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FACT SHEET

General Permit For Orphan Landfills with Leachate Discharges

KPDES No.: KYG120000

AI No.: 35050

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Public Notice Information

Public Notice Start Date: December 1, 2014

Comment Due Date: December 31, 2014

Information concerning the public notice process may be obtained on the Division of Water's Public Notice Webpage at the following address:

http://dep.gateway.ky.gov/eSearch/Search_Pending_Approvals.aspx?Program=Wastewater&NumDaysDoc=30

Comments may be filed electronically at the following e-mail address: DOWPublicNotice@ky.gov

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SECTION 1

FACILITY INFORMATION

1. FACILITIES COVERED

In an effort to address the environmental impact from illegal dumps and improperly closed landfills (orphan landfills), House Bill 174 modified KRS 224.43-010 and established KRS 224.43-500 and KRS 224.43-505. Through modification of KRS 224.43-010 it became the policy of the Commonwealth that municipal solid waste disposal facilities that ceased accepting wastes before July 1, 1992 undergo proper closure, characterization, and corrective action, that existing illegal open dumps be eliminated, and new open dumps be prevented. The newly created sections, KRS224.43-500 and KRS 224.43-505 established the environmental remediation fee and Kentucky Pride Fund, respectively. Within the Kentucky Pride Fund an annual fund of 2.5 million dollars replenished with monies collected from the environmental remediation fee was established for the direct costs associated with site identification, characterization, and corrective action assessments of solid waste disposal sites and facilities that ceased accepting wastes before July 1, 1992, including former permitted municipal solid waste disposal facilities or abandoned solid waste disposal sites or facilities.

In 2002 the Division of Waste Management (DWM) began inventorying the facilities that met these criteria. To date over 600 such sites have been identified and prioritized. Once DWM has characterized the site a remediation plan is developed and implemented. Prior to initiating a remediation activity DWM seeks concurrence from the county or municipality regarding their willingness and ability to maintain the site in post remediated condition. In most cases the only wastewater associated with the final remediated site will be stormwater runoff from the capped and vegetated area. Occasionally there may be instances where completely isolating the waste from infiltration is not possible and leachate is generated. In those cases DWM typically proposes a passive treatment system that may or may not have a point source discharge.

Pursuant to 401 KAR 5:060, Section 8 [40 CFR 122.26(a)(1)(ii)] stormwater discharges associated with industrial activities are required to have a KPDES permit. Stormwater discharges from construction activities greater than five (5) acres of land disturbance and from landfills that have accepted industrial wastes are defined as "stormwater discharges associated with industrial activities" pursuant to 401 KAR 5:060, Section 8 [40 CFR 122.6(b)(14)]. Stormwater discharges from construction activities greater than one (1) acre but less than five (5) acres of land disturbance meet the definition of "stormwater discharges associated with small construction activities" pursuant to 401 KAR 5:060, Section 8 [40 CFR 122.26(b)(15)].

The landfills in DWM's orphan landfill inventory were municipal landfills that were permitted to accept only municipal solid wastes. The following definitions are from KRS 224.1-010(31)(a):

- 1) "Municipal solid waste" means household solid waste and commercial solid waste.
- 2) "Household solid waste" means solid waste, including garbage and trash generated by single and multiple family residences, hotels, motels, bunkhouses, ranger stations, crew quarters, and recreational areas such as picnic areas, parks, and campgrounds, but it does not include tire-derived fuel.
- 3) "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other service and nonmanufacturing activities, excluding tire-derived fuel and household and industrial solid waste.
- 4) "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste or a special waste as designated by KRS 224.50-760, including, but not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer or agricultural chemicals; food and related products or by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and

paper industry; rubber and miscellaneous plastic products, except tire-derived fuel; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment.

Industrial waste is defined in 401 KAR 5:060, Section 8 [40 CFR 122.26(b)(14)(v)] as waste that is received from any of the facilities described under 40 CFR 122.26(b)(14). Commercial and residential facilities are not included in the referenced subsection.

Therefore based on the aforementioned stormwater permit requirements being applicable to only those landfills that receive industrial waste, remediated orphan landfills are not required to have a KPDES permit for the discharge of only stormwater runoff.

However the remediation activities do constitute construction activities and usually involve land disturbances in excess on one (1) acre. Such activities are required to have a KPDES stormwater permit (KYR10). Additionally an orphan landfill with a discharge to surface waters from a leachate collection system is considered to have a point source discharge pursuant to 401 KAR 5:060, Section 1 [40 CFR 122.2] and is required to have a permit.

One of the objectives of the Orphan Landfills remediation program is to eliminate the discharge of leachate from these sites. This general permit covers those post remediation Orphan Landfills where discharge of treated leachate to Waters of the Commonwealth cannot be eliminated. At the present time there are only five (5) such post remediated Orphan Landfills. Leachate means liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such wastes.

1.1. Eligibility

Eligible sites are sites that:

- 1) Have been remediated under the supervision of DWM;
- 2) Have been released to a county or municipality by DWM; and
- 3) Discharge treated leachate to Waters of the Commonwealth

1.2. Exclusions

The following are excluded from coverage under this general permit:

- 1) Active landfills;
- 2) Landfills closed in accordance with the requirements of Title 401 of the Kentucky Administrative Regulations (KAR); or
- 3) Sites that the Division of Water (DOW) has determined would be more appropriately addressed by an individual permit or an alternate general permit

1.3. Location

Within the 120 counties of the Commonwealth of Kentucky

1.4. Permitting Action

First issuance of a general KDPES permit (KYG120000) addressing discharges of treated leachate from orphan landfills after remediation.

SECTION 2

RECEIVING WATER INFORMATION

2. RECEIVING / INTAKE WATERS

2.1. Receiving Waters

Those water bodies of the Commonwealth that comprise the Mississippi and Ohio River basins and sub-basins within the political and geographic boundaries of Kentucky.

2.2. Stream Segment Use Classifications

Includes all water bodies that have been designated by DOW singularly or in combination thereof as: Warm Water Aquatic Habitat, Cold Water Aquatic Habitat, Primary Contact Recreation, Secondary Contact Recreation, Outstanding State Resource Water, and/or Domestic Water Supply.

2.3. Stream Segment Antidegradation Categorization

Included are those water bodies that have been categorized as High Quality Waters, Impaired Waters, Exceptional Waters, or Outstanding National Resource Waters.

2.4. Stream Low Flow Condition

The 7-day, 10-year low flow conditions of the receiving streams can range from zero (0) cubic feet per second (cfs) to 111,000 cfs for the Mississippi River.

SECTION 3

REQUIREMENTS

3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The following conditions shall apply to discharges of treated leachate from remediated orphan landfills.

TABLE 1.								
EFFLUENT LIMITATIONS							MONITORING REQUIREMENTS	
Effluent Characteristic	STORET Code	Units	Minimum	Monthly Average	Daily Maximum	Maximum	Frequency	Sample Type
Flow	50050	MGD	N/A	Report	Report	N/A	1/Quarter	Instantaneous
Biochemical Oxygen Demand (5 day)	00310	mg/l	N/A	37	140	N/A	1/Quarter	Grab
Total Suspended Solids	00530	mg/l	N/A	27	88	N/A	1/Quarter	Grab
Ammonia (as N)	00610	mg/l	N/A	4.9	10	N/A	1/Quarter	Grab
α -Terpineol	51045	mg/l	N/A	0.016	0.033	N/A	1/Quarter	Grab
Benzoic acid	77247	mg/l	N/A	0.071	0.12	N/A	1/Quarter	Grab
p-Cresol	77146	mg/l	N/A	0.014	0.025	N/A	1/Quarter	Grab
Phenol	34964	mg/l	N/A	0.015	0.026	N/A	1/Quarter	Grab
Zinc	01094	mg/l	N/A	0.11	0.12	N/A	1/Quarter	Grab
pH	00400	SU	6.0	N/A	N/A	9.0	1/Quarter	Grab

SECTION 4

JUSTIFICATION OF REQUIREMENTS

4. JUSTIFICATION OF REQUIREMENTS

The Kentucky Administrative Regulations (KARs) cited have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes (KRSs). Pursuant to 401 KAR 5:065, Section 2(4) [40 CFR 122.44], each federally or delegated state-issued NPDES permit shall include conditions meeting technology-based effluent limitations and standards and water quality standards and state requirements.

Pursuant to 401 KAR 5:060, Section 8 [40 CFR 122.26] discharges of stormwater associated with an industrial activity are required to obtain a Kentucky Pollutant Discharge Elimination System (KPDES) permit.

4.1. Flow

The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(4) [40 CFR 122.44(i)(1)(ii)].

4.2. Biochemical Oxygen Demand, Total Suspended Solids, Ammonia, α -Terpineol, Benzoic Acid, *p*-Cresol and Phenol

The effluent limitations for these parameters are consistent with the requirements of 401 KAR 5:065, Sections 2(4) [40 CFR 122.44] and 2(9) [40 CFR 445] and 401KAR 5:080, Section 2(3). The limitations are representative of the technology-based requirements of Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) and the Best Available Technology Economically Achievable (BAT) for an “existing source” discharger of treated leachate from a municipal solid waste landfill [40 CFR 445.21, 445.22 and 445.23, respectively].

4.3. pH

The effluent limitations for this parameter are consistent with the requirements of 401 KAR 5:065, Sections 2(4) [40 CFR 122.44] and 2(9) [40 CFR 445], 401KAR 5:080, Section 2(3) and 401 KAR 10:031, Section 4(b). The limitations are representative of the technology-based requirements of Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) and the Best Available Technology Economically Achievable (BAT) for an “existing source” discharger of treated leachate from a municipal solid waste landfill [40 CFR 445.21, 445.22 and 445.23, respectively] and state water quality standards.

4.4. Zinc

The effluent limitations for this parameter are consistent with the requirements of 401 KAR 5:065, Sections 2(4) [40 CFR 122.44] and 2(9) [40 CFR 445], 401KAR 5:080, Section 2(3) and 401 KAR 10:031, Section 4(b). The limitations are representative of the technology-based requirements of Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) and the Best Available Technology Economically Achievable (BAT) for an “existing source” discharger of treated leachate from a municipal solid waste landfill [40 CFR 445.21, 445.22 and 445.23, respectively] and state water quality standards. The daily maximum requirement is based on a hardness of 100 mg/l of CaCO₃.

SECTION 5
SCHEDULE OF COMPLIANCE
AND
OTHER CONDITIONS

5. SCHEDULE OF COMPLIANCE AND OTHER CONDITIONS

5.1. Schedule of Compliance

The permittee shall attain compliance with all requirements of this permit on the effective date of this permit unless otherwise stated below:

5.2. BMP Plan

In accordance with 401 KAR 5:065, Section 2(4) [40 CFR 122.44(k)] permits are to include Best Management Practices (BMPs) to control or abate the discharge of pollutants when: 1) authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) authorized under Section 402(p) of the CWA for the control of stormwater discharges; 3) numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

5.3. Antidegradation

The eligible sites and the activities conducted on them are not and will not result in any new or expanded discharges; therefore the requirements of 401 KAR 10:029, Section 1 are met.

5.4. Notice of Intent (NOI)

DOW and DWM have established a coordination system that allows coverage of newly remediated landfills which are released from DWM to the owner without the submission of an NOI. Therefore DOW is not requiring the submission of an NOI to obtain coverage under this general permit. This requirement is consistent with 401 KAR 5:055, Section 8 [40 CFR 122.28].

SECTION 6

OTHER INFORMATION

6. OTHER INFORMATION**6.1. Permit Duration**

This permit shall be valid for a period of five (5) years from the effective date unless modified or reissued. This permit includes facilities in all five Basin Management Units of the Kentucky Watershed Management Framework.

6.2. References and Cited Documents

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the Department for Environmental Protection's Open Records Coordinator at (502) 564-3410 or by e-mail at DEP.KORA@ky.gov.