

Guidelines for Special Waste Disposal

A. Purpose

This guidance document identifies the procedures and information required to allow the disposal of special wastes at solid waste management facilities (SWMF) permitted under the Virginia Solid Waste Management Regulations (VR 672-20-10) (VSWMR). These guidelines are established in accordance with Part VIII of the VSWMR.

B. Applicability

1. It is the duty of all persons to dispose of their solid waste in a legal manner (Virginia Code ? 10.1-1418.1.A).
2. Nothing shall limit or affect the power of the Director, by his order, to prohibit the disposal of a waste at a facility, or to require special handling of a waste, if he determines that prohibition or special handling is necessary in order to protect public health or the environment (see VSWMR ? 8.0.A.2).
3. Any person who generates a solid waste shall determine if that waste is a hazardous waste. This waste characterization shall be done in accordance with ? 6.1 of the Virginia Hazardous Waste Management Regulations (VR 672-10-1) (VHWMR). Any special waste that is determined to be either a characteristic or listed hazardous waste, as defined by the VHWMR, must be managed in full accordance with the requirements of the VHWMR (see VSWMR ? 2.10.A.). Any solid waste generated in a state other than Virginia that is a hazardous waste in the state of generation, must be managed as a hazardous waste in the Commonwealth of Virginia unless the generator has successfully petitioned the Director of the Department to exclude such waste from classification as a hazardous waste (see VHWMR ? 14.1.B.5).
4. The permission to accept most wastes is either clearly specified within a SWMF's permit or clearly prohibited. However, there are many instances when a SWMF asks to receive solid waste that requires special handling and/or it is not clear whether a SWMF can accept

a particular waste. Under VSWMR ? 8.0:

"Facilities may receive solid waste that requires special handling for processing or disposal only with specific approval of the Director or by specific provisions within the facility permit . . . If it is not clear that a particular waste is within the authorized wastes that a permitted facility may receive, it is required that the operator receive a letter of clarification from the Department before receiving the waste."

5. The guidelines established in this document apply to any SWMF that receives special wastes, as defined in VSWMR Part I, and/or submits a request to the Department for approval of the storage, treatment, disposal, or other management of special wastes at the facility. The specific special wastes identified in VSWMR ?? 8.1 - 8.8 are not all inclusive but intended to provide instructions for the special waste most frequently managed at solid waste management facilities. Other special wastes such as discarded chemicals and pesticides not regulated as hazardous waste, oil spill clean-up materials, debris, and residues, hazardous materials incident site clean-up materials, debris, and residues, underground storage site residues from clean-up, pesticide containers, hazardous waste generated by conditionally exempt small quantity generators as defined by the hazardous waste regulations, low specific activity radioactive wastes, compressed gas cylinders, and contaminated food products and fabrics requiring supervised disposal are examples of the type of special waste for which approval by the Director would be required before a SWMF could receive and store, treat, dispose, or otherwise manage the waste material.
6. The disposal of soil contaminated with petroleum or petroleum products is covered by the specific standards outlined in VSWMR ? 8.7. Guidelines contained in this document serve to modify and clarify the testing requirements outlined in VSWMR ? 8.7.C. Requests for disposal of soil contaminated with only "virgin" petroleum and petroleum products from a known source do not need to be submitted to the Department for specific approval provided the soil is managed in accordance with VSWMR ? 8.7 and the applicable guidelines established in this guidance document.
7. This guidance document expands VSWMR ? 8.7 to include required information, testing requirements, waivers, disposal criteria, and exemptions for sludge, debris, and other solid waste contaminated only with petroleum products.
8. Friable and non-friable asbestos containing waste materials are covered by specific standards outlined in VSWMR ? 8.1. The management of these wastes are not included in this guidance document. Asbestos containing waste materials contaminated with additional

special wastes are covered by these guidelines.

9. Waste Tires are covered by specific standards outlined in the Guidelines for Storage and Treatment of Waste Tire Materials at SWMF's and other guidance documents developed by the Department. The management of these wastes are not included in this guidance document.

10. Any solid waste that is determined to be a regulated medical waste, as defined in the Regulated Medical Waste Management Regulations (VR 672-40-01) (RMWMR), must be managed and disposed of in accordance with the requirements of the RMWMR (see VSWMR ? 2.10.B).

C. Required Information

1. All special waste disposal requests received by the Department after the effective date of these guidelines **shall be submitted by a "certified" owner/operator of a permitted SWMF** and shall include Form SPSW-1, Form SPSW-2, and supporting documentation. Furthermore, the information on Form SPSW-2 **must be signed by the generator of the waste and notarized**. Certified means authorized by the Virginia Board of Waste Management Facility Operators to act as a waste management facility operator.

Form SPSW-3 must be included as part of the special waste disposal request if the waste has been managed in any way after generation, but before disposal, by a party other than the generator or disposal facility. However, Form SPSW-3 is not needed if that third party does no more than haul the waste directly from the generator to the disposal facility without treating the waste or mixing it with other materials, or allowing another party to do so.

Please note that these forms (SPSW-1, SPSW-2, SPSW-3) outline the minimum information that is needed to adequately document the generation, physical state, and composition of the material(s) proposed for disposal. Based on the information included in the forms, the Department should be able to determine the appropriateness of the disposal request; however, the Director or his designee may request additional supporting information.

Copies of these forms are included with these guidelines and are also available from the Virginia Department of Environmental Quality.

2. Supporting documentation which must be provided on Form SPSW-1 or its attachments, includes, but is not limited to the following items:
 - a. Proper identification of the facility including the location of the facility and the facility's address.
 - b. Information regarding the current compliance status of the facility. Non-compliance with the VSWMR may jeopardize approval of any special waste disposal requests submitted to the Department.
 - c. Certification from a "certified" operator of the SWMF that he has reviewed the information submitted by the generator and determined that the waste is not prohibited by the facility's permit or the VSWMR. The SWMF shall have a means for confirming that the waste received is only the waste described by the generator in the special waste disposal request.

3. Supporting documentation which must be provided on Form SPSW-2 or its attachments, includes, but is not limited to the following items:
 - a. A general description of the waste, including its physical form (e.g., solid, liquid, semisolid, gas).
 - b. The total amount of material(s) proposed for disposal. Indicate whether the disposal activity will occur as a single (one-time-only) event or over a period of time. If the special waste request is for disposal activity that is to occur over an extended period of time, then indicate the proposed frequency of disposal and the amount proposed for each waste shipment.
 - c. A complete and detailed description of the activities or processes from which the waste was generated. This information shall include a description of the specific waste source, a description of the treatment and/or handling of the waste from its point of generation to storage, process flow diagrams specifically addressing the waste stream(s), and a statement indicating whether the waste was formerly managed as a hazardous waste. Please note that the Department cannot protect proprietary information or trade secrets.

- d. A general description of the location at which the waste was generated.
 - e. A description of the manner in which the material is being transported for disposal (e.g., bulk containers, etc.). (See F.1.g. of these guidelines).
 - f. A description of all sampling and analysis protocols used to characterize the waste. Include copies of all sample/test results and quality assurance data. Please note that all sampling and analysis must be conducted according to applicable procedures outlined in EPA document SW-846 (Test Methods for Evaluating Solid Waste - Physical/Chemical Methods), as updated. Also, where appropriate (i.e. waste piles, lagoons, soil/sludge, drums, etc.) include a sample location map which specifically identifies where each grab and/or composite sample was collected. Please note that many waste characterization issues can be quickly addressed with an adequate sample location map.
 - g. Certification from the waste generator that the special waste proposed for disposal is not a listed or characteristic hazardous waste (See VHWMR ? 3.10 and VHWMR Appendix 3.1) or otherwise prohibited or restricted from disposal within a Virginia SWMF. If the special waste proposed for disposal is generated in a state other than Virginia, the generator must certify, in writing, that the waste is not regulated or considered as a hazardous waste within the state of origin, or that the Director has granted his petition for declassification as a hazardous waste pursuant to VHWMR ? 14.1.B.5.
4. Supporting documentation which must be provided on Form SPSW-3, includes, but is not limited to the following items:
 - a. A description of the management of the waste; and
 - b. Certification that the special waste has not been treated or mixed with other materials.
 5. A SWMF must reject the waste and notify the generator and the Department in writing if the special waste received at the facility does not conform to the information submitted on forms SPSW-2, SPSW-3 and other supporting documentation included with the special waste disposal request. In notifying the Department, the facility shall indicate the circumstances of the rejection, including any indications that the waste may be a hazardous waste subject to the VHWMR.

D. **Sampling Requirements**

The sampling protocol must conform to applicable procedures as contained in the EPA document SW-846. The number of samples to be collected from a given waste proposed for disposal must be sufficient to represent the average properties of the entire waste. If applicable, the number of samples must be collected over a period of time sufficient to represent variability of the waste stream.

Sampling strategies must comply with the following:

1. Each waste stream must be separately identified and characterized.
2. For homogeneous waste streams, a minimum of one representative composite sample, containing all constituents or compounds within each proposed waste stream, must be collected and analyzed.
3. For non-homogeneous waste streams, each non-homogeneous portion must be tested separately as a homogeneous waste stream. Examples of non-homogeneous waste streams include visibly different portions of a waste stream, mixtures of heterogeneous waste streams, or other cases when the generator knows, or should know, after diligent inquiry, that the waste will be non-homogeneous.

Sampling only areas of apparent lesser contamination is expressly prohibited as improper sampling.

4. For the disposal (i.e. landfilled or applied to the land as clean fill), of soil, debris, clean-up residues, dewatered/stabilized sludge, and other materials contaminated with only petroleum products, a minimum of one representative composite sample shall be collected and analyzed for TPH and the sum of benzene, toluene, ethylbenzene, and xylene (total BTEX) concentrations for every 100 cubic yards to be disposed, (this includes soil reclaimed by bioremediation). However, for requests involving greater than 1,000 cubic yards of material, a maximum number of samples to be collected shall be determined on a case-by-case basis by the Department. In the case of soil reclaimed by thermal treatment,

a minimum of one sample shall be analyzed for TPH for every production day composited hourly.

Waste characterization which is limited to TPH and total BTEX analysis, as described above, exclusively applies to soil and material contaminated with only "virgin" petroleum or petroleum products from a known source.

5. For the remediation, at a thermal treatment or bioremediation facility permitted under the VSWMR, of soil and dewatered/stabilized sludge contaminated with petroleum products there is no sampling or analysis requirement. This material may be received at the SWMF without sampling and analysis requirements from the Waste Division provided the soil or sludge is contaminated only with petroleum or petroleum products from a known source and the generator provides written certification that the soil or sludge to be remediated does not meet the definition of a hazardous waste according to 40 CFR Part 261 and the VHWMR. As stated in VHWMR ? 6.1, in determining whether a waste is a hazardous waste or not, a generator may apply his knowledge of the hazardous characteristics of the waste in light of the material or processes used, to certify within his knowledge after diligent inquiry, that hazardous waste constituents or characteristics are not present (or expected to be present) in the waste (see VHWMR 6.1.D).
6. For the remediation and/or disposal, as clean fill or at a SWMF permitted under the VSWMR, of soil, dewatered/stabilized sludge, debris, and other materials contaminated with other than only petroleum products the required information and testing requirements are as indicated in VSWMR ? 8.7.B and ? 8.7.C, respectively.

E. Analysis Requirements

The analysis protocol, for samples used to characterize the waste proposed for disposal, should conform to applicable procedures as contained in the EPA document SW-846.

Analysis strategies must comply with the following:

1. The parameters which shall be investigated, include but are not limited to, the following, as appropriate: RCRA hazardous waste characteristics (i.e., corrosivity, ignitability, reactivity, and toxicity); total metals; volatile organic compounds; semi-volatile compounds; total petroleum hydrocarbons (TPH), pesticides /herbicides; polychlorinated bi-phenyls (PCBs);

presence of liquids; and total organic halides (TOX)). These analyses should be performed according to an appropriate EPA document SW-846 analytical method. The Department will determine, on a case-by-case basis, which tests are appropriate.

TPH analysis by a method other than EPA Method 418.1 will be acceptable for soil contaminated with petroleum or petroleum products provided it can be demonstrated that the method chosen is appropriate for the type of contamination and the method chosen has been previously approved by the EPA and/or another regulatory agency within the Commonwealth of Virginia for TPH analysis of soil.

2. A comprehensive laboratory analysis of the special waste is not needed, in those instances where the process or the constituents contained, (and/or expected to be contained), within a waste stream indicates that the analysis for all constituents of the toxicity characteristic, or the analysis for other hazardous waste characteristics and/or constituents, is not warranted. The generator may apply his knowledge of the hazardous characteristics of the waste in light of the materials and the processes used, to certify, within his knowledge after diligent inquiry, that the constituents are not present, (or expected to be present) in the waste (See VHWMR ? 6.1.D). However, the Department may still require testing of the constituents if deemed appropriate.

Soil, sludge, debris, clean-up residual, or other material contaminated with only petroleum or petroleum products as a result of leakage from an underground or above ground storage tank used for the storage or transportation of only virgin product do not require TCLP or EP Tox analysis provided the generator certifies, in writing, that the soil does not meet the definition of a hazardous waste according to 40 CFR Part 261 and the VHWMR.

3. For wastes that are 100% solid as defined by the Toxicity Characteristic Leachate Procedure (TCLP), the maximum theoretical leachate concentration can be calculated by dividing the total concentration of the constituent by 20. The dilution factor of 20 reflects the liquid to solid ratio employed in the extraction procedure. This value then can be compared to the appropriate regulatory concentration. **If this value is below the regulatory concentration for the toxicity characteristic, the TCLP need not be performed.** Wastes that contain less than 0.5% dry solids do not require extraction. The waste, after filtration, is defined as the TCLP extract. The filtered extract is then analyzed and the resulting concentrations are compared directly to the appropriate regulatory concentration. See USEPA, Office of Solid Waste and Emergency Response, Memorandum #36, dated January 12, 1993, from Gail Hansen, Chief, Methods Section (OS-331).

F. **Prohibited Wastes**

1. The following wastes shall not be accepted by any Virginia Solid Waste Management Facility unless specifically allowed in the SWMF permit issued to the facility under the VSWMR:
 - a. Lead acid batteries, unless in accordance with VSWMR ? 8.8;
 - b. Wastes containing free liquids, unless in accordance with VSWMR ? 5.1.C.17;
 - c. Hazardous wastes that have not been separately approved by the Director pursuant to VSWMR ? 8.0.A.3 and VHWMR ?? 3.2 or 14.1.B.5;
 - d. Solid wastes, residues, or soils containing more than one part per billion (1 ppb) of dioxin. (Note: the term "dioxin" includes TCCD, HxCDDs, PCDDs, TCDFs, PCDFs, etc.);
 - e. Solid wastes, residues, or soils containing fifty parts per million (50 ppm) or more of polychlorinated bi-phenyls (PCBs). Wastes containing between 1 and 50 ppm PCBs are restricted to disposal in sanitary or industrial waste landfills with leachate collection, liners, and appropriate groundwater monitoring, as specified in VSWMR ? 8.2.B;
 - f. Un-stabilized sewage sludge or sludges that have not been de-watered;
 - g. Pesticide containers that have not been triple rinsed and crushed;
 - h. Drums that are not empty, properly cleaned, opened at both ends, and crushed;
 - i. Waste oil that has not been adequately adsorbed in the course of a site clean-up;
 - j. Contaminated soil unless approved by the Director in accordance with the requirements of VSWMR ? 8.7;

2. The disposal of wastes regulated by the Bureau of Alcohol, Tobacco, and Firearms, or the

U.S. Food and Drug Administration (such as pharmaceuticals or illicit narcotics) must conform to the requirements of those agencies as well as these guidelines.

G. **Criteria for Disposal Approval**

1. If the Director or his designee determines, upon review of the information provided, that the request is complete, that it meets the standards described herein, and that there is no cause to prohibit the disposal of the waste at the facility, the Director or his designee may approve the operator's request. When appropriate, the Director or his designee may approve the request with special conditions for the handling of the waste.
2. Bioremediation, thermal treatment, landfilling, and/or disposal as clean fill, of soil contaminated with only "virgin" petroleum or petroleum products from a known source do not require specific and separate approval from the Department provided the soil is managed in accordance with VSWMR § 8.7 and the applicable guidelines established in this guidance document.
3. If the Director or his designee determines, upon review of the information provided, that the request is incomplete, or that there is cause to deny the request, he will inform the requesting operator in writing. The operator may resubmit a request that has been determined to be incomplete by supplying a complete request.
4. Any action of the Director or his designee under this guidance document shall be taken in a timely manner.

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*NOTE: These Guidelines are subject to change and will be updated periodically as necessary.