1°) increments;
  - iii. The met station shall be equipped with a data recording device capable of recording each reading; and
  - iv. The met station shall be able to sample and record measurements at least three-hundred-sixty (360) times per hour and generate hourly average data for all parameters as well as standard deviation and turbulence wind data for use in the calculation of atmospheric stability.
- e. If Respondent seeks to install a met station that does not meet the specifications in these Orders, Respondent shall provide information satisfactory to NEDO-DAPC describing the design and operation of the met station, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. NEDO-DAPC may specify additional appropriate monitoring procedures.
23. The monitoring devices and recorders required by these Orders shall be calibrated, operated, and maintained in accordance with the manufacturers' recommendations, instructions and operating manuals, or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
24. An operator's log book shall be maintained for each monitoring site and met station with a format and content as specified in guidance provided by NEDO-DAPC.
25. Respondent shall continue to operate the hydrogen sulfide ambient perimeter monitor(s) and met station(s) as described in these Orders until written approval from the Director (which shall not be unreasonably withheld or delayed) to discontinue monitoring is received. In determining such a discontinuation, the Director shall consider the concentrations measured by the monitor(s), the trends in air quality concentrations, and the value of the air quality data in fulfilling the goals and requirements of these Orders.
26. Respondent shall comply with the following reporting requirements for the ambient hydrogen sulfide perimeter monitor(s) and met station(s). All air quality monitoring and met data and a summary report shall be submitted to Ohio EPA on a quarterly basis. All such data shall be submitted electronically in a commonly used spreadsheet-compatible format; the summary report shall be submitted in hard copy. Upon request by NEDO-DAPC, more timely data shall be made available. The following information shall be submitted as part of the electronic report:

- a. Continuous hydrogen sulfide concentration readings;
- b. 1-hour and 24-hour rolling hydrogen sulfide concentration averages;
- c. Continuous temperature, wind speed and direction, and barometric pressure;
- d. 1-hour and 24-hour rolling averages for temperature, wind speed and direction, and barometric pressure; and
- e. Corresponding times and dates.

The data reports shall be submitted in accordance with the reporting requirements of Order Number 28.

27. Deviation reports documenting the following occurrences for the ambient hydrogen sulfide perimeter monitor(s) and met station(s) shall be submitted within forty-eight (48) hours of each occurrence:
- a. Each occurrence when data from the hydrogen sulfide monitor(s) is lost;
  - b. Each occurrence when data from the met station(s) is lost;
  - c. Any exceedances of the allowable hydrogen sulfide concentration levels specified in Order Number 2;
  - d. The beginning and ending dates and times of each occurrence;
  - e. The correlating weather data for each exceedance;
  - f. Any known causes for the exceedances (*i.e.*, gas control system maintenance or malfunction, documented outside influences, etc.); and
  - g. Any corrective measures taken to return to compliance.

The deviation reports shall be submitted in accordance with the reporting requirements of Order Number 28. Upon request by NEDO-DAPC, more timely data shall be made available.

## RECORDS

28. Respondent shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record-keeping information shall be submitted to NEDO-DAPC.
  - b. Except as provided, quarterly written reports of: (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record-keeping requirements specified in these Orders, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to NEDO-DAPC. If no deviations occurred during a calendar quarter, Respondent shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC Rule 3745-15-06.)
29. Each record of any monitoring data, testing data, and supporting information required pursuant to these Orders shall be retained for a period of five (5) years from the date the record was created. Supporting information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by these Orders. Such records may be maintained in computerized form.
  30. Respondent shall furnish to the Director, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking these Orders or to determine compliance with these Orders. Upon verbal or written request, Respondent shall also furnish to the Director, or an authorized representative of the Director, copies of records required to be kept by these Orders.

**FINANCIAL ASSURANCE INSTRUMENT:**

31. Within sixty (60) days after the effective date of these Orders, Respondent shall execute and fund the final closure financial assurance instrument pursuant to OAC Rules 3745-27-15 and 3745-27-17. The amount of the final closure financial assurance instrument shall be increased to include the additional cost to be incurred as a result of installation, operation, monitoring, and maintenance of the gas control and monitoring systems in compliance with these Orders. The final closure cost estimate shall be based on a third party conducting these activities. Ohio EPA may review and/or require revisions to the final closure cost estimate and/or to the final closure financial assurance instrument.
32. Within sixty (60) days after the effective date of these Orders, Respondent shall execute and fund the post-closure care financial assurance instrument pursuant to OAC Rules 3745-27-16 and 3745-27-17. The amount of the post-closure care financial assurance instrument shall be

increased to include the additional cost of operation, monitoring, and maintenance of the gas control and monitoring systems throughout the post-closure care period in compliance with these Orders. The post-closure care cost estimate shall be based on a third party conducting these activities. Ohio EPA may review and/or require revisions to the post-closure cost estimate and/or to the post-closure financial assurance instrument.

### SITE ACCESS

33. The Director, or an authorized representative of the Director, may, subject to the safety requirements of Respondent personnel and without undue delay, enter upon the premises of this Facility at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of these Orders.

### VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders and the Chief of Ohio EPA's DAPC acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: AI certify that the information contained in or accompanying this certification is true, accurate and complete.

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For purposes of these Orders, a responsible official is the person authorized to sign in OAC Rule 3745-35-02(B)(1) for a corporation or a duly authorized representative as that term is defined in the above-referenced rule.

### VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, or corporation, not a party to these Orders, for liability arising from, or related to, Respondent's activities at the Facility.

### VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. These Orders do not

waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

### **IX. MODIFICATIONS**

These Order may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the Director's journal. In the event that the allowable hydrogen sulfide ambient concentration of 30 ppb by volume as a 1-hour rolling average and 10 ppb by volume as a 24-hour rolling average established in section V, paragraph 2 of these Orders is found to be unlawful or unreasonable by the Environmental Review Appeals Commission or a court of competent jurisdiction in a case currently pending as of the effective date of these Findings and Orders, Respondent may submit a proposal for a new allowable hydrogen sulfide ambient concentration to Ohio EPA for review and possible incorporation into these Orders. Any new allowable ambient concentration submitted by Respondent must be accompanied with sufficient documentation supporting that such allowable ambient concentration is protective of public health and environment for such a revised allowable ambient concentration before it will be considered by the Director. Such approval shall not be unreasonably withheld or delayed. The Director may accept, modify, or deny any hydrogen sulfide standard submitted by Respondent, and such action shall be considered a final action of the Director.

### **X. NOTICE**

All documents required to be submitted by Respondent to Ohio EPA pursuant to these Orders shall be addressed to:

Ohio EPA  
Northeast District Office  
Division of Air Pollution Control  
2110 East Aurora Road  
Twinsburg, Ohio 44087  
Attn. Dennis Bush

and to:

Ohio Environmental Protection Agency  
Lazurus Government Center  
Division of Air Pollution Control  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
Attn. Tom Kalman

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

## **XI. RESERVATION OF RIGHTS**

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other administrative, legal, or equitable action as deemed appropriate and necessary, including seeking penalties against Respondent for noncompliance with these Orders and/or for the violations described herein. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require Respondent to perform additional activities pursuant to ORC Chapter 3704., ORC Chapter 3734., or any other applicable law in the future. Nothing herein shall restrict the right of Respondent to raise any administrative, legal, or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of Respondent. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

## **XII. WAIVER**

In order to resolve disputed claims, without admission of fact, violation, or liability, and in lieu of further enforcement action by Ohio EPA for only these violations specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated, or modified.

## **XIII. EFFECTIVE DATE**

The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's Journal.

## **XIV. SIGNATORY AUTHORITY**

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

**IT IS SO ORDERED AND AGREED:**

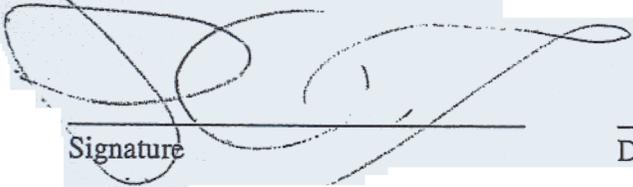
**Ohio Environmental Protection Agency**

  
\_\_\_\_\_  
Joseph P. Koncelik  
Director

2/7/06  
Date

**IT IS SO AGREED:**

Norton Environmental Company

  
\_\_\_\_\_  
Signature

2/2/06  
Date

**Steven M. Viny**  
\_\_\_\_\_

**President**  
\_\_\_\_\_

Title