



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

March 21, 2017

Mr. Joe Tatarek
Apex Environmental, LLC
11 County Road 78
P.O. Box 157
Amsterdam, OH 43903

**Re: Apex Sanitary landfill
Permit - Long Term
Approval
Municipal Solid Waste Landfills
Jefferson County
MSWL018772**

**Re: Apex Sanitary Landfill
Permit - Long Term
Variance
Municipal Solid Waste landfills
Jefferson County
MSWL018772**

Subject: Final Permit to Install Application for Apex Sanitary Landfill

Dear Mr. Tatarek:

The Ohio Environmental Protection Agency, pursuant to Ohio Administrative Code (OAC) Rule 3745-27-02 and OAC Chapter 3745-42, has reviewed the application for a permit with accompanying detail plans, specifications and/or information (hereinafter referred to as "application") regarding the above-referenced facility. This application has been approved by the Director subject to the conditions of compliance contained in the permit approval enclosed herewith and with all applicable laws, rules and standards. All construction must be supervised by an engineer or expert qualified in such work. Because the permit approval contains conditions of compliance, I urge you to read it carefully. Also, enclosed is a Response to Comments.

You are requested to submit, within thirty (30) days of the date of issuance of this Permit to Install, the required permit fee balance of seventy nine thousand six hundred dollars (\$80,000.00 - \$400.00 application fee = \$79,600.00), plus the variance fee balance of fifteen dollars payable to **Treasurer, State of Ohio**. Please send the required payment to:

Ohio Environmental Protection Agency
Permit to Install Fee
Dept L-2711
Columbus, OH 43260-2711

Mr. Joe Tatarek
Apex Sanitary Landfill
Page 2

Payment of the \$79,600.00 plus \$15.00 fee within 30 days is a requirement of ORC Sections 3745.11 (Q) and (V). Failure to timely submit the required permit fee will result in an assessment of late penalties.

You are hereby notified that this action of the Director of Ohio EPA (Director) is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street 17th Floor
Columbus, Ohio 43215

If you have any questions, please contact the Ohio EPA District Office to which you submitted your application.

Sincerely,



Greg Nichols, Administrative Processing Unit
Division of Materials and Waste Management

Enclosure

cc: Megan Ujvari, DMWM, CO
Scott Hester, DMWM, CO
Jeremy Carroll, DMWM, CO
Matt Boyer, DMWM, CO
Kristopher Weiss, PIC
Craig Walkenspaw, DMWM, SEDO
Rich Fox, DMWM, SEDO
Joe Goicochea, DMWM, SEDO
Carla Gampolo, Jefferson County General Health District

OHIO ENVIRONMENTAL PROTECTION AGENCY

PERMIT TO INSTALL

Application Number: 06-08448
Application Received: October 28, 2011
Permit Fee: \$80,000.00
Permit Fee Balance: \$79,600.00
Variance Fee: \$15.00
Variance Fee Balance: \$15.00

Applicant: Apex Environmental, LLC
Address: 11 County Road 78 - P.O. Box 157
Amsterdam, OH 43903

Ohio EPA MAR 21 '17
Entered Directors Journal

Facility: Apex Sanitary Landfill

Location: The facility is located east of Jefferson County Road 78 and Harrison County Road 51 and approximately one-mile north of State Route 646, and is within both Springfield Township, Jefferson County and German Township, Harrison County.

Permit: Vertical and Lateral Expansion and Authorized Maximum Daily Waste Receipt Increase, Municipal Solid Waste Landfill

Issuance Date: MARCH 21, 2017

Effective Date: MARCH 21, 2017

The above-named entity is hereby issued a permit to install (permit) for the above-described source pursuant to Ohio Administrative Code (OAC) Rule 3745-27-02 and OAC Chapter 3745-42. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed and/or modified in accordance with the plans, specifications, and/or information accompanying the permit application, the above-described source of environmental pollutants will operate in compliance with applicable state and federal laws, rules, and regulations, and does not constitute expressed or implied assurances that, if constructed and/or modified in accordance with those plans, specifications, and/or information accompanying the permit application, the above-described source of environmental pollutants will be granted the necessary operating permits and/or licenses. This permit is issued subject to the attached conditions which are hereby incorporated and made a part hereof.

Ohio Environmental Protection Agency


Craig W. Butler, Director

PERMIT SUMMARY

This permit (PTI Number 06-08448) authorizes the vertical and lateral expansion of the approved limits of waste placement and increases the authorized maximum daily waste receipt (AMDWR) from 7,500 tons to 10,000 tons at the existing Apex Sanitary Landfill (Facility) in Jefferson and Harrison Counties, Ohio. Apex Environmental, LLC (Apex) is the owner, operator, and applicant.

The vertical and lateral expansion will create an additional 61,093,000 cubic yards of approved disposal capacity, which increases the total disposal capacity to 83,616,618 cubic yards. The total acreage within the limits of waste placement will increase by 171 acres, which increases the total footprint to 288.5 acres. The vertical and lateral expansion will extend the landfill's life by an estimated 16.0 years at the AMDWR of 10,000 tons, which increases the total remaining life to 17.9 years.

The Facility will incorporate into its construction such features as a composite liner system (recompacted clay, a geosynthetic clay liner, and a geomembrane liner), leachate collection and management system, a surface water management system, ground water monitoring system, an explosive gas monitoring system, an explosive gas extraction system, and a final closure cap system. The permit also incorporates 30 years of post-closure care and financial assurance for closure and post-closure care.

This permit grants Apex two exemptions, from Ohio Administrative Code (OAC) Rule 3745-27-07(H)(2)(b), which requires that the sanitary landfill facility not be located in a limestone or sandstone quarry, and OAC Rule 3745-27-07(H)(4)(d), which requires that the limits of solid waste placement of the sanitary landfill not be located within two hundred (200) feet of areas determined by Ohio EPA or the United States Army Corps of Engineers (USACE) to be a stream, lake, or wetland. This permit also grants Apex one variance, from OAC Rule 3745-27-07(H)(3)(c), which requires that a sanitary landfill be at least one thousand (1,000) feet from a water supply well.

This summary is provided solely for informational purposes and does not constitute a part of, or otherwise affect, the attached permit.

PERMIT CONDITIONS

1. The Director of the Ohio Environmental Protection Agency (Director), or an authorized representative, may enter upon the premises of the above-named applicant (permittee) at any reasonable time during construction and operation for the purpose of making inspections, conducting tests, or examining records or reports pertaining to the construction, modification, or installation of the above-described source of environmental pollutants (municipal solid waste disposal facility).
2. The Facility shall be constructed in strict accordance with the plans, specifications, and information submitted to the Ohio Environmental Protection Agency (Ohio

EPA) which constitute this permit. There shall be no deviation from the approved permit or permit conditions without the express, written approval of Ohio EPA. Any deviation from the approved plans or the permit conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the Facility will operate in compliance with all Ohio laws and regulations. Additional landfill components shall be installed upon orders of Ohio EPA if the Facility is inadequate or cannot meet applicable standards.

3. Issuance of this permit does not relieve the permittee of the duty to comply with all applicable federal, state, and local laws, ordinances, and regulations.
4. This permit shall apply only to the facilities shown on the plans, specifications, and information submitted as part of PTI Application Number 06-08448 received on October 28, 2011, with subsequent revisions received through May 23, 2016.
5. This permit may be modified, or alternatively revoked and reissued, to comply with any revisions to OAC Chapter 3745-27 applicable to this municipal solid waste disposal facility.
6. The permittee shall provide for the proper maintenance and operation of the Facility in accordance with the provisions of OAC Chapter 3745-27.
7. Nothing in this permit shall be construed to authorize any waiver from the requirements of any applicable federal or state laws or regulations except as specified herein. This permit shall not be interpreted to release the permittee from responsibility under Ohio Revised Code (ORC) Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.
8. This permit does not authorize the acceptance of any hazardous or infectious wastes, except for those excluded from hazardous or infectious waste regulation by ORC Chapter 3734.
9. This permit does not authorize the acceptance of any asbestos or asbestos-containing waste material that is subject to the provisions of NESHAP, 40 CFR Part 61, Subpart M. No such asbestos or asbestos-containing waste material may be accepted without first obtaining the necessary permits from Ohio EPA.
10. Not later than seven (7) days prior to starting any construction authorized under this permit, the permittee shall submit to Ohio EPA, Division of Materials and Waste Management (DMWM), Southeast District Office (SEDO) and Jefferson County General Health District (JCGHD) written notification of the anticipated construction start date so that construction of the Facility can be routinely inspected by Ohio EPA, DMWM, SEDO and JCGHD.

11. The permittee shall perform the following activities during construction of the Facility in accordance with the cited provisions of OAC Chapter 3745-27 as follows:
 - a. The pre-construction tests required by OAC Rule 3745-27-08(D) shall be performed and the test results submitted to Ohio EPA, DMWM, SEDO not later than seven (7) days prior to the intended use of the materials in construction.
 - b. The pre-construction interface tests required by OAC Rule 3745-27-08(G) shall be performed and the test results submitted to Ohio EPA, DMWM, SEDO not later than seven (7) days prior to the use of each geosynthetic material authorized by this permit.
 - c. The construction certification report required by OAC Rule 3745-27-08(H) shall be submitted to Ohio EPA, DMWM, SEDO and JCGHD not later than forty-five (45) days prior to the anticipated date of waste receipt in any newly constructed areas. Pursuant to OAC Rule 3745-27-19(C)(1), the permittee shall not accept waste in a phase until Ohio EPA, DMWM, SEDO provides written concurrence of the construction certification report for that phase.
12. The permittee shall provide for the following inspections and facility maintenance:
 - a. The permittee shall provide for daily inspection of the Facility and completion of the Municipal Solid Waste Landfill Daily Log of Operations, Form 3. Written results of the inspections, including any corrective actions taken, shall be made available to Ohio EPA, DMWM, SEDO or JCGHD upon request.
 - b. The permittee shall provide for weekly inspection of surface water control structures, including sedimentation ponds, sedimentation pond discharge structures, constructed wetlands, ditches, and culverts and completion of the Municipal Solid Waste Landfill Daily Log of Operations, Form 4. Prompt corrective actions shall be taken if necessary. Written results of the inspections, including any corrective actions taken, shall be made available to Ohio EPA, DMWM, SEDO or JCGHD upon request.
 - c. To ensure proper operation of the sedimentation pond(s), the pond(s) shall be evaluated annually and cleaned out as necessary when the volume of the settled particles necessitates cleaning based on inspection results or to maintain the storage volume required by OAC Rule 3745-27-08(D)(3).
13. The Facility's authorized maximum daily waste receipt (AMDWR) is established to be ten thousand (10,000) tons. The permittee shall not accept more than 10,000 tons of solid waste for disposal at the Facility on any calendar day. This limit supersedes any previously established AMDWR for the Facility.

14. The permittee shall execute and fund a financial assurance instrument or increase the amount listed on the existing financial instrument in accordance with OAC Rules 3745-27-15, 3745-27-16, and 3745-27-17 for the current cost estimates of the Facility, including the costs for the newly authorized disposal area. Funding shall be completed prior to waste acceptance in any disposal area newly authorized by this permit to install.
15. The permittee shall comply with the requirements of all previously-issued authorizing documents for the Facility, except, to the extent that this permit specifies requirements different from, or in addition to, the requirements of those previously-issued authorizing documents, the permittee shall comply with this permit. This permit, and the conditions herein, shall take precedence over any conflicting requirements.
16. The permittee shall construct a composite cap system, in accordance with OAC Rule 3745-27-08, across an area of the existing landfill footprint equal to the area of composite liner system being constructed in the contiguous expansion footprint. The composite cap system shall be constructed and a certification submitted within 12 months of the date of construction certification of the lined area. The composite cap system is to be constructed and certified on at least 80 acres within 14 years of the contiguous expansion's initial construction certification.

END OF PERMIT CONDITIONS

EXEMPTIONS

Pursuant to ORC Section 3734.02(G) and OAC Rule 3745-27-03(B), the Director may, by order, exempt any person generating, collecting, storing, treating, disposing of, or transporting solid wastes, including scrap tires, from any requirement of ORC Chapter 3734 or any rules adopted thereunder if granting the exemption is unlikely to adversely affect the public health or safety or the environment.

Exemption from OAC Rule 3745-27-07(H)(2)(b) Limestone or Sandstone Quarry

OAC Rule 3745-27-07(H)(2)(b) requires that the sanitary landfill facility is not located in a limestone quarry or sandstone quarry. The Facility is located in a historic coal strip mine and to a lesser extent a historic underground mine. Some limestone remains in limited areas within the landfill's "limits of excavation." As these areas have been and are encountered, and depending on the quality of the material, the limestone has been recovered for both use at the landfill and for limited commercial sale. Therefore, Apex maintains a permit from ODNr for the mining activities. The site is not a limestone quarrying operation that results in a large depression with highwalls, a high water table, and an accumulation of surface water in the excavated pit. Where the limestone is

excavated as part of landfill construction, any mine spoil is removed, the limestone excavated, and the rock below the limestone removed to achieve the design base grades for the landfill. There are no deep depressions to accumulate ground water or highwalls to create a path for leachate migration or stability concerns. Additionally, the landfill is designed to provide the required 15 feet of isolation distance between the base of the recompacted soil liner and the top of the uppermost aquifer system.

The limestone mining which has taken place at the Facility to date, and the limestone mining that is planned, will not compromise the suitability of the site for operating a sanitary landfill facility and maintaining a ground water monitoring network or the stability of the landfill.

Ohio EPA has reviewed the exemption request and, for the reasons noted herein, has determined that granting the requested exemption from the requirement that the sanitary landfill facility not be located in a limestone quarry or sandstone quarry is unlikely to adversely affect the public health or safety or the environment. Therefore, Apex is hereby granted an exemption, pursuant to ORC Section 3734.02(G) and OAC Rule 3745-27-03(B), from the requirement of OAC Rule 3745-27-07(H)(2)(b) that the Facility not be located in a limestone quarry or sandstone quarry. This exemption shall apply only to the activities proposed in PTI Application Number 06-08448. This exemption shall remain in effect throughout the effective period of this permit unless otherwise revoked.

**Exemption from OAC Rule 3745-27-07(H)(4)(d)
200 Feet from Surface Waters**

OAC Rule 3745-27-07(H)(4)(d) requires that the limits of solid waste placement of the sanitary landfill facility are not located within two hundred feet (200) of areas determined by Ohio EPA or the United States Army Corps of Engineers (USACE) to be a stream, lake, or wetland. The proposed Facility expansion includes wetlands, streams, and ponds within the proposed disturbance area. Apex has identified 11 wetland areas, varying from 0.01 to 5.89 acres, encompassing about 14 total acres, 11 streams with 4300 linear feet of stream length, and 11 open water mine pits amounting to about 4.5 acres.

A Jurisdictional Waters Delineation Report was submitted to USACE and was approved by letter dated September 21, 2012. A Section 401 Water Quality Certification and a Level Three Isolated Wetland Permit were issued by Ohio EPA on September 6, 2016. A Section 404 Permit remains pending with USACE.

Ohio EPA has reviewed the exemption request and has determined that, because Apex has obtained the Section 401 Water Quality Certification and the Level Three Isolated Wetland Permit and is prohibited from commencing any activities for which a Section 404 Permit is required until such time as the Section 404 Permit is obtained, granting the requested exemption from the requirement that the limits of solid waste placement of the sanitary landfill are not located within two hundred feet (200) of a stream, lake, or wetland is unlikely to adversely affect the public health or safety or the environment. Therefore,

Apex is hereby granted an exemption, pursuant to ORC Section 3734.02(G) and OAC Rule 3745-27-03(B), from the requirement of OAC Rule 3745-27-07(H)(4)(d) that the limits of solid waste placement at the Facility not be located within two hundred feet (200) of a stream, lake, or wetland. Apex shall not commence any activities at the Facility for which a Section 404 Permit is required unless Apex has obtained the required Section 404 Permit. This exemption shall apply only to the activities proposed in PTI Application Number 06-08448. This exemption shall remain in effect throughout the effective period of this permit unless otherwise revoked.

END OF EXEMPTIONS

VARIANCE

Pursuant to ORC Section 3734.02(A) and OAC Rule 3745-27-03(C), the Director may grant a variance if the applicant demonstrates to the Director's satisfaction that construction, operation, closure activities, and/or post-closure activities of the solid waste facility in the manner approved by the variance and any terms and conditions imposed as part of the variance will not create a nuisance or a hazard to public health or safety or the environment and are unlikely to result in a violation of any other requirements of ORC Chapters 3704, 3714, 3734, and 6111 and any rules adopted thereunder.

Variance from OAC Rule 3745-27-07(H)(3)(c) 1,000 Feet from Water Supply Well

OAC Rule 3745-27-07(H)(3)(c) requires that the limits of solid waste placement of the sanitary landfill facility are not located within one thousand feet (1,000) of a water supply well unless the water supply well meets specific provisions of the siting criterion. A water supply well, controlled by Apex and adjacent to the main office, is used to provide water to the office sinks and toilets. The well is located within one thousand feet (1,000) of the limits of solid waste placement proposed in PTI Application Number 06-08448. However, the well will not be within one thousand feet (1,000) of disposed waste until Phase 10 of the expansion. Apex proposes to continue using the water supply well until the actual disposed waste is nearing the one-thousand-foot (1,000) setback from the well. Prior to waste encroaching within one thousand feet (1,000) of the well, Apex proposes to decommission the well and replace it with a well that meets the siting restriction by being at least five hundred feet (500) upgradient or one thousand feet (1,000) downgradient of the limits of solid waste placement or separated by a hydrogeologic barrier, or, Apex may install a potable water tank for the office.

Ohio EPA has reviewed the variance request and, for the reasons noted herein, has determined that granting the requested variance from the requirement that the limits of solid waste placement of the Facility are not located within one thousand feet (1,000) of a water supply well will not create a nuisance or a hazard to public health or safety or the environment and is unlikely to result in a violation of any other requirements of ORC Chapters 3704, 3714, 3734, and 6111 and any rules adopted thereunder. Therefore,

Apex is hereby granted a variance, pursuant to ORC Section 3734.02(A) and OAC Rule 3745-27-03(C), from the requirement of OAC Rule 3745-27-07(H)(3)(c) that the limits of solid waste placement at the Facility not be located within one thousand feet (1,000) of a water supply well. Prior to waste disposal at the Facility encroaching within one thousand feet (1,000) of the water supply well, Apex shall decommission the water supply well and implement one of the options proposed in PTI Application Number 06-08448 in accordance with law and rule. This variance shall apply only to the activities proposed in PTI Application Number 06-08448. This variance shall remain in effect throughout the effective period of this permit unless otherwise revoked.

END OF VARIANCE



**Division of Materials and Waste Management
Response to Comments**

Subject: Apex Sanitary Landfill
Permit-to-Install Application No. 06-08448
Lateral and Vertical Expansion with AMDWR Increase

Re: Apex Sanitary Landfill; Permit - Long Term; Public Response; Municipal
Solid Waste Landfills; Jefferson County; MSWL018772

Agency Contacts for this Project

Division Contact: Craig Walkenspaw
Division of Materials and Waste Management
(740) 380-5440
craig.walkenspaw@epa.ohio.gov

Public Involvement Coordinator: Kristopher Weiss
Public Information Center
(614) 644-2160
kristopher.weiss@epa.ohio.gov

Ohio EPA held a public hearing Dec. 13, 2016 concerning a draft permit-to-install (PTI) issued to Apex Environmental, LLC (Apex) for a vertical and lateral expansion and authorized maximum daily waste receipt (AMDWR) increase for the Apex Sanitary Landfill located at 11 County Road 78, Amsterdam, Jefferson County. This document summarizes the comments and questions received at the public hearing and during the associated public comment period, which ended Dec. 20, 2016.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the comments and questions are grouped by topic and organized in a consistent format. The topics include Landfill Operations, Design and Construction, Compliance Monitoring, and Miscellaneous.

LANDFILL OPERATIONS

Comment 1: A question was raised regarding the volume of methane produced by the landfill and the status of a landfill gas-to-energy project.

Response 1: The landfill's Gas Collection and Control System (GCCS) collects and destroys some 3,000 standard cubic feet per minute (SCFM) of landfill gas. The landfill's three flares are permitted through Ohio EPA's Division of Air Pollution Control (DAPC). Apex is required to submit an annual emission report to Ohio EPA. Any decision to pursue a landfill gas-to-energy project would be a business decision of the owner. If the owner decides to pursue such a project, the landfill's air permit would likely need to be modified.

Comment 2: A concern was raised about the source of soils used for the landfill's daily operations and construction.

Response 2: The soils used to operate and construct the landfill are progressively excavated from within or near the permitted limits of the landfill's developing footprint. As the next cell is excavated, soils are screened to create recompacted soil liner material. Soils are also used for daily, intermediate, and transitional covers or structural fill. Within the permit application's soil balance model, a shortfall of some 1 million cubic yards of material is projected, which will likely be borrowed from elsewhere within Apex's 1,285-acre contiguous property.

Comment 3: A question was raised about the landfill's projected operating life as currently permitted versus the proposed expansion.

Response 3: A solid waste permit allows a specific volume for waste disposal, which is often called the landfill's "permitted air space." The operating life of a landfill is a function of the permitted air space and the rate of waste acceptance.

At the previously-established AMDWR of 7,500 tons per day with the remaining previously-permitted capacity of 7.3 million cubic yards, the

landfill would be filled within 2.5 years. At the current rate of about 3,000 tons per day, filling would take approximately 6.4 years.

As presented in the permit application, as the waste acceptance rate varies from 2,000 tons per day to the newly-established AMDWR of 10,000 tons per day, the projected remaining life of the expanded landfill ranges from 89.3 years to 17.9 years. At the current rate of about 3,000 tons per day, filling of the expanded landfill will take approximately 67 years.

Comment 4: Concerns were raised about the proposed increase to the landfill's AMDWR.

Response 4: The landfill's previously established AMDWR was 7,500 tons. AMDWR is defined as the maximum amount of solid waste a facility may receive on any calendar day. The AMDWR does not apply to the acceptance of non-solid waste materials such as construction demolition debris. This approved solid waste permit (PTI No. 06-08448) established a new AMDWR of 10,000 tons. The landfill's recently approved air permit limits waste receipt to 10,000 tons per day of solid waste and other wastes, including construction and demolition debris. Thus, though the AMDWR established in the solid waste permit only limits the amount of solid waste that the facility may receive on any calendar day, the air permit will limit the total amount of solid waste and other waste, such as construction and demolition debris, that can be accepted at the landfill to 10,000 tons a day. If the landfill's actual waste receipts increase significantly above current average daily waste receipts, Apex may need to adjust operational practices, including utilizing additional equipment, to comply with applicable operational regulations.

Comment 5: Several individuals expressed concerns about past and present odors originating from the landfill and their potential impact if the proposed permit is issued.

Response 5: Ohio EPA received the application for the proposed expansion Oct. 28, 2011. At that time, Apex was experiencing difficulty controlling odors. On Dec. 11, 2011, Director's Final Findings and Orders (DFF&Os) were issued to Apex to address the offsite odors. On June 3, 2013,

subsequent DFF&Os required Apex to perform specific odor-control measures. On July 20, 2015, Ohio EPA approved an Odor Management Plan (OMP), which is incorporated into the permit application. The OMP includes best practices to control odor, including the semi-annual review and expansion of the GCCS, monthly surface emission monitoring of the landfill, and daily onsite and offsite odor monitoring. In addition to the OMP, Jefferson County General Health District performs twice-monthly offsite odor monitoring of the landfill.

Apex installs GCCS components to minimize the passive release of landfill gas and its associated odors. The GCCS expansion-and-installation schedule is prescribed by the OMP and the federal New Source Performance Standards (NSPS) air pollution rules. The OMP requires a more aggressive schedule for the GCCS expansion and installation than NSPS. The OMP requires Apex to review the GCCS by Feb. 1 and Aug. 1 of each year and submit a plan for the expansion of the system in all areas of the landfill that are generating landfill gas.

Comment 6: **A prepared statement included the following comment: “According to county, state, and federal agencies, conditions at the Apex Environmental Landfill have created a public nuisance.”**

Response 6: Ohio EPA is unaware of any determination that Apex has created a “public nuisance”, as defined in OAC Rule 3745-15-07. OAC Rule 3745-15-07 (Air Pollution Nuisance Prohibited) states the following: “The emission or escape into the open air from any source or sources whatsoever, of smoke, ashes, dust, dirt, grime, acids, fumes, gases, vapors, or any other substances or combinations of substances, in such manner or in such amounts as to endanger the health, safety or welfare of the public, or cause unreasonable injury or damage to property, is hereby found and declared to be a public nuisance. It shall be unlawful for any person to cause, permit or maintain any such public nuisance.”

Additionally, “The emission or escape into the open air from any source or sources of odors whatsoever that is subject to regulation under Chapter 3745-17, 3745-18, 3745-21, or 3745-31 of the Administrative Code and is operated in such a manner to emit such amounts of odor as to endanger the health, safety, or welfare of the public, or cause

unreasonable injury or damage to property, is hereby found and declared to be a public nuisance. It shall be unlawful for any person to cause, permit or maintain any such public nuisance."

Citations of a public nuisance would come as a result of a citizen complaint and associated investigation. Review of past correspondence indicates that Apex has not been cited as a public nuisance by Ohio EPA to date.

As DAPC's duty is to ensure compliance with the federal Clean Air Act and with state rules and regulations and to maintain air quality with respect to air pollutants, odor complaints associated with the landfill are instead handled at the local level, usually within the county health department.

Ohio EPA has not cited a violation for nuisance at this facility; however, in the past, Apex has been cited for failure to strictly control odors relative to OAC Rule 3745-27-19(B)(3). This rule citation does not declare that a nuisance has been created. As a result of the OAC Rule 3745-27-19(B)(3) violations, Ohio EPA escalated enforcement, which resulted in two consent orders that established odor-control practices at the landfill. Through these orders, Apex was returned to substantial compliance. With the incorporation of defined and enforceable odor control practices into Apex's approved OMP, the orders were terminated.

Comment 7: **A commenter asked for clarification regarding the number of working faces at the landfill and the progression of the working face(s) during landfill operation.**

Response 7: A landfill's working face is the active area where waste is being received, spread, and compacted. As required by rule, Apex may operate a single working face, unless "select waste" is being placed within a recently certified cell to provide protection for its composite liner components. In addition, OAC Rule 3745-27-19 and the landfill's OMP require the application of daily cover and limiting the working face to the smallest practicable size.

Comment 8: Concerns were raised about fugitive dusts originating from the landfill during its daily operations.

Response 8: Fugitive dust is regulated by DAPC. For a landfill, DAPC issues an air permit which requires a "work practice plan" for the control of fugitive dust on roadways. The "reasonably available control measures" are used to minimize or eliminate visible particulate emissions of fugitive dust by periodic application of water or other suitable dust-suppression chemicals and, if needed, to eliminate the use of unpaved roadways. The work practice plan requires the tracking of inspections and treatments implemented. Because the facility is located within Jefferson County, an area identified in Appendix A of OAC Rule 3745-17-08, Apex must comply with the requirements established for facilities in Appendix A areas, such that visible particulate emissions from any unpaved roadways or parking areas are not to exceed 13 minutes during any 60-minute time period, as determined by USEPA Method 22.

With respect to fugitive dust created by landfill operations, the landfill's permit requires that "reasonably available control measures" are used. These include watering haul roads, minimizing drop heights for waste dumping/unloading, waste compaction, soil excavation and handling, covering of waste with soil, and minimizing wind erosion from landfill surfaces. Landfill operators perform daily inspections of landfill fugitive dust operations/sources to determine the need for implementing control measures. In addition, an emission limitation is established to ensure visible fugitive particulate emissions shall not exceed 20 percent opacity as a three-minute average, as determined by U.S. EPA Method 9.

DESIGN AND CONSTRUCTION

Comment 9: Clarification was sought about the previous permit modification, which changed the landfill's final slope design.

Response 9: On Dec. 31, 2009, Apex received PTI No. 06-08438, which increased the slope of the landfill's final cap system from four horizontal to one vertical (4:1) to three horizontal to one vertical (3:1). The new design

does incorporate surface water-control benches along the length of its slopes. Effectively, this modification increased the landfill's permitted air space by 4,981,668 cubic yards. The design for the final slopes of three horizontal to one vertical was reviewed by Ohio EPA and considered acceptable to provide for the required factor of safety for slope stability.

Comment 10: A question was asked regarding the typical schedule for the installation of landfill gas wells.

Response 10: Apex installs GCCS components to minimize the passive release of landfill gas and its associated odors. The GCCS expansion-and-installation schedule is prescribed by the OMP and the federal NSPS rules. The OMP requires a more aggressive schedule for the GCCS expansion and installation than NSPS. The OMP requires Apex to review the GCCS by Feb. 1 and Aug. 1 of each year and submit a plan for the expansion of the system in all areas of the landfill that are generating landfill gas.

Comment 11: A concern was raised regarding the proposed expansion's maximum elevation.

Response 11: The proposed expansion's final cap system will have a maximum height of 1,577 feet above mean sea level (msl) which, if filled to its design capacity, is 28 feet higher than Ohio's highest natural elevation (1,549 feet above msl) at Campbell Hill near Bellefontaine. As required by rule, Ohio EPA reviewed the engineering design, including slope stability and the crushing strength of pipe components, and determined that the facility design meets applicable requirements. Ohio EPA does not have the authority to consider the proposed elevation of the facility. This concern would be best addressed locally by zoning through the applicable townships.

Comment 12: A concern was raised relative to fracking, earthquakes, and the landfill's stability.

Response 12: The potential impacts of a natural or induced earthquake were evaluated during the proposed expansion's slope stability modelling. This stability modelling considers seismic activity. Ohio EPA reviewed the

engineering design, including slope stability, and determined that the facility design meets applicable requirements.

COMPLIANCE MONITORING

Comment 13: A concern was raised about the landfill's noncompliance noted at the July 20, 2016 Jefferson County Board of Health meeting.

Response 13: As an "approved health department", Jefferson County General Health District (JCGHD) administers and enforces the state's solid waste program, which includes inspection of the landfill. On July 20, 2016, JCGHD issued a notice of violation to Apex for violations observed during its July 17, 2016 inspection. On Aug. 18, 2016, JCGHD documented that Apex resolved all violations cited in the July 20, 2016 letter. During inspections that have occurred since that time, JCGHD has not observed recurring violations.

Comment 14: A concern was raised about being unable to find inspection letters on Ohio EPA's public records website.

Response 14: In an effort to provide easy access to public records, Ohio EPA posts regulatory documents submitted to the Agency and correspondence sent by the Agency on its eDocs system. This web-based system is limited to documents defined as public records maintained by Ohio EPA and does not include public records maintained by other agencies. JCGHD administers and enforces the state's solid waste program in its county, which includes inspection of the landfill and retention of inspection correspondence. JCGHD may be contacted to request copies of inspection correspondence and other public records.

Comment 15: A concern was raised about the health department and Ohio EPA's odor detection efforts and how often odor monitoring occurs.

Response 15: JCGHD administers and enforces the state's solid waste program, which includes inspection of the landfill. Generally, JCGHD performs twice-monthly odor monitoring of the landfill and can be contacted to request

copies of inspection correspondence and other public records. Ohio EPA provides technical assistance to local health departments that administer and enforce the state's solid waste program.

Comment 16: A concern was raised about the enforcement of rules and regulations applicable to the landfill.

Response 16: Although Ohio EPA maintains the authority to administer and enforce the state's solid waste program, as an approved health department, JCGHD administers and enforces the solid waste program in Jefferson County, which includes inspection of the landfill and resulting inspection correspondence. As an approved health district, JCGHD receives the same inspection and enforcement authority that would otherwise be asserted by Ohio EPA. Ohio EPA provides technical assistance to local health departments that administer and enforce the state's solid waste program. In addition, Ohio EPA annually evaluates local health departments to, in part, support a consistent statewide inspection program.

Comment 17: Several individuals emphasized that Apex must be held responsible for offsite odors, working face size, equipment breakdowns, and other issues.

Response 17: During its July 17, 2016 inspection, JCGHD observed violations related to working face size, equipment breakdowns, and other operational matters. These violations were documented in inspection correspondence dated July 20, 2016. In response to cited violations, Apex took the necessary actions to return to compliance. During inspections that have occurred since July 20, 2016, JCGHD has not observed recurring violations

Ohio EPA's Division of Materials and Waste Management and JCGHD have cited Apex on numerous occasions for the "failure to control" odors relative to OAC Rule 3745-27-19(B)(3), which states the following: "The owner or operator shall operate the facility in such a manner that noise, dust, and odors are strictly controlled so as not to cause a nuisance or a health hazard." Escalated enforcement has resulted in two consensual DFF&Os that established odor-control practices at the landfill. Through

these orders, Apex was returned to substantial compliance. With the incorporation of practices into the Apex's approved OMP, the orders have been terminated.

MISCELLANEOUS

Comment 18: Mr. Don Costello provided to Ohio EPA a copy of a revised 2016 report titled: *Air Quality in Ohio: Impacts of Unconventional Natural Gas Drilling (UNGD)*.

Response 18: In reading the report, the purpose of the study was to analyze air quality before, during, and after unconventional natural gas drilling. In February 2014, 25 passive air samplers were placed for three weeks on 23 properties in or near Carroll County. One of the 25 air monitors was reportedly placed on Mr. Costello's property in Jefferson County, which is some 5,770 feet north of the landfill. The air sampling methods were used to collect samples for polycyclic aromatic hydrocarbons (PAHs) analysis. Sixty-two PAHs were analyzed in the samples from the study, and 32 of the 62 PAHs were detected at measurable concentrations. At all stations, quantitative human health risk assessment estimated risks below the U.S. EPA's acceptable risk level. Furthermore, the report compared the results to data for 17 PAHs from reference locations in rural Michigan and rural Canada. In comparison, the results from the Carroll County study had much lower concentrations than the reference rural locations. In other words, the air quality, relative to PAHs, was assessed to be better in Carroll County than the referenced locations in rural Michigan and rural Canada.

PAHs are a group of more than 100 different chemicals that are released from burning coal, oil, gasoline, trash, tobacco, wood, or other organic substances such as charcoal-broiled meat. PAHs are not permitted emissions from Apex. Permitted emissions from Apex include methane, non-methane organic compounds, volatile organic compounds, particulates, carbon monoxide, nitrogen oxides, hazardous air pollutants, hydrogen chloride, and sulfur dioxide. Therefore, this study is not relevant to the landfill or its proposed expansion.

Comment 19: An individual asked if air monitors could be staged in proximity to the landfill to assess its impact to air quality?

Response 19: Air monitoring for the landfill is not supported by U.S. EPA guidance and requirements. Ohio EPA follows federal general guidance and requirements for air monitoring in 40 CFR 58, Appendix D, including monitoring 1) areas of expected high concentrations, 2) areas of high population density, 3) areas with significant sources, 4) general background concentration sites, and 5) areas of regional transport of a pollutant. Monitoring locations must meet U.S. EPA requirements, and state and local air agencies must be available to operate and maintain the sites and equipment, collect samples for analyses, and conduct data collection and reporting.

Furthermore, prior to issuance of an air permit, the agency evaluates whether emissions associated with a facility are protective of human health and the environment.

For additional information pertaining to air monitoring in Ohio, please see: <http://www.epa.ohio.gov/dapc/ams/amsmain.aspx>

U.S. EPA performed an air quality study in September 2013. In particular, U.S. EPA, in conjunction with Ohio EPA, used Geospatial Measurements of Air Pollution to measure hydrogen sulfide and methane, in addition to taking a small number of volatile organic compounds (VOCs) grab samples on public roads around the landfill on multiple days to gather baseline data. Weather conditions were conducive to differentiating the landfill from other sources and sampling occurred at different times of the day. On the days of sampling, there were no exceedances of health screening levels for hydrogen sulfide or VOCs at the sampling locations. Methane does not have a health screening level. Methane, hydrogen sulfide, and VOCs were elevated downwind of the landfill compared to background levels. Odors were, at times, intense and extended well beyond the landfill's property line during the U.S. EPA air monitoring study. The report may be found on Ohio EPA's eDocs system at: <http://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=591739>

Comment 20: Please clarify the details of prior wetland and stream mitigation projects.

Response 20: Wetland mitigation requirements in 401 Water Quality Certification (Ohio EPA ID number 049815)

For impacts to 2.71 acres of jurisdictional Category 2 wetlands, Apex restored 2.0 acres of wetlands in the backwater area of the reconstructed dam on-site, restored 3.5 acres of wetland at an off-site location, and preserved 16 acres of Category 3 wetlands and 34 acres of buffer. The performance goal of the restored wetlands is to reach Category 2 wetland status.

Wetland mitigation requirements in isolated wetland permit (Ohio EPA ID number 049816)

For impacts to 0.15 acres of Category 2 wetlands, Apex developed a minimum of 2.03 acres of emergent wetlands in the 'Quarry Pond' area and preserved 4.75 acres of emergent wetlands. The performance goal of the restored wetland is to reach Category 2 wetland status.

Status of wetland mitigation for 401 Water Quality Certification (Ohio EPA ID number 049815)

Conservation easements have been placed on the mitigation areas, including the 16 acres of preserved Category 3 wetlands. The easement is held and monitored quarterly by Jefferson Soil and Water Conservation District.

The dam reconstruction site, Faith Ranch, and Goose Creek areas are meeting their performance standards and have been released from monitoring by Ohio EPA.

Status of wetland mitigation for isolated wetland permit (Ohio EPA ID number 049816)

Conservation easements have been placed on the mitigation areas, including the 4.75 acres of preserved wetlands. The easement is held and monitored quarterly by Jefferson Soil and Water Conservation District.

Monitoring at the Quarry Pond site is ongoing, and Apex has submitted the 2016 monitoring report to Ohio EPA and is continuing to work toward performance standards for this site. Currently, the Quarry Pond site has not been released by Ohio EPA.

Comment 21: Please clarify the details of the pending wetland and stream mitigation projects.

Response 21: 401 Water Quality Certification and isolated wetland permit mitigation for Apex Expansion:

Ohio Revised Code 6111.30 states, in part:

- I. Mitigation required by a section 401 water quality certification may be accomplished by any of the following:
 - (1) Purchasing credits at a mitigation bank approved in accordance with 33 C.F.R. 332.8;
 - (2) Participating in an in-lieu fee mitigation program approved in accordance with 33 C.F.R. 332.8;
 - (3) Constructing individual mitigation projects.

The In-Lieu Fee program involves the restoration, establishment, enhancement, and preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for Ohio EPA Section 401 Water Quality Certifications, Isolated Wetland Permits, and Director's Findings and Orders documents.

The proposed expansion will impact 13.92 acres of wetlands and 4,301 feet of headwater intermittent and ephemeral streams. To mitigate for these impacts, Apex has secured 29.34 acre-based wetland mitigation credits and 7,196 foot-based stream mitigation credits from Stream + Wetlands Foundation, which is an In-Lieu Fee sponsor that has been approved by Ohio EPA and the U.S. Army Corps of Engineers (U.S. ACE).

On Sept. 6, 2016, Ohio EPA issued the Section 401 Water Quality Certification No. 124004 and the Ohio Isolated Wetland Permit No. 164923, which authorize the wetland and stream impacts and mitigation for the lateral expansion.

Comment 22: Concerns were raised about declining property values, excessive noise, inconvenience, and personal annoyance.

Response 22: Ohio EPA does not have the authority to consider property values, excessive noise, inconvenience, or personal annoyance within the scope of a permit application's review. These concerns would be best addressed locally by zoning through the appropriate townships.

Comment 23: A concern was raised about waste haulers traveling off their designated route to the landfill and, instead, driving through residential neighborhoods. A concern was raised about railroad impacts as well.

Response 23: Ohio EPA has no jurisdiction over the transportation of solid waste. These concerns would be best addressed locally through the appropriate township.

Comment 24: A concern was raised about possible ground water contamination and whether residential wells would be monitored.

Response 24: As required by Ohio's landfill regulations, Apex maintains a ground water monitoring program to identify any impact to ground water resulting from the landfill. The network of monitoring wells is designed to identify any impact prior to its migration off-property. Apex samples the monitoring wells, and the results are submitted to Ohio EPA and JCGHD. Ohio EPA reviews required reports for quality, accuracy, and completeness. To date, Ohio EPA has not identified any impact to ground water resulting from the landfill. Apex must perform semi-annual ground water monitoring for the life of the landfill and for at least 30 years after closure. If any adverse impacts to ground water were detected, Ohio's landfill regulations would require Apex to assess the impact and employ corrective measures. JCGHD may be contacted for any questions related to private drinking water wells.

Comment 25: Requests were made for an extension to the public comment period due to the inclement weather on Dec. 13, 2016, which was the night of the public hearing.

Response 25: After considering requests to extend the public comment period, Ohio EPA decided to maintain its original Dec. 20 deadline. In addition to testimony provided during the public hearing, Ohio EPA also considers written comments that can be mailed or sent electronically. Written comments are afforded the same relevance as testimony received at the hearing. All comments are considered before a decision is made on the permit application.

Comment 26: Please clarify the details behind the two exemptions and one variance requested for the proposed landfill expansion.

Response 26: **Exemption #1: setback from limestone quarry**

The first exemption is from OAC Rule 3745-27-07(H)(2)(b), which requires that a sanitary landfill facility not be located in a limestone quarry or sandstone quarry. The landfill is located in a historical coal strip mine and to a lesser extent a historical shallow underground mine. Some limestone remains in limited areas within the landfill's "limits of excavation." As these areas have been and are encountered, and depending on the quality of the material, the limestone has been recovered for both use at the landfill and for limited commercial sale. Therefore, Apex maintains a permit from the Ohio Department of Natural Resources (ODNR) for the mining activities. The site is not a limestone quarrying operation that results in a large depression with highwalls, a high water table, and an accumulation of surface water in the excavated pit. Where the limestone is excavated as part of landfill construction, any mine spoil is removed, the limestone excavated, and the rock below the limestone removed to achieve the design base grades for the landfill. Additionally, the landfill is designed to provide the required 15 feet of isolation distance between the base of the recompacted soil liner and the top of the uppermost aquifer system. The limestone mining, which has taken place at the landfill to date, and the limestone mining that is planned, will not compromise the suitability of the site for operating a

sanitary landfill. Ohio EPA has reviewed the exemption request and determined that granting the requested exemption from the requirement that the sanitary landfill facility not be located in a limestone quarry or sandstone quarry is unlikely to adversely affect the public health or safety or the environment.

Exemption #2: setback from surface waters

The second exemption is from OAC Rule 2745-27-07(H)(4)(d), which requires that the limits of solid waste placement of the sanitary landfill not be located within 200 feet of areas determined by Ohio EPA or the U.S. ACE to be a stream, lake, or wetland. The proposed landfill expansion includes wetlands, streams, and ponds within the proposed disturbance area. Apex has identified 11 wetland areas, varying from 0.01 to 5.89 acres, encompassing about 14 total acres, 11 streams with 4,300 linear feet of stream length, and 11 open water mine pits amounting to about 4.5 acres. A Jurisdictional Waters Delineation Report was submitted to U.S. ACE and was approved by letter dated Sept. 21, 2012. A Section 401 Water Quality Certification and a Level Three Isolated Wetland Permit were issued by Ohio EPA on Sept. 6, 2016. A Section 404 Permit remains pending with U.S. ACE. Ohio EPA has reviewed the exemption request and has determined that granting the requested exemption from the requirement that the limits of solid waste placement of the sanitary landfill are not located within 200 feet of a stream, lake, or wetland is unlikely to adversely affect the public health or safety or the environment. This exemption prohibits Apex from commencing any activities located within this setback until Apex has first obtained the required Section 404 Permit from the U.S. ACE.

Variance: setback from a water supply well

The variance is from OAC Rule 3745-27-07(H)(3)(c), which requires that a sanitary landfill be at least 1,000 feet from a water supply well unless the water supply well meets specific provisions of the siting criterion. A water supply well, controlled by Apex and adjacent to the main office, is used to provide water to the office sinks and toilets. The well is located within 1,000 feet of the limits of solid waste placement proposed in PTI Application No. 06-08448. However, the well will not be within 1,000 feet

of disposed waste until Phase 10 of the expansion is constructed. Apex proposes to continue using the water supply well until the actual disposed waste is nearing the 1,000-foot setback from the well. Prior to waste encroaching within 1,000 feet of the well, Apex proposes to properly abandon the well. Ohio EPA has reviewed the variance request and has determined that granting the requested variance from the requirement that the limits of solid waste placement of the landfill are not located within 1,000 feet of a water supply well will not create a nuisance or a hazard to public health or safety or the environment and is unlikely to result in a violation of any other requirements of ORC Chapters 3704, 3714, 3734, and 6111 and any rules adopted thereunder. Therefore, this permit includes a variance, pursuant to ORC Section 3734.02(A) and OAC Rule 3745-27-03(C), from the requirement of OAC Rule 3745-27-07(H)(3)(c) that the limits of solid waste placement at the landfill not be located within 1,000 feet of a water supply well. Prior to waste disposal at the landfill encroaching within 1,000 feet of the water supply well, Apex is required to properly abandon and seal the water supply well in accordance with OAC Rule 3745-9-10, ORC Section 1521.05(C), and any applicable Ohio laws or regulations.

End of Comments
