



# NORLITE, LLC

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September 24, 2013

Ms. Nancy Baker  
Deputy Regional Permit Administrator  
New York State Department of Environmental Conservation  
Region 4  
1130 North Westcott Road  
Schenectady, NY 12306-2014

Return Receipt Requested: 7009 0080 0001 5214 7857

Re: Request for Minor Permit Modification to Current Part 373 Permit, Section C  
EPA ID# NYD080469935

Dear Ms. Baker:

This letter and the attachments constitute a request for a minor modification to Norlite's current Part 373 Permit. This modification request only affects Section C, the Waste Analysis Plan (WAP). The current WAP identifies analytical methods that will expire at midnight on September 30, 2013. Norlite is compelled to follow the new methods when they are approved and enacted by New State Department of Health and the EPA. The proposed changes to the text remove the specific waste analysis methods and refer the reader to Table WAP-1. Table WAP-1 still contains the approved analytical methods but also contains a footnote which indicates that "[t]he most updated official version of each method is used". By removing the references in the text, Norlite removes any conflict that will arise as the methods are updated. EPA methods are still referenced in certain locations in Sections C because their reference provides context but does not create a conflict with Table WAP-1.

Norlite appreciates the Department's consideration of this request. As has been discussed, the Department of Health will only be supporting the newer versions of certain analytical methods starting October 01, 2013.

Should you have any questions regarding this letter, please contact me at (518) 235-0401 or email at: [tom.vanvranken@tradebe.com](mailto:tom.vanvranken@tradebe.com). Thank you.

Sincerely,

*Thomas Van Vranken*

Thomas Van Vranken  
Environmental Manager

cc: Tita LaGrimas – Tradebe  
Heidi Dudek, NYSDEC  
Mike Cruden, NYSDEC

is hazardous because of Ignitability and Toxicity. The sludge is manifested, at a minimum, with the following waste classifications: D001, F001, F002, F003 and F005 due to its ignitable characteristic and the presence of solvent as well as being a "derived from" waste. Between tank cleanings, Norlite records all listed waste codes that are stored in each tank so that all applicable "derived from" waste codes are properly applied to the residuals.

The tank cleaning operation is conducted periodically based on estimates of sludge quantity in the storage tank. The sludge generated by the tank cleaning operation is removed from the tanks and placed in drums for disposal. Norlite has contracted with an experienced environmental contractor for the tank cleaning operation. The cleaning of one storage tank generates from approximately 20 to 80 drums. These drums are temporarily stored in the truck containment area while the contents are being analyzed and arrangements are being made for disposal. Generally, the drums are disposed of within three to six weeks from the date of generation. Tanks are usually cleaned and the sludge removed on an annual basis.

If the tank bottom sludge contains free liquids as shown by EPA Method 9095A, or the most current version, it can be characterized as LLGF by this waste analysis plan and tested per the LLGF

consideration concerning the rate of blending will be made.

In addition, ASTM D-34 Proposal P. 168 provides a compatibility chart for hazardous waste. The relevant part on the chart is included in Norlite SOP#4-005 to assist the laboratory in recognizing possible incompatibilities.

#### **C-4 (d) Heat of Combustion**

A portion of the sample from each LLGF delivery shall be used to determine heat of combustion by Parr oxygen bomb calorimeter in accordance with ~~ANSI/ASTM method D240-02, "Standard Test Method for HEat of Combustion Of Liquid Hydrocarbon Fuels by Bomb Calorimeter".~~Table WAP-1. Heat of combustion calculations will be recorded on the Norlite Corporation Low Grade Fuel Analysis Report. The following Parr Instrument Company manuals are also referred to as part of the heat of combustion analytical method:

- (1) Parr Instrument Company Manual No. 147,  
"Instructions for the 1341 Plain Jacket  
Oxygen Bomb Calorimeter."

(2) Parr Instrument Company Manual No. 148,  
"Instructions and Methods for Parr Oxygen  
Bombs."

Calibration procedures are as described in the Parr  
Instrument Company Manual using ~~Benzeie~~Benzoic Acid.  
Each bomb is recalibrated every six months or before  
being put into service. Experience shows the Bomb  
Calibration factor does not change over the period  
of use. A complete combustion results in a  
decomposition of organics and the residue is triply  
rinsed with water for use in the chlorine analysis,  
therefore the ~~decontamination~~decontamination is part of  
the procedure. If oxidation has not fully occurred,  
then a cleaning with soap, water ~~anda~~and a solvent, and  
then rinsing with water is performed on the bomb.  
Sample analysis is conducted in duplicate for at least  
every 20th sample. Procedures are described in the  
"Instructions and Methods for Parr Oxygen Bombs."

#### C-4 (e) Halogen Determination

The total halogen content is determined in accordance  
with ~~SW-846 Method 5050 with the silver nitrate~~  
~~titration~~Table WAP-1. At this time, using these  
methods for chlorine analysis will constitute the  
"total halogen" analysis since fluorine, bromine and  
iodine contribute positive interference to the methods  
and chlorine is the predominant halogen in the waste

Should better speciation be necessary based upon information received from the generator, the ~~Method 5050~~ combustate ~~shall~~will be analyzed ~~using SW-846 Method 9056~~ (by the ion chromatography method) pursuant to Table WAP-1. The concentrations of the individual halogens would then be summed to yield a value for "total halogens".

The total halogen determination is made using the test washings from the heat of combustion, employing a silver nitrate titration with dichloroflourescein indicator. Total halogen calculations are recorded on the Norlite Corporation, Low Grade Fuel Analysis Report Form.

The total halogen determination for shale includes the Parr Bomb preparation, ~~SW-846 Method 5050~~, followed by ~~Method 9056 for analysis~~ ion chromatography as described in Table WAP-1.

#### **C-4(f)**

#### **Viscosity**

Pumpability of the material is required. The waste is fed through the inner stainless steel pipe and the atomization air or steam is provided through the outer pipe. Atomization pressure is maintained as specified in the permit. See Section D-5(b).

The viscosity of the material will be determined in accordance with ~~ASTM Method D2983-03~~ Table WAP-1 at ambient temperature as needed. The viscosity is measured using a Brookfield Test to verify the pumpability of the waste. If the sample of the waste appears to be too viscous to be effectively pumped at the fuel farm, the laboratory will perform this procedure. ~~Viscosity~~ Viscosity above 3000 SUS @ 80 deg F will be considered unpumpable.

#### C-4 (g)

#### Metals

The laboratory will perform analysis for the 14 metals described in the permit. ~~The methods employed are as described in SW-846, with Method 3050B normally used for sample preparation for LLGF and used oil/Waste Fuel A samples. Mercury analysis is performed by Method 7470A on the Method 3050B digestate. Pending submittal of equivalency data and subsequent Department approval, Method 3052 will be used. The shale samples are also prepared by Method 3050B, as was performed for the shale samples taken as part of the Trial Burn and Supplemental Risk Burn. Mercury analysis on the shale is performed by Method 7471A.~~ The methods employed are as described in Table WAP-1. Modification or deviations of procedures, if necessary, to achieve the reported detection limits will be documented with the data and reported in the

~~The metals for analysis and the analytical methods used for them are:~~

<del>Metal</del>	<del>Method</del>
<del>Arsenic</del>	<del>6010B</del>
<del>Barium</del>	<del>6010B</del>
<del>Beryllium</del>	<del>6010B</del>
<del>Cadmium</del>	<del>6010B</del>
<del>Chromium</del>	<del>6010B</del>
<del>Copper</del>	<del>6010B</del>
<del>Lead</del>	<del>6010B</del>
<del>Mercury</del>	<del>7471A (on shale)</del> <del>7470A (on liquid fuel digestate)</del>
<del>Nickel</del>	<del>6010B</del>
<del>Selenium</del>	<del>6010B</del>
<del>Antimony</del>	<del>6010B</del>
<del>Silver</del>	<del>6010B</del>
<del>Zinc</del>	<del>6010B</del>
<del>Thallium</del>	<del>6010B</del>

#### **C-4(h)**

#### **PCBs**

PCB analysis will be ~~by EPA SW-846 Method 8082 or its updates~~ performed according to Table WAP-1 with a detection limit of ~~not greater~~ not greater than 2 ppm for each Aroclor. Norlite will normally achieve a

**C-4(i)****Bottom Sediment**

Norlite ~~performs ASTM Method D1796-97 in order to determine the percent~~determines bottom sediment ~~in a sample as referenced on Table WAP-1.~~ This test is a standard centrifuge test that separates mixtures into their immiscible ~~layer&~~layers. Norlite will not feed LLGF to the kilns that has bottom sediment in excess of 8.3%.

**C-5****Special Procedural Requirements**

This section of the waste analysis plan describes the procedures used to apply the sampling and analytical

**C-S(a)****Hazardous Waste Characterization**

An LLGF Specification Sheet, found in Appendix C-5, or its equivalent, will be completed and signed by each Generator and Blender. This document will be reviewed and approved by Norlite prior to any shipment of hazardous waste to the facility. The LLGF Specification Sheet will be reviewed and updated on an annual basis and if and when the described waste stream changes. The waste stream will be reviewed by having the Generator or



The samples shall be submitted to an ELAP-certified lab for analysis. Analysis shall include the TCLP extraction of the sample and analysis of the extract for the metals. For organic constituents, samples shall be extracted and analyzed by the prescribed methods found in SW-846 (See ~~Soxhlet Method 3540C~~ in Table WAP-1) . The list of analytes for the clinker LDR demonstration is found in Appendix C-2.

#### **C-S(j)                      Incoming Drums**

The samples taken as described in Section C-3(b) are composited and analyzed as described below:

Compatibility: 100% of the drums are sampled and analyzed individually for compatibility as described in Section C-4 (c). Tests for oxidizer, peroxide and water are performed as necessary if there is any reason to suspect their presence.

Heat Value, Halogens, Specific Gravity, PCBs and Ash: Samples from 10% of the drums of each waste stream are composited and tested for these parameters. Each composite is made up of no more than five (5) individual samples. If a waste stream is contained in more than fifty (50) drums, more than one composite sample is

is hazardous because of Ignitability and Toxicity. The sludge is manifested, at a minimum, with the following waste classifications: D001, F001, F002, F003 and F005 due to its ignitable characteristic and the presence of solvent as well as being a "derived from" waste. Between tank cleanings, Norlite records all listed waste codes that are stored in each tank so that all applicable "derived from" waste codes are properly applied to the residuals.

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#### **C-4 (e) Halogen Determination**

The total halogen content is determined in accordance with Table WAP-1. At this time, using these methods for chlorine analysis will constitute the "total halogen" analysis since fluorine, bromine and iodine contribute positive interference to the methods and chlorine is the predominant halogen in the waste received at Norlite.

Should better speciation be necessary based upon information received from the generator, the combustate will be analyzed by the ion chromatography method pursuant to Table WAP-1. The concentrations of the individual halogens would then be summed to yield a value for "total halogens".

The total halogen determination is made using the test washings from the heat of combustion, employing a silver nitrate titration with dichloroflourescein indicator. Total halogen calculations are recorded on the Norlite Corporation, Low Grade Fuel Analysis Report Form.

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The laboratory will perform analysis for the 14 metals described in the permit. The methods employed are as described in Table WAP-1. Modification or deviations of procedures, if necessary, to achieve the reported detection limits will be documented with the data and reported in the monthly report to the Department.

**C-4(i)****Bottom Sediment**

Norlite determines bottom sediment as referenced on Table WAP-1. This test is a standard centrifuge test that separates mixtures into their immiscible layers. Norlite will not feed LLGF to the kilns that has bottom sediment in excess of 8.3%.

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