



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

**CERTIFIED MAIL**

June 28, 2013

Bob Walls  
Republic Services, Inc.  
12604 County Rd G  
Bryan, OH 43506

**RE: Final Permit to Install #748132  
Republic Services, Inc  
Issuance Pursuant to Rule 3745-27-02**

Dear Sir or Madam:

The Ohio Environmental Protection Agency, pursuant to Ohio Administrative Code Rule 3745-27-02 and the rules adopted thereunder, 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.

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 twenty-four thousand seven hundred thirty eight dollars and twenty-four cents, (\$25,138.24 - \$400.00 application fee = \$24,738.24) 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

Payment of the \$24,738.24 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 Environmental Protection (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. It must be filed with the Appeals 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 at the following address:

Environmental Review Appeals Commission  
77 South High Street 17<sup>th</sup> Floor  
Columbus, Ohio 43215

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

Sincerely,



Jim Long, Management Analyst  
Division of Materials & Waste Management

Enclosures: Permit to Install and Invoice

ec: Mary Wright, NWDO, DMWM  
Scott Hester, CO, DMWM  
Darla Peelle, CO, PIC  
Jeremy Scoles, NWDO, DMWM  
Steve White

OHIO E.P.A.

OHIO ENVIRONMENTAL PROTECTION AGENCY  
PERMIT TO INSTALL

JUN 28 2013

ENTERED DIRECTOR'S JOURNAL

**Application Number:** 748132  
**Application Received:** January 8, 2010  
**Permit Fee:** \$25,138.24  
**Permit Fee Balance:** \$24,738.24

**Applicant:** Republic Services, Inc.

**Address:** 11909 County Road G  
Bryan, Ohio 43506

**Facility:** Williams County Sanitary Landfill

**Location:** North side of County Road G and west of County Road 13  
Superior Township, Williams County

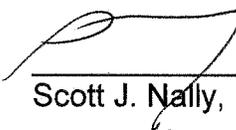
**Permit:** Vertical Expansion

**Issuance Date:** June 28, 2013

**Effective Date:** June 28, 2013

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. 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



Scott J. Nally, Director

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

By Scott J. Nally Date: 6-28-13

## PERMIT SUMMARY

This is a FINAL permit to install (PTI Number 748132) which, if approved, authorizes a vertical expansion at the Williams County Sanitary Landfill (Facility), an existing municipal solid waste landfill in Williams County. Republic Services, Inc. is the applicant for the permit and is the operator of the Facility.

Specifically, this PTI authorizes the Facility to vertically expand the existing landfill by eliminating built-in waste berms; it adds tack-on berms to the side slopes. It will authorize approximately 2.5 million cubic yards of additional permitted airspace which increases the total disposal capacity at the Facility to approximately 28.8 million cubic yards. The total acreage within the limits of waste placement will not change. The vertical expansion will extend the landfill's life to an estimated 20.4 years based on the AMDWR of 3,000 tons or to an estimated 137.7 years based on the 2011 yearly waste receipts.

The vertical expansion will incorporate into its construction such features as a composite liner system (recompacted clay and a geomembrane liner), a leachate collection system, a surface water management system, a ground water monitoring system, an explosive gas monitoring system, an explosive gas extraction system, a separatory liner 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 Republic Services, Inc. two exemptions: from OAC Rule 3745-27-08(C)(1)(c), which requires that the composite liner system have a slope of at least 2.0 percent after settlement, and from OAC Rule 3745-27-07(H)(2)(d), which prohibits a landfill from being located above an unconsolidated aquifer capable of sustaining a yield of 100 gallons per minute for a 24-hour period.

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 (Ohio EPA), 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 Ohio EPA which constitutes this permit. There shall be no deviation from the approved permit or the permit conditions without the express, written approval of Ohio EPA. Any deviation from the approved permit or the permit conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of this permit 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 those facilities shown on the plans submitted as part of PTI Application Number 748132, received on January 8, 2010, with subsequent revisions received through August 3, 2012.
5. This permit may be modified, or alternatively revoked and reissued by the Director of Ohio EPA, 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 days prior to starting any construction authorized by this permit, the permittee shall submit to Ohio EPA, Northwest District Office (NWDO),

Division of Materials and Waste Management (DMWM) written notification of the anticipated construction start date, so that the construction can be routinely inspected by Ohio EPA, NWDO, DMWM.

11. The permittee shall perform the following activities during construction and operation of the Facility in accordance with the cited provisions of OAC Chapter 3745-27 as follows:
  - a. The test pad required by OAC Rule 3745-27-08(E) shall be constructed and a report containing the test results shall be submitted to Ohio EPA, NWDO not later than 14 days prior to the intended construction date of the landfill component that the test pad models.
  - b. The pre-construction tests required by OAC Rule 3745-27-08(D) shall be performed and the test results submitted to Ohio EPA, NWDO not later than seven days prior to the intended use of the materials in construction.
  - c. The pre-construction interface tests required by OAC Rule 3745-27-08(G) shall be performed and the test results submitted to Ohio EPA, NWDO not later than seven days prior to the intended use of each geosynthetic material authorized by this permit.
  - d. The construction certification report required by OAC Rule 3745-27-08(H) shall be submitted to Ohio EPA, NWDO not later than 45 days prior to the anticipated date of waste receipt. Pursuant to OAC Rule 3745-27-19(C)(1), the permittee shall not accept waste in a phase until Ohio EPA, NWDO, provides written concurrence of the construction certification report for that phase.
12. To ensure proper operation of the sedimentation pond(s), the pond(s) shall be evaluated annually for sediment elevations and cleaned out completely when the volume of the settled particles necessitates cleaning to maintain the storage volume required by OAC Rule 3745-27-08(D)(3).
13. A summary of each month's daily waste receipts and leachate generation volumes shall be submitted to Ohio EPA, DMWM, NWDO by the 15<sup>th</sup> day of the following month. The summary report shall include the day of the month with the corresponding tonnage and types of waste received for that day. The report shall also provide information regarding leachate transported off-site, including the date of transport, the volume transported, and the destination of the transported leachate.

14. Construction certification reports for any constructed or repaired engineered component of the Facility shall be submitted to Ohio EPA, NWDO not later than April 1 of the year immediately following the construction or repair, unless otherwise extended by Ohio EPA.
15. The permittee shall construct and fill the landfill in accordance with the 6-series drawings submitted as part of the PTI application and shall commence construction of the final cap system in accordance with the 6-series drawings, regardless of whether or not the entire phase has reached final elevations.
16. Ohio EPA, DMWM, NWDO shall be notified not later than 2 days prior to any soil sampling or scheduled repair at the site and not later than 24 hours after completing any emergency repair to an existing engineered component.
17. The permittee shall follow the plan set forth in the June 1, 2012 letter to Ohio EPA from Civil & Environmental Consultants, Inc. (CEC) to install and incorporate five (5) ground water monitoring wells into the Facility's ground water detection monitoring program. Specifically, the permittee shall comply with the procedures numbered one (1) through five (5) outlined on pages eight (8) through ten (10) of the submittal. The permittee shall incorporate all five (5) wells into the Facility's ground water detection monitoring program unless otherwise authorized by Ohio EPA, NWDO.
18. 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 terms and conditions herein, shall take precedence over any conflicting requirements.
19. The Facility's AMDWR is established to be 3,000 tons. The permittee shall not accept more than 3,000 tons of solid waste per day for disposal at the Facility.

**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, in such quantities or under such circumstances that, in the determination of the Director, are unlikely to adversely affect the public health or safety or the environment from any requirement to obtain a registration certificate, permit, or license or comply with other requirements of ORC Chapter 3734.

### Exemption from OAC Rule 3745-27-08(C)(1)(c)

The permittee has requested an exemption from OAC Rule 3745-27-08(C)(1)(c), which states:

“The composite liner system shall be designed to do the following:

For existing facilities where an owner or operator proposes to vertically expand over a composite liner system that was constructed after December 31, 2003, the slope of the existing composite liner system located beneath the vertical expansion shall meet the design standard in paragraph (C)(1)(b) of this rule.”

OAC Rule 3745-27-08(C)(1)(b) states, in part:

“...(T)he composite liner system shall have at least a 2.0 percent slope in all areas, except along flow lines augmented by leachate collection pipes, after accounting for one hundred percent of the primary consolidation settlement and the secondary consolidation settlement of the compressible materials beneath the facility...”

The applicant has requested an exemption, for a 6.76-acre area built after December 31, 2003, from the requirement to have at least 2.0% slope in all areas after accounting for 100 percent of primary and secondary settlement, except along flow lines augmented by leachate collection pipes. After accounting for the additional waste in this area, Cells 3A and 3B, the final determined slope, at the shallowest point, is 1.76% after primary and secondary settlement. The applicant has shown that this area will maintain a positive slope and that the leachate head will be maintained below the twelve inches of head requirement, even under the worst case scenario (assuming the area has settled to 100 percent of primary and secondary settlement by this current time in the landfill's life).

Ohio EPA has reviewed the exemption request and has determined that granting an exemption from OAC Rule 3745-27-08(C)(1)(c) is unlikely to adversely affect the public health or safety or the environment. Therefore, pursuant to ORC Section 3734.02(G), the permittee is hereby exempted from OAC Rule 3745-27-08(C)(1)(c) for the 6.76-acre

area subject of the exemption request. This exemption shall remain in effect throughout the effective period of this permit unless otherwise revoked.

#### **Exemption from OAC Rule 3745-27-07(H)(2)(d)**

The permittee has requested an exemption from OAC Rule 3745-27-07(H)(2)(d), which prohibits a sanitary landfill facility from being located above an unconsolidated aquifer system capable of sustaining a yield of one hundred gpm for a twenty-four-hour period to an existing or future water supply well located within one thousand feet of the limits of solid waste placement of the sanitary landfill facility.

Under the solid waste regulations in effect from March 1, 1990 through August 14, 2003, the siting criteria prohibited issuance of a PTI to establish or expand a landfill located above a 100 gpm aquifer unless "deemed acceptable" by the Director. During consideration of PTI Application Number 03-6551, submitted on May 15, 1992 to satisfy the 1968-80 call-in requirement and proposing vertical and lateral expansion of the Facility, the applicant demonstrated that an extensive, clay-rich till underlying the Facility provided an adequate barrier to protect the uppermost aquifer system from contamination from the Facility. Therefore, On April 5, 1995, Ohio EPA issued PTI Number 03-6551 which "deemed acceptable" the location of the Facility above the 100 gpm aquifer system.

On August 15, 2003, the solid waste regulations were revised such that the "unless deemed acceptable" language was deleted, thereafter requiring issuance of an exemption, pursuant to ORC Section 3734.02(G), for PTI issuance.

The permittee has demonstrated that the laterally and vertically extensive, clay-rich glacial till beneath the Facility effectively serves as a hydraulic barrier to the vertical movement of leachate and ground water and continues to provide adequate protection to the uppermost aquifer system.

Ohio EPA has reviewed the exemption request and has determined that granting an exemption from OAC Rule 3745-27-07(H)(2)(d) is unlikely to adversely affect the public health or safety or the environment. Therefore, pursuant to ORC Section 3734.02(G), the permittee is hereby exempted from OAC Rule 3745-27-07(H)(2)(d). This exemption shall remain in effect throughout the effective period of this permit unless otherwise revoked.



## Division of Materials and Waste Management

### Response to Comments

**Project: Williams County Landfill Permit-to-Install  
Vertical Expansion  
Permit Application Number 748132**

#### Agency Contacts for this Project

Division Contact: Mary Wright, DMWM, (419) 373-4103, [mary.wright@epa.ohio.gov](mailto:mary.wright@epa.ohio.gov)  
Public Involvement Coordinator: Darla Peelle, (614) 644-2160,  
[darla.peelle@epa.ohio.gov](mailto:darla.peelle@epa.ohio.gov)

Ohio EPA held a public hearing on Thursday March 28, 2013 regarding the Williams County Landfill Vertical Expansion Permit to Install. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended on April 5, 2013.

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. 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 questions are grouped by topic and organized in a consistent format.

Comments 1 through 3 were submitted by the applicant:

**Comment 1: Our concern with a permit condition that repeats an existing rule is that if the rule changes, there likely would be confusion over which standard applies.**

**We have had at least one example where we had a permit condition at another facility that required submittals within a prescribed number of days prior to construction, while an effective rule would have allowed us to proceed as soon as Ohio EPA approval was granted. Even though the Ohio EPA**

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reviewing engineer quickly reviewed and approved what we had wanted to do in accordance with the rule, we were told that we could not proceed until the time provided for in the permit condition had run or we would be in violation of the permit condition. Though we understand that this apparent discrepancy could be alleviated through a permit alteration (if it were identified well ahead of time), it seems more reasonable to try and eliminate unnecessary and redundant administrative requirements where possible. This has the added benefit of “upgrading” the permit requirements as the rules are rewritten which tends to happen more often than permits are altered. Thus, we would respectfully suggest that where a requirement is specifically stated in a rule and the draft permit condition repeats the rule that the condition be eliminated.

Specifically, the following conditions are applicable to this comment:

- Condition #11a, b and c. We believe that these conditions repeat requirements contained with OAC 3745-27-08 (E) (9) and (G), respectively and thus should be eliminated.
- Condition #12 a, b, and c. We believe that these conditions repeat requirements contained in OAC 3745-27-19 and thus should be eliminated.
- Condition #13. We believe that these conditions repeat requirements contained in OAC 3745-27-15, 16, and 17 and thus should be eliminated.

**Response 1:** Condition 11: This is a standard condition contained in permits-to-install for municipal solid waste landfills. On page 4 of the vertical expansion permit-to-install (VEPTI), it states, “Prior to their [fine grain soils] use, the soil analyses will be submitted to the Ohio EPA-NWDO for approval per the conditions of the [Permit to Install] PTI.” The permit application requires that submission dates be in the permit conditions. Paragraphs a. and b. of this condition refer to the “intended” date of construction. Ohio EPA has revised paragraph c. to also refer to the “intended use” of each geosynthetic material. The time frames specified in the condition are included to provide Ohio EPA with adequate time to review the information submitted pursuant to the condition. The permittee may begin construction of the modeled component and/or use of the construction materials or geosynthetics upon receiving concurrence from Ohio EPA, NWDO if it is before the time frame(s) specified in

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the condition. Therefore, Ohio EPA has not revised the condition as requested by the permittee.

Condition 12: Ohio EPA concurs that the requirements in paragraphs a. and b. of Condition 12 are contained in Ohio Administrative Code (OAC) Rule 3745-27-19. Therefore, those paragraphs have been deleted. Ohio EPA does not concur that the requirement of paragraph c. is contained in OAC Rule 3745-27-19. Paragraph c. serves to ensure that the permittee maintains adequate storage volume for surface water management during the operating life of the facility. Therefore, this requirement will remain in the permit but will be renumbered as Condition 12.

Condition 13: Ohio EPA recognizes that this requirement is contained in OAC Rule 3745-27-15. This is a standard condition used to ensure that when a facility modification results in an increase in the cost estimate for closure or post-closure care, the financial assurance instrument is refunded to account for the increased cost. Because this permit authorizes a vertical expansion that does not cause an increase in the closure or post-closure care cost estimates, we can rely on the annual review and adjustments required by rule. Therefore, Ohio EPA concurs to delete this condition from the final permit.

**Comment 2: There are several non-standard conditions that appear in the Williams County Draft Permit-to-Install.**

**We realize that all facilities have differences and thus at times there can be legitimate and necessary reasons for Ohio EPA to impose special conditions that reflect unique circumstances for that facility. This is true in the case of the Williams County permit where installation of additional wells is required by draft Condition #18. We also recognize that Ohio EPA administers a rule program with the intent to apply the rules consistently across the state. Therefore, absent a unique or site specific circumstance at a particular facility, we believe that all solid waste PTIs should contain analogous conditions imposing similar requirements, particularly as it relates to administrative and reporting requirements.**

**The following conditions appear to be non-standard conditions for Williams County Landfill and do not appear to be based**

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upon any existing regulatory requirement nor have they been uniformly applied by the Agency across the state for other recent permit approvals for MSW facilities:

- **Condition #14.** We acknowledge that this condition exists in the currently effective Williams County PTI; however, we do not believe its addition to this new PTI is warranted or justifiable.

We would also note that in the past this condition has caused some confusion as these numbers have been incorrectly compared to the facility Annual Operation Report information. Without proper context and review, the monthly values can appear to have small discrepancies in comparison to the final certified receipts developed for inclusion in the Annual Report.

- **Condition #15.** While it may seem simple, having an arbitrary date for submittal of certification reports can introduce unreasonable time frames for submittal depending on when the construction event occurs, not all of which can be planned.

Republic takes compliance and the possibility of being cited in violation very seriously and we fully intend to submit certification reports that are already required by the regulations within a reasonable time frame. In contrast, we do not want to arbitrarily encumber additional regulatory administrative requirements not tied to a unique circumstance at the facility.

- **Condition #17.** There is no clear justification for inclusion of this condition.

**Response 2:**

Old Condition 14/New Condition 13: This is a standard condition that appears in many municipal solid waste landfill permits. The summary report required by the condition assists Ohio EPA in ensuring compliance with the permit and solid waste regulations. However, Ohio EPA has reviewed the comment and, to prevent

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confusion related to the annual report, has removed the requirements to report in-district and out-of-district waste.

Old Condition 14/New Condition 13 now reads: A summary of each month's daily waste receipts and leachate generation volumes shall be submitted to Ohio EPA, DMWM, NWDO by the 15<sup>th</sup> day of the following month. The summary report shall include the day of the month with the corresponding tonnage and types of waste received for that day. The report shall also provide information regarding leachate transported off-site, including the date of transport, the volume transported, and the destination of the transported leachate.

Old Condition 15/New Condition 14: Ohio EPA chose this date because it coincides with the date that the permittee must update the annual operating record for the facility. The certification report would be the documentation for updating the annual operating record. Ohio EPA recognizes that, with some construction or repair events, this date could result in unreasonable deadlines for submittal. Therefore, Ohio EPA has revised the condition to allow an extension of the time frame for submitting the report(s).

Old Condition 15/New Condition 14 now reads: Construction certification reports for any constructed or repaired engineered component of the Facility shall be submitted to Ohio EPA, NWDO not later than April 1 of the year immediately following the construction or repair unless otherwise extended by Ohio EPA.

Old Condition 17/New Condition 16: Please see Response 3.

**Comment 3:** **In some of the provisions of the conditions, the statements are so broad, that it is difficult to measure compliance.**

**It is our intent to comply with all of the permit conditions issued by the Ohio EPA. We also believe that it is important that the conditions be clear so that we understand exactly what the permit condition is requiring.**

**Specifically, the following conditions are applicable to this comment:**

- **Condition #17. Condition #17 requires that the permittee notify the OEPA at least two days, "...prior to any soil**

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sampling, maintenance work or scheduled repair ... and within 24 hours of any emergency repair or unscheduled maintenance work to an existing engineering component” [Emphasis added]. This condition appears overly broad, not well defined, and could lead to confusion and disagreements between the Ohio EPA and the Republic personnel.

A BAT solid waste landfill contains many engineered components and maintenance is an on-going daily activity. As currently worded, it is not clear what kinds of maintenance events are included as part of this condition. The term “scheduled repair” is also confusing. Repair implies that an item has broken and thus needs to be repaired. We cannot anticipate when any particular piece of equipment may break and as such do not have “scheduled repair” events. In addition, as noted above, we believe that this condition is not a typical condition.

- Condition #19. Condition #19 requires that the permittee comply “...with the requirements of all previously issued authorizing documents for the Facility, except, to the extent that this specifies requirements different from...the requirements of those previously issued authorizing documents” [Emphasis added]. This condition appears overly broad, not well defined, and could lead to confusion and disagreements between the Ohio EPA and the Republic personnel.

It is understood that there are several applicable authorizing documents related to regulating the facility. However, the universe of applicable authorizing documents is limited. There are other authorizing documents that are not applicable. For example, Ohio EPA does not recognize the facility’s 1982 Operational Plan as applicable. In addition, it is presumed the Division of Materials and Waste Management does not intend to possibly invalidate provisions of the site’s current NPDES permit.

It is suggested that Ohio EPA modify this condition to specify the applicable authorizing documents that are intended to be affected by this condition which we believe is likely limited to the current facility PTI-#03-6551.

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**Response 3:** Old Condition 17/New Condition 16: Scheduled repair in this case is referred to as a repair made to an engineering component that is not immediate and is “scheduled.” Such activities would include, but not limited to, a repair to a plastic component, whether it be in the cap or the bottom liner system. This such repair would need some planning, therefore, it would be scheduled. Other repairs could include a leaking leachate line, a crushed gas vent, etc. This condition has been reviewed and revised.

Old Condition 17/New Condition 16 now reads: Ohio EPA, DMWM, NWDO shall be notified not later than two (2) days prior to any soil sampling or scheduled repair at the site and not later than 24 hours after completing any emergency repair to an existing engineered component.

Old Condition 19/New Condition 18: This is a standard condition that appears in many municipal solid waste landfill permits. Ohio EPA tries to keep certain standard conditions consistent with all solid waste permitted facilities across the state. Ohio EPA has not removed or revised this condition.

**Comment 4:** **There were several comments regarding aquifer protection, the durability of the landfill liner with regards to aquifer protection, and the ground water monitoring system.**

**Response 4:** Ohio EPA engineers review all landfill designs to ensure that the liner design utilizes tested and proven design elements to guard against any release to ground water. The separatory liner system design includes at least two feet of recompacted clay and a leachate collection layer with a collection pipe in order to remove leachate from the landfill. Newly constructed areas of the landfill liner system will include at least three feet of recompacted clay, a 60-mil high-density polyethylene (HDPE) liner and a leachate collection layer with collection pipes.

Facilities perform ground water monitoring to detect whether there has been a release from the landfill to the ground water. The ground water detection monitoring program consists of a sufficient number of wells installed at varying depths to detect whether contamination is released from the landfill to the ground water. The detection monitoring program is required by rule to detect small, statistically significant changes in ground water quality. The number, spacing, and depth of ground water monitoring wells are based on information gathered from hydrogeologic investigations. These wells are installed at the closest practicable location to the

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limits of waste placement. The downgradient monitoring wells are currently spaced approximately 600 to 850 feet apart based on straight-line measurements between neighboring monitoring wells. A condition of the VEPTI that requires five additional piezometers be placed between existing wells, extending from P-26 to P-21. If these new piezometers are found not to be on the same flow line as any existing piezometer or well, they will then be considered monitoring wells and will be added to the ground water monitoring program. By adding wells between existing wells, the straight-line distance between the monitoring wells will be about half the existing distance (about 300 to 425 feet). Facilities are required to evaluate the ground water surface elevation data annually to determine whether the requirements are continually met for the locations of the ground water monitoring wells. As with any monitoring system, an understanding of the hydrogeology develops over time, and systems are adjusted to maintain adequacy. If the requirements are not met in any given year, the facility must revise the number, location, and/or depth of monitoring wells to bring the ground water monitoring system into compliance.

The water collected from the monitoring wells is tested for various substances to determine whether a release to ground water has occurred. If any substance is found to have been released, then the facility is placed into assessment monitoring and required to perform additional, more extensive monitoring to determine the rate, extent, and concentration of any contamination. Once assessment monitoring activities are completed and the plume defined, the facility enters the corrective measures program where they would ensure protection of human health and the environment. The facility is required to keep a 15-foot minimum separation between the top of the uppermost aquifer system and the bottom of the landfill liner. This site meets the minimum requirement.

**Comment 5:** **Based on my limited knowledge, I oppose the change to the slope of the landfill. During my engineering career, we always designed to a safety factor of five. The new slope is only "calculated" at 1.08. There is no way to test it to see what a fracking earthquake would do to it.**

**Response 5:** OAC Rule 3745-27-08(C)(7)(d) requires the factor of safety for seismic slope stability to be not less than 1.0. As such, Ohio EPA does not have the regulatory authority to require a higher factor of safety as suggested. The stability of this facility during an earthquake was evaluated using calculation methods similar to those in U.S. EPA guidance and Ohio EPA policies and

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regulations. These calculations determined that the facility would be stable during an earthquake with a magnitude equal to an earthquake that is likely to occur once in 2,475 years. This exceeds both federal and state requirements for landfill earthquake stability.

**Comment 6: Concern about increased traffic.**

**Response 6:** Ohio EPA does not have the authority to consider land values, increased traffic or muddy roads within the scope of a municipal solid waste landfill permit review. Concerns related to property values and traffic are local land-use issues addressed by zoning and other county, municipal or township authorities.

**Comment 7: Gas collection project to use methane as a means to generate power.**

**Response 7:** Ohio EPA cannot require that a facility use its landfill gas to produce electricity according to OAC Rule 3745-27. The facility is required to manage its landfill gas in such a way to prevent horizontal migration. This facility currently does not produce enough landfill gas to require a Title V air pollution control permit.

**Comment 8: Request to require vegetative cover.**

**Response 8:** A majority of the facility is under intermediate cover. Intermediate cover is defined as a 12-inch thick layer of well-compacted soil; seeding is not required. However, when the facility reaches final grades and is ready for the construction of the final cap, the protective layer of the cap must be seeded and have complete and dense vegetative cover within one year.

**Comment 9: Vertical Expansion Confusion.**

**The permit is for a vertical expansion of the entire landfill which, to me, implies that the landfill is going up and yet it says the facility's height will be 10 to 24 feet lower than currently approved.**

**Response 9:** This permit authorizes a vertical expansion. While the maximum height of the approved waste limits will be lower than previously authorized, the facility will gain its airspace by steepening the side slopes from a 4H:1V slope to a 3.5H:1V slope, and by removing built-in waste berms. This means the airspace gain will be on the

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side slopes. This is considered a vertical expansion because the approved waste limits are higher than the previous waste limits on the side slopes. The result will be final grades that are initially steeper with a broader, flatter top.

**Comment 10: Landfill Footprint.**

**Ohio EPA has stated twice that the landfill's [footprint] does not change. I feel that you have failed to back this up with facts and statistics.**

**Response 10:** This permit authorizes a vertical expansion; the horizontal limits are not changing from what was previously approved. The 158.5-acre approved waste disposal area does not change. Please see the response to Comment 9 for additional detail on this topic.

**Comment 11: There was mention in the handout about the leachate. Please clarify where the landfill's leachate is stored.**

**Response 11:** The leachate is collected in the leachate sump area of the cells before being pumped into leachate tanks. The facility currently has two 20,000-gallon leachate storage tanks. These tanks are surrounded by a secondary containment area. The leachate is pumped from the tanks into a tanker truck, hauled away, and ultimately disposed of at a publicly-owned treatment works (POTW) in Indiana.

**Comment 12: The public was not given enough opportunity for input on this permit. The date chosen for the hearing was held on the Thursday before Good Friday, during spring break week and during the NCAA Basketball Tournament.**

**Response 12:** Public participation is important to Ohio EPA when reviewing and considering an application for a solid waste facility. Public input can provide valuable information used in the decision-making process. Ohio EPA encourages citizens to get involved and provides several opportunities to do so.

For many solid waste landfill permits, Ohio EPA is required by law to hold a public information session and public hearing. At the information session and hearing, citizens learn about the permitting process, ask questions and provide comments for the administrative record regarding the proposed application. For

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some permit applications, such as this one, public meetings are not required, however, Ohio EPA will often conduct the public meetings when there is local interest in the pending application. For this application, an information session was held in March 2010, and a combined information session and public hearing was held March 28, 2013. Ohio EPA must publish legal notice of any public meeting at least thirty days prior to the meeting.

Ohio EPA conducts hundreds of public meetings each year. While we strive to avoid known or expected conflicts, such as high school sporting events and national holidays, it is not possible to have knowledge of and avoid all conflicts that may exist in a community. If an interested party cannot attend a scheduled public hearing, written comments may still be submitted to Ohio EPA for consideration during the public comment period. Written comments are afforded the same relevance as oral comments received at the hearing. All comments are considered before a decision is made on the application.

**Comment 13:** **A copy of the permit-to-install application was not made available at the meeting nor online or at the public library. All of which made it very difficult to gain information on the permit.**

**Response 13:** Per the community's request during the March 2010 information session hosted by Ohio EPA, a copy of the permit-to-install application and a sign-in sheet were sent to the public library within a week of the information session. Ohio EPA confirmed this via a telephone call to the librarian following the March 28, 2013, public hearing. The librarian said a copy of the permit application and sign-in sheets were in place and still available. She also indicated that no one had signed the sheets nor had anyone, to the best of her knowledge, requested to view the permit application.

The permit application has also been available for review at Ohio EPA's Northwest District Office (NWDO) since it was submitted.

**Comment 14:** **Ground water monitoring was supposed to be conducted around wells. Neither the sampling process nor sampling results were shared.**

**Response 14:** OAC Rule 3745-27-10 requires the installation, measuring, purging and sampling of appropriately-placed ground water monitoring wells. It also requires that samples be analyzed chemically and statistically. Reports of the sampling events and the results of the

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analyses, both chemical and statistical, must be placed in the operating record and be sent to Ohio EPA's NWDO for review. This information is available for public review at NWDO. While statistically significant increases (SSs) over background have been observed over time, none of these SSs indicate a release from the landfill. It is not uncommon to observe occasional SSIs over time. These are typically due to errors or changes in field procedures, laboratory analysis and/or statistical analysis. They also may be due to natural variability.

**Comment 15:** **Ohio EPA was not aware of a 12-inch agricultural irrigation well that was installed across the road on the south side of the landfill. Has the EPA studied these new wells in terms of the impact on the ground water flow and the ground water detection monitoring program?**

**Response 15:** Water well logs and drilling reports for three 12-inch wells within about one mile east and south of the landfill are available online at the Ohio Department of Natural Resources (ODNR). Two wells, installed for Norashton Farms, or Norashton Ltd., by Watson Drilling, are located more than one mile south and east of the landfill. These locations are generally downgradient of the landfill and will likely have little impact on the monitoring system. As reported on the ODNR website, one was tested at 42 gallons per minute (gpm) with a 52-foot drawdown, and the other was tested at 148 gpm with a 92-foot drawdown. About one half mile east of the landfill another Norashton well was tested at 1000 gpm. No drawdown was reported in the log. This well appears to be sidegradient to slightly upgradient relative to the landfill. While this well appears to display the potential for considerably better production, its position relative to the landfill might preclude it from having an impact on the facility's monitoring system. Currently, there are no logs available for the well located within a few thousand feet south and slightly east of the landfill.

Based on OAC Rule 3745-27-10 (B)(4) and OAC Rule 3745-27-10 (B)(5), it is the owner/operator's responsibility to ensure an adequate and effective monitoring system. If the monitoring system is not meeting the requirements of these rules (e.g., flow direction is adversely affected by pumping the irrigation wells), it will be necessary for the owner/operator to revise the number, location and/or depth of the monitoring wells to bring the ground water monitoring system into compliance. Ohio EPA reviews both the raw data and the interpretations provided by the owner/operator

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semiannually, and periodically checks the owner/operator's data collection procedures. Ohio EPA will continue to do so.

**Comment 16:**      **The summary of the draft PTI refers to a letter from Civil & Environmental Consultants, Inc. to Ohio EPA dated June 1, 2012, that outlines a plan to install five additional ground water monitoring wells. Where will the additional wells be placed and at what depths?**

**Response 16:**      As referenced, the additional wells are documented in a letter from Civil & Environmental Consultants, the owner/operator's consultant. In the first paragraph of the section labeled, "Ohio EPA Comment No. 6," the owner/operator states, "The Ohio EPA states in this comment that 'five (5) additional monitoring wells are needed downgradient of the old portion of the landfill. These should be screened at a depth capable of properly monitoring the uppermost aquifer system (UAS) and should be located between downgradient wells P-21 and P-5R, P-5R and P-24, P-24 and P-25, P-25 and P-2RR, and P-2RR and P-26.' The landfill has discussed the approach for adding the above-referenced monitoring wells to the facility's groundwater detection monitoring program with the Ohio EPA." These wells and the details described in the letter are a condition of the VEPTI. (Condition 17)

In item one of this owner/operator's response to comments, the owner/operator states, "WCLF will confirm the locations of the piezometers with the Ohio EPA, and will notify the Ohio EPA prior to mobilizing to the field so that they can observe field installation activities. In addition, WCLF will confirm with the Ohio EPA the depth of screen placement prior to installation of each piezometer." Since dominant recharge occurs some distance north, and the aquifer is considered a confined aquifer in this area, ground water flow lines are generally horizontal. The most effective place to monitor the aquifer near the landfill is near the top of the aquifer in more permeable versus less permeable zones within the aquifer. The screen placement will be determined, in part, by both the potentiometric surface in the area and in the field, based on the geology observed in the borings."

**Comment 17:**      **The landfill requests a hundred-gallon-per-minute aquifer exemption from OAC Rule 3745-27-07(H)(2)(d)... Is the EPA still relying on the 18-year-old, 1995 landfill commissioned W.W. Engineering Study? What new evidence does the EPA have that demonstrates that there is adequate protection to the uppermost aquifer?**

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**Response 17:** When appropriate, Ohio EPA does utilize older data when reviewing a submittal. Ohio EPA reviews both the interpretations and the raw data available relative to any submittal. It should be noted that raw, hard data, (e.g., boring logs, water levels, depth to the base of waste, thickness of liner material, etc.) are considered primary information and are treated with a higher degree of confidence than documents with a greater degree of interpretation, (e.g., potentiometric surface maps). If the interpretations are consistent with the data, they can be helpful in understanding the submittal. Relative to the VEPTI, Ohio EPA reviewed a considerable number of documents, including the study referenced by the authors. Ohio EPA reviewed documents from the 1960s to the present. Almost all of the documents contained usable data. In some instances, the owner/operator was asked to review the data and provide additional historical data analysis.

Relative to the authors' question regarding "new evidence," a number of new wells and borings have been installed at the site since 1995. Data from these borings and wells were used in the review of the VEPTI. Ohio EPA also field-reviewed the exposed geology of the site on several occasions. The density of fractures was observed at the weathered surface. Excavations were also inspected. The excavations displayed a pronounced decrease in fracture density downward. Ohio EPA also observed fracture termination within about two feet of the base of waste in the excavation for Cell 4. While thin sand lenses of limited lateral extent have been shown to exist above the floor of the excavation, a complete lack of sand zones was observed on the floor of the excavations for cells 4 and 5, with the exception of a single isolated sand deposit with maximum dimensions of less than approximately one foot.

Agency personnel also reviewed old plans from the 1960s to help more clearly determine the thickness of the clay below the waste. It was determined that the clay was at least 15 feet or more thick. Ohio EPA re-interpreted the velocity of movement of water through the clay using a reasonable worst-case scenario. The calculated time of travel for water through the clay exceeds 194 years. Two consultants working on behalf of the city of Bryan also reviewed this issue.

**Comment 18:**      **Fractures in till.**

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**Was research on the presence and dynamic nature on fractures and soil macropores taken into consideration in the new PTI? What methods were used to determine the local stratigraphy and to check for the presence and extent of fracturing at the site? Has Republic Services (sic) provided new technical justification for the exemption? Did the Ohio EPA request new slug tests of till piezometers and isotropic (sic) analyses of groundwater samples? What proof can the EPA provide the public that granting the exemption is unlikely to adversely affect public health or safety or the environment?**

**Response 18:**

Ohio EPA reviewed data provided by the owner/operator relative to the depth and description of fractures and also performed field inspections to determine first-hand the relative density of fractures compared to depth, the types of fractures, and the depth of fractures. The basic data provided by the owner/operator were derived from boring logs. Ohio EPA also performed field assessment of fractures from the exposed ground surface and in fresh-cut excavations at depths approaching the total depth of the waste cells.

Consistent with published research, the shallow fractures were present at a high frequency near the surface, decreasing significantly with depth. Where observed at and near the ground surface, the fractures were likely caused by dehydration and freeze/thaw, and likely influenced water flow and enhanced surface flow into the clay in the shallow, oxidized portion of the till. The most significant fractures also appear to provide a plane of weakness to encourage arroyo-type erosion.

Where observed near the base of the excavations, the fractures were sparse and displayed orange oxidized surfaces with an orange-colored "rind" extending about an inch on either side of the fracture. This orange coloration contrasts with the gray unoxidized, unfractured clay. It appeared that the fractures were not present at depths greater than approximately 20 to 25 feet from the surface. It was determined that, where observed, the fractures were not present closer than about 15 to 20 feet above the UAS.

In general, the arguments presented by the owner/operator for an exemption included the presence of a significant thickness of low permeability clay between the UAS and the base of re-compacted soil liner, and a lack of fractures at depth. Since the parameters in both the UAS and the overlying clay were tested properly and were consistent with testing in other similar lithologies, no additional

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testing was required. In addition, since the isotopic analyses were performed properly and the resulting laboratory interpretations were consistent with the data, no additional isotopic analyses were required.

While future events cannot be proven, data and inspections indicate the presence of a thick, unfractured clay till that isolates the waste from the UAS. These clays are shown to be of low permeability and display a low hydraulic conductivity. Water in the UAS under the site was recharged some time prior to construction of the landfill. The time of travel through 15 feet of clay, using a reasonable worst-case scenario, is more than 194 years. There has been no indication of leachate releases from the landfill to the UAS.

**End of comments**

# Ohio EPA Invoice/Receipt

Date Printed: June 28, 2013

Revenue ID: 934673

*Please include this Revenue ID with all correspondence.*

Organization ID: 26133

Information: Williams County Landfill  
11909 Co Rd G  
Bryan, OH 43506-

Due Date: July 29, 2013

Amount Due: \$24,738.24

Effective Date: June 28, 2013

Revenue Description: DSIWM- Permit to Install (Solid Waste)

Program Name: Solid Waste Programs

Reason: Balance of PTI Fee

*For some Revenues, Interest and/or Penalties may be charged for late payment.*

Next Interest Date (if applicable):

Next Penalty Date (if applicable):

## Remittance Advice

**Detach Here - Please Return This Portion With Your Payment**

Organization ID: 26133

Information: Williams County Landfill  
11909 Co Rd G  
Bryan, OH 43506-

Due Date: Jul 29, 2013

Amount Due: \$24,738.24

Secondary Type/Id: /

Revenue Type: PTISW

Amount Enclosed: \$ \_\_\_\_\_

**Please write this number on your check. Revenue ID: 934673**

**Make check or money order payable to "Treasurer, State of Ohio"**

Remit to: Ohio Environmental Protection Agency - OFA  
Department L-2711  
Columbus, OH 43260-2711

## For Ohio EPA use only

Check ID: \_\_\_\_\_

Check Date: \_\_\_\_\_

Check Number: \_\_\_\_\_

Check Amount: \$ \_\_\_\_\_

26133	Williams County Landfill	2473824	PTISW	934673
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