

Response to Comments Received for the Draft Solid Waste Permit to Install (PTI Application Number 06-07741), the Proposed Modification to NPDES Permit Number OIN00251*AD, and the Draft Air Permit to Install (PTI Number 06-07903) for Tunnell Hill Reclamation Located in Perry County

On May 23, 2006, Ohio EPA issued a draft solid waste permit to install (PTI Number 06-07441) to Tunnell Hill Reclamation, LLC for the proposed construction of Tunnell Hill Reclamation (Facility), a new municipal solid waste (MSW) disposal facility, to be located in Perry County. Ohio EPA also issued a proposed modification to National Pollutant Discharge Elimination System (NPDES) Permit No. OIN00251*AD on April 3, 2003, and a draft air permit (PTI Number 06-07903), on May 23, 2006, for the Facility. A public hearing was held on June 28, 2006, at the New Lexington Community Center in New Lexington, Ohio, and written comments on the draft permits were accepted until July 7, 2006.

The following are responses to questions and comments received during the hearing and comment period pertinent to the proposed Facility. Comments received are in bold print, followed by Ohio EPA's responses. Some comments, especially those received from several different commentors, have been summarized and are not quoted word-for-word. In addition, the text of the Keep Perry County Ohio Clean petition has been included.

Response to Comments

- 1. A concern was raised relative to the “track record” of the Facility’s operator and that this should be taken into consideration prior to the issuance of the permit for the MSW landfill. This is in regards to the past operations of the construction and demolition debris (C&DD) landfill which is adjacent to the proposed MSW landfill. There was a related request that Ohio EPA disclose any and all actions and penalties, civil and criminal, associated with the C&DD landfill.**

All citations of violations are documented in public records maintained by Ohio EPA and the Perry County Health Department. For the Tunnell Hill Reclamation C&DD landfill, an enforcement process resulted in a set of Director’s Final Findings and Orders (DFFOs), which were executed on May 22, 2006. A copy of the DFFOs is available at: www.epa.state.oh.us/dsiwm/document/issued_actions/enf-06-006.pdf. Within the findings of this document, interested parties can find a complete listing of all violations cited by Ohio EPA and the Perry County Health Department. This is the only enforcement action associated with the Tunnell Hill Reclamation C&DD landfill.

These orders provide for the relocation and proper disposal of waste material and for the redesign of the C&DD landfill. Tunnell Hill Reclamation elected to cease further disposal operations until a resolution could be reached.

Tunnell Hill has complied with the required compliance and criminal background investigative check requirements of ORC Section 3734.44 and meets the statutory criteria for issuance of the permit. This process evaluates both compliance and criminal history.

2. In regard to the C&DD landfill, a question was raised about why the mixed waste was not removed immediately after its discovery in 2003.

Ohio EPA immediately began citing violations that required the removal and proper disposal of the mixed waste. However, Tunnell Hill Reclamation, LLC (Tunnell Hill), relying on a license condition issued through the Perry County Health Department, insisted that it was authorized to screen unauthorized waste. This “screening” of the waste was unsuccessful and thus Ohio EPA issued an Invitation to Negotiate (ITN) consensual DFFOs to resolve the outstanding violations associated with the unlawful disposal of a mixed waste.

Tunnell Hill elected to cease further disposal operations until a resolution could be reached. On May 22, 2006, Ohio EPA and Tunnell Hill entered into DFFOs that resolved its outstanding violations. The DFFOs establish a time frame for the proper disposal of the mixed waste.

3. In regard to the C&DD landfill, a question was raised about the total quantity of the amassed mixed waste and where it will be finally disposed.

Approximately 30,000 tons of mixed waste were originally disposed into the initial cell of the C&DD landfill. As provided for within the May 22, 2006, DFFOs, this waste is to be excavated, hauled, and disposed within a licensed and permitted solid waste facility in accordance with the time frames established in the DFFOs.

4. In regard to the C&DD landfill, a question was raised about Ohio EPA’s assessment of the disposal of the mixed waste and the frequency of citation.

The disposal of the mixed waste into the C&DD landfill was a violation of Ohio’s laws and regulations. Violations are typically cited within a follow-up letter written by the inspector. Further inspections may generate additional violations if the site continues to operate out of compliance. In the case of Tunnell Hill Reclamation, violations were cited 15 times by Ohio EPA between the dates of November 10, 2003, and August 25, 2004. The Perry County Health Department cited violations four times between the dates of November 12, 2003, and November 26, 2003.

5. **In regard to the C&DD landfill, a question was raised regarding the initial inadequacy of the leachate sump's pump and the associated violation.**

This violation was cited in a February 12, 2004 letter and was resolved within the May 22, 2006 DFFOs. The sump's pump has been increased in capacity and a second pump has been added in order to maintain less than 12 inches of leachate head above the recompacted soil liner. Subsequently, close monitoring of the level of leachate within the sump has shown continued operational compliance.

6. **A question was raised regarding Ohio EPA's evaluation of the compliance of the MSW landfill's PTI Application. The question also inquired about the compliance of the C&DD landfill's annual license.**

As attested by the issuance of the draft PTI, Ohio EPA's Division of Solid and Infectious Waste Management (DSIWM) has made a preliminary determination that the PTI application for the MSW landfill is complete and meets Ohio's solid waste laws and regulations. As detailed within the DFFOs, the C&DD landfill will need to be redesigned, re-authorized, and reconstructed prior to continuing disposal operations. Ohio's current laws and regulations are being applied to the appropriate facilities.

Ohio EPA, DAPC has determined, based on the information provided in the air pollution control PTI application, that the C&DD and MSW landfills, as proposed, meet the requirements of all applicable state and federal air regulations.

At the time the 2006 C&DD license would have been issued by the Perry County Health Department, Tunnell Hill had not yet entered into DFFOs and therefore was not considered to be in substantial compliance, nor on a legally enforceable schedule to return to compliance with Ohio's solid waste laws and regulations. Therefore, Tunnel Hill was not issued a C&DD license for 2006.

See also response to Comment Number 1 regarding compliance and criminal background investigative check requirements.

7. **A request was made that Ohio EPA consider Ohio Administrative Code (OAC) Rule 3745-27-02(G)(2) in regard to the issuance of the MSW landfill's Final PTI. A statement was made to document discussions with Tunnell Hill Reclamation's consultant who supposedly admitted that "he did not consider the social impact that the landfill would have on the surrounding community when choosing the location." In related testimony, a commentor described the long term negative impacts from multiple underground and surface mining activities in the New Lexington area. This testimony was intended to inform**

us that negative social and economic impacts from additional pollutants from the landfill would occur above and beyond the impacts of coal mining.

OAC Rule 3745-27-02(G)(2) states the following: “In deciding whether to grant or deny a permit-to-install, the director may take into consideration the social and economic impact of the air contaminants, water pollutants, or other adverse environmental impact that may be a consequence of issuance of the permit to install.”

Ohio EPA recognizes that proposals to establish a solid waste facility in an area are controversial and often unpopular. However, Ohio EPA must consider a proposal based on its technical merits and its ability to meet the siting, design, construction, operation, closure, and post-closure requirements of Ohio’s solid waste regulations. Ohio EPA bases its decision to approve or deny a permit application on whether these criteria are met. With the proposed MSW landfill’s design, prescriptive construction methods and certification, and the required operational compliance monitoring, the environmental impact of the proposed facility should be minimal.

Issues regarding local land uses and their effects on matters such as property values and socio-economic issues are concerns that should be addressed locally by zoning boards, planning commissions, and other regulatory bodies.

8. A concern was raised regarding the water quality of Rush Creek which has been impacted by mining over the past decades. In particular, Rush Creek has been “sulphured.”

To clarify, the discharge of the landfills’ sedimentation pond leads to a tributary of Rush Creek. The landfills are within the Rush Creek Watershed, so all surface waters within the facilities eventually drain to Rush Creek.

All surface water runoff from within the Facility and some of the surface mining operations is directed to a sedimentation pond. The discharge from this pond is monitored monthly and is authorized through an NPDES permit as a point source. The permit only authorizes the discharge of sediment (in low concentrations), which had already been authorized prior to this modification. The modification of this permit is proposed to accommodate the development of the MSW landfill and involves adding additional monitoring requirements for pollutants that should not be present in the pond discharge, but will be monitored for as a precaution. The water quality of the sedimentation pond’s discharge is often better than the water quality of Rush Creek.

The liquids within the MSW landfill will be contained by a composite liner system and then collected by a leachate collection system. Currently, the C&DD landfill’s

leachate is hauled to Bremen's Waste Water Treatment Plant. All leachate from the MSW and C&DD landfills will also be collected and removed for treatment at a publicly owned waste water treatment plant.

9. A question was raised about what is the first material placed onto the liner of an MSW landfill. And does heavy equipment drive directly upon the liner?

To clarify, the proposed MSW landfill's liner and leachate collection system will consist of the following: a three-foot thick recompacted soil liner (RSL); a geosynthetic clay liner (GCL); a 60-mil HDPE textured geomembrane; a 6 oz. nonwoven geotextile (cushion layer); and a leachate collection layer which consists of a 12-inch aggregate layer and a 6 oz. nonwoven geotextile (filter layer).

The initial four feet of waste is placed atop the leachate collection system's filter layer. This waste is called "select waste" because it is to be free of any long items that maybe harmful to the liner. Typically, select waste is residential solid waste. Soil or fine material is not acceptable as a select waste because of its clogging potential to the leachate collection system. The waste within the C&DD landfill to be relocated to the MSW landfill may not be used as select waste because of its high soil and pulverized material content.

Select waste is not compacted into place. A single lift of select waste will be pushed into place from above the expanding area covered by select waste. The six-inch daily soil cover or an approved alternative daily cover (ADC) is required. No equipment will work on the leachate collection system's filter layer. The select waste layer is placed prior to beginning typical waste placement, which includes compaction.

10. A concern was raised regarding the potential impact of blasting, associated with the adjacent surface mining operation, on the landfill's components and stability.

This issue has been considered during the design process. An analysis of mine related blasting was performed to estimate the peak particle velocities (PPV) that have been induced by the surface mining operation. In brief, the vibration caused by blasting should not have a detrimental effect on the elastic or plastic materials of the landfill's composite liner or leachate collection system. With regard to stability, the effects of blasting are less than the potential impact on the landfill of an earthquake. The MSW landfill will be stable under both static and seismic conditions as long as the weakest geosynthetic interface, in the bottom liner system, exhibits a friction angle greater than 10 degrees. Minimum interface shear strengths are confirmed through specific material to material testing prior to construction in order to ensure that the design requirements are met.

11. A concern was raised regarding changes to the procedures that the C&DD landfill will use to pre-screen debris.

Since the C&DD landfill's short period of operation in 2003, further laws (e.g., House Bill 397) have been passed to clarify the acceptability of debris for disposal at C&DD landfills. At Tunnell Hill Reclamation, the use of mechanical screening has been proposed to remove the pulverized component of the rail delivered debris. This pulverized waste would be routed to the MSW landfill for disposal. Hand sorting of the remaining larger debris would further remove solid waste prior to disposal at the C&DD landfill. The C&DD rules and procedures established in a C&DD operating license will ensure that a C&DD facility only accepts authorized C&DD for disposal.

12. A concern was raised about the proposed ground water monitoring of the mine spoil and to clarify whether a landfill may be placed into an aquifer.

Two aquifers (i.e., ground water) will be monitored. The deeper aquifer, within the sandstone unit under the entire site, will be monitored by several ground water monitoring wells surrounding the landfills. The shallower mine spoil aquifer is actually created as the spoiled material from the mining becomes saturated over an extended period. This low quality water aquifer will be monitored too. During construction and initial site operations, a seepage collection system will remove any water from within the surrounding mine spoil. Fifteen feet (horizontally) of low permeability added geologic material will provide additional separation to the mine spoil aquifer. In this fashion, an MSW landfill may be designed to be placed within the vertical and lateral limits of an aquifer system, but separated from the aquifer by low permeability materials. Other landfills in Ohio are designed similarly. The C&DD rules do not allow a C&DD landfill to be placed into an aquifer. Hence, Tunnell Hill Reclamation's C&DD landfill is to be redesigned and reconstructed prior to its continued operations.

13. With the MSW landfill set into the developing mine spoil aquifer (ingradient landfill), a concern was raised about the potential contamination of the aquifer.

To clarify, in accordance with the solid waste rules, the developing mine spoil aquifer will be isolated from the landfill by not less than 15 feet of low permeability added geologic material (see Comment Number 12 for further information).

The regulations require all landfills to utilize both natural and synthetically lined cells with leachate collection to reduce the risk of contaminants entering the environment. Ohio EPA has reviewed the PTI application and has determined that the liner and leachate collection system have been designed to current regulatory standards. As

such, Ohio EPA considers the liner and leachate collection system design to be protective of public health and safety and the environment.

In addition, the facility is responsible for at least thirty years of post-closure care and monitoring to detect any possible contamination, and the permittee must establish funds during the operational life of the facility to be used for long term monitoring, assessment, and corrective measures if needed. Should contamination be detected, the facility is responsible for all remediation deemed necessary and appropriate by Ohio EPA.

14. A concern was raised regarding the recovery of methane gas at the MSW landfill.

Methane and other gases are generated as waste decomposes. The PTI application details a proposed gas extraction and collection system. Installation of the gas extraction and collection system is delayed until a specified level of actual emissions is reached. The monitoring for explosive gas begins with site operations and involves a number of monitoring points around the MSW landfill.

15. A concern was raised regarding the past disturbance of wetlands and re-routing of streams involving the previous surface mining operations which were in the area of the proposed landfill. Could the landfill have received similar authorizations?

Through the Army Corps of Engineers, Oxford Mining Company, Inc. received authorization to displace 1.16 acres of wetlands and to impact approximately 4,655 feet of stream within the surface mine. In turn, Oxford Mining Company, Inc. is to mitigate the stream impacts by reconstructing 2,120 feet of channel on-site and preserve 2,000 feet of Rush Creek off-site at the Rush Creek Conservation Area. The wetland mitigation involves creating 2.0 acres of wetland on-site in association with a larger 20-acre mitigation project.

Since the Army Corps of Engineers reviews applications and authorizes projects that would physically impact streams, lakes, and wetlands, it is likely that Tunnell Hill Reclamation, LLC could have applied for and received similar authorization independently of the Oxford Mining Company, Inc. However, the proposed MSW landfill was specifically designed to avoid impacting the authorized mitigation projects.

16. A concern was raised regarding the 1,000-foot setback distance from a domicile to the limits of solid waste placement siting criteria.

Within the regulation [OAC Rule 3745-27-07(H)(4)(c)] which establishes this 1,000-foot setback siting criteria, the impacted homeowner may give written consent to allow the landfill to be located within the prescribed 1,000-foot setback. In this case, there is one domicile located within 1,000 feet of the limits of solid waste placement, and the homeowner did consent in writing to the location of Tunnell Hill Reclamation.

17. A concern was raised regarding the potential impact to the abandoned deep mine shafts located near the proposed MSW landfill.

The location of the proposed MSW landfill was selected such that it does not overlie the underground mines directly northeast of the site. In particular, a sanitary landfill is to be located to avoid potential subsidence or the angle of draw from an underground mine. The proposed MSW landfill is not likely to impact any underground mines. Additionally, any underground mines should not impact the landfill.

18. A concern was raised regarding receiving waste from outside the State of Ohio.

Article I of the U.S. Constitution states, in part, that Congress has the authority “to regulate commerce ... among the several states ...” As decided by several federal courts, the movement of waste between states is considered commerce. As a result, the courts have ruled that limiting out-of-state waste is unconstitutional. It is, therefore, against the law to forbid the acceptance of out-of-state waste. In other words, individual states cannot restrict the disposal of out-of-state waste.

19. A concern was raised regarding whether local water wells and springs will be sampled.

The ground water monitoring for the MSW landfill will occur on site and directly adjacent to the limits of solid waste placement, so sampling of the local water wells or springs off site is not normally done. Through the MSW landfill’s hydrogeologic site investigation, the existing ground water quality and flow direction have been established. Future semi-annual water quality samples will be compared to this established baseline. If a change in water quality above established standards occurs, additional assessment monitoring will occur prior to initiating any necessary corrective action.

20. A concern was raised regarding who owns and who will manage Tunnell Hill Reclamation, LLC.

Tunnell Hill Reclamation, LLC is owned by Charles Ungurean from Coshocton, Ohio.

Rod Deeds is the site manager. These individuals have been investigated by the Attorney General's office through the disclosure and background check process. Annual updates of the disclosure statement are to be submitted and a re-evaluation performed.

21. A concern was raised regarding whether Ohio EPA is impartial.

Ohio EPA is dedicated to the preservation of the environment and the health and welfare of Ohio citizens. The mission statement of Ohio EPA reiterates this commitment to protect and enhance the health and welfare of the people of Ohio.

Ohio EPA has been delegated the responsibility to implement and enforce environmental laws passed by the State legislature. Ohio EPA implements and enforces laws by developing sound administrative rules that complement these laws. Ohio's solid waste laws and administrative rules place tight restrictions on all solid waste disposal facilities in an effort to protect human health and the environment. In recognition that all wastes cannot be recycled, reduced, and reused, the State of Ohio is committed to ensuring that those wastes that must be landfilled are done so according to all applicable environmental requirements.

Ohio EPA must consider a proposal based on its technical merits and its ability to meet the siting, design, construction, operation, closure, and post-closure requirements of Ohio's solid waste regulations. Ohio EPA bases its decision to approve or deny a permit application on whether these criteria are met.

Ohio EPA staff is professional and accountable in fulfilling the duties and responsibilities charged to the agency by the legislature. Additionally, as a state agency, Ohio EPA's records are public documents, and we are obligated to defend that our actions are both lawful and reasonable.

22. A concern was raised regarding the period that waste may be lined up waiting to be offloaded from the rail cars.

Generally, waste is to be unloaded upon arrival at the landfill, so that the containers and associated rail cars may be returned to their points of origin to minimize the required cycling time. To help achieve this goal, the MSW landfill may operate 24 hours a day, 7 days a week. The MSW landfill is limited to accept no more than 5,250 tons of waste per day, so some delay may occur to maintain this capacity limit.

Typically, offloaded containers are taken directly to the landfill, but any offloaded and staged containers should be pulled within 24 hours. Ohio EPA does not regulate rail

activities outside of the Facility, but the Perry County Health Department may cite any nuisances as necessary. The blocking of any roadways and active railways by locomotives and rail cars should be minimized.

23. A concern was raised regarding whether the waste will smell.

Any odor originating from waste depends on its specifics: waste type, age, pretreatment at its point of origin, method of shipping, and even the weather and wind direction. Site operations are critical to minimizing odor generation and limiting odor nuisances. The working face size should be minimized to limit the surface area of the exposed waste. Adequate daily soil cover is necessary to provide containment. As necessary, an odor management system may be utilized to abate odors. Tunnell Hill Reclamation, LLC is likely to accept mostly C&DD delivered by gondola (open-top) rail cars. Odors are generally not a problem with this type of waste and shipping method.

Keep Perry County Ohio Clean Petition

Through a grass-roots efforts, a petition in opposition to the landfill was prepared and circulated within the community by the members of Keep Perry County Ohio Clean. Some 1,981 signatures were collected. Below, is a copy of the actual text of the petition, as signed.

We the undersigned wish to request that the Ohio Environmental Protection Agency consider our viewpoint in regards to the negative social impact that a functioning municipal solid waste landfill or a construction and demolition debris landfill would have on the community of Perry County, Ohio including but not limited to the areas within close proximity of the proposed landfill site located in sections 1 or 2 of Pike Township, section 36 of Harrison Township or section 35 of Clayton Township and between the borders of Pike Township Road 208, Pike Township Road 205 and Perry County Road 6 otherwise known as Tunnel Hill Road.

As lawful citizens of Perry County we wish to relay to you that it is our opinion that the social impact of these landfills would be unfavorable toward our environment, health, property values, and promotion of community appeal toward others who would consider coming to Perry County to become residents. It is our opinion that there would be no benefit to the community that surrounds the proposed landfill site or to those citizens whose properties are located near the proposed landfill location but that it would certainly warrant the aforementioned legitimate concerns of the citizens who reside in this community. We hereby ask that the Ohio Environmental Protection Agency deny the requested permit needed in order for the landfill to lawfully operate due to the negative social impact that we so strongly feel it would create.

Response to Petition

See response to Comment Number 7.