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STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL  
DIVISION OF AIR AND WASTE MANAGEMENT  
391 LUKENS DRIVE  
NEW CASTLE, DELAWARE 19720-2774

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SEP 16 2003

SOLID & HAZARDOUS WASTE  
MANAGEMENT BRANCH

WASTE MANAGEMENT SECTION  
SITE INVESTIGATION &  
RESTORATION BRANCH

TELEPHONE: (302) 395-2600  
FAX: (302) 395-2601

September 15, 2003

Mr. Pasquale S. Canzano, P.E.  
Delaware Solid Waste Authority  
1128 S. Bradford Street  
P.O. Box 455  
Dover, Delaware 19903-0455

RE: Memorandum of Agreement

Dear Mr. Canzano:

Thank you for participating in developing procedures to implement the Memorandum of Agreement signed in November 2002 between the State of Delaware Department of Natural Resources and Environmental Control (DNREC), and the Delaware Solid Waste Authority (DSWA) pertaining to accepting non-hazardous HSCA site waste materials at DSWA facilities.

Please consider the attached documents which include the procedures, an example certification letter, and soil re-use table as final documents representing our staff's work efforts.

DNREC looks forward to implementing these procedures with the DSWA staff.

If you have any questions please call me at (302) 395-2642.

Sincerely,

  
Alex Rittberg  
Program Manager

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pc: Rick Watson, DSWA  
Jim Vescovi, DSWA  
Logan Miller, DSWA  
Robin Roddy, DSWA  
John Blevins, DNREC  
Nancy Marker, DNREC  
Jamie R utherford, DNREC  
Karen J'Anthony, DNREC  
Bob Hartman, DNREC  
Mike Apgar, DNREC

*Delaware's good nature depends on you!*

Example Letter of Certification

DSWA Facility Manager  
Delaware Solid Waste Authority  
Dover, Delaware

RE: Memorandum of Agreement

Dear Sir or Madam:

Pursuant to the Memorandum of Agreement dated November 2002 and associated procedures concerning the disposal, recycle, or re-use of non-hazardous waste from State lead Hazardous Substance Cleanup Act (HSCA) sites at Delaware Solid Waste Authority (DSWA), the Department of Natural Resources and Environmental Control (DNREC), certifies that acceptance of the State lead HSCA site waste materials described as (enter waste description and appropriate volume of waste) from the site known as (enter site name and number) as represented by the supporting documentation is in compliance with DSWA's permits issued by DNREC; and does not constitute "hazardous waste" as defined in 7 Del. Code Chapter 63, or the Delaware *Regulations Governing Hazardous Waste* (DRGHW).

Additionally, DNREC certifies that the acceptance of such State lead HSCA site waste materials as represented to DNREC and as described above are in compliance with the Delaware Regulations Governing Solid Waste, Subtitle D of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901, et. Seq., and any applicable land disposal regulations pursuant to part 268 of the DRGHW. DNREC will maintain the supporting analytical data in our files for further documentation.

***If the shipment involves soils the following language shall be added,*** "DNREC understands that (volume in cubic yards) of soils are being considered for re-use at the DSWA facility. DNREC-SIRB has screened these soils pursuant to our the MOA procedures and has determined, provided the soils meet the physical characteristics as required in DSWA's issued permits, that these soils can be: 1) re-used by the DSWA without restriction, 2) re-used by the DSWA in a restricted setting i.e. as daily cover over lined areas or as a roadway base material provided the material is covered with additional road building materials, or. 3) placed in a lined cell for disposal.

Upon receipt of an acceptance approval letter from the DSWA, DNREC-SIRB will contact the DSWA facility manager at least five (5) working days prior to the lawful transport of the waste material to the designated DSWA facility, to ensure that the DSWA is aware of the scheduled shipment, and any special matters related to the acceptance of the waste material can be arranged.

If you have any questions regarding this certification, please call Alex Rittberg at 302-395-2600.

Sincerely,

Alex Rittberg  
Environmental Program Manager  
DNREC-SIRB

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pc: Jamie Rutherford, Program Manager  
DNREC SIRB Project Manager  
DNREC SHWMB Project Officer

**State of Delaware Department of Natural Resources and Environmental Control (DNREC) and Delaware Solid Waste Authority (DSWA) procedures for determining if waste materials from State lead Hazardous Substance Cleanup Sites (HSCA) (see definition) are non-hazardous and can be accepted for disposal at the Delaware Solid Waste Authority Facilities.**

**Background:** A memorandum of agreement was entered into between DNREC and the DSWA in November 2002. This agreement requires that prior to DNREC's sending waste materials from state lead HSCA sites to the DSWA, DNREC provide DSWA with written certification addressing that:

- a. The acceptance of HSCA site waste materials is in compliance with DSWA's permits;
- b. Such HSCA site waste materials do not constitute a "hazardous waste" as defined in 7 Del. C. Chapter 63, or the Delaware *Regulations Governing Hazardous Waste* (DRGHW); and
- c. The acceptance of such HSCA site waste materials by DSWA is in compliance with Subtitle D of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901, and all applicable land disposal regulations per the DRGHW, part 268.

**Definitions:**

"STATE LEAD HSCA SITE": These include sites listed on DNREC's inventory of hazardous substance release sites that have been designated to be state lead, and do not have any current federal U.S. Environmental Protection Agency (USEPA) involvement. This will not include any site listed on the federal National Priority List or involved with USEPA's Emergency Removal Program. The DNREC inventory list will be reported to the DSWA on a semi-annual basis, in January and July of each year.

"WASTE THAT ARE DISPOSED OF AT THE DSWA LANDFILL FACILITIES": For the purpose of implementing the Memorandum of Agreement dated November 2002, this term applies to waste materials received from state lead HSCA sites destined for disposal, recycle, or reuse at a DSWA facility.

**Procedures:**

**Step 1:** Upon becoming aware that waste materials from a state lead HSCA site are being considered for disposal, recycle, or re-use at a DSWA facility, a DNREC-SIRB project manager will conduct a site visit, and visually inspect the waste materials being considered for disposal, recycle, or re-use at a DSWA facility. DNREC-SIRB will inform the DNREC Solid and Hazardous Waste Management Branch (DNREC-SHWMB) and the DSWA of the results of this visit and discuss the suitability of the waste material with regards to disposing, recycling, or re-using the waste material at a DSWA facility.

**Step 2:** If there is willingness on the part of the DSWA to accept the waste material in accordance with DSWA's policies and procedures, an approved HSCA consultant or DNREC-SIRB will prepare a waste characterization sampling and analysis plan as necessary. DNREC-SIRB will consult with the DNREC-SHWMB and DSWA concerning the requirements of the sampling and analysis plan. If sampling and analysis is required, then the analyses must be done by an approved HSCA laboratory using the Standard Operating Procedures for Analytical

Programs under HSCA. The information described in Attachment 1 shall be used as a guide in determining what generator information and chemical analysis shall be included in the sampling and analysis plan.

If the waste materials being considered for disposal are comprised of any of the below listed substances, analytical testing will generally not be required unless specifically requested by either DNREC or the DSWA:

- vegetative land clearing debris,
- wood stumps,
- tree limbs,
- non-creosote wooden structures from non industrial sources,
- steel structures,
- RCRA empty containers as described in the Delaware Regulations Governing Hazardous Waste (DRGHW) Section 261.7,
- tires clean of soil & not chipped,
- construction and demolition debris consisting of dry waste only, and free of lead paint, asbestos, fluorescent lamps, PCB ballasts, mercury switches, and essentially free of soil,
- asphalt and concrete not destined for recycling,
- municipal solid waste, and paper,
- non-contaminated soils (soils not impacted from a release of a hazardous substance or petroleum)

Waste materials that contain free liquids will not be considered for disposal at the DSWA facilities.

Petroleum contaminated soils from state lead HSCA sites shall not be considered for disposal at the DSWA facilities.

Asphalt and concrete waste material shall first be considered for recycling and re-use prior to being considered for disposal at the DSWA facility.

**Step 3:** DNREC-SIRB chemist shall review the validated data collected in Step 2 to determine if the chemical analysis performed and associated results are of sufficient quality to support disposal, recycle, or reuse decisions.

**Step 4:** A HSCA approved consultant or a DNREC- SIRB representative shall recommend whether the waste material is considered non-hazardous based on either knowledge that the waste material does not generally require testing as described in Step 2, or available data. If the waste material in question is soil, should the DSWA choose to use the soil, then analytical testing shall be performed to determine if the soil can be re-used at a DSWA facility. DNREC shall ensure the physical characteristics of any soils being recycled or re-used meet the requirements as established in its permits. Attachment 2 contains criteria that DNREC shall apply for making soil re-use decisions. DNREC-SIRB shall coordinate with DNREC-SHWMB when making soil re-use decisions, and inform the DSWA of appropriate soil re-use in the certification letter described below.

**Step 5:** If the waste materials are determined non-hazardous and permitted for disposal, recycle, or re-use at a DSWA facility, DNREC-SIRB shall prepare, sign, and forward a letter to DSWA, certifying DNREC's decision concerning the waste materials. The letter shall include all necessary documentation. If soils are involved, DNREC-SIRB will include instructions about appropriate re-use at a DSWA facility as discussed in step 4.

**Step 6:** DSWA shall issue an approval letter to DNREC-SIRB pursuant to the special waste policy referenced in their solid waste permit. Upon receipt of this approval letter, DNREC-SIRB shall notify the DSWA concerning the shipping schedule, and to coordinate any other issues associated with the receipt of the waste material. This notification shall take place at least five (5) business days prior to the waste material being lawfully transported to the DSWA facility.

**Step 7:** An approved HSCA consultant or DNREC-SIRB shall oversee the loading of the waste material at the state lead HSCA site. A copy of the DSWA issued approval letter shall accompany each shipment of the waste material to DSWA.

Attachment 1

Guideline for information and required analysis to determine if HSCA site waste material is non-hazardous waste.

**I. Generator Information:**

Site Name:  
State ID Number  
USEPA ID Number (If applicable)  
Site Location and Address:  
Site Point of Contact Name, Address, Phone, Email

**II. General Waste Information:**

Name of Waste  
Process Generating Waste

**III. Estimated Volume:**

Description of Waste, and Estimated Volume  
Estimated Volume per shipment, if multiple shipments needed

**IV. Waste Stream Composition**

Major Components and concentration (ppm) or wt percentage  
This will include a summary of any total concentrations data resulting from representative sampling of the waste material if determined required, or is available.

**V. Related Hazardous Waste Codes and Petroleum Contaminated Soil Issues**

a. Is the waste material a petroleum contaminated soil? YES NO

If the waste material is petroleum contaminated soil cannot be accepted at the DSWA.

b. Are there any RCRA Hazardous Waste Codes associated with the waste material?

YES NO

If there are any RCRA Hazardous Waste Codes associated with the waste material then the waste material shall not be considered for disposal or re-use at a DSWA facility. Please note that characteristic wastes (D-code wastes) may be rendered non-hazardous after on-site treatment. These wastes must however, meet the requirements of the land disposal restrictions, including completion and submission of the notification/certification requirements pursuant to the DRGHW part 268. If this condition is met, they may be considered for disposal and re-use.

c. Does the waste material contain a hazardous waste (F, K, U, or P listed) as defined by 40 CFR 261 Subpart D? YES NO

(This question shall be answered based on waste stream composition information described in Attachment I, Section IV. If the waste material contains a listed hazardous waste, then the waste material is considered hazardous and shall not be considered for disposal, re-use, or recycle at a DSWA facility. If the waste material does not contain a hazardous waste, proceed with following this guideline.

**VI. If the total concentration of the chemicals listed in Table 1 of Section 261.24 of the DRGHW exceed their given regulatory limits then the toxicity characteristic leaching procedure should be performed on a representative sample of the waste material, to ensure the soil is not considered hazardous waste.**

**VII. If any of the following chemicals of concern are found in the waste material above regulatory levels or levels otherwise prohibited by current permit conditions, DNREC shall not approve the material for disposal, recycle, or re-use at a DSWA facility. .**

- a. Asbestos, visual and sampling
- b. Infectious/Medical Wastes, visual and sampling
- c. Dioxins, analytical testing
- d. Mercaptans, analytical testing
- e. Human/Animal Wastes, visual
- f. PCBs (>50 ppm at the source), analytical testing
- g. Pesticides/Herbicides/Insecticides, analytical testing
- h. Used Oil, visual, analytical testing
- i. Petroleum contaminated soils, analytical testing
- j. Radioactive material, analytical testing
- k. Cyanides, analytical testing
- l. Reactive Sulfides, analytical testing

**VIII: If there is justification, then the waste material shall be tested for the following properties:**

- |              |                             |
|--------------|-----------------------------|
| a. Explosive | b. Liquid Present in Phases |
| c. Oxidizer  | d. Water miscible           |
| e. pH Range  | f. Odor                     |
| g. Color     | h. Flashpoint               |

### **IX. Representative Sample Certification**

- a. Sample source Sample date
- b. Sampler name Title
- c. Sampler employer (if other than generator):
- d. Sampler signature

**Attachment 2**  
**SIRB PRESUMPTIVE SOIL RE-USE GUIDELINES**  
**FOR RE-USE AT THE DSWA FACILITIES**

Soil Category	A	B	C
Type of Use	<p>Unlimited re-use at a DSWA facility provided the soils meet the physical characteristics as required in DSWA's issued permits.</p>	<p>Limited re-use provided the soils meet the physical characteristics as required in DSWA's issued permits. Re-use may include cover over lined areas or use as roadway base material provided the roadway is covered with other road construction material. This material can not be used for cover on outside slopes of the landfill.</p>	<p>Soils that must be disposed of in a lined cell.</p>
	<p>Soils that have representative concentrations of organic chemicals that are below unrestricted use URS concentrations for a non-critical water resource area for each chemical detected</p> <p>Soils that have representative concentrations of inorganic (metals) less than the State of Delaware default background standard if the background standard is greater than the unrestricted URS value.</p>	<p>Soils that have representative concentrations of organic chemicals above unrestricted URS concentrations for a non-critical water resource area but below restricted use URS concentrations</p> <p>Soils that have representative concentrations of inorganic (metals) less than the State of Delaware default background standard if the background standard is greater than the restricted use URS value.</p>	<p>Soils that have representative concentrations of organic chemicals above the URS concentrations listed for restricted use in a non-critical water resource area</p> <p>Soils that have representative concentrations of inorganic (metals) greater than the State of Delaware default background standard if background standard is greater than the restricted use URS value.</p>

URS Refers to the Uniform Risk Based Standard found in Remediation Standards Guidance Under the Delaware Hazardous Substance Cleanup Act (December 1999)

UCL Refers to upper confidence limit

MEMORANDUM OF AGREEMENT

BETWEEN THE

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL

---

CONTROL and THE DELAWARE SOLID WASTE AUTHORITY

WHEREAS, the Delaware Department of Natural Resources and Environmental Control (“DNREC”) administers the Hazardous Substance Cleanup Act, 7 Del. C. Chapter 91 (“HSCA”);

WHEREAS, DNREC performs, or oversees the performance of, investigations and cleanups of hazardous substance release sites in Delaware pursuant to HSCA;

WHEREAS, non-hazardous waste materials are often generated during cleanup of HSCA sites (hereinafter “HSCA site waste materials”) which need to be disposed at a permitted landfill facility;

WHEREAS, there are currently no facilities located in the State of Delaware which accept HSCA site waste materials;

WHEREAS, transporting HSCA site waste materials to disposal facilities in other states adds unnecessary costs to cleanups conducted at HSCA sites;

WHEREAS, in order to reduce the costs of cleanups at HSCA sites, DNREC desires to send such waste materials to landfill facilities operated by the Delaware Solid Waste Authority (“DSWA”) for disposal;

NOW, THEREFOR, the parties agree as follows:

---

1. With respect to all HSCA site waste materials which are to be disposed of at DSWA landfill facilities, DNREC will ensure that such waste materials are in compliance with all applicable statutory requirements, rules and regulations, and permit conditions regarding waste characterization and other land disposal requirements.
  
2. Prior to any HSCA site waste materials being sent to any DSWA landfill facility, DNREC will provide DSWA with written certification that:
  - a. The acceptance of such HSCA site waste materials is in compliance with DSWA's permits;
  
  - b. Such HSCA site waste materials do not constitute a "hazardous waste" as defined in 7 Del. C. Chapter 63, or the Delaware Regulations Governing Hazardous Waste; and
  
  - c. The acceptance of such HSCA site waste materials by DSWA is in compliance with Subtitle D of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901, et. seq., and any applicable land disposal regulations.
  
3. Provided that DNREC issues the certification required by paragraph 2, above, DSWA will accept HSCA site waste materials for disposal at its landfill facilities.

4. DSWA agrees to take any necessary action, including possible modifications to its regulations or other special waste policies, in order to allow DSWA to accept HSCA site waste materials in accordance with the provisions of this Memorandum of Agreement.

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5. If DSWA accepts HSCA site waste materials for disposal after DNREC has issued the certification required by paragraph 2, above, DNREC agrees that:

- a. Such acceptance by DSWA is in compliance with applicable statutory, regulatory and DSWA permit requirements, and that said disposal does not pose an unacceptable risk to public health or the environment; and
- b. DSWA shall not, by virtue of such acceptance and disposal, of DNREC certified waste materials be required to bear the cost of complying with any requirement resulting from a failure of DNREC to properly certify the waste materials, any such cost to be the responsibility of DNREC. DSWA shall bear the burden of proving that DNREC's failure to properly certify waste materials has caused the need to incur such compliance costs.
- c. DNREC covenants not to sue DSWA for acceptance and disposal of HSCA site waste materials at its landfill facilities, provided DSWA utilizes standard disposal practices as required by applicable statutory, regulatory and DSWA permit requirements.
- d. In the event that DSWA's disposal of HSCA site waste materials is not in compliance with applicable statutes, regulations and DSWA permits, DNREC agrees that the mere fact that DSWA accepted and disposed of HSCA site waste materials at its landfill facilities will not, in and of itself, cause DNREC to take enforcement action, if any, pursuant to 7 Del. C. Chapters 63 or 91.

6. DSWA agrees that the acceptance and disposal of HSCA site waste materials at its landfill facilities does not relieve DSWA of the requirement to comply with all applicable statutory, regulatory and DSWA permit requirements in the management, handling, storage, treatment or disposal of said waste materials.

7. DSWA will report to DNREC, on an annual basis, the amount (in tons) of HSCA site waste material it has received and disposed at its landfill facilities.

IN WITNESS WHEREOF, the parties enter into this Memorandum of Agreement this \_\_\_\_ day of November 2002.

DNREC

BY: \_\_\_\_\_

John A. Hughes  
Secretary

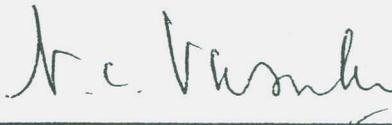


11/8/02

DSWA

BY: \_\_\_\_\_

N.C. Vasuki  
P.E., DEE, CEO



11-15-02