



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

November 24, 2009

Mr. John Peterka
Heritage-WTI, Inc.
1250 St. George Street
East Liverpool, OH 43920

**RE: HERITAGE-WTI, INC., COLUMBIANA COUNTY, OHD 980 613 541
HWFB NO. 02-15-0589, LABORATORY COMPLIANCE EVALUATION INSPECTION
NOTICE OF VIOLATION/PARTIAL RETURN TO COMPLIANCE**

Dear Mr. Peterka:

On September 28, 2009, the Ohio Environmental Protection Agency (Ohio EPA) conducted a compliance evaluation inspection of the Heritage - WTI, (WTI) Inc., facility in East Liverpool, Ohio. Specifically, Ohio EPA inspectors, Eric Schultz and Erik Hagen, Division of Hazardous Waste Management (DHW), Central Office (CO), reviewed the sampling, procedures, and operations performed by the WTI on-site laboratory. Mr. Bill Lutz, DHW, Northeast District Office (NEDO) and I accompanied Mr. Schultz and Mr. Hagen during the lab inspection. WTI was represented by Mr. Don Venturini, Manager, WTI laboratory and Ms. Carrie Beringer, Manager, WTI Environmental, Health, and Safety Department.

The purpose of the review was to examine the degree of consistency between the facility's Waste Analysis Plan (WAP) as found in Section C, Waste Characteristics and Waste Analysis Plan, of the Part B permit application and the actual sampling and analytical practices being conducted by the facility; for example, analytical procedures used to characterize waste, corrosivity, flashpoint, and toxic characteristic leaching procedure (TCLP) testing. The general findings and recommendations are presented in the following sections.

Ohio EPA observed the following violations. Please submit all information requested **within 30 days of the date of this letter**.

I. Waste Sampling

Heritage-WTI, Inc. receives a wide range of wastes from a large universe of generators in a variety of containers. Upon receipt at the facility, the waste is evaluated (typically through fingerprint analyses) to determine whether it is consistent with its waste stream profile (what was expected). The fingerprinting protocol utilized is determined by the waste's physical/chemical composition in accordance with procedures described in the WAP. Ohio EPA observed the sampling and fingerprint procedures for a bulk solid waste and a bulk liquid waste stream.

The bulk solid waste stream was a heterogeneous mixture contained within a forty (40) cubic yard end dump trailer. WTI personnel used a platform located adjacent to the end dump to collect a sample for fingerprint analysis. Three or four individual items were taken directly from the top of the solid waste for the composite sample. No attempt was made sample below the surface, or to randomly accumulate a large volume of material and then collect a composite sample from this. After the sample was collected, WTI personnel conducted a visual examination of the bulk solid waste as it was off-loaded into the bulk solid waste storage tank. This effort is made in an attempt to identify the presence of prohibited materials.

Bulk liquid waste samples were taken from a tanker using a coliwasa. The coliwasa bisects the waste from top to bottom which assures that a representative sample is acquired. A one liter sub-sample was taken from the coliwasa for fingerprinting analyses. The procedure for sub-sampling a multiphase waste was not clearly presented by the facility representative. Although procedures observed were consistent with language in the WAP, it was not clear to Ohio EPA whether the composite of the properties are used to fingerprint the waste or whether each phase's fingerprint properties are used. **Please provide clarification to address this issue.**

1. Violation:

Observations of bulk solid waste sampling revealed no attempt to take samples below the surface or to collect a large volume of waste material (e.g., in a pail) from which a composite sample could be taken for analysis. The sampling procedure observed was not in accordance with the WAP, pages C-113 and C-114.

Citation: OAC Rule 3745-54-13 (B)(3) and Permit Condition B.3.(b) General Waste Analysis Plan.

(a) OAC Rule 3745-54-13 (B)(3) states, "The WAP plan must specify the sampling method used to obtain a representative sample of waste to be analyzed."

(b) Permit Condition B.3.(b) states the Permittee shall follow the procedures described in the approved waste analysis plan found in Section C of the approved part B permit application.

Actions to be taken:

(1) Ohio EPA is requesting WTI review the sampling procedure in the WAP describing the steps to be taken when sampling a bulk solid waste stream, and either: (a) collect representative samples from containers of bulk solid waste in accordance with procedures described in the WAP and provide verification documentation to that effect, or (b) provide a new sampling plan for Ohio EPA's review and subsequent submission as a permit modification.

(2) Regarding the action taken by WTI during the off-loading of bulk solid waste to the bulk solid waste storage tank, i.e., scanning the waste for prohibited materials; this step is not described in the facility's WAP. **Ohio EPA suggests WTI include language describing this step and the subsequent actions to be taken when prohibited materials are observed, in the bulk solid waste sampling procedure (SOP) found in the WAP.**

(3) Please provide the requested clarification regarding bulk liquid waste sampling procedures.

II. Analytical Procedures

Heritage-WTI, Inc. (WTI) receives a wide range of waste as permitted in the facility's Part A permit application and further defined and described in the WAP. In accordance with the WAP, analytical procedures are performed on waste generated off-site prior to acceptance (pre-acceptance analysis) at the facility to ensure the waste can be safely managed and treated. As described in **I. Waste Sampling**, above, fingerprint analysis are performed upon receipt at the facility to determine consistency with the waste stream profile. Supplemental analytical procedures, as described in the WAP, are conducted when necessary. As part of the laboratory inspection, Ohio EPA reviewed and observed analytical procedures being conducted.

WTI was found to be adequately performing the required fingerprinting procedures. The laboratory

instruments are set up to have data hand entered into a laboratory information management system (LIMS), which stores data results, analytical test preparation information, and quality control information. Ohio EPA did not observe lab personnel conducting redundant checks on data quality; and a procedure to find data entry errors was not in place. These types of good lab practice, while desirable, are not requirements of the facility's permit. In general, the laboratory appeared to be well organized, carefully managed, and staffed with knowledgeable personnel.

Ohio EPA review also included the examination of analytical methods used in the determination of hazardous waste characteristics. In some instances, WTI will conduct testing to profile a waste stream for a client; in others, to determine whether compliance with land disposal restrictions (LDR) have been met for incinerator treatment residue (ash and slag) generated by the facility. These tests are held to a different standard than fingerprint analyses; the tests are incorporated into the hazardous waste rules and must be performed exactly as stated in the analytical method.

2. Violation:

During the lab inspection, it was determined Method 1311, toxicity characteristic leaching procedure (TCLP), was not being followed as written in SW-846. WTI conducts TCLP on the incineration treatment residue to determine if the wastes are characteristically hazardous (OAC Rule 3745-51-24) or if LDR standards have been met and further treatment is not necessary. Ohio EPA found WTI to be compliant with most aspects of Method 1311; however, Ohio EPA noted that size reduction (which may be required for analysis of slag waste and/or other materials/particles ≥ 1 cm in size) was not being performed. In addition, WTI was not performing the pre-test TCLP extraction fluid type determination as written in Method 1311. The discrepancies were discussed with facility personnel and WTI agreed to alter their procedure immediately to reflect the requirements as found in SW-846, Method 1311.

Citation: OAC Rule 3745-270-07(A)(1) and Permit Condition B.3.(b) General Waste Analysis Plan

(a) OAC Rule 3745-270-07(A)(1)(a) states, "A generator of a hazardous waste must determine if the waste has to be treated before it can be land disposed. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S.EPA publication SW-846."

(b) Permit Condition B.3.(b) states the Permittee shall follow the procedures described in the approved waste analysis plan (WAP) found in Section C of the approved part B permit application and...At a minimum, the Permittee shall...use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations.

Actions to be taken:

Please provide documentation of retraining for lab personnel and arrange a time when Ohio EPA can observe the size reduction procedure and the pre-test TCLP extraction fluid type determination as written in Method 1311.

III. WAP Procedures

WTI management can identify who collected a particular waste sample via a bar code on the printed waste sample label affixed to the waste received on-site. There are instances, however, when a sample label is not printed, such as when slag and ash are sampled or if additional samples of a particular waste are required by the lab. According to the WAP, pages C-117 and C-118, when sample labels are not automatically printed by the computer system, the sample label will need to be filled out by WTI personnel to prevent misidentification of samples. The information to be included on the sample container is (1) Waste Name, (2) Tank or Container ID, (3) Date and Time, and (4) Initials of the person taking the sample.

3. Violation:

Ohio EPA on-site inspectors have observed slag in sample jars with only the word "slag" printed on it. Ohio EPA inspectors have also observed waste samples, requested by the lab, without a printed label and without any identifying information, e.g., sampler's initials, waste name, container or tank ID, etc.

Citation: OAC Rule 3745-54-13 (B) and Permit Condition A.12(b).

(a) OAC Rule 3745-54-13 (B) states, "The owner operator must develop and follow a written waste analysis plan (WAP)".

(b) Permit Condition A.12(b), Sampling/Monitoring Recordkeeping Requirements, requires the Permittee's records of monitoring information specify the individual(s) who perform sampling or measurements.

Actions to be taken:

Please describe actions that have been taken to assure WTI personnel are following procedures as described in the WAP with regard to including the required information on sample containers that do not have printed labels.

IV. Comments and Recommendations

The Ohio EPA noted several analytical procedures and/or practices that may benefit from the following recommendations. These recommendations should not be considered requirements.

- 1) Waste compatibility tests should use consistent waste to reagent ratios.
- 2) Temperature evaluation for waste compatibility testing is not rigorous. Temperature may increase rapidly or may slowly rise over time; Ohio EPA suggests standardizing the length of time between mixing of reagent with waste and the subsequent temperature evaluation.
- 3) Temperature evaluation in compatibility testing is made by "feel"; basically, using touch to determine whether a reaction is occurring. Ohio EPA suggests standardizing/quantifying the evaluation by using a fast response thermocouple or an infra-red (IR) temperature probe.
- 4) It should be noted that when conducting TCLP testing for compliance purposes, a matrix spike must be analyzed in every batch of TCLP extract. Metals recovery should be 50% or greater; in the event recovery levels are below 50% and metal concentrations are within 20% of the regulatory level, Method of Standard Additions (SW-846 Method 1311, section 8.4.2) must be utilized.
- 5) Log book entries should be made for TCLP tumbling start and stop date(s) and times.
- 6) Log book entries should record TCLP extraction fluid pH as evaluated just before fluid is added to the tumbling container.
- 7) Log book should record pH buffer information.

Please provide an update with regard to the above list of recommendations at the next WTI - Ohio EPA monthly meeting. If you have any questions, do not hesitate to contact me at the East Liverpool field office, (330) 385-8447; or Ms. Michelle Tarka, (330) 385-8421; or Mr. Frank Popotnik at the Northeast District Office, (330) 963-1198.

Sincerely,



Patricia Natali
Environmental Specialist
Division of Hazardous Waste Management

PN:ddw

cc: Natalie Oryshkewych, DHWM, NEDO
Michelle Tarka, DHWM, NEDO
Frank Popotnik, DHWM, NEDO
Harry Sarvis, DHWM, CO
William D'Amico, USEPA, Region V
Kristina Durnell, DHWM, CO
Carrie Beringer, VRA
Marlene Kinney, DHWM, NEDO
Pam Korenewych, DAPC, NEDO

NOTICE:

Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve WTI from the responsibility of complying with all applicable hazardous waste regulations. This letter does not relieve WTI from liability for any past or present violations of the state's hazardous waste laws.

