

**COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL QUALITY BOARD**

PETITION FORM

I. PETITIONER INFORMATION

Name: Waste Management Disposal Services of Pennsylvania, Inc.

Mailing Address: 1000 New Ford Mill Road

Morrisville, PA 19067

Telephone Number: (215) 736-9400

Date: _____

II. PETITION INFORMATION

A. The petitioner requests the Environmental Quality Board to (check one of the following):

- Adopt a regulation
- Amend a regulation (Citation 25 Pa. Code §261a)
- Repeal a regulation (Citation _____)

Please attach suggested regulatory language if request is to adopt or amend a regulation.

B. Why is the petitioner requesting this action from the Board? (Describe problems encountered under current regulations and the changes being recommended to address the problems. State factual and legal contentions and include supporting documentation that establishes a clear justification for the requested action.)

Waste Management Disposal Services of Pennsylvania, Inc. ("WMDSPA", formerly known as Geological Reclamation Operations and Waste Systems, Inc. ("GROWS")), is requesting an amendment to the existing exclusion from the list of hazardous wastes in 40 C.F.R. Part 261, incorporated by reference under 25 Pa. Code §261a, for wastewater treatment sludge filter cake generated from WMDSPA's treatment of hazardous waste leachate (EPA Hazardous Waste F039) at its wastewater treatment facility located in Morrisville, Pennsylvania. WMDSPA's existing exclusion, contained in Appendix IX of 40 C.F.R. Part 261, allows up to an annual volume of 2000 cubic yards of filter cake to be disposed of in a Subtitle D landfill. The filter cake results from the treatment of a multi-source hazardous waste leachate generated at a closed portion of WMDSPA's Morrisville landfill, known as "Old GROWS", and non-hazardous leachate from non-hazardous waste sources. Recently, the volume of leachate treated at the Morrisville plant and correspondingly, the volume of filter cake, has increased and will cause WMDSPA to exceed the 2000 cubic yard annual limit. Accordingly, as set forth in the attached petition, WMDSPA is requesting an amendment to increase the annual volume limit in its existing exclusion from 2000 cubic yards to 4000 cubic yards. The increased volume of filter cake does not pose a threat to human health or the environment as demonstrated by the historic verification testing data for the filter cake and the attached results of risk modeling performed using the U.S. EPA's Delisting Risk Assessment System software. The petition also includes additional information about the WMDSPA facility, the filter cake, and the sampling process used to generate the attached data. Ultimately, the petition demonstrates that amending the existing exclusion for the filter cake to increase the volume is appropriate pursuant to 25 Pa. Code §260a.20.

C. Describe the types of persons, businesses and organizations likely to be impacted by this proposal.

WMDSPA's wastewater treatment process treats hazardous waste leachate from the "Old GROWS" landfill and other non-hazardous waste landfills in Bucks County, Pennsylvania. The delisted filter cake resulting from that treatment process is ultimately placed back into a Subtitle D landfill in Pennsylvania after the required sampling discussed above is performed. WMDSPA is only seeking to increase the annual volume of filter cake subject to the delisting. Without the increased volume limitation, WMDSPA must transport any quantity of the filter cake that exceeds the current 2000 cubic yard limit for disposal at an off-site hazardous waste disposal facility. This would unnecessarily increase highway traffic and fuel consumption and could have attendant impacts on other highway users. Otherwise, WMDSPA is the only person, business or organization likely to be impacted by this proposal.

D. Does the action requested in the petition concern a matter currently in litigation? If yes, please explain.

No.

E. For stream redesignation petitions, the following information must be included for the petition to be considered complete. Attach supporting material as necessary.

1. A clear delineation of the watershed or stream segment to be redesignated, both in narrative form and on a map.
2. The current designated use(s) of the watershed or segment.
3. The requested designated use(s) of the watershed or segment.
4. Available technical data on instream conditions for the following: water chemistry, the aquatic community (benthic macroinvertebrates and/or fishes), or instream habitat. If such data are not included, provide a description of the data sources investigated.
5. A description of existing and proposed point and nonpoint source discharges and their impact on water quality and/or the aquatic community. The names, locations, and permit numbers of point source discharges and a description of the types and locations of nonpoint source discharges should be listed.
6. Information regarding any of the qualifiers for designation as high quality waters (HQ) or exceptional value waters (EV) in §93.4b (relating to qualifying as High Quality or Exceptional Value waters) used as a basis for the requested designation.
7. A general description of land use and development patterns in the watershed. Examples include the amount or percentage of public lands (including ownership) and the amount or percentage of various land use types (such as residential, commercial, industrial, agricultural and the like).
8. The names of all municipalities through which the watershed or segment flows, including an official contact name and address.
9. Locational information relevant to items 4-8 (except for contact names and addresses) displayed on a map or maps, if possible.

**All petitions should be submitted to the
Secretary of the Department of Environmental Protection
P.O. Box 2063
Harrisburg, PA 17105-2063**

**Rulemaking Petition to Amend Existing
Exclusion of Listed Hazardous Waste**

Waste Management Disposal Services of Pennsylvania, Inc. ("WMDSPA"), the successor by merger to Geological Reclamation Operations and Waste Systems, Inc. ("GROWS"), is submitting this petition to modify the existing exclusion, or delisting, from the lists of hazardous wastes previously granted to GROWS for wastewater treatment sludge filter cake produced by WMDSPA's Morrisville, Pennsylvania wastewater treatment facility in order to increase the maximum annual volume covered by the current delisting. This petition is authorized and has been prepared pursuant to 25 Pa. Code § 260.20 and the federal hazardous waste regulations incorporated by reference in the Pennsylvania hazardous waste regulations. This petition demonstrates that the existing delisting should be amended to exclude the increased volume of filter cake from the requirements of the Pennsylvania hazardous waste regulations because it satisfies the criteria for delisting established under 40 C.F.R. § 260.22 as incorporated by reference in the Pennsylvania regulations.

Background Information

WMDSPA is requesting an amendment to its existing exclusion, or delisting, from the lists of hazardous wastes in 40 C.F.R. Part 261, incorporated by reference under 25 Pa. Code §261a, for waste water treatment sludge filter cake produced by the treatment of hazardous waste leachate (EPA Hazardous Waste No. F039) at its Morrisville, Pennsylvania wastewater treatment facility. More specifically, WMDSPA is submitting this rulemaking petition in order to increase the maximum annual volume covered by the current delisting from 2,000 to 4,000 cubic yards of filter cake per year. The existing delisting and this proposed amendment address only the filter cake and do not delist or propose for delisting the landfill leachate, the wastes that generate the leachate or the grit generated during the physical removal (i.e., screening) of heavy solids from the landfill leachate in the wastewater treatment plant.

Because a delisting decision involves promulgating regulatory text, the modification sought by this petition must be made as a rulemaking. The existing delisting was approved by the United States Environmental Protection Agency ("EPA") for 1,000 cubic yards annually in 1991¹ and amended by EPA in 2001 to increase the volume from 1,000 cubic yards to 2,000 cubic yards annually,² both pursuant to federal rulemaking proceedings. Copies of the federal register publications associated with the original delisting, and the 2001 amendment thereto, are contained in Appendix G of this petition. Subsequent to the 2001 amendment, EPA authorized Pennsylvania to delist hazardous wastes pursuant to Pennsylvania's EPA-authorized hazardous waste regulatory program. Consequently, this rulemaking petition to amend the EPA delisting is being filed with the Pennsylvania Environmental Quality Board, which is the Commonwealth's rulemaking body for environmental regulations, rather than EPA.

¹ The publication of the proposed and final rule, along with the associated explanatory preambles, were contained in 50 Fed. Reg. 38090 (Sept. 17, 1990) and 56 Fed. Reg. 41286 (Aug. 20, 1991), respectively.

² The publication of the proposed and final rule, along with the associated explanatory preambles, were contained in 66 Fed. Reg. 38969 (July 26, 2001) and 66 Fed. Reg. 62973 (Dec. 4, 2001), respectively.

In a delisting petition, the petitioner must show that waste generated at a particular facility does not meet any of the criteria for which EPA listed the waste as set forth in 40 C.F.R. § 261.11 and the background document for the waste. The petitioner must also demonstrate that the waste does not exhibit any of the hazardous waste characteristics (that is, ignitability, reactivity, corrosivity, and toxicity) and must present sufficient information for the agency to decide whether factors other than those for which the waste was originally listed warrant retaining it as a hazardous waste. As EPA noted in evaluating the 2001 request for an amendment, the original petition to delist the filter cake demonstrated "that the waste was not hazardous based upon the criteria for which it was listed and that no other hazardous constituents were present in the waste at levels of regulatory concern."³ The extensive data documenting the characteristics of the waste material that is presented in the present petition is consistent with the original petition approved by EPA in 1991 and as amended in 2001. Consequently, as did EPA in amending the exclusion in 2001, this petition focuses on whether the increased volume of material, when disposed of as a non-hazardous waste, presents an acceptable risk to human health and the environment.

Source of the Delisted Waste

WMDSPA operates a commercial landfill and associated wastewater treatment plant in Morrisville, Pennsylvania. The treatment plant treats a mixture of (1) leachate generated at a closed portion of the Morrisville facility known as the "Old GROWS" landfill that accepted both listed hazardous wastes and non-hazardous wastes, and (2) leachate generated at other non-hazardous waste landfills owned and operated by WMDSPA or its affiliates in the Morrisville area. Because the leachate generated at Old GROWS was considered multi-source hazardous waste leachate (EPA Hazardous Waste No. F039), i.e., leachate generated from the disposal in Old GROWS of more than one hazardous waste listed at 40 CFR Part 261, the filter cake, which is derived from the treatment of the mixture of a listed hazardous waste (multi-source leachate) and non-hazardous waste leachate, is regulated as a listed hazardous waste. See 40 C.F.R. 261.3(c)(2)(i).

The various listed wastes disposed of in Old GROWS that render the leachate hazardous waste are described by EPA in the rulemaking associated with the original delisting attached in Appendix G.⁴ The leachate treatment process that generates the filter cake, involves the collection and pumping of the various leachate streams through a series of equalization impoundments, and mixing and treatment tanks, including several sludge holding tanks which are periodically dewatered resulting in the filter cake that is the subject of the existing delisting and this proposed amendment. This process is described in more detail in the original delisting and has not materially changed since that time.⁵

³ 66 Fed. Reg. 38970-71 (July 26, 2001).

⁴ 55 Fed. Reg. 38091 (Sept. 17, 1990).

⁵ Id.

Original 1991 EPA Delisting

In 1991, acting upon a petition submitted by GROWS (succeeded in merger by WMDSPA)⁶ pursuant to 40 C.F.R. § 260.20 and 260.22, EPA excluded the wastewater treatment sludge filter cake derived from WMDSPA's treatment of the mixture of hazardous waste landfill leachate originating from the closed Old GROWS landfill and landfill leachate generated by other non-hazardous waste landfills. At that time, EPA determined that WMDSPA had submitted sufficient information to allow it to determine that the filter cake was not hazardous based upon the criteria for which it was listed and no other hazardous constituents were present in the waste at levels of regulatory concern. As part of its review, EPA evaluated the risk associated with disposing of the filter cake in a non-hazardous waste landfill and generated maximum allowable concentration levels ("MACLs") for a list of approximately 138 hazardous constituents composed primarily of the organic constituents in 40 C.F.R. § 261, Appendix VIII for which EPA had established health-based levels and that could be reliably quantified.⁷ EPA evaluated the risk associated with landfilling the filter cake in a non-hazardous waste landfill by using the actual sample results from the filter cake and EPA's organic leachate model ("OLM") combined with its vertical and horizontal spread landfill model (the "VHS Model") and conservative parameter assumptions to predict the potential impact on the underlying groundwater from an assumed release of leachate generated by the landfilled filter cake. EPA then determined health-based MACLs for the organic and inorganic constituents in the filter cake using the OLM and VHS models.

The MACLs that EPA calculated based on the projected disposal of 1,000 cubic yards of filter cake per year in a non-hazardous waste landfill were included as conditions of the delisting. The final delisting approval was limited to a maximum annual volume of 1,000 cubic yards of filter cake and the performance of verification testing of the filter cake by sampling each container of the filter cake (using leachate analysis for inorganic constituents and total constituent analysis for organic constituents), compositing the samples collected over each four week period and comparing the results to the MACLs. If the composite test results satisfied the MACLs, the material could be disposed of in a non-hazardous waste landfill. If not, the material would have to be either be retreated until it met the MACLs or disposed of in a Resource Conservation and Recovery Act ("RCRA") Subtitle C (hazardous waste) landfill.

2001 Amended EPA Delisting and Current Operations

In 2001, WMDSPA petitioned EPA to increase the volume of its excluded wastewater treatment sludge filter cake to 2,000 cubic yards annually because of increased filter cake production attributable to improved efficiencies in its wastewater treatment operations at the plant. Because the treatment process that generated the waste had not changed, the only information required by EPA was the verification testing data, as supplemented. More specifically, in support of its petition to amend its delisting, WMDSPA submitted twenty-seven rounds of leachate and total constituent verification testing results for inorganic and organic constituents, respectively, that it had generated in the preceding two years pursuant to the then-

⁶ For simplicity, GROWS and WMDSPA are both referred to herein as WMDSPA.

⁷ 55 Fed. Reg. 38097 (Sept. 17, 1990).

current delisting testing requirements, along with the total constituent analyses of inorganic constituents for four samples that it collected separately at the request of EPA in connection with EPA's evaluation of the petition to amend the delisting (WMDSPA was not required to perform total constituent analysis for verification testing under the 1991 delisting and therefore had to collect this data separately).

As explained in detail in Appendix B to this petition, in lieu of again applying its OLM and VHS models to the data to evaluate the risks associated with the disposal of the increased volume, EPA applied the Delisting Risk Assessment Software ("DRAS") program that it had developed subsequent to the original delisting to analyze the risk associated with the request to amend the delisting. DRAS was an improvement over the risk assessment modeling performed for the original delisting (the OLM and VHS model) and combines several EPA models to estimate the potential impact associated with the disposal of waste on various assumed exposure pathways and to predict the risk associated with those releases using very conservative release and exposure assumptions as a measure of the potential impact on human health and the environment (more information about DRAS is provided in Appendix B). As inputs in making this calculation, the DRAS model uses the verification testing data and the supplemental totals data for inorganic constituents. DRAS also calculates leachate MACLs for the organic and inorganic constituents in the waste subject to the delisting using conservative health-based risk assumptions. These MACLs can be used as limiting conditions in the final delisting to ensure through a verification testing program that, once delisted, any waste which does not meet the MACLs is handled as hazardous waste.

Based on its evaluation of risk using the DRAS program and other factors, EPA concluded that the constituents in the verification testing results demonstrated that even at the higher annual volume of 2,000 cubic yards, the filter cake still satisfied the criteria used by EPA for delisting decisions. Accordingly, EPA amended WMDSPA's delisting to exclude an annual volume of 2,000 cubic yards of filter cake and correspondingly revised the MACLs for inorganic constituents and the MACLs for the organic constituents that are part of the delisting verification testing program to reflect the more conservative of the output of the DRAS program or toxicity characteristic regulatory levels for all of the constituents that were subject to the original delisting verification testing program.

The delisting amendment gave WMDSPA the option of determining whether the filter cake exceeds the MACLs for the organic constituents by either performing the Toxicity Characteristic Leaching Procedure ("TCLP") analysis on leachate of the filter cake waste material and comparing those results to MACLs calculated as TCLP concentrations for both or, for organics, performing total constituent analysis on the waste, and then comparing the results to MACLs for organic constituents derived from the TCLP MACL leachate concentration multiplied by a factor of 20.⁸ WMDSPA is required to and does submit this verification testing

⁸ As explained in the EPA proposed delisting (and in Appendix B to this delisting petition) to increase the volume from 1,000 to 2,000 cubic yards, under the TCLP testing procedure, the lowest theoretical concentration of a constituent in a particular waste that can result in a TCLP concentration would be the TCLP concentration multiplied by a factor of 20. This approach results in a very conservative MACL calculation. See 66 Fed. Reg. 38975.

data to EPA and the Pennsylvania Department of Environmental Protection ("PADEP") at the end of each calendar year (WMDSPA uses the totals analysis option for organic parameters).

If the verification sampling demonstrates that constituents in the filter cake do not exceed any of the MACLs, that filter cake is managed in accordance with all applicable solid waste regulations and disposed of in a RCRA Subtitle D (non-hazardous waste) landfill. Although it has never happened, if the sampling data demonstrated that the MACLs were not met, that filter cake would have to be retreated and re-sampled until it met the MACLs, or, in the alternative, the filter cake could be managed and disposed of in accordance with Subtitle C of RCRA in a hazardous waste landfill. In addition, any filter cake generated in excess of the volume established in the delisting must be managed and disposed of in accordance with Subtitle C of RCRA.

Request to Increase Delisting Volume

WMDSPA currently treats a mixture of hazardous and non-hazardous leachate amounting to approximately 80,000 to 100,000 gallons per day. The treatment process has not changed materially since the original delisting. The filter cake generated by the treatment process is collected in 20 cubic yard containers, and WMDSPA fills a container approximately every one to two days. WMDSPA performs verification testing on a composite sample of each four weeks of containers in accordance with the conditions of its existing delisting. Every composite sample collected since the initial delisting in 1991 has satisfied the verification testing procedure and, until WMDSPA exceeded the annual 2,000 cubic yard volume limitation on November 5, 2008, all filter cake was disposed of as non-hazardous waste in a PADEP-permitted RCRA Subtitle D landfill.

Pursuant to a Consent Order and Agreement that WMDSPA entered into with the Department in 2006, WMDSPA, which had formerly transported some of its non-hazardous leachate off-site for treatment, now treats all of its leachate at its on-site wastewater treatment plant, thereby increasing the volume of leachate treated and filter cake generated at the plant. Also in accordance with that Consent Order and Agreement, WMDSPA plans to construct a new wastewater treatment plant. The new treatment plant will expand WMDSPA's leachate treatment capacity, facilitate the separate treatment of the hazardous waste leachate generated from Old GROWS and thereby reduce the volume of F039 leachate attributable to the mixing in the wastewater treatment plant of the hazardous waste leachate from Old GROWS Landfill with the much greater volume of non-hazardous waste leachate from other sources. Until the new treatment plant begins to operate, however, WMDSPA will continue to generate additional quantities of filter cake and is requesting an increase to the annual volume limit established in its delisting from 2,000 cubic yards to 4,000 cubic yards to accommodate disposal of the increased volume of filter cake. Because the Commonwealth has now been authorized by EPA pursuant to RCRA to administer the Pennsylvania hazardous waste regulations, including any delisting of hazardous waste, this petition to amend the delisting is being submitted to the Environmental Quality Board.

In support of this petition, Appendix C contains three years worth (December 30, 2005, through December 1, 2008) of sampling data from WMDSPA's verification testing program.

This amounts to 41 rounds of sampling data for use in performing the DRAS modeling. In addition, consistent with its 2001 request to EPA to approve the increase in volume from 1,000 to 2,000 cubic yards, WMDSPA also collected four additional samples of the inorganic parameters listed in the verification testing requirements and had those analyzed for total constituents for use in the DRAS program.

Appendix B to this petition explains how WMDSPA ran the DRAS program using this data and Appendix D to this petition contains the results of the modeling of this data that WMDSPA performed using the DRAS program. Appendix D also contains the new MACLs, either those generated by DRAS or the TCLP toxicity characteristic regulatory level, whichever is more conservative, using the same approach used by EPA in the 2001 delisting amendment (and described in Appendix B) for inclusion in the verification testing program required as a condition of the delisting. A table containing the new MACLs and indicating whether each was generated by DRAS or the TCLP toxicity characteristic regulatory level is included as Appendix E. Based on the analysis provided in Appendix D and subject to compliance with the newly proposed MACLs, the increase from 2,000 to 4,000 cubic yards annually of delisted waste will continue to meet the health-based levels used by EPA for prior delisting decisions and should therefore be approved.

WMDSPA has included with its petition a proposed rulemaking in Appendix F which reflects the MACLs generated by the DRAS modeling. Under the rulemaking, WMDSPA would test and manage its waste in accordance with the conditions set forth in the delisting, including conditions specifying the sampling methodology and frequency, interim waste holding procedures, revised MACLs based on the increased volume that must be satisfied for verification testing and other conditions comparable to those contained in the 2001 EPA delisting. WMDSPA is requesting that the Environmental Quality Board amend the delisting by adopting this rulemaking to exclude an annual volume of 4,000 cubic yards of filter cake subject to these conditions, allowing such material to be disposed of as a non-hazardous waste at a Subtitle D landfill and providing that any material that does not meet the MACLs must either be retreated to meet the MACLs or disposed of as a hazardous waste at a Subtitle C landfill. Allowing WMDSPA to continue to dispose of the filter cake that meets the delisting conditions in a permitted Subtitle D landfill provides a cost-effective and environmentally responsible method of disposal for this non-hazardous waste.

Appendices

The following Appendices are attached hereto and are a part of this petition:

- A. Certification of Truth and Accuracy
- B. Delisting Risk Assessment Software ("DRAS") Program
- C1. Verification Sampling Data
- C2. Additional Inorganics Sampling Data
- D. DRAS Model Results
- E. Source of Delisting MACLs
- F. Suggested Regulatory Language
- G. Copies of Federal Register Notices for Existing Delisting

(Appendices available from the EQB upon request)