

Attachment IV



Waste Analysis Plan

**Specification Used Oil Fuel Sampling, Analysis
and Acceptance Procedures**

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1. Introduction

The purpose of this Waste Analysis Plan (WAP) is to document the required sampling/ and analytical methods as well as the quality control/quality assurance (QA/QC) protocols that are used to ensure that NewStream's Specification of Used Oil Fuel (SUOF) recovery process operates within the conditions of the Class B(3) recycling permit.

This Plan is used for the dissemination of information between regulatory agencies, facility operations personnel, and NewStream compliance and technical staff.

NewStream will utilize a Massachusetts certified laboratory for all chemical analyses related to its SUOF prior to marketing the fuel. The SUOF sampling and analytical methods will be identical to, or consistent with, those applicable methods described in SW-846 "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*". Each parameter and its applicable analytical method are provided in the certified laboratory's Quality Assurance and Quality Control (QA/QC) Plan. All sampling procedures are designed and performed in a manner to ensure that samples are representative of the bulk waste from which they are taken.

The following sections describe NewStream's Pre-Acceptance, Acceptance and Marketing procedures with respect to sampling and analysis and QA/QC.

As recommended by the Department, this plan includes the generator and transporter requirements (which NewStream verifies compliance with as part of its pre-acceptance procedures).

2. Generator Requirements

Only pre-approved shipments of specification used oil fuel (SUOF) are received at NewStream. Prior to authorizing a generator to send SUOF to its facility, NewStream requires the generator to submit a certified Waste Profile Form (WPF) along with a copy of the analytical results verifying that the shipment meets the specifications set forth in Table 1 of 310 CMR 30.216.

NewStream maintains a WPF certified by each new generator. The WPF includes a description of the process generating the SUOF, the analytical results of a representative sample analyzed by the laboratory, and a signature certification by the generator attesting that this information is accurate.

All generators are required to submit a new WPF whenever the process generating the oil changes, or whenever the evaluation of the analytical results indicates that the process has changed. In the event that a process has not changed, NewStream will nevertheless obtain an annual certification from each generator that the incoming SUOF has not changed and remains as described in the WPF.

If the used oil is from a spill of virgin oil only, then a MA-certified Licensed Site Professional (LSP) certification shall be used in lieu of the analytical testing. If the analytical information is not provided by the generator, then NewStream will be responsible for obtaining the analysis of a representative sample from a laboratory as a pre-acceptance condition.

The used oil shall be analyzed for, and must be within, the allowable levels of the parameters listed in Table 1 of 310 CMR 30.216, as set forth below to assure that it meets those specification used oil fuel criteria.

TABLE 1
Specification Used Oil Fuel Parameters

Constituent or Property	Allowable Level	Test Method SW-846
Arsenic	5 ppm maximum	6010B
Cadmium	2 ppm maximum	6010B
Chromium	10 ppm maximum	6010B
Lead	100 ppm maximum	6010B
Flash Point	100° F minimum	1010A
Total Halogens	4,000 ppm maximum	9076

Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste. NewStream and/or the generator may rebut this presumption by demonstrating that the SUOF does not contain hazardous waste by using an analytical method from SW-846. Specifically, the ten common SW-846 methods in the 5000, 8000, and 9000 series that may be used to test used oil for halogens are summarized in “SW-846 Methods for Determining Chlorine and Other Halogens in Used Oil” (http://www.epa.gov/epawaste/hazard/testmethods/faq/faqs_uoil.htm). If total halogens are determined to be in the range of 1,000-4,000 ppm, a "rebuttable presumption" test will be conducted pursuant to 310 CMR 30.215(b) to confirm that the oil does not contain halogenated hazardous wastes.

3. Transporter Requirements

After completing all pre-approval procedures, SUOF may be shipped to NewStream on a bill of lading or a uniform hazardous waste manifest.

Every transporter delivering SUOF to NewStream must be a MA-licensed hazardous waste transporter and must have notified as a marketer of SUOF.

Prior to loading its vehicle with the SUOF from the generator, the transporter will perform a field-screening Chlor-D-Tect (or equivalent) and provide the documentation to NewStream for review prior to off-loading.

The vehicle may be off-loaded at NewStream only after verification of analytical results, review of the results of the Chlor-D-Tect test (or equivalent) performed by the transporter, verification of the accuracy of the BOL or manifest information, and confirmation that the SUOF on the vehicle matches the information previously submitted in the Waste Profile Form.

4. Pre-Acceptance Procedures

All incoming specification used oil fuel (SUOF) undergoes an initial characterization prior to shipment in accordance with 310 CMR 30.216, Table 1 parameters analyzed in accordance with SW-846 "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*".

Once the generator provides the analytical results, NewStream verifies the Waste Profile Form ("WPF") certified by the generator for each new shipment of SUOF that is proposed for delivery to the facility. Analytical results reflect any contaminants that may be present in the used oil. Specifically, all incoming oil is pre-screened by the laboratory for arsenic, cadmium, chromium, lead, total halogens and flashpoint. Outgoing SUOF marketed by NewStream will be additionally tested for PCBs, as described in Section 6 of this Waste Analysis Plan.

The laboratory results will be presented with a WPF certification from the generator prior to NewStream approving any incoming shipments. The frequency with which an initial analysis is repeated or reviewed (to ensure that it is accurate) is based upon either (1) a reason to believe that the process generating the oil has changed or (2) if the shipment does not match the waste description on the WPF. In any event, NewStream will nevertheless obtain a Certification Statement from the generator once a year stating that the information in the WPF and the source of the SUOF remains unchanged.

The screening criteria listed above are conducted for each shipment of oil prior to acceptance at NewStream.

5. Acceptance Procedures

Only used oil that has met the criteria of MA97 Specification Used Oil Fuel (SUOF) shall be accepted at NewStream.

NewStream personnel perform a preliminary visual inspection of the SUOF contained on the truck.

NewStream verifies that each transporter delivering SUOF to the facility is a MA-licensed hazardous waste transporter that has notified as a marketer of SUOF.

The vehicle may be off-loaded at NewStream only after verification of the following: analytical results for Table 1 parameters, results of Chlor-D-Tect test (or equivalent) performed by the transporter, accuracy of the BOL or manifest information, material shipped matches the information previously submitted in the Waste Profile Form.

After corroborating that the incoming load matches the WPF, NewStream personnel visually inspect a sample taken from each load at time of delivery.

Quality control samples (i.e., duplicate samples retained at the facility) are taken from each incoming shipment. These “retain” samples are maintained at NewStream pending ultimate disposition of all incoming and outgoing SUOF. Using representative sampling techniques, NewStream personnel obtain a retain sample and complete a chain of custody form for each incoming SUOF shipment.

NewStream maintains custody of the retain sample, using chain of custody procedures, until such time that the particular incoming SUOF has been sampled and analyzed by a MA-certified lab prior to being marketed by NewStream. In other words, retain samples shall be kept at the facility until such time as the SUOF batch has met the pre-marketing criteria. The following information shall be written on the label of the retain sample: Generator Name; Generator Address and Date of Shipment to NewStream.

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5.1 Sampling Procedure

Bulk shipments of SUOF are sampled using the procedure outlined below.

- Donning the proper level of protective equipment (e.g., gloves and safety glasses), ascend the access to the bulk tank or tank truck.
- Confirm with the driver of the vehicle that the pressure or vacuum has been relieved from the vessel.
- After confirmation from driver, continue to slowly release hatch levers until the hatch can be safely opened. Use extreme care in opening sampling hatch.
- Lower the sampler into the tank and obtain a representative sample of the bulk load.
- Secure the cap on the sample jar and label the sample jars. The retain sample shall indicate the name and address of the generator and the date of shipment.
- Clean sampler. Wipe clean sampler and place wipes into plastic bag or drum used to store waste sampling equipment for appropriate disposal.

5.2 Sample Containers

All sample containers used at NewStream are wide-mouth, clear glass or polyethylene jars with lined screw caps. Glass jars allow visual inspection for stratification, any free water and solid impurities that may be present. All samples are transferred from the sampling apparatus to the sample container immediately, and with as little agitation as possible.

5.3 Sample Retention

All samples collected are retained at the facility until after the waste shipment has been processed, and for a minimum of sixty (60) days. Samples are kept safely in a cool, dry, secure storage area. If analysis of the oil indicates that it is off-specification, retained samples will be systematically analyzed to determine the source of the contaminant.

5.4 Rejected Load Procedures

If a discrepancy is discovered, NewStream personnel will reject the shipment of oil and contact the generator to document the rejection of an off-spec shipment.

If a load does not meet the requirements for acceptance and off-loading, the load shall be rejected.

Information regarding any rejected loads (transporter, generator, volume, waste characteristics, paperwork, etc.) shall be documented and recorded in daily operating logs kept on file at the facility.

6. Marketing Procedures

In preparation for marketing specification used oil fuel, NewStream personnel shall sample each batch in accordance with the representative sampling procedures outlined previously and shall submit the samples to a MA-certified laboratory for analysis.

All parameters set forth in Table 1 of 310 CMR 30.216, and also PCBs, shall be analyzed. If used oil fuel does not exceed the allowable level of any constituent set forth in Table 1 (310 CMR 30.216) and does not exceed 2 ppm PCBs, such used oil fuel is specification used oil fuel and may be marketed by NewStream.

NewStream shall obtain a “retain” sample on each batch of SUOF it intends to market and keep it onsite in accordance with the chain of custody procedures. The chain of custody documents when a sample was taken, by whom, how it was preserved and which analyses are to be performed by the laboratory. The chain of custody form, along with the sample, is relinquished from sampling personnel and tracks possession of the sample until it reaches the lab. The retain sample shall be labeled with the batch number, the date and time.

NewStream accepts full responsibility for determining the quality of the SUOF prior to marketing. The outgoing batches of SUOF are sampled and analyzed for arsenic, cadmium, chromium, lead, PCBs, total halogens/F-listed compounds and flash point (SW-846, Test Methods 6010B, 1010A and 9076). When the designated tank is full and its contents ready for marketing, the oil is analyzed to verify that it meets the specifications. A batch number is assigned.

The SUOF storage tank is sealed when filled, and no new used oil added during the period the tank contents are being marketed, then NewStream may take one representative sample from the tank and use the data from that sample as load-by-load documentation until the contents are emptied.

NewStream shall include with each shipment analytical results from a MA-certified lab along with the manifest or BOL to document that the shipment meets SUOF criteria.

A retain sample of each tank batch will be taken and labeled to indicate the batch number, the sample date, the tank from which it was taken, and the name of the sample. These samples are retained at the facility for at least sixty (60) days in a dark, cool, secure environment for sample retention. The results of these analyses, along with the shipping papers, will be kept on file for at least three (3) years as a part of NewStream's operating record. Chain of custody procedures are adhered to, providing an unbroken trail of accountability that documents the physical security of samples, data and records.

7. Summary

Table 2 of this Waste Analysis Plan summarizes the sampling and analysis requirements to assure compliance with the SUOF parameters.

Table 2			
NewStream Class B3 Recycling of SUOF Compliance Monitoring			
Waste Stream	Laboratory	Parameters	Frequency
Incoming MA97-SUOF (Pre-approval by NewStream)	Laboratory results provided by the Generator or NewStream	Per CMR 30.216 Table 1 For list of specific parameters and analytical methods as numbered in SW-846, see Table 1 of this WAP.	One representative sample. If process changes, re-sample and generator submits revised Waste Profile Form. If process does not change within one year, generator sends "Certification Statement" on an annual basis that the WPF remains unchanged.
Outgoing MA97-SUOF (as marketed by NewStream)	MA-Certified Laboratory	Per 310 CMR 30.216, Table 1, and PCBs	Every load shipped

