

PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 261a]

Exclusion for Identification and Listing Hazardous Waste at MAX Environmental Technologies, Inc. Bulger and Yukon Facilities

The Environmental Quality Board (Board) proposes to amend Chapter 261a (relating to identification and listing of hazardous waste) to conditionally exclude the wastewater treatment sludge filter cake derived from EPA Hazardous Waste No. F039 (multi-source leachate) generated at MAX Environmental Technologies, Inc. Bulger and Yukon facilities from the list of hazardous wastes found in 40 CFR 261.31 (relating to hazardous wastes from non-specific sources). This proposed rulemaking is the result of two Petitions to Delist F039 (Delisting Petitions) leachate from MAX Environmental Technologies, Inc.

This proposed rulemaking was adopted by the Board at its meeting of September 21, 2021.

A. Effective Date

This proposed rulemaking will go into effect upon publication of the final-form rulemaking in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information, contact Thomas Mellott, Chief, Division of Hazardous Waste Management, P.O. Box 69170, Rachel Carson State Office Building, Harrisburg, PA 17106-9170, (717) 787-6239; or Nikolina Smith, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 783-8501. Persons with a disability may use the Pennsylvania Hamilton Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board" and then navigate to the Board meeting of September 21, 2021).

C. Statutory Authority

This proposed rulemaking is adopted under the authority of sections 105, 402 and 501 of the Solid Waste Management Act (SWMA) (35 P.S. §§ 6018.105, 6018.402 and 6018.501), section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), and section 303 of the Hazardous Sites Cleanup Act (35 P.S. § 6020.303), which grants the Board the authority to promulgate regulations to carry out the provisions of the Hazardous Sites Cleanup Act. Under sections 105, 402 and 501 of the SWMA, the Board has the power and duty to adopt rules and regulations concerning the storage, treatment, disposal and transportation of hazardous waste that are necessary to protect the public's health, safety, welfare and property, and the air, water and other natural resources of this Commonwealth. Section 1920-A of The Administrative Code of 1929 grants the Board the authority to promulgate rules and regulations that are necessary for the proper work of the Department.

D. Background and Purpose

Hazardous waste delisting

As defined in 40 CFR 261.3 (relating to definition of hazardous waste), a hazardous waste is: 1) a solid waste that is not excluded from regulation as a hazardous waste under 40 CFR 261.4(b) (relating to exclusions); 2) exhibits any of the characteristics of hazardous waste (ignitability, corrosivity, reactivity or toxicity); or 3) is listed in 40 CFR Part 261 Subpart D (relating to Lists of Hazardous Waste). A delisting petition is a request to exclude waste from a particular facility from the list of hazardous wastes under the Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C.A. §§ 6901—6986) and SWMA (35 P.S. §§ 6018.101—6018.1003). Under section 3006 of the RCRA (42 U.S.C.A. § 6926), any state which seeks to administer and enforce a hazardous waste program may submit an application for approval to the United States Environmental Protection Agency (EPA) to implement an EPA-approved program. The Commonwealth received final authorization from the EPA to implement its base hazardous waste program effective January 30, 1986 (51 FR 1791 (January 15, 1986)), and the EPA approved the Commonwealth's most recent Program Revision III effective June 29, 2009 (74 FR 19453 (April 29, 2009)).

Under 40 CFR 260.20 and 260.22 (relating to general; and petitions to amend Part 261 to exclude a waste produced at a particular facility), which are incorporated by reference in the Department's regulations § 260a.1 (relating to incorporation by reference, purpose and scope) and modified by § 260a.20 (relating to rulemaking petitions), a person may petition the EPA or a state administering an EPA-approved hazardous waste management program to remove a waste or the residuals resulting from effective treatment of a waste from a particular generating facility from the lists of hazardous wastes in 40 CFR 261.31 and 261.32 (relating to hazardous wastes from non-specific sources; and hazardous wastes from specific sources). Specifically, 40 CFR 260.20 allows a person to petition to modify or revoke any provision of 40 CFR Parts 260—266, 268 and 273. Section 260.22 of 40 CFR provides a person the opportunity to petition to exclude a waste on a "generator specific" basis from the hazardous waste lists.

The delisting process exists due to a National recognition that a specific listed waste produced at a particular facility may not meet the standards for which the waste was originally listed as hazardous. The intent of the delisting process was to ease the regulatory burden on handlers of listed waste improperly captured by the broad listing definitions under 40 CFR 261.3. Delisting has since evolved to also include listed wastes that are sufficiently treated so that they no longer pose a health threat. The delisting process provides a mechanism that allows the Department to work with a facility to evaluate their waste and ensure appropriate waste management while reducing over-regulation. If the delisting analysis shows that a currently listed waste meets those delisting criteria in 40 CFR 260.22(a), then the Department must move forward with the delisting process. It is important to emphasize that a delisting does not exclude a hazardous waste from hazardous waste regulation. More accurately, a delisting excludes a waste that is not hazardous from being managed as a hazardous waste.

Under the Commonwealth's hazardous waste regulations in § 260a.20, delisting petitions shall be submitted to the Board in accordance with the procedures established in Chapter 23 (relating to Environmental Quality Board policy for processing petitions—statement of policy) instead of the procedures in 40 CFR 260.20(b)—(e).

In a delisting petition, the petitioner must demonstrate that waste generated at a particular facility does not meet any of the criteria for which the waste was originally listed as a hazardous waste in 40 CFR 261.11 (relating to criteria for listing hazardous waste). In addition, a petitioner must demonstrate that the waste does not exhibit any of the hazardous waste characteristics (that is, ignitability, corrosivity, reactivity and toxicity) and present sufficient information for the Department to decide whether factors other than those for which the waste was originally listed as hazardous warrant retaining it as a hazardous waste. Only after the Department's analysis has shown that the waste does not meet the criteria for being listed as a hazardous waste, nor does it exhibit any of hazardous waste characteristics, may amendments be pursued to exclude the waste from the lists of hazardous wastes in 40 CFR 261.31 and 261.32.

For background information related to the wastes discussed in these Delisting Petitions, in 40 CFR 260.10 (relating to definitions) the Federal definition of leachate is “. . . any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.” Sludge is defined as “. . . any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.” *Id.* Filter cake is the solids that result after the sludge has been dewatered by a filter press.

MAX Environmental, Bulger facility

MAX Environmental Technologies, Inc. (MAX) owns and operates the Bulger facility (MAX Bulger), which is located approximately 18 miles west-southwest of Pittsburgh, PA, in Smith Township, Washington County. MAX Bulger (Solid Waste Disposal/Processing Facility Permit—301359) operates under a Consent Order and Agreement (COA) with the Department. A COA is generally a voluntary agreement negotiated between two or more parties to resolve a disagreement. Select solids are managed at the facility to create a cap support zone for closure of a historical impoundment. The facility is currently used for beneficial placement of a wide range of materials from the energy, construction, and manufacturing industries, as well as metal-impacted materials (for example, soil, dredging wastes) from site remediation projects. More recently, the largest volume wastes received at the facility for placement consist of metal-impacted soils from remediation projects and drill cuttings from the oil and gas industry.

Due to the nature of the wastes disposed of at MAX Bulger, the leachate that is generated from MAX Bulger has been presumed to be hazardous (by definition) and therefore has been classified as an F039 listed hazardous waste. Under 40 CFR 261.31(a), F039 is defined as “Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous.”

MAX Environmental, Yukon facility

MAX also owns and operates the Yukon facility (MAX Yukon), which is located approximately 30 miles southeast of Pittsburgh, PA, in Yukon, Westmoreland County. MAX Yukon operates as a RCRA Subtitle C permitted treatment facility (PAD004835146) and as an onsite commercial residual waste landfill (Solid Waste Permit No. 301071). High-volume stabilization and solidification, chemical treatment of waste dusts and liquids, and crushing and resizing of slag and refractory brick for treatment and disposal are conducted at the facility. The residual waste landfill at MAX Yukon is used for disposal of a wide range of materials from the energy, construction, and manufacturing industries, as well as metal-impacted materials (for example, soil) from site remediation projects. More recently, the largest volume wastes received at the facility for treatment and disposal consist of metal-impacted soils from remediation projects and drill cuttings from the oil and gas industry.

Similar to MAX Bulger, due to the nature of the wastes, the leachate that is generated from MAX Yukon has been classified as an F039 listed hazardous waste under 40 CFR 261.31.

MAX Environmental Delisting Petitions

In May 2019, MAX submitted two petitions: a petition to delist the F039 sludge generated from the leachate treatment plant at MAX Bulger (Bulger Petition) and a petition to delist the F039 sludge generated from the leachate treatment plant at MAX Yukon (Yukon Petition). The petitions were based on the framework described in the EPA RCRA Delisting Program Guidance Manual for the Petitioner, March 23, 2000 (EPA Delisting Guidance Manual).

Both the Bulger Petition and the Yukon Petition were prepared to satisfy the requirements of two COAs entered by and between the Department and MAX on April 6, 2018, for MAX Bulger and on March 28, 2018, for MAX Yukon. The COAs required MAX to manage the sludge at both facilities as F039 hazardous wastes unless and until such time that the sludges are delisted as being hazardous wastes. Under the terms of each COA, MAX agreed to submit a full and complete petition in accordance with 40 CFR 260.22 to request the delisting of the sludge derived from the treatment of leachate from the Bulger and Yukon facilities. Based on historical data regarding leachate and subsequent sludge generation, the volume of filter cake generated for MAX Bulger may not exceed 150 cubic yards per 3-month period. MAX also agreed to submit a full and complete petition in accordance with 40 CFR 260.22 to request the sludge derived from the treatment of leachate from Yukon Impoundment 5 or sludge derived from the treatment of leachate that has been mixed with leachate from Yukon Impoundment 5 be delisted. Based on historical data regarding leachate and subsequent sludge generation, the volume of filter cake generated for MAX Yukon may not exceed 20 cubic yards per 3-month period.

For both Delisting Petitions, MAX requested a specific conditional delisting of the wastewater treatment sludge filter cake at MAX Bulger and MAX Yukon. A conditional delisting means MAX would be required to test samples of the sludge filter cake and verify that the samples on a volume basis do not exhibit any hazardous waste characteristics as described in Chapter 261a Appendix IXa,

Table 2a(1) (relating to wastes excluded from specific sources) regarding delisting levels prior to waste disposal. Prior to sample verification, the sludge material would continue to be managed as a hazardous waste and only after sample verification could the sludge be managed as non-hazardous waste.

Upon receipt of the Delisting Petitions, the Department reviewed each in accordance with the Board's petition policy in Chapter 23, including verifying that the petitions were administratively complete as required by § 23.1 (relating to petitions); the petitions requested actions that could be taken by the Board; and the requested actions did not conflict with Federal law. Based on this verification, the Department determined that the Delisting Petitions met the conditions in § 23.2 (relating to departmental review) for further review. The Department then notified the petitioners and the Board that the Delisting Petitions met the requirements for acceptability. At the June 18, 2019, Board meeting, the Department recommended that the Board accept both Delisting Petitions for further study. The Board voted unanimously to accept this recommendation. On June 29, 2019, the Department published notice of acceptance of the Delisting Petitions at 49 Pa.B. 3316 (June 29, 2019) and began its evaluation.

MAX Bulger Petition evaluation

To determine whether the sludge from MAX Bulger should be delisted as a hazardous waste, a Sampling and Analysis Plan (SAP) based on historical knowledge of the materials handled at MAX Bulger and a Quality Assurance Project Plan (QAPP) were developed during pre-application meetings and approved by the Department in October 2017 and February 2018, respectively, to be used to complete the Delisting Petition analysis. In accordance with the SAP and QAPP, MAX submitted samples obtained from four sampling events performed over a 1-year period to reflect potential variations in constituent concentrations under various seasonal conditions. Samples were collected as composites for total metals and toxicity characteristic leaching procedure (TCLP) metals. Grab samples were analyzed for Volatile Organic Compounds (VOC) and Semi-Volatile Organic Compounds (SVOC).

The SAP was designed to provide enough data to prepare a Delisting Risk Assessment System (DRAS) simulation to aid in the Delisting Petition analysis. DRAS is a risk assessment software program that calculates the potential risks associated with disposing a given waste stream to a landfill or surface impoundment. It can only provide risk analyses based on the information entered into the program. The user assigns a target cancer risk and hazard index, and DRAS calculates both the waste's aggregate risks and back-calculates each waste constituent's maximum allowable concentration permissible for delisting it as a hazardous waste. The risk-based approach combines state-of-the-art fate and transport modeling with standardized exposure assessment algorithms to provide sound risk assessment. However, the risk assessment results from DRAS are only one factor in a delisting decision.

The analytical results from the DRAS simulation were evaluated by means of two mechanisms. The first mechanism is a direct comparison of the concentrations identified in the samples provided by MAX in accordance with the SAP to the Universal Treatment Standards (UTS) table at 40 CFR 268.48 (relating to universal treatment standards). For any given hazardous waste, the "underlying hazardous constituents" are any constituents listed in the UTS table which can reasonably be expected to be

present at the point of generation at a concentration above the UTS level. A characteristic hazardous waste that is going to be land disposed must first be treated to reduce the concentration of any underlying hazardous characteristic to below the levels in the UTS table.

The second is a simulation of potential human health or ecological risks by means of the use of a conservative multimedia exposure model. The MAX Bulger Petition was prepared using the DRAS to identify constituents that could pose a threat to humans or ecological receptors. Constituents of interest for the purposes of execution of the DRAS simulations were also selected. DRAS was run assuming a target cancer risk level of 1×10^{-6} and a target hazard quotient of 1 (non-carcinogenic human health effects and ecological receptors).

The MAX Bulger Petition is limited to a maximum annual volume of 600 cubic yards of filter cake and is conditioned upon the petitioner performing certain verification testing of the filter cake to demonstrate compliance with maximum allowable concentration limits. The maximum allowable concentration limits were selected for organic and inorganic constituents of the filter cake and must be met before the delisted waste can be disposed in a RCRA Subtitle D (non-hazardous waste) landfill.

This sampling and analysis evaluation indicated that the sludge does not meet the criteria for listing as an F039 hazardous waste in 40 CFR 261.31.

The samples that were collected reveal that metals are the most commonly detected constituents of the material accepted at the facility. Sporadic detections of VOCs and SVOCs have also been observed. However, analysis of the sludge indicates that the concentrations of constituents of interest do not exceed the UTS promulgated at 40 CFR 268.48. In fact, they are one or more orders of magnitude below the chemical specific UTS.

The analyses revealed that the sludge at MAX Bulger does not exhibit the characteristics of hazardous waste. The pH of the additional sludge samples show that the material is not corrosive and the nature of the material together with generator knowledge demonstrates that the sludge is non-reactive and non-ignitable. The analytical data confirmed that none of the target pesticides, herbicides or polychlorinated biphenyls (PCB) were detected. The EPA Delisting Guidance Manual stipulates that reactive sulfide and reactive cyanide should be analyzed if their total concentrations results exceed 500 and 250 parts per million, respectively.

The maximum concentration measured for total cyanide was 3.42 mg/kg, and total sulfide was not detected for the leachate treatment system sludge. Cyanide and sulfide concentrations are below the calculated DRAS limits. The maximum and average concentrations of total metals in the sludge samples are below the calculated limits. A comparison of the TCLP analysis of the leachate concentrations with the concentrations from the DRAS simulation model shows that the constituents of interest are non-carcinogenic for human health effects and ecological receptors, because they are significantly lower than the DRAS model acceptable concentrations limits.

MAX Yukon Petition evaluation

For the MAX Yukon Petition, MAX submitted samples that were obtained and analyzed in accordance with the same SAP and QAPP approved for use in the Bulger Petition.

The MAX Yukon Petition was prepared using the DRAS to identify constituents that could pose a threat to humans or ecological receptors. Constituents of interest for the purposes of execution of the DRAS simulations were also selected. This was a relatively straightforward process given that a decision was made to simulate any targeted and detected constituent accommodated by the DRAS software. DRAS was run assuming a target cancer risk level of 1×10^{-6} and a target hazard quotient of 1 (non-carcinogenic human health effects and ecological receptors).

The Yukon Petition is limited to a maximum annual volume of 80 cubic yards of filter cake and is conditioned upon the petitioner performing certain verification testing of the filter cake to demonstrate compliance with maximum allowable concentration limits. The maximum allowable concentration limits were selected for organic and inorganic constituents of the filter cake and must be met before the delisted waste can be disposed in a RCRA Subtitle D (non-hazardous waste) landfill.

Sampling and analysis indicate that the sludge from MAX Yukon does not meet the criteria for listing as an F039 hazardous waste in 40 CFR 261.31.

The samples that were collected reveal that metals are the most commonly detected constituents of the material accepted at the facility. Sporadic detections of VOCs and SVOCs have also been observed. However, analysis of the sludge indicates that the concentrations of constituents of interest do not exceed the UTS promulgated at 40 CFR 268.48. In fact, they are one or more orders of magnitude below the chemical specific UTS.

The analyses also revealed that the sludge does not exhibit the characteristics of hazardous waste. The pH of the additional sludge samples show that the material is not corrosive and the nature of the material together with generator knowledge demonstrates that the sludge is also non-reactive and non-ignitable. The analytical data confirmed that none of the target pesticides, herbicides, or PCBs were detected. The EPA Delisting Guidance Manual also stipulates that reactive sulfide and reactive cyanide should be analyzed if their total concentration results exceed 500 and 250 parts per million, respectively. The maximum total sulfide and total cyanide concentrations measured for the leachate treatment system sludge were 13.4 mg/kg and 23.5 mg/kg, respectively, which are below the calculated DRAS limits.

The maximum and average concentrations of total metals in the sludge samples are below the calculated limits. A comparison of the TCLP analysis of the leachate concentrations with the concentrations from the DRAS simulation model shows that the constituents of interest are non-carcinogenic for human health effects and ecological receptors because they are significantly lower than the DRAS model acceptable concentrations limits.

Delisting Petition approval for rulemaking

On June 16, 2020, the Department presented to the Board the two evaluation reports that included the findings from the Department's careful and independent review of the Delisting Petitions as summarized previously. Based on the Department's conclusion that the sludge from both MAX Bulger and MAX Yukon did not meet the criteria for being listed as F039 hazardous wastes nor did it exhibit any of the hazardous waste characteristics, the Board unanimously approved both Delisting Petitions for rulemaking.

E. Summary of the Proposed Rulemaking

Chapter 261a contains provisions for the identification and listing of hazardous waste. Section 261a.32 (relating to hazardous wastes from specific sources) was added in 2006 to refer to Appendix IXa (relating to wastes excluded under 25 Pa. Code § 260a.20 and 40 CFR 260.20 and 260.22). Appendix IXa contains Table 1a (relating to wastes excluded from nonspecific sources), which lists wastes from nonspecific sources that have been delisted through the petition process by the Department and the Board. This numbering scheme is being used to parallel the Federal regulations for clarity and consistency with the incorporation by reference of the Commonwealth's hazardous waste regulations.

This proposed rulemaking amends Chapter 261a Appendix IXa, Table 1a to provide a specific conditional delisting of the wastewater treatment sludge filter cake generated at the MAX Bulger and MAX Yukon facilities.

Chapter 261a Appendix IXa, Table 1a(1)—delisting levels

The proposed exclusion for MAX Bulger and MAX Yukon would not apply until MAX completes verification sampling on a volume basis on the treated waste to verify it does not exhibit any hazardous waste characteristics as described in Chapter 261a Appendix IXa, Table 1a(1) regarding delisting levels. The constituents to sample for were identified as any "underlying hazardous constituents" listed in the UTS table which could reasonably be expected to be present at the point of generation at a concentration above the UTS level. MAX Bulger and MAX Yukon each have the same testing parameters for the constituents to be sampled for in verification testing. The delisting levels in Appendix IXa were established by using the more conservative of health-based values calculated by DRAS or toxicity characteristic regulatory levels.

Chapter 261a Appendix IXa, Table 1a(2)—verification testing schedule

The verification testing schedule listed in Chapter 261a Appendix IXa, Table 1a(2) regarding verification testing schedule provides that MAX must collect and analyze representative samples of the treatment sludge at both MAX Bulger and MAX Yukon at a frequency of one sample per every 20 cubic yards of material to be shipped or disposed, using SW-846 Method 1311 with appropriate detection levels and quality control procedures. The sample frequency is based on the size of a standard shipping container. Each facility has a different maximum volume of material to be shipped or disposed: MAX Bulger may not exceed 150 cubic yards per 3-month period; MAX Yukon may not exceed 20 cubic yards per 3-month period. The difference in maximum volume is based on historical volume generation data.

Representative samples of the waste are to be collected as described in Chapter 261a Appendix IXa, Table 1a(2)(i) regarding sample collection for both MAX Bulger and MAX Yukon. Composite samples must be collected at a rate of one composite per every 20 cubic yards and shall be generated from four grab samples (one grab sample from each quadrant of the vessel) to increase the representativeness of the sample. Sampling shall be completed in accordance with the approved Sampling and Analysis Plan (dated October 2017). Each sample collection event shall include all necessary QA/QC samples and a duplicate.

As outlined in Chapter 261a Appendix IXa, Table 1a(2)(ii) regarding sample analysis, each composite sample will be analyzed for a predetermined list of constituents presented in Chapter 261a Appendix IXa,

Table 1a(1). If the level of any constituent measured in the sample of the sludge equals or exceeds those levels, then the waste is hazardous and must be managed in accordance with Subtitle C of RCRA. The analytical data will be submitted to the Department's Southwest Regional Office. Data must be accompanied by a signed copy of the statement in 40 CFR 260.22(i)(12) to certify to the truth and accuracy of the data submitted. Records of operating conditions and analytical data must be compiled, summarized and maintained onsite for a minimum of 3 years and must be furnished upon request by any employee or representative of the Department, and made available for inspection in accordance with Federal and State regulation.

Management and storage of the sludge material prior to sample verification at both MAX Bulger and MAX Yukon would continue to be as a hazardous waste as outlined in Chapter 261a Appendix IXa, Table 1a(2)(iii) regarding management of sludge pending verification analyses. Upon meeting the conditions of the verification testing, the sludge would be excluded from the hazardous waste regulations and would then be managed as a residual waste under the Department's Residual Waste Regulations in Article IX (relating to residual waste management).

Chapter 261a Appendix IXa, Table 1a(3)—changes in operating conditions

As described in Chapter 261a Appendix IXa, Table 1a(3) regarding changes in operating conditions, should MAX significantly change their treatment process compared to what is described in the Delisting Petitions, the treatment sludge generated from the new process would not be eligible to be managed under this exclusion until:

1. MAX demonstrates that the new waste meets the delisting levels in paragraph (1);
2. MAX demonstrates that no new hazardous constituents listed in Appendix VIII of 40 CFR Part 261 have been introduced into the treatment process; and
3. MAX obtains written approval from the Department to manage the waste under this exclusion.

This is a mechanism by which the Department can assure the conditions of the delisting are maintained to properly manage the wastes from MAX Bulger and MAX Yukon.

Chapter 261a Appendix IXa, Table 1a(4)—reopener

Chapter 261a Appendix IXa, Table 1a(4), regarding reopener, allows for the possibility that MAX may discover that a condition at MAX Bulger or MAX Yukon or an assumption related to the disposal of the excluded waste that was modeled or predicted in the Delisting Petitions does not occur as modeled or predicted. If this occurs, then MAX must report any information relevant to that condition, in writing, to the Department within 10 days of the discovery of that condition. Subsequently, upon receiving information described in subparagraph (i) of this section, regardless of its source, the Department will determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or another appropriate response necessary to protect human health and the environment. Again, this is a mechanism by which the Department can assure the conditions of the delisting are maintained to properly manage the wastes from MAX Bulger and MAX Yukon.

F. Benefits, Costs and Compliance

Benefits

This proposed rulemaking establishes a maximum volume of wastewater treatment sludge filter cake generated at the MAX Bulger and Yukon facilities that may be delisted on an annual basis. Under the terms of the delisting language, MAX may dispose of the filter cake in a permitted Subtitle D landfill after performing certain verification testing that confirms it does not exhibit any hazardous waste characteristics. The application of this proposed rulemaking would provide a cost-effective and environmentally responsible method of disposal for this now non-hazardous waste. Based on the current costs incurred by MAX to properly dispose of the filter cake, the company will save over \$850,000 annually for the MAX Bulger facility waste and over \$100,000 annually for the MAX Yukon facility waste in disposal, transportation and laboratory costs as a result of this delisting amendment.

Compliance cost

MAX will be required to comply with the conditions in the delisting regulation, including testing and recordkeeping requirements. However, the delisting of the filter cake should result in an overall reduced waste management cost for the MAX facilities, which would otherwise send the filter cake it generates to a Subtitle C landfill. Combined, MAX estimates that financial savings for both the MAX Bulger and MAX Yukon facilities would approach \$950,000 annually.

Compliance assistance plan

This proposed rulemaking should not require educational, technical or compliance assistance efforts. The Department has and will continue to provide manuals, instructions, forms and web site information consistent with the final-form rulemaking. If assistance is required, the Department's regional and central office staff will provide the necessary information and guidance.

Paperwork requirements

This proposed rulemaking does not create new paperwork requirements for MAX. MAX will continue to be required to conduct post-exclusion testing and recordkeeping to demonstrate compliance with the conditions of the proposed regulation.

G. Pollution Prevention

This proposed rulemaking will not impact pollution prevention efforts of the Department. This proposed rulemaking represents a conditional exclusion, meaning that there will be post-exclusion testing requirements that must be met by the petitioner prior to waste disposal. The sludge material would continue to be managed as a hazardous waste prior to sample verification. Only after sample verification confirms the sludge filter cake does not exhibit any hazardous waste characteristics could it be managed as non-hazardous waste. This sludge would then be managed under Department's Residual Waste regulations.

H. Sunset Review

The Board is not establishing a sunset date for these regulations since they are needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on December 14, 2021, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b) which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Department, the General Assembly and the Governor.

J. Public Comments

Interested persons are invited to submit to the Board written comments, suggestions, support or objections regarding this proposed rulemaking. Comments, suggestions, support or objections must be received by the Board by February 22, 2022.

Comments may be submitted to the Board online, by e-mail, by mail or express mail as follows.

Comments may be submitted to the Board by accessing eComment at <http://www.ahs.dep.pa.gov/eComment>.

Comments may be submitted to the Board by e-mail at RegComments@pa.gov. A subject heading of this proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt. Comments submitted by facsimile will not be accepted.

Written comments should be mailed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

K. Public Hearings

The Board will hold three virtual public hearings for the purpose of accepting comments on this proposed rulemaking. The hearings will be held at 6 p.m. on January 19, 2022, January 20, 2022, and January 26, 2022.

Persons wishing to present testimony at a hearing must contact Jennifer Swan for the Department and the Board, (717) 783-8727 or RA-EPEQB@pa.gov, by January 18, 2022, to reserve a time to present testimony. Language interpretation services are available upon request. Persons in need of language interpretation services must contact Jennifer Swan by 5 p.m. on January 14, 2022.

Witnesses may provide testimony by means of telephone or Internet connection. Verbal testimony is limited to 5 minutes for each witness. Organizations are limited to designating one witness to present testimony on their behalf at a hearing. Video demonstrations and screen sharing by witnesses will not be permitted.

Witnesses are requested to submit written copy of their verbal testimony by e-mail to RegComments@pa.gov after providing testimony at a hearing.

Information on how to access the hearings will be available on the Board's webpage found through the Public Participation tab on the Department's web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board"). Prior to a hearing, individuals are encouraged to visit the Board's webpage for the most current information for accessing the hearing.

Members of the public wishing to observe a public hearing without providing testimony are also directed to access the Board's webpage. Those who have not registered with Jennifer Swan in advance as described previously will remain muted for the duration of the public hearing.

Persons in need of accommodations as provided for in the Americans with Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania Hamilton Relay Service at (800) 654-5984 (TDD) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

PATRICK McDONNELL,
Chairperson

Fiscal Note: 7-566. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VII. HAZARDOUS WASTE MANAGEMENT

CHAPTER 261a. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subchapter D. LISTS OF HAZARDOUS WASTES

APPENDIX IXa. WASTES EXCLUDED UNDER 25 PA. CODE § 260a.20 AND 40 CFR 260.20 AND 260.22

Table 1a. Wastes Excluded from Nonspecific Sources

(Editor's Note: The following provisions are proposed to be added and printed in regular type to enhance readability.)

| <i>Facility</i> | <i>Address</i> | <i>Waste Description</i> |
|-----------------|----------------|--------------------------|
| | | * * * * * |

| Facility | Address | Waste Description | |
|--|--------------------------------|--|---|
| MAX Environmental Technologies, Inc. Bulger Facility | 200 MAX Drive Bulger, PA 15109 | Wastewater treatment sludge from former landfill operations (EPA Hazardous Waste No. F039), generated at an estimated annual rate of 600 cubic yards, after _____ (<i>Editor's Note: The blank refers to the effective date of this proposed rulemaking, when published as a final-form rulemaking</i>), and disposed in the MAX Yukon Landfill or other Subtitle D landfill permitted in this Commonwealth. The exclusion covers the filter cake resulting from the treatment of hazardous waste leachate derived from the MAX Environmental Technologies, Inc. Bulger facility (MAX or MAX Bulger). MAX shall meet the following conditions for the exclusion to be valid: (1) <i>Delisting Levels:</i> All leachable concentrations for the following constituents measured using the SW-846 Method 1311 (the TCLP) must be below the following levels (mg/L): | |
| | | <p style="text-align: center;"><i>Constituent</i></p> | <p style="text-align: center;"><i>Maximum Allowable: Leachate Concentration⁽¹⁾</i></p> |
| | | Arsenic | 0.30 |
| | | Barium | 100 |
| | | Cadmium | 1.0 |
| | | Chromium | 5.0 |
| | | Lead | 5.0 |
| | | Mercury | 0.2 |
| | | Selenium | 1.0 |
| | | Silver | 5.0 |
| <p>¹. <i>The delisting levels are based on precedent for delisted PA F039 waste (arsenic), and Toxicity Criteria per 40 CFR 261.24.</i></p> <p>(2) <i>Verification Testing Schedule:</i> MAX Environmental shall collect and analyze representative samples of the treatment sludge at a frequency of one sample per every 20 cubic yards of material to be shipped, using SW-846 Method 1311 with appropriate detection levels and quality control procedures. Shipments shall not exceed 150 cubic yards per 3-month period.</p> <p>(i) <i>Sample Collection:</i> Representative samples of the waste shall be collected. Composite samples shall be collected at a rate of one composite per every 20 cubic yards and shall be generated from four grab samples (one grab sample from each quadrant of the vessel). Sampling shall be completed in accordance with the approved Sampling and Analysis Plan (dated October 2017) used for the purposes of this delisting petition. Each sample collection event shall include all necessary QA/QC samples and a duplicate.</p> <p>(ii) <i>Sample Analysis:</i> Each composite sample shall be analyzed for all of the constituents listed in paragraph (1). If the level of any constituent measured in the sample of the sludge equals or exceeds the levels set forth in paragraph (1), then the waste is hazardous and shall be managed in accordance with Subtitle C of RCRA. The analytical data shall be submitted to the Department of Environmental Protection, Southwest Regional Office, Waste Management Program, 400 Waterfront Drive, Pittsburgh, PA 15222. All data shall be accompanied by a signed copy of the statement set forth in 40 CFR 260.22(i)(12) to certify to the truth and accuracy of the data submitted. Records of operating conditions and analytical data shall be compiled, summarized, and maintained onsite for a minimum of 3 years and shall be furnished upon request by any employee or representative of the Department, and made available for inspection.</p> <p>(iii) <i>Management of Sludge Pending Verification Analyses:</i> The treated, dewatered sludge shall be stored and managed as hazardous until the verification analyses are completed. This includes storage in containers that are to remain covered, except when sludge is being added or removed.</p> <p>(3) <i>Changes in Operating Conditions:</i> If MAX significantly changes the treatment process described in the petition, the treatment sludge generated from the new process may not be managed under this exclusion until it has met the following conditions: (i) MAX shall demonstrate that the new waste meets the delisting levels set forth in paragraph (1); (ii) MAX shall demonstrate that no new hazardous</p> | | | |

PROPOSED RULEMAKING

| Facility | Address | Waste Description | | | | | | | | | | | | | | | | | | |
|--|--|--|--------------------|--|---------|------|--------|-----|---------|-----|----------|-----|------|-----|---------|-----|----------|-----|--------|-----|
| | | <p>constituents listed in Appendix VIII of 40 CFR Part 261 have been introduced into the treatment process; (iii) MAX shall obtain written approval from the Department to manage the waste under this exclusion.</p> <p>(4) <i>Reopener:</i></p> <p>(i) If MAX discovers that a condition at the facility or an assumption related to the disposal of the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then MAX shall report any information relevant to that condition, in writing, to the Regional Director of the Department of Environmental Protection Southwest Region within 10 days of the discovery of that condition.</p> <p>(ii) Upon receiving information described in subparagraph (i) of this section, regardless of its source, the Department shall determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.</p> | | | | | | | | | | | | | | | | | | |
| <p>MAX Environmental Technologies, Inc. Yukon Facility</p> | <p>233 MAX Lane Yukon, PA 15698</p> | <p>Wastewater treatment sludge from former landfill operations (EPA Hazardous Waste No. F039), generated at an estimated annual rate of 80 cubic yards, after _____ (<i>Editor's Note:</i> The blank refers to the effective date of this proposed rulemaking, when published as a final-form rulemaking), and disposed in the MAX Yukon Landfill or other Subtitle D landfill permitted in this Commonwealth. The exclusion covers the filter cake resulting from the treatment of hazardous waste leachate derived from the MAX Environmental Technologies, Inc. Yukon facility (MAX or MAX Yukon). MAX shall meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Delisting Levels:</i> All leachable concentrations for the following constituents measured using the SW-846 Method 1311 (the TCLP) must be below the following levels (mg/L):</p> <table border="1" data-bbox="548 976 1502 1375"> <thead> <tr> <th data-bbox="548 976 868 1039"><i>Constituent</i></th> <th data-bbox="868 976 1502 1039"><i>Maximum Allowable: Leachate Concentration⁽¹⁾</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="548 1039 868 1081">Arsenic</td> <td data-bbox="868 1039 1502 1081">0.30</td> </tr> <tr> <td data-bbox="548 1081 868 1123">Barium</td> <td data-bbox="868 1081 1502 1123">100</td> </tr> <tr> <td data-bbox="548 1123 868 1165">Cadmium</td> <td data-bbox="868 1123 1502 1165">1.0</td> </tr> <tr> <td data-bbox="548 1165 868 1207">Chromium</td> <td data-bbox="868 1165 1502 1207">5.0</td> </tr> <tr> <td data-bbox="548 1207 868 1249">Lead</td> <td data-bbox="868 1207 1502 1249">5.0</td> </tr> <tr> <td data-bbox="548 1249 868 1291">Mercury</td> <td data-bbox="868 1249 1502 1291">0.2</td> </tr> <tr> <td data-bbox="548 1291 868 1333">Selenium</td> <td data-bbox="868 1291 1502 1333">1.0</td> </tr> <tr> <td data-bbox="548 1333 868 1375">Silver</td> <td data-bbox="868 1333 1502 1375">5.0</td> </tr> </tbody> </table> <p>¹ <i>The delisting levels are based on precedent for delisted PA F039 waste (arsenic), and Toxicity Criteria per 40 CFR 261.24.</i></p> <p>(2) <i>Verification Testing Schedule:</i> MAX Environmental shall collect and analyze representative samples of the treatment sludge at a frequency of one sample per every 20 cubic yards of material to be disposed/shipped, using SW-846 Method 1311 with appropriate detection levels and quality control procedures. Shipments shall not exceed 20 cubic yards per 3-month period.</p> <p>(i) <i>Sample Collection:</i> Representative samples of the waste shall be collected. Composite samples shall be collected at a rate of one composite per every 20 cubic yards and shall be generated from four grab samples (one grab sample from each quadrant of the vessel). Sampling shall be completed in accordance with the approved Sampling and Analysis Plan (dated October 2017) used for the purposes of this delisting petition. Each sample collection event shall include all necessary QA/QC samples and a duplicate.</p> <p>(ii) <i>Sample Analysis:</i> Each composite sample shall be analyzed for all of the constituents listed in paragraph (1). If the level of any constituent measured in the sample of the sludge equals or exceeds the levels set forth in paragraph (1), then the waste is hazardous and shall be managed in accordance with Subtitle C of RCRA. The analytical data shall be submitted to the Department of Environmental Protection, Southwest Regional Office, Waste Management Program, 400 Water-</p> | <i>Constituent</i> | <i>Maximum Allowable: Leachate Concentration⁽¹⁾</i> | Arsenic | 0.30 | Barium | 100 | Cadmium | 1.0 | Chromium | 5.0 | Lead | 5.0 | Mercury | 0.2 | Selenium | 1.0 | Silver | 5.0 |
| <i>Constituent</i> | <i>Maximum Allowable: Leachate Concentration⁽¹⁾</i> | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.30 | | | | | | | | | | | | | | | | | | | |
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| Mercury | 0.2 | | | | | | | | | | | | | | | | | | | |
| Selenium | 1.0 | | | | | | | | | | | | | | | | | | | |
| Silver | 5.0 | | | | | | | | | | | | | | | | | | | |

| <i>Facility</i> | <i>Address</i> | <i>Waste Description</i> |
|-----------------|----------------|--|
| | | <p>front Drive, Pittsburgh, PA 15222. All data shall be accompanied by a signed copy of the statement set forth in 40 CFR 260.22(i)(12) to certify to the truth and accuracy of the data submitted. Records of operating conditions and analytical data shall be compiled, summarized, and maintained onsite for a minimum of 3 years and shall be furnished upon request by any employee or representative of the Department, and made available for inspection.</p> <p>(iii) <i>Management of Sludge Pending Verification Analyses:</i> The treated, dewatered sludge shall be stored and managed as hazardous until the verification analyses are completed. This includes storage in containers that are to remain covered, except when sludge is being added or removed.</p> <p>(3) <i>Changes in Operating Conditions:</i> If MAX significantly changes the treatment process described in the petition, the treatment sludge generated from the new process may not be managed under this exclusion until it has met the following conditions: (i) MAX shall demonstrate that the new waste meets the delisting levels set forth in paragraph (1); (ii) MAX shall demonstrate that no new hazardous constituents listed in Appendix VIII of 40 CFR Part 261 have been introduced into the treatment process; (iii) MAX shall obtain written approval from the Department to manage the waste under this exclusion.</p> <p>(4) <i>Reopener:</i></p> <p>(i) If MAX discovers that a condition at the facility or an assumption related to the disposal of the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then MAX shall report any information relevant to that condition, in writing, to the Regional Director of the Department of Environmental Protection Southwest Region within 10 days of the discovery of that condition.</p> <p>(ii) Upon receiving information described in subparagraph (i) of this section, regardless of its source, the Department will determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.</p> |

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