



NORLITE, LLC

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February 25, 2015

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

Certified Mail: via email
Return Receipt Requested

Re: Norlite Permit Modification Request to Part 373 Permit

Dear Ms. Baker:

Norlite, LLC would like to formally request a permit modification of the current Part 373 Hazardous Waste Permit to address the replacement of several instruments used to monitor operational parameters in both Kiln 1 and Kiln 2. The instruments which have been replaced were replaced with models which are identical or superior in operation as far as instrument accuracy is concerned. The same models were not put back into place because the unit which failed was obsolete and could not be purchased any longer. Norlite made every attempt to find the same models for replacement but the manufactures no longer carried or supported the model number in question. In any event, Norlite made replacements of units with models which were as close to the models listed in the current Part 373 permit as possible.

Norlite has made these changes and is requesting a permit modification as per Part 373-1.7(c)(1)(iii) and 40 CFR 270.42, Appendix I which allows for equipment replacement or upgrading with functionally equivalent components by using a Class 1 or minor permit modification.

To assist in the review of this modification request, Norlite has provided marked up and clean copies of the Kiln Monitoring Parameter Table for Attachment D, Appendix D-1 from the current Part 373 permit.

Should you have any questions regarding this letter, please contact me at (518) 235-0401 or email at: tita.lagrimas@tradebe.com.

Sincerely,

Tita LaGrimas
Executive VP of Regulatory Affairs
Tradebe Environmental Services, LLC

Kiln 1 Monitored Parameter

Monitored Parameter	Instrument Description	Span and Units of Measurement	Instrument Accuracy	Tag No. / Comments	Daily*/Monthly Calibration Procedure #
Kiln Combustion Chamber Pressure	Rosemount 1151 DP	-2.0 to + 1.0 in. w.c.	± 0.1 in. w.c.	Tag# DPT-5203	Monthly OM 3-07A
LGF Flow Rate	Micromotion DL100S223SU	0-20 gpm	± 0.2% of rate	Tag# MM-4301	Monthly OM 3-07F
LLGF Lance Atomizing Pressure	Rosemount 1151 DP	0-200 psi	± 0.1 psi	Tag# PT-9104	Monthly OM 3-07B
Kiln Back-End (Exit) Temperature	Rosemount 3044C	0-1400 °F	± 0.18 °F	Tag# TT-4303	Monthly OM 3-07C
Heat Exchanger Exit Temperature	Rosemount 3044P	350-550 °F	± 0.18 °F	Tag# TT-4301	Monthly OM 3-07C
Baghouse Inlet Temperature	Rosemount D5NAB4	0-700 °F	± 0.18 °F	Tag# TT-4302	Monthly OM 3-07C
Venturi Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-4401	Monthly OM 3-07A
Scrubber Blowdown Rate	Fischer Porter 10D1475	0-50 gpm	± 0.5% of rate	Tag# FT-1508	Monthly OM 3-07D
Baghouse Differential Pressure	Rosemount 1151 DP	0-15 in w.c.	± 0.1 in. w.c.	Tag# DPT-4303	Monthly OM 3-07A
Scrubber Recirculation Rate	Fischer Porter 10D1475	0-250 gpm	± 0.5% of rate	Tag# FT-4403 A/B Redundant Instr.	Monthly OM 3-07D
Scrubber Liquid pH	Rosemount 54EpH	0-14 pH units	± 0.02 pH units	Tag# 4401 A/B Redundant Instr.	Daily * OM 3-07G
Dry Sorbent (Lime) Feed Rate	AccuRate 602M	0-500 lb/hr	±2.0% of rate	Tag# Lime_Feed	Monthly OM 3-07I
Kiln Production Rate (Shale Feed Rate)	IPA GLC 2000	0-40 tph	±0.25-1.0% of rate	Tag# AR-4301	Monthly OM 3-07H
Stack Oxygen Analyzers	Siemens/Cisco	0-25%	0.5% oxygen absolute difference	Tag#B7-066/067 Redundant Instr.	Daily* OM-307K
Stack Gas CO Concentration Corrected to 7% O ₂	Siemens/Cisco	0-200 and 0-3,000 ppm ^(a)	3% of span. ^(a)	Tag#B7-889/890 Redundant Instr.	Daily* OM-307K
Ducon Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-4402	Monthly OM 3-07A
LGF Feed Line Pressure	Rosemount 1151 DP	0-110 psi	± 0.1 psi	Tag# PT-9106	Monthly OM 3-07B

Kiln 1 Monitored Parameter

Used Oil Feed Rate	Micromotion DS100S128SU 950323	0-20 GPM	±0.2% of rate	Tag# MM-4303	Monthly OM 3-07F
Flue Gas Flow Rate	Optical Scientific Inc. Model OFS 2000	0.1 to 40 m/s velocity	2% of reading Annual RATA	Tag# FT-5566	Annual RATA OM 3-07M
Temperature For Flue Gas Flow Rate	Rosemount 3044C	0-700 °F	± 0.18 °F	Tag# TT-5566	Monthly OM 3-07C
Pressure for Flue Gas Flow Rate	Rosemount 1151 DP	-15.0 to 0 in w.c.	± 0.1 in. w.c.	Tag# PT-5566	Monthly OM 3-07A
Flue Gas Flow Rate Comparison ^(b)	Fluid Components International, LLC Model GF90	0-86,000 wet scfm	Annual RATA	Tag#FT-5555	Annual RATA OM 3-07M

(a) A 10,000 ppm default value is used when the 3,000 ppm span is exceeded.

(b) The FCI unit will remain in operation but not be tied to the AWFCO system. The FCI unit will provide comparison data against the Optical Flow Sensor.

*Daily calibrations are done on the scrubber pH and carbon monoxide and oxygen units.

Kiln 1 Monitored Parameter

Monitored Parameter	Instrument Description	Span and Units of Measurement	Instrument Accuracy	Tag No. / Comments	Daily*/Monthly Calibration Procedure #
Kiln Combustion Chamber Pressure	Rosemount 1151 DP	-2.0 to + 1.0 in. w.c.	± 0.1 in. w.c.	Tag# DPT-5203	Monthly OM 3-07A
LGF Flow Rate	Micromotion DL 100 <u>DL100S223SU</u>	0-20 gpm	± 0.2% of rate	Tag# MM-4301	Monthly OM 3-07F
LLGF Lance Atomizing Pressure	Rosemount 1151 DP	0-200 psi	± 0.1 psi	Tag# PT-9104	Monthly OM 3-07B
Kiln Back-End (Exit) Temperature	Rosemount 3044C	0-1400 °F	± 0.18 °F	Tag# TT-4303	Monthly OM 3-07C
Heat Exchanger Exit Temperature	Rosemount 3044C <u>3044P</u>	350-550 °F	± 0.18 °F	Tag# TT-4301	Monthly OM 3-07C
Baghouse Inlet Temperature	Rosemount 3044C <u>D5NAB4</u>	0-700 °F	± 0.18 °F	Tag# TT-4302	Monthly OM 3-07C
Venturi Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-4401	Monthly OM 3-07A
Scrubber Blowdown Rate	Fischer Porter 10D1475	0-50 gpm	± 0.5% of rate	Tag# FT-1508	Monthly OM 3-07D
Baghouse Differential Pressure	Rosemount 1151 DP	0-15 in w.c.	± 0.1 in. w.c.	Tag# DPT-4303	Monthly OM 3-07A
Scrubber Recirculation Rate	Fischer Porter 10D1475	0-250 gpm	± 0.5% of rate	Tag# FT-4403 A/B Redundant Instr.	Monthly OM 3-07D
Scrubber Liquid pH	Rosemount 2081 <u>54E</u> pH	0-14 pH units	± 0.02 pH units	Tag# 4401 A/B Redundant Instr.	Daily * OM 3-07G
Dry Sorbent (Lime) Feed Rate	AccuRate 602M	0-500 lb/hr	±2.0% of rate	Tag# Lime_Feed	Monthly OM 3-07I
Kiln Production Rate (Shale Feed Rate)	AccuRate MPC200 <u>IPA GLC 2000</u>	0-40 tph	±0.25-1.0% of rate	Tag# AR-4301	Monthly OM 3-07H
Stack Oxygen Analyzers	Siemens/Cisco	0-25%	0.5% oxygen absolute difference	Tag#B7-066/067 Redundant Instr.	Daily* OM-307K
Stack Gas CO Concentration Corrected to 7% O ₂	Siemens/Cisco	0-200 and 0-3,000 ppm ^(a)	3% of span. ^(a)	Tag#B7-889/890 Redundant Instr.	Daily* OM-307K
Ducon Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-4402	Monthly OM 3-07A

Kiln 1 Monitored Parameter

LGF Feed Line Pressure	Rosemount 1151 DP	0-110 psi	± 0.1 psi	Tag# PT-9106	Monthly OM 3-07B
Used Oil Feed Rate	Micromotion DS101 DS100S128SU 950323	0-20 GPM	±0.2% of rate	Tag# MM-4303	Monthly OM 3-07F
Flue Gas Flow Rate	Optical Scientific Inc. Model OFS 2000	0.1 to 40 m/s velocity	2% of reading Annual RATA	Tag# FT-5566	Annual RATA OM 3-07M
Temperature For Flue Gas Flow Rate	Rosemount 3044C	0-700 °F	± 0.18 °F	Tag# TT-5566	Monthly OM 3-07C
Pressure for Flue Gas Flow Rate	Rosemount 1151 DP	-15.0 to 0 in w.c.	± 0.1 in. w.c.	Tag# PT-5566	Monthly OM 3-07A
Flue Gas Flow Rate Comparison ^(b)	Fluid Components International, LLC Model GF90	0-86,000 wet scfm	Annual RATA	Tag#FT-5555	Annual RATA OM 3-07M

(a) A 10,000 ppm default value is used when the 3,000 ppm span is exceeded.

(b) The FCI unit will remain in operation but not be tied to the AWFCO system. The FCI unit will provide comparison data against the Optical Flow Sensor.

*Daily calibrations are done on the scrubber pH and carbon monoxide and oxygen units.

Kiln 2 Monitored Parameter

Monitored Parameter	Instrument Description	Span and Units of Measurement	Instrument Accuracy	Tag No. / Comments	Daily*/Monthly Calibration Procedure #
Kiln Combustion Chamber Pressure	Rosemount 1151 DP	-2.0 to + 1.0 in. w.c.	± 0.1 in. w.c.	Tag# DPT-2104	Monthly OM 3-07A
LGF Flow Rate	Micromotion DL 100S223SU	0-20 gpm	± 0.2% of rate	Tag# MM-2401	Monthly OM 3-07F
LLGF Lance Atomizing Pressure	Rosemount 1151 DP	0-200 psi	± 0.1 psi	Tag# PT-2305	Monthly OM 3-07B
Kiln Back-End (Exit) Temperature	Rosemount 3144	0-1400 °F	± 0.18 °F	Tag# TT-2105	Monthly OM 3-07C
Heat Exchanger Exit Temperature	Rosemount 3144	350-550 °F	± 0.18 °F	Tag# TT-2403	Monthly OM 3-07C
Baghouse Inlet Temperature	Rosemount 3044C	0-700 °F	± 0.18 °F	Tag# TT-2404	Monthly OM 3-07C
Venturi Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-2303	Monthly OM 3-07A
Scrubber Blowdown Rate	Fischer Porter 10D1475	0-67 gpm	± 0.5% of rate	Tag# FT-2508	Monthly OM 3-07D
Baghouse Differential Pressure	Rosemount 1151 DP	0-15 in w.c.	± 0.1 in. w.c.	Tag# DPT-2405	Monthly OM 3-07A
Scrubber Recirculation Rate	Fischer Porter 10D1475	0-250 gpm	± 0.5% of rate	Tag# FT-2507 A/B Redundant Instr.	Monthly OM 3-07D
Scrubber Liquid pH	Rosemount 1054B pH	0-14 pH units	± 0.02 pH units	Tag# 2509 A/B Redundant Instr.	Daily * OM 3-07G
Dry Sorbent (Lime) Feed Rate	AccuRate 602M	0-500 lb/hr	±0.12% of rate	Tag# Lime_Feed	Monthly OM 3-07I
Kiln Production Rate (Shale Feed Rate)	IPA GLC 2000	0-40 tph	±0.25-1.0% of rate	Tag# AR-2401	Monthly OM 3-07H
Stack Oxygen Analyzers	Siemens/Cisco	0-25%	0.5% oxygen absolute difference	Tag# AO2-611 & F6-279 Redundant Instr.	Daily* OM-307K
Stack Gas CO Concentration Corrected to 7% O ₂	Siemens/Cisco	0-200 and 0-3,000 ppm ^(a)	3% of span. ^(a)	Tag#XO7-400 & F6-187 Redundant Instr.	Daily* OM-307K
Ducon Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-2508	Monthly OM 3-07A
LGF Feed Line Pressure	Rosemount 1151 DP	0-110 psi	± 0.1 psi	Tag# PT-2302	Monthly OM 3-07B

Kiln 2 Monitored Parameter

Used Oil Feed Rate	Micormotion DS100S128SU 950323	0-20 GPM	±0.2% of rate	Tag# MM-2402	Monthly OM 3-07F
Flue Gas Flow Rate	Fluid Components International, LLC	0-60,000 wet scfm	Annual RATA	Tag# FT-5555	Annual RATA OM 3-07M

(a) A 10,000 ppm default value is used when the 3,000 ppm span is exceeded.

*Daily calibrations are done on the scrubber pH and carbon monoxide and oxygen units.

Kiln 2 Monitored Parameter

Monitored Parameter	Instrument Description	Span and Units of Measurement	Instrument Accuracy	Tag No. / Comments	Daily*/Monthly Calibration Procedure #
Kiln Combustion Chamber Pressure	Rosemount 1151 DP	-2.0 to + 1.0 in. w.c.	± 0.1 in. w.c.	Tag# DPT-2104	Monthly OM 3-07A
LGF Flow Rate	Micromotion DL 100S223SU	0-20 gpm	± 0.2% of rate	Tag# MM-2401	Monthly OM 3-07F
LLGF Lance Atomizing Pressure	Rosemount 1151 DP	0-200 psi	± 0.1 psi	Tag# PT-2305	Monthly OM 3-07B
Kiln Back-End (Exit) Temperature	Rosemount 3044C <u>3144</u>	0-1400 °F	± 0.18 °F	Tag# TT-2105	Monthly OM 3-07C
Heat Exchanger Exit Temperature	Rosemount 3044C <u>3144</u>	350-550 °F	± 0.18 °F	Tag# TT-2403	Monthly OM 3-07C
Baghouse Inlet Temperature	Rosemount 3044C	0-700 °F	± 0.18 °F	Tag# TT-2404	Monthly OM 3-07C
Venturi Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-2303	Monthly OM 3-07A
Scrubber Blowdown Rate	Fischer Porter 10D1475	0-67 gpm	± 0.5% of rate	Tag# FT-2508	Monthly OM 3-07D
Baghouse Differential Pressure	Rosemount 1151 DP	0-15 in w.c.	± 0.1 in. w.c.	Tag# DPT-2405	Monthly OM 3-07A
Scrubber Recirculation Rate	Fischer Porter 10D1475	0-250 gpm	± 0.5% of rate	Tag# FT-2507 A/B Redundant Instr.	Monthly OM 3-07D
Scrubber Liquid pH	Rosemount 2081 <u>1054B</u> pH	0-14 pH units	± 0.02 pH units	Tag# 2509 A/B Redundant Instr.	Daily * OM 3-07G
Dry Sorbent (Lime) Feed Rate	AccuRate 602M	0-500 lb/hr	±0.12% of rate	Tag# Lime_Feed	Monthly OM 3-07I
Kiln Production Rate (Shale Feed Rate)	AccuRate MPC200 <u>IPA GLC 2000</u>	0-40 tph	±0.25-1.0% of rate	Tag# AR-2401	Monthly OM 3-07H
Stack Oxygen Analyzers	Siemens/Cisco	0-25%	0.5% oxygen absolute difference	Tag# AO2-611 & F6-279 Redundant Instr.	Daily* OM-307K
Stack Gas CO Concentration Corrected to 7% O ₂	Siemens/Cisco	0-200 and 0-3,000 ppm ^(a)	3% of span. ^(a)	Tag#XO7-400 & F6-187 Redundant Instr.	Daily* OM-307K
Ducon Differential Pressure	Rosemount 1151 DP	0-10 in w.c.	± 0.1 in. w.c.	Tag# DPT-2508	Monthly OM 3-07A
LGF Feed Line Pressure	Rosemount 1151 DP	0-110 psi	± 0.1 psi	Tag# PT-2302	Monthly OM 3-07B

Kiln 2 Monitored Parameter

Used Oil Feed Rate	Micormotion DU100-SS-1 <u>DS100S128SU</u> <u>950323</u>	0-20 GPM	±0.2% of rate	Tag# MM-2402	Monthly OM 3-07F
Flue Gas Flow Rate	Fluid Components International, LLC	0-60,000 wet scfm	Annual RATA	Tag# FT-5555	Annual RATA OM 3-07M

(a) A 10,000 ppm default value is used when the 3,000 ppm span is exceeded.

*Daily calibrations are done on the scrubber pH and carbon monoxide and oxygen units.