

## **Statement of Basis**

**Permit to Construct No. P-2008.0176  
Project ID 61641**

**ALK-Abelló Source Materials, Inc.  
Post Falls, Idaho**

**Facility ID 055-00072**

**Final**

**March 23, 2016  
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Permit Writer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

Btu	British thermal units
Btu/hr	British thermal units per hour
CFR	Code of Federal Regulations
CI	compression ignition
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalent emissions
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
GHG	greenhouse gases
gr/dscf	grains (1 lb = 7,000 grains) per dry standard cubic foot
HAP	hazardous air pollutants
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
MACT	Maximum Achievable Control Technology
MMBtu/hr	million British thermal units per hour
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSR	New Source Review
NSPS	New Source Performance Standards
PM	particulate matter
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
SCL	significant contribution limits
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
TPA	Tablet pollen area
U.S.C.	United States Code
VOC	volatile organic compounds

## **FACILITY INFORMATION**

### ***Description***

ALK-Abelló Source Materials, Inc. (ALK) collects and processes a number of allergens, including birch pollen, ragweed pollen, timothy pollen, and mites for subsequent production of allergen vaccines at other facilities.

### ***Permitting History***

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

May 24, 2013	P-2008.0176 Project ID 61167 PTC modification, Permit status (A)( but will become S upon issuance of this permit)
July 11, 2012	P-2008.0176 Project 61030, Remodel tablet pollen area, Permit status (S)
March 20, 2009	P-2008.0176 Project 0176, FEC PTC modification, Permit status (S)
March 26, 2008	P-2008.0008 Project 0008, FEC PTC name change to ALK-Abelló, Permit Status (S)
July 13, 2007	P-2007.0063, Initial PTC issued to Biopol Laboratory, Inc, Permit status (S)

### ***Application Scope***

This PTC is for a modification at an existing minor facility. The applicant has proposed to:

- Install a new production line (Cell 2) identical to the existing line for dust mite growth, separation, and purification, including:
  - Mitazax Lab Hoods
  - Ethanol Drying Cabinet
  - Minox Screener
  - MTX Fluid Bed Dryer
  - MTX Purification Hood
- Install supporting boilers for moisture control (AUH-20, SB-1) and additional support equipment including a house vacuum system (EF- Vac 2) and an emergency generator (EG-2).

### ***Application Chronology***

December 31, 2015	DEQ received an application and an application fee.
January 12 – January 27, 2016	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
January 22, 2016	DEQ determined that the application was complete.
February 12, 2016	DEQ made available the draft permit and statement of basis for peer and regional office review.
February 24, 2016	DEQ made available the draft permit and statement of basis for applicant review.
March 14, 2016	DEQ received the permit processing fee.

## TECHNICAL ANALYSIS

### *Emissions Units and Control Equipment*

Table 1 EMISSION UNITS AND CONTROL EQUIPMENT INFORMATION

Sources	Control Equipment
Boiler HB-1 125 bhp 5.1 MMBtu/hr Natural gas	None
Boiler HB-2 125 bhp 5.1 MMBtu/hr Natural gas	None
Boiler HB-3 125 bhp 5.1 MMBtu/hr Natural gas	None
Boiler SRC 5 (Same as SB-2) 30 bhp Natural gas	None
1000 KW generator SRC 6 (100 Hr/yr) EG-1 (Same as EG-2)	None
1000 KW generator SRC 6 (100 Hr/yr) EG-2 (Same as EG-1)	None
Greenhouse Boiler GB-1 300,000 Btu/hr Natural gas	None
Greenhouse Boiler GB-2 300,000 Btu/hr Natural gas	None
Air Make-up unit MAU-9-1 450,000 Btu/hr Natural gas	None
Boiler SB-1 70 bhp Natural gas	None
Cell 2 Minox Dehumidifier AHU-20 54,300 BTU/hr Natural gas	None
House Vacuum EF-Vac	Baghouse
House Vacuum EF-Vac 2	Baghouse
U. S. Mites Processing	USM Hoods EF 2-1
Small Scale Manufacturing	SSM Hoods EF 3-1
Source Material Development Labs (SMD)	SMD Hoods EF-4
MTX Lab Hoods	None
Class 2 B2 Biological Safety Cabinet Hood EF 3-4	HEPA filter

EF 3-4	
TPA Lab Hoods	HEPA filter
Mitizax Dust Mite (MTX) Lab Hoods, permitted under FEC EF 10-1	None
MTX Ethanol Drying Cabinets	None
Minox Screener, part of Mitizax EF 10-2	Baghouse
Minox Screener, part of Mitizax EF 20-1	Baghouse
Mitizax Fluid Bed Dryer EF10-3	HEPA filter
Mitizax Fluid Bed Dryer EF19-1	HEPA filter
Mitizax Purification 1 Hood EF10-4	None
Mitizax Purification 1 Hood EF16-4	None

## Emissions Inventories

### Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

The following table presents the controlled Potential to Emit for regulated air pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emission source. All the emissions were estimated at maximum capacity at 8,760 hours per year except for generators, which were estimated at 500 hours per year for each unit.

Table 2 CONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM <sub>10</sub> T/yr	PM <sub>2.5</sub> T/yr	SO <sub>2</sub> T/yr	NO <sub>x</sub> T/yr	CO T/yr	VOC T/yr
<b>Point Sources</b>						
HW Boiler 1 HB-1	0.16	0.08	0.0128	1.06	1.79	0.12
HW Boiler 2 HB-2	0.16	0.08	0.0128	1.06	1.79	0.12
HW Boiler 3 HB-3	0.16	0.08	0.0128	1.06	1.79	0.12
Greenhouse Boiler 1 GB-1	0.01	--	0.0008	0.06	0.11	0.01
Greenhouse Boiler 2 GB-2	0.01	--	0.0008	0.06	0.11	0.01
Air Make-up unit MAU-9-1	0.01	0.01	0.0011	0.09	0.16	0.01
Steam Boiler 2 SB1	0.10	0.05	0.0075	0.63	1.05	0.07
Steam Boiler 1 SB-2	0.04	0.02	0.0034	0.28	0.48	0.03
Emergency Generator EG-1	0.11	0.06	0.0039	3.09	1.93	0.44
Emergency Generator EG-2	0.11	0.06	0.0039	3.09	1.93	0.44
House Vacuum EF-Vac	0.09	0.05	--	--	--	0.00
House Vacuum EF-Vac 2	0.09	0.05	--	--	--	0.00
Cell 2 Minox Dehumidifier AHU 20	0.002	0.0009	0.0001	0.011	0.019	0.0012
USM Hoods EF 2-1	0.07	0.04	--	--	--	0.23
SSM Hoods EF 3-1	0.26	0.13	--	--	--	0.38

SMD Hoods EF 4-1	0.12	0.06	--	--	--	0.10
Class 2 B2 EF 3-4	0.04	0.02	--	--	--	0.00
TPA Lab Hoods EF 9-4	0.18	0.09	--	--	--	0.30
MTX Lab Hoods, permitted under FEC EF 10-1	0.14	0.07	--	--	--	1.83
Minox Screener, part of Mitizax EF 10-2	0.19	0.09	--	--	--	0.00
Mitizax Fluid Bed Dryer EF 10-3	0.32	0.16	--	--	--	0.00
Mitizax Purification 1 Hood EF 10-4	0.03	0.02	--	--	--	0.00
MTX Cell 2 Lab Hoods EF 16-5	0.15	0.08	--	--	--	4.13
Cell 2 MTX Ethanol Dry Cab EF 16-3	0.11	0.06	--	--	--	0.82
Cell 2 Minox Screener EF 20-1	0.19	0.09	--	--	--	0.00
Cell 2 Fluid Bed Dryer EF-19-1	0.33	0.17	--	--	--	0.00
Cell2 MTX Purification 1 hood EF 16-4	0.027	0.01	--	--	--	0.00
<b>Total, Point Sources</b>	<b>3.22</b>	<b>1.61</b>	<b>0.0598</b>	<b>10.51</b>	<b>11.14</b>	<b>9.14</b>

### Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants:

**Table 3 CHANGES IN CONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC	
	T/yr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Pre-Project Potential to Emit	2.11	1.06	0.0257	0.0483	13.21	6.79	9.13	8.14	4.2	3.77
Post Project Potential to Emit	3.22	1.61	0.0431	0.0598	25.71	10.51	17.09	11.14	8.07	9.14
<b>Changes in Potential to Emit</b>	<b>1.11</b>	<b>0.56</b>	<b>0.0174</b>	<b>0.0115</b>	<b>12.50</b>	<b>3.72</b>	<b>7.96</b>	<b>3.00</b>	<b>3.87</b>	<b>5.37</b>

### HAP Emissions

Methanol used in the MTX process is mixed with ethanol for a 5% methanol mixture, resulting in a methanol emission increase of 0.2 T/yr for the Cell 2 process. There is no tetrachloroethylene (perchloroethylene) used in the Cell 2 process, so it did not change. None of the HAP controlled emissions were above major facility thresholds.

Upon reviewing the limits for individual and aggregate HAP, 0.4 T/yr and 0.5 T/yr, respectively, they were found to be unnecessarily restrictive, causing probable compliance burdens for the facility, as well as DEQ. Consequently, the limits were set at <8.0T/Yr for individual HAP other than tetrachloroethylene and <20.0 T/Yr for all aggregate HAP became necessary to prevent the facility from becoming SM80 while allowing flexibility to the facility.

### TAP Emissions

A summary of the estimated increased PTE for toxic air pollutants (TAP) for the new emission units is provided in the following table:

Table 4 INCREASED CONTROLLED POTENTIAL TO EMIT FOR TOXIC AIR POLLUTANTS

Non-Carcinogenic and Carcinogenic Toxic Air Pollutants	24-hour Average Increase Emissions Rates for New Units at the Facility (lb/hr)	Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Acetone	0.00	119	No
Ethanol	1.68	125	No
Isopropyl Alcohol	0.34	65.3	No
Methanol	0.088	17.3	No
Tetrachloroethylene	0.00	0.013	No

Modeling is not required because none of the 24-hour average screening ELs identified in IDAPA 58.01.01.585/586 were exceeded.

## REGULATORY ANALYSIS

### *Ambient Air Quality Impact Analyses*

This modification to add equipment to the existing facility exceeded BRC thresholds for VOC; however, this breach did not trigger any modeling requirements. None of the other criteria pollutants were over the BRC thresholds and modeling is not required.

### *Attainment Designation (40 CFR 81.313)*

The facility is located in Kootenai County, which is designated as attainment or unclassifiable for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

### *Facility Classification*

The AIRS/AFS facility classification codes are as follows:

For THAPs (Total Hazardous Air Pollutants) Only:

- A = Use when any one HAP has actual or potential emissions  $\geq 10$  T/yr or if the aggregate of all HAPS (Total HAPs) has actual or potential emissions  $\geq 25$  T/yr.
- SM80 = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the permit sets limits  $\geq 8$  T/yr of a single HAP or  $\geq 20$  T/yr of THAP.
- SM = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the potential HAP emissions are limited to  $< 8$  T/yr of a single HAP and/or  $< 20$  T/yr of THAP.
- B = Use when the potential to emit without permit restrictions is below the 10 and 25 T/yr major source threshold
- UNK = Class is unknown

For All Other Pollutants:

- A = Actual or potential emissions of a pollutant are  $\geq 100$  T/yr.
- SM80 = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are  $\geq 80$  T/yr.

- SM = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are < 80 T/yr.
- B = Actual and potential emissions are < 100 T/yr without permit restrictions.
- UNK = Class is unknown.

**Table 3 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION**

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	<100	<100	100	B
PM <sub>10</sub> /PM <sub>2.5</sub>	<100	<100	100	B
SO <sub>2</sub>	<100	<100	100	B
NO <sub>x</sub>	<100	<100	100	B
CO	<100	<100	100	B
VOC	<100	<100	100	B
HAP (single)	>10	<8	10	SM
HAP (Total)	>25	<20	25	SM

**Permit to Construct (IDAPA 58.01.01.201)**

IDAPA 58.01.01.201 ..... Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the proposed modified emissions source. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

IDAPA 58.01.01.625 ..... Visible Emissions

The sources of visible emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity.

**Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)**

IDAPA 58.01.01.301 ..... Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, and HAP or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

**PSD Classification (40 CFR 52.21)**

40 CFR 52.21 ..... Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

**NSPS Applicability (40 CFR 60)**

The facility is adding a 1000Kw Emergency CI ICE. NSPS requirements 40 CFR 60 Subpart IIII will be applicable. See Appendix B for the breakdown of applicability and non-applicability of this standard.

### ***NESHAP Applicability (40 CFR 61)***

The facility is not subject to any NESHAP requirements in 40 CFR 61.

### ***MACT Applicability (40 CFR 63)***

The facility is not subject to any MACT standards in 40 CFR Part 63.

### ***Permit Conditions Review***

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

The Permit Scope Section 1.1 was changed to reflect the modification for a second dust mite facility. Likewise, section 1.3 was changed to reflect permit succession.

The equipment being installed for the second dust mite facility was added to Table 1.1 “Regulated sources” and the required combustion equipment was added to Table 2.1 “Fuel burning equipment description”. The summary statement in section 2.1 under “Fuel Burning Equipment” was changed to include multiple generators, and specify the air handing unit and dehumidifier.

Section 2.7 “40 CFR 60 Subpart III – Maximum Hours of Operation for Emergency Generator” was changed to ensure “maximum hours” was applied to each generator unit. And, in section 2.8 “Hours of Operation” section, the limit was changed from 500 hours to 100 hours per generator in accordance with 40 CFR 60.4211(f)(2)(i). Section 2.10 “Operating Hours Monitoring” language was changed to ensure recording and monitoring requirements would applied to each generator.

Section 3 “Processes”, Table 3.1 “Processes Equipment Description” was updated with the new equipment and control devices being installed for the second dust mite facility.

Section 3.3, Table 3.2 was changed from 0.4 T/yr individual HAP and 0.5 T/yr aggregate HAPs to less than 8 T/yr individual HAP and less than 20 T/yr for aggregate HAPs. This change was made because the original limits were found to be unnecessarily restrictive and consequently the new limits became necessary to prevent the facility from becoming SM80.

Section 3.5 “HEPA Filter language was changed to specify the control of PM and PM<sub>10</sub> and the Cell 2 MTX equipment was added. Similarly, section 3.6 “Minox Screener” language and equipment was also updated. The previous permit language of sections 3.5 and 3.6 did not specify the pollutants that were being controlled.

New permit condition 3.7 added a requirement for the development of Baghouse/Filter System Procedures document within 60 days of permit issuance, monthly observations for visible emissions, semi-annual inspections of the filters and baghouses, and recordkeeping requirements for emission units with baghouses or HEPA filters as emission controls.

## **PUBLIC REVIEW**

### ***Public Comment Opportunity***

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ’s proposed action. Refer to the chronology for public comment opportunity dates.

## APPENDIX A – EMISSION INVENTORY

**APPENDIX A  
EMISSIONS INVENTORY CALCULATION DETAILS**

**ATTACHMENT 2  
EMISSION CALCULATIONS – November 2015**

Emissions of regulated (criteria and toxic) air pollutants from each source or source group are calculated below. Potential emissions represent the maximum theoretical emissions that would occur if the source was operated at its full capacity on a continuous basis (8,760 hours per year). Actual emissions represent the expected baseline emissions, which reflect the actual operating level and schedule of each source. The related emission spreadsheets located in Section EI show the existing and proposed combustion and particulate emission rates and the pre and post project potential to emit rates for NSR, TAP, and HAP emissions. Where emission factors calculate PM, ALK assumed all PM was PM-10 and 50% of the PM-10 was PM-2.5.

**BOILERS**

This project will add one 71 hp firetube, natural gas-fired steam boiler, equipped with low-NO<sub>x</sub> burner which will be used for humidification control.

Emissions are calculated using emission factors in the EPA publication, AP-42, A Compilation of Air Pollutant Emission Factors, 5<sup>th</sup> Edition, Volume I, Section 1.4, Natural Gas Combustion:

NO <sub>x</sub>	50 lb/10 <sup>6</sup> cf natural gas
CO	84 lb/10 <sup>6</sup> cf natural gas
SO <sub>x</sub>	0.6 lb/10 <sup>6</sup> cf natural gas
PM	7.6 lb/10 <sup>6</sup> cf natural gas
VOC	5.5 lb/10 <sup>6</sup> cf natural gas

Actual hourly and annual emissions are summarized in the table on the following page

### **Humidification Boiler, Source SB-1**

A new 70 hp natural gas fired steam boiler will be installed to provide humidification needs to the facility. Humidification requirements increase in the winter months and decrease in the summer. It is estimated that the humidification boiler will operate at an average of 50% of capacity on an annual basis.

#### Maximum Actual Hourly Emissions:

NO<sub>x</sub> 50 lb/10<sup>6</sup> cf x 2,857 cf/hr = 0.143 lb/hr  
CO 84 lb/10<sup>6</sup> cf x 2,857 cf/hr = 0.24 lb/hr  
SO<sub>x</sub> 0.6 lb/10<sup>6</sup> cf x 2,857 cf/hr = 0.0017 lb/hr  
PM 7.6 lb/10<sup>6</sup> cf x 2,857 cf/hr = 0.022 lb/hr  
VOC 5.5 lb/10<sup>6</sup> cf x 2,857 cf/hr = 0.016 lb/hr

#### Actual Annual Emissions:

NO<sub>x</sub> 0.143 lb/hr x .5 x 8,760 hr/yr x 1 ton/2,000 lb = 0.31 ton/yr  
CO 0.24 lb/hr x .5 x 8,760 hr/yr x 1 ton/2,000 lb = 0.53 ton/yr  
SO<sub>x</sub> 0.0017 lb/hr x .5 x 8,760 hr/yr x 1 ton/2,000 lb = 0.0037 ton/yr  
PM 0.022 lb/hr x .5 x 8,760 hr/yr x 1 ton/2,000 lb = 0.048 ton/yr  
VOC 0.016 lb/hr x .5 x 8,760 hr/yr x 1 ton/2,000 lb = 0.035 ton/yr

## NEW ELECTRIC GENERATOR – Source No. EG-2

ALK will install a second electric generator rated at 1,000 kW (1 MW), which is equivalent to 1,495 brake horsepower (bhp). It will fire diesel fuel at a rate of 71.3 gal/hr at 100% load. SO<sub>x</sub> emissions are calculated using the NSPS regulatory limit of 15 ppm. NO<sub>x</sub>, non-methane hydrocarbons (NMHC), CO, and PM emissions are based on the allowable limits established in the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII):

NO <sub>x</sub> + NMHC	6.4 gm/kW-hr <sup>a</sup>
CO	3.5 gm/kW-hr
PM	0.2 gm/kW-hr

<sup>a</sup> It is assumed that NO<sub>x</sub> represents approximately 88 percent of the total (5.61 gm/kW-hr) and NMHC represents 12 percent of the total (0.79 gm/kW-hr). These fractions are derived from the EPA Tier 1 standards for each pollutant.

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### **Potential Emissions**

The engine will serve strictly as an emergency power source. Therefore, in accordance with EPA guidance, potential emissions are based on 500 hours of operation per year. The potential emissions are presented in the following spreadsheet, which also lists the boiler and air handler emissions.

### **Actual Emissions**

ALK will limit the generator operation to no more than 500 hours per year, including ½ hr of testing every other week and emergency power generation when the primary power supply to the facility is interrupted.

### **1000 KW Generator**

#### Hourly Actual Emissions

NO <sub>x</sub> :	$5.61 \text{ gm/kW-hr} \times 1,000 \text{ kW} \times 1 \text{ lb}/453.59 \text{ gm} = 12.36 \text{ lb/hr}$
CO:	$3.5 \text{ gm/kW-hr} \times 1,000 \text{ kW} \times 1 \text{ lb}/453.59 \text{ gm} = 7.72 \text{ lb/hr}$
SO <sub>x</sub> :	$71.3 \text{ gal/hr} \times 7.3 \text{ lb/gal} \times 0.000015 \text{ lb S/lb oil} \times 2 \text{ lb SO}_2/\text{lb S} = 0.0156 \text{ lb/hr}$
PM:	$0.20 \text{ gm/kW-hr} \times 1,000 \text{ kW} \times 1 \text{ lb}/453.59 \text{ gm} = 0.44 \text{ lb/hr}$
VOC:	$0.79 \text{ gm/kW-hr} \times 1,000 \text{ kW} \times 1 \text{ lb}/453.59 \text{ gm} = 1.75 \text{ lb/hr}$

#### Annual Actual Emissions

Annual actual emissions are based on the generator operating 500 hr/yr

NO<sub>x</sub>: 12.36 lb/hr x 500 hr/yr x 1 ton/2,000 lb = 3.09 ton/yr

CO: 7.72 lb/hr x 500 hr/yr x 1 ton/2,000 lb = 1.93 ton/yr

SO<sub>x</sub>: 0.0156 lb/hr x 500 hr/yr x 1 ton/2,000 lb = 0.0039 ton/yr

PM: 0.44 lb/hr x 500 hr/yr x 1 ton/2,000 lb = 0.11 ton/yr

VOC: 1.75 lb/hr x 500 hr/yr x 1 ton/2,000 lb = 0.44 ton/yr

**New Minox Dehumidifier unit, Source Nos AHU-20**

Minox dehumidifier unit AHU-20 will be installed as a part of this project. It functions to dry the air sent to the Minox sieve and utilizes a rotating wheel of dessicant to absorb the moisture in the air sent to the Minox. The dessicant wheel is regenerated using a gas fired heater that fires at a maximum rate of 54,300 btu/hour or 51.71 scf/hr natural gas. Potential emissions presented below are based on AP-42 emission factors.

**Actual Emissions**

Actual emissions are calculated using the same emission factors and the assumption that this unit will operate for the equivalent of maximum capacity for 4680 hr/yr. The following tables summarize the actual maximum hourly emissions and actual annual emissions from AHU-20

Maximum Actual Hourly Emissions:

- NO<sub>x</sub> 50 lb/10<sup>6</sup> cf x 51.7 cf/hr = 0.0026 lb/hr
- CO 84 lb/10<sup>6</sup> cf x 51.7 cf/hr = 0.0043 lb/hr
- SO<sub>x</sub> 0.6 lb/10<sup>6</sup> cf x 51.7 cf/hr = 0.00003 lb/hr
- PM 7.6 lb/10<sup>6</sup> cf x 51.7 cf/hr = 0.0004 lb/hr
- VOC 5.5 lb/10<sup>6</sup> cf x 51.7 cf/hr = 0.0003 lb/hr

Actual Annual Emissions:

- NO<sub>x</sub> 0.0026 lb/hr x 4,680 hr/yr x 1 ton/2,000 lb = 0.006 ton/yr
- CO 0.0043 lb/hr x 4,680 hr/yr x 1 ton/2,000 lb = 0.010 ton/yr
- SO<sub>x</sub> 0.00003 lb/hr x 4,680, hr/yr x 1 ton/2,000 lb = 0.00007 ton/yr
- PM 0.0004 lb/hr x 4,680 hr/yr x 1 ton/2,000 lb = 0.0009 ton/yr
- VOC 0.0003 lb/hr x 4,680 hr/yr x 1 ton/2,000 lb = 0.0007 ton/yr

**Combustion Equipment Actual Emissions Summary**

Source	NO <sub>x</sub>		CO		SO <sub>x</sub>		PM-10		VOC	
	Lb/hr	Ton/yr	Lb/hr	Ton/yr	Lb/hr	Ton/yr	Lb/hr	Ton/yr	Lb/hr	Ton/yr
Boiler SB-1	0.143	0.31	0.24	0.53	.0017	0.0037	0.0217	0.048	.0157	0.035
Emerg. Generator, EG-2	12.4	3.09	7.7	1.93	.0156	.004	.44	.11	1.74	.44
Air Handler AHU-20	.0026	.006	.0043	.010	.00003	.00007	.0004	.0009	.0003	.0007
<b>Totals:</b>	<b>12.55</b>	<b>3.41</b>	<b>7.94</b>	<b>2.47</b>	<b>0.02</b>	<b>0.01</b>	<b>0.46</b>	<b>0.16</b>	<b>1.76</b>	<b>0.48</b>

**PROCESS EMISSIONS:**

**MITIZAX DUST MITE, (Cell 2 MTX) AREA, SOURCES EF 16-5, EF 16-3, EF 10-3 and EF 20-1, EF 19-1, and EF 16-4:**

Mitizax dust mite processing includes preparing the food for the dust mites, growing, killing, and harvesting the mites, and purifying the mites from the mite media following harvest. Particulate emissions are generated when making media (food) for the mites and when drying, sieving and purifying the mites following harvest. Ethanol and Methanol emissions are generated when purifying the dried and sieved mites and Isopropyl Alcohol emissions are generated from cleaning and disinfecting the work spaces and equipment.

In the Cell2 MTX processing area it was decided to add a separate exhaust fan (EF16-3) to exhaust the air from the drying cabinets where in Cell 1 both the Lab Hoods and the Drying Cabinets exhaust thru a common exhaust fan. As a result, Ethanol, Methanol, and Isopropanol emissions are split between these two systems. The majority of the Ethanol and Methanol (90%) is lost through the Fume Hoods with the remaining 10% exhausting through the Drying Cabinets. Since Isopropanol is used for disinfection, the split for Isopropanol emissions is 50/50 between the Lab Hoods and the Drying Cabinets.

**Particulate**

MTX Cell 2 particulate emission rates are based on 4680 hours per year at the respective air flow rates and the appropriate gr/dscf emission rates. ALK also estimates that PM2.5 is 50% of the PM 10.

**Potential Particulate Emissions, 8760 hours/yr**

Source ID	Source	gr/dscf	Exhaust Air Flow, cfm	Potential Emissions	
				lb/hr	ton/yr
EF19-1	Cell 2MTX Fluid Bed Dryer	.005	1760	0.08	0.33
EF16-5	Cell 2 MTX Lab Hoods	.001	4110	0.035	0.15
EF16-3	Cell 2 MTX Drying Cabinets	.001	3000	0.03	0.11
BH20-1	Cell 2 MTX Minox Screener	.005	1000	0.04	0.19
EF16-4	Cell 2 MTX sampling hood	.001	725	0.01	0.03

**Actual Particulate Emissions, 4680 hours/yr**

Source ID	Source	gr/dscf	Exhaust Air Flow, cfm	Actual Emissions	
				lb/hr	ton/yr
EF19-1	Cell 2MTX Fluid Bed Dryer	.005	1760	0.08	0.18
EF16-5	Cell 2 MTX Lab Hoods	.001	4110	0.035	0.08
EF16-3	Cell 2 MTX Drying Cabinets	.001	3000	0.03	0.06
BH20-1	Cell 2 MTX Minox Screener	.005	1000	0.04	0.10
EF16-4	Cell 2 MTX sampling hood	.001	725	0.01	0.01

**Solvent Emissions**

**(Ethanol, Methanol, and Isopropyl Alcohol)**

Cell 2 MTX has a capacity of 43 mite growing chambers where Cell 1 has a capacity of only 16 chambers. We estimate the solvent requirements as a direct ratio of the increase in production capacity over Cell 1 or  $43/16 = 2.69$  times Cell 1 solvent emissions. We estimate 90% of the ethanol and methanol losses will be from the Lab Hoods and 10% from the Drying Cabinets. We estimate the Isopropyl Alcohol losses to be split evenly between the lab hoods and the drying cabinets.

Compound	VOC	HAP	TAP
Isopropyl Alcohol	X		Non-Carcinogen
Ethanol	X		Non-Carcinogen
Methanol	X	X	Non-Carcinogen

**Ethanol**

Total denatured ethanol from Cell 1 = 3072 lb/yr

$2.69 * 3072 \text{ lb/yr} = 8264 \text{ lb/yr (Cell 2)}$

$8264 \text{ lb/yr} * 95 \div 4680 \text{ hr/yr} = 1.68 \text{ lb/hr (Cell 2 MTX)}$

$1.68 \text{ lb/hr} * 0.9 = 1.51 \text{ lb/hr (Lab Hoods)}$

$1.68 \text{ lb/hr} * 0.1 = 0.17 \text{ lb/hr (Drying Cabinets)}$

**Methanol**

Methanol emissions are 5% of denatured ethanol emissions or:

$.05 * 8264 \text{ lb/yr} = 413 \text{ lb/yr}$

$413 \text{ lb/yr} \div 4680 \text{ hr/yr} = 0.088 \text{ lb/hr (Cell 2 MTX)}$

$0.088 * 0.9 = 0.079 \text{ lb/hr (Lab Hoods)}$

$0.088 * 0.1 = 0.009 \text{ lb/hr (Drying Cabinets)}$

**Isopropyl Alcohol**

$2.69 * 600 \text{ lb/yr} = 1614 \text{ lb/yr}$

$1614 \text{ lb/year} \div 4680 \text{ hr/yr} = 0.344 \text{ lb/hr (Cell 2 MTX)}$

$0.344 * 0.5 = 0.172 \text{ lb/hr (Lab Hoods)}$

$0.344 * 0.5 = 0.172 \text{ lb/hr (Drying Cabinets)}$

**HOUSE VACUUM SYSTEM 2 - Source EF-Vac-2**

ALK plans to install a duplicate of the present house vacuum system which has an initial baghouse followed by a hepa filter. Potential emissions from the vacuum systems are based on an outlet concentration of 0.005 gr/dscf and 8760 hours per year as summarized in the following table.

**Potential Particulate Emissions, 8760 hours/yr**

Source ID	Source	gr/dscf	Exhaust Air Flow, cfm	Potential Emissions	
				lb/hr	ton/yr
EF-Vac	House Vacuum	.005	491	0.021	0.09

The vacuum systems is used for keeping the labs and processing areas as free of airborne and settled particulate matter as possible. It is conservatively estimated that this unit will run 4680 hours per year and emit particulate at a rate of 0.005 gr/dscf. Actual emissions are estimated in the following table:

**Actual Particulate Emissions, 4680 hours/yr**

Source ID	Source	gr/dscf	Exhaust Air Flow, cfm	Actual Emissions	
				lb/hr	ton/yr
EF-Vac-2	House Vacuum 2	.005	491	0.021	0.05

**EMISSIONS SUMMARY**

See Section EI, Emission Inventory Forms



Proposed Minor Modification to an existing Minor Facility  
Change in Potential to Emit

Table 1  
Pre-Project Potential to Emit for Regulated Pollutants

Description	NOx		CO		PM10		PM2.5		VOC		SOx		Pb		Acetone		Ethanol		Methanol		IPA		Perc		
	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr									
HW Boiler 1	0.24	1.06	0.41	1.73	0.04	0.16	0.02	0.08	0.03	0.12	0.0029	0.0128	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
HW Boiler 2	0.24	1.06	0.41	1.73	0.04	0.16	0.02	0.08	0.03	0.12	0.0029	0.0128	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
HW Boiler 3	0.24	1.06	0.41	1.73	0.04	0.16	0.02	0.08	0.03	0.12	0.0029	0.0128	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Greenhouse Boiler 1	0.01	0.06	0.02	0.11	0.00	0.01	0.00	0.00	0.00	0.01	0.0002	0.0008	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Greenhouse Boiler 2	0.02	0.09	0.04	0.16	0.00	0.01	0.00	0.01	0.00	0.01	0.0003	0.0011	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Makeup air unit B-1	0.06	0.28	0.11	0.48	0.01	0.04	0.00	0.02	0.01	0.03	0.0009	0.0034	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Steam Boiler 1	12.96	3.09	7.72	1.93	0.44	1.11	0.22	0.64	1.75	0.44	0.156	0.0349	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Emergency Generator 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
EF-Vac	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
EF-2-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SVM Hoods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Class 2 B2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TPA Lab Hoods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cell 2 Minox	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Minox Screener	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Milzax Fluid Bed Dryer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
EF-10-3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
EF-10-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Milzax® Purification 1 hood	13.21	6.79	6.13	8.14	0.90	2.11	0.45	1.08	4.20	3.77	0.0297	0.0483	NA	NA	13.38	17.42	0.82	1.70	0.04	0.09	0.84	0.97	0.88	0.88	
Totals																									

Permitted but not yet installed  
Acetone emissions for MAU 9-4 assumes running 20 hr/day Birch or Ragweed

Table 2  
Post-Project Potential to Emit for Regulated Pollutants

Description	NOx		CO		PM10		PM2.5		VOC		SOx		Pb		Acetone		Ethanol		Methanol		IPA		Perc	
	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr	lb/yr	Ton/yr
HW Boiler 1	0.24	1.06	0.41	1.73	0.04	0.16	0.02	0.08	0.03	0.12	0.0029	0.0128	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HW Boiler 2	0.24	1.06	0.41	1.73	0.04	0.16	0.02	0.08	0.03	0.12	0.0029	0.0128	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HW Boiler 3	0.24	1.06	0.41	1.73	0.04	0.16	0.02	0.08	0.03	0.12	0.0029	0.0128	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greenhouse Boiler 1	0.01	0.06	0.02	0.11	0.00	0.01	0.00	0.00	0.00	0.01	0.0002	0.0008	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greenhouse Boiler 2	0.02	0.09	0.04	0.16	0.00	0.01	0.00	0.01	0.00	0.01	0.0003	0.0011	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Makeup air unit B-1	0.06	0.28	0.11	0.48	0.01	0.04	0.00	0.02	0.01	0.03	0.0009	0.0034	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Steam Boiler 2	0.74	0.63	0.24	1.05	0.02	0.01	0.00	0.01	0.00	0.01	0.0003	0.0011	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SVM Hoods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emergency Generator 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emergency Generator 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
House Vacuum 2	12.36	3.09	7.72	1.93	0.44	1.11	0.22	0.64	1.75	0.44	0.156	0.0349	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EF-Vac	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cell 2 Minox Dehumidifier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AHU 20	0.022866	0.011325	0.004344	0.018027	0.000363	0.001721	0.00072	0.00009	0.0003	0.0012	0.0000	0.0001	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EF-2-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSM Hoods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EF-4-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SMD Hoods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Class 2 B2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TPA Lab Hoods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Milzax Fluid Bed Dryer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Milzax® Purification 1 hood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EF-10-3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EF-10-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cell 2 Minox Purification 1 hood	25.71	10.51	17.09	11.14	1.57	3.22	0.76	1.61	8.07	5.14	0.0461	0.0596	0.00	0.00	13.38	17.42	2.56	5.62						

**APPENDIX B – FORM FRA**



**IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**AIR QUALITY DIVISION**  
 1410 N. Hilton, Boise, ID 83706  
 For assistance, call the  
**Air Permit Hotline – 1-877-5PERMIT**

**Preapplication Meeting Information**  
**Form FRA (Federal Requirements Applicability) -**  
**Regulatory Review**

In each box in the table below, CTRL+click on the blue underlined text for instructions and information.

IDENTIFICATION	
1. Company Name:  ALK – Abello Source Materials, Inc.	2. Facility Name:  ALK – Abello Post Falls Facility
3. Brief Project Description:      Construct MITIZAX® Cell 2 facility	
APPLICABILITY DETERMINATION	
4. List all applicable subparts of the New Source Performance Standards (NSPS) ( <u>40 CFR part 60</u> ).  List all non-applicable subparts of the NSPS which may appear to apply to the facility but do not.  Examples of NSPS-affected emissions units include internal combustion engines, boilers, turbines, etc. Applicant must thoroughly review the list of affected emissions units.	List of all applicable subpart(s):  <b>40 CFR 60 Subpart IIII</b>  List of all non-applicable subpart(s) which may appear to apply but do not:  <input type="checkbox"/> Not Applicable
5. List applicable subpart(s) of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) ( <u>40 CFR part 61</u> and <u>40 CFR part 63</u> ).  List all non-applicable subparts of the NESHAP which may appear to apply to the facility but do not.  Examples of affected emission units include solvent cleaning operations, industrial cooling towers, paint stripping and miscellaneous surface coating. Reference <u>EPA's webpage on NESHAPs</u> for more information.	List of all applicable subpart(s):  List of all non-applicable subpart(s) which may appear to apply but do not:  <b>40 CFR 63 Subpart GGG</b> <b>40 CFR 63 Subpart ZZZZ</b> <b>40 CFR 63 Subpart JJJJJJ</b>  <input type="checkbox"/> Not Applicable
6. For each subpart identified above, conduct a complete regulatory analysis using the instructions and referencing the example on the following pages.  <b>Note</b> - Regulatory reviews must be submitted with sufficient detail so that DEQ can verify applicability and document in legal terms why the regulation does or does not apply. Regulatory reviews submitted with insufficient detail will be determined incomplete.	<input checked="" type="checkbox"/> A detailed regulatory review is provided (Follow instructions and example).  <input type="checkbox"/> DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date.

**IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT  
1-877-5PERMIT.**

*It is emphasized that it is the applicant's responsibility to satisfy all technical and regulatory requirements, and that DEQ will help the applicant understand those requirements prior to submittal of the application but that DEQ will not perform the required technical or regulatory analyses on the applicant's behalf.*

MITIZAX® CELL 2 FACILITY  
ALK-ABELLÓ SOURCE MATERIALS, INC.  
FEDERAL AND IDAHO STATE REGULATORY APPLICABILITY

Table 1 – Applicable Requirements

Table 2 – Non-Applicable Requirements

**TABLE 1: FEDERAL AND IDAHO STATE APPLICABLE REQUIREMENTS**

Regulatory Citation	Applicable Requirement*	Required Monitoring, Recordkeeping, Reporting or Test Methods	Proposed Monitoring, Recordkeeping, Reporting or Test Methods Adequate to Assure Compliance
<b>IDAPA 58.01.01 - Rules for the Control of Air Pollution in Idaho</b>			
003	Administrative Appeals		Annual Certification by a responsible official.
004	Catchlines		Annual Certification by a responsible official.
005 - 011	Definitions		Annual Certification by a responsible official.
106	Abbreviations		Annual Certification by a responsible official.
107	Incorporations by Reference		Annual Certification by a responsible official.
121	Compliance Requirements by Department		Annual Certification by a responsible official.
122	Information Orders by the Department		Annual Certification by a responsible official.
123	Certification of Documents	Certification by a responsible individual of all documents, including but not limited to, application forms for permits to construct, application forms for operating permits, progress reports, records, monitoring data, supporting information, requests for confidential treatment, testing reports or compliance certifications submitted to the Department. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.	
124	Truth, Accuracy And Completeness of Documents		Annual Certification by a responsible official.
125	False Statements		Annual Certification by a responsible official.
126	Tampering		Annual Certification by a responsible official.
127	Format of Responses		Annual Certification by a responsible official.
128	Confidential Information		Annual Certification by a responsible official.
130	Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset And Breakdown		Annual Certification by a responsible official.
131	Excess Emissions		Annual Certification by a responsible official.
132	Correction of Condition		Annual Certification by a responsible official.
133	Startup, Shutdown And Scheduled Maintenance Requirements		Annual Certification by a responsible official.

Regulatory Citation	Applicable Requirement*	Required Monitoring, Recordkeeping, Reporting or Test Methods	Proposed Monitoring, Recordkeeping, Reporting or Test Methods Adequate to Assure Compliance
133.01	General Provisions	Notify the Department of any startup, shutdown, or scheduled maintenance event that is expected to cause an excess emissions event no later than two (2) hours prior to the start of the excess emissions event.	
133.02	Excess Emissions Procedures	Prepare, implement and file with the Department specific procedures which will be used to minimize excess emissions during such events.	
133.03	Amendments to Procedures.	Amend the procedures from time to time to and as deemed reasonably necessary to ensure that the procedures are and remain consistent with good pollution control practices.	
134	Upset, Breakdown And Safety Requirements		
134.02	Excess Emissions Minimization and Notification	Notify the Department of any upset/breakdown/safety event that results in excess emissions no later than twenty-four hours after the event.	
134.04	Excess Emissions Procedures	Prepare, implement, and file with the Department specific procedures.	
134.05	Amendments to Procedures.	Amend the procedures from time to time and as deemed reasonably necessary to ensure that the procedures are and remain consistent with good pollution control practices.	
135	Excess Emissions Reports	A written report for each excess emissions event shall be submitted to the Department no later than fifteen (15) days after the beginning of each such event.	
136	Excess Emissions Records	Maintain excess emissions records at the facility for the most recent five (5) calendar year period.	
140 - 149	Variances		Annual Certification by a responsible official.
155	Circumvention		Annual Certification by a responsible official.
156	Total Compliance		Annual Certification by a responsible official.

Regulatory Citation	Applicable Requirement*	Required Monitoring, Recordkeeping, Reporting or Test Methods	Proposed Monitoring, Recordkeeping, Reporting or Test Methods Adequate to Assure Compliance
157	Test Methods And Procedures	Any source test performed to satisfy a performance test requirement imposed by state or federal regulation, rule, permit, order, or consent decree, must be conducted as specified.	
157.04	Reporting Requirements	For any source test performed to satisfy a performance test requirement imposed by state or federal regulation, rule, permit, order, or consent decree, submit a written report to the Department within sixty (60) days of the completion of the test.	
160	Provisions Governing Specific Activities And Conditions		Annual Certification by a responsible official.
161	Toxic Substances		Annual Certification by a responsible official.
200 - 203	Procedures And Requirements For Permits To Construct	A permit to construct must be obtained prior to the commencement of construction or modification of any stationary source, facility, major facility or major modification.	
206 - 213	Procedures And Requirements For Permits To Construct	A permit to construct must be obtained prior to the commencement of construction or modification of any stationary source, facility, major facility or major modification.	
220 - 223	General Exemption Criteria for Permit to Construct Exemptions		Annual Certification by a responsible official.
224 - 228	Procedures And Requirements For Permits To Construct		Annual Certification by a responsible official. Annual Certification by a responsible official. Annual Certification by a responsible official. Facility does not rely on a stack height in excess of GEP stack height in its dispersion modeling analysis. Annual Certification by a responsible official.
510 - 516	Stack Heights And Dispersion Techniques		Annual Certification by a responsible official.
561	General Rules		Annual Certification by a responsible official.
562	Specific Emergency Episode Abatement Plans For Point Sources		Annual Certification by a responsible official.
585	Toxic Air Pollutants Non-carcinogenic Increments		Annual Certification by a responsible official.
586	Toxic Air Pollutants Carcinogenic Increments		Annual Certification by a responsible official.

ALK-Abelló Source Materials, Inc.  
Table 1: Applicable Requirements

Regulatory Citation	Applicable Requirement*	Required Monitoring, Recordkeeping, Reporting or Test Methods	Proposed Monitoring, Recordkeeping, Reporting or Test Methods Adequate to Assure Compliance
587	Listing Or Delisting Toxic Air Pollutant Increments		Annual Certification by a responsible official.
590	New Source Performance Standards		Annual Certification by a responsible official.
600	Rules For Control of Open Burning		Annual Certification by a responsible official.
601	Fire Permits, Hazardous Materials, And Liability		Annual Certification by a responsible official.
602	Nonpreemption of Other Jurisdictions		Annual Certification by a responsible official.
603	General Restrictions		Annual Certification by a responsible official.
606	Categories of Allowable Burning		Annual Certification by a responsible official.
607	Recreational And Warming Fires		Annual Certification by a responsible official.
609	Training Fires		Annual Certification by a responsible official.
625	Visible Emissions		Annual Certification by a responsible official.
650	Rules For Control of Fugitive Dust		Annual Certification by a responsible official.
651	General Rules		Annual Certification by a responsible official.
700	Particulate Matter -- Process Weight Limitations		Annual Certification by a responsible official.
701	Particulate Matter -- New Equipment Process Weight Limitations		Annual Certification by a responsible official.
725	Rules For Sulfur Content of Fuels.	Maintain fuel oil supplier certification records verifying compliance with ASTM D 396-05..	Annual Certification by a responsible official.
775 - 776	Rules For Control of Odors		Annual Certification by a responsible official.
<b>Federal Requirements</b>			
40 CFR 52 Subpart N	Idaho State SIP		Annual Certification by a responsible official.
40 CFR 60 Subpart III	New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units	Applies to emergency generator only. Maintain a record of the time of operation of the engine and the reason the engine was in operation during that time.	Annual Certification by a responsible official.
40 CFR 82 Subparts E	Protection of stratospheric ozone -- labeling of products containing		Annual Certification by a responsible official.
40 CFR 82 Subparts F	Protection of stratospheric ozone -- recycling and emissions reduction		Annual Certification by a responsible official.

\* All applicable requirements apply facility wide with the exception of 40 CFR 60 Subpart III, which applies only to the emergency generator.

**TABLE 2: FEDERAL AND IDAHO STATE NON-APPLICABLE REQUIREMENTS**

Regulatory Citation	Requirement	Explanation of Non-Applicability
<b>IDAPA 58.01.01 - Rules for the Control of Air Pollution in Idaho</b>		
000	Legal Authority	Applies to Board of Environmental Quality only.
001	Title and Scope	Administrative description of Rules
002	Written Interpretations	Administrative discussion of interpretation of rules.
012 - 105	<i>(Reserved)</i>	
108 - 120	<i>(Reserved)</i>	
129	<i>(Reserved)</i>	
137 - 139	<i>(Reserved)</i>	
150 - 154	<i>(Reserved)</i>	
158 - 159	<i>(Reserved)</i>	
162	Modifying Physical Conditions	Administrative function of Board
163	Source Density	Administrative function of Board
164	Polychlorinated Biphenyls (PCBs)	Facility does not burn any materials containing PCBs
165 - 174	<i>(Reserved)</i>	
175-181	Procedures and requirements for Permits Establishing a Facility Emissions Cap	Facility is not seeking a permit establishing a facility emissions cap.
182 - 199	<i>(Reserved)</i>	
204 - 205	Permit Requirements for Major Facilities of Major Modifications	Facility is not a major facility.
214	Demonstration of Preconstruction Compliance for New and Reconstructed Major Sources of Hazardous Air Pollutants	Facility is not a major source of hazardous air pollutants.
215	Mercury Emission Standards for New or Modified Sources	Facility modification will not result in an increase in annual potential emissions of mercury of twenty-five pounds or more.
216 - 219	<i>(Reserved)</i>	
229 - 299	<i>(Reserved)</i>	
300 - 397	Procedures And Requirements For Tier I Operating Permits	Facility is not a major source and thus not subject to Tier I permitting.
398 - 399	<i>(Reserved)</i>	
400 - 410	Procedures And Requirements For Tier II Operating Permits	Facility is not requesting a Tier II operating permit.
411 - 439	<i>(Reserved)</i>	
440	Requirements For Alternative Emission Limits (Bubbles)	Facility is not proposing an alternative emission limit.
441	Demonstration of Ambient Equivalence	Facility is not proposing emission trades.
442 - 459	<i>(Reserved)</i>	
460	Requirements For Emission Reduction Credit	Facility is not requested emission reduction credits.
461	Requirements For Banking Emission Reduction Credits (ERC's)	Facility is not requesting to bank emission reduction credits.
462 - 499	<i>(Reserved)</i>	
500	Registration Procedures And Requirements For Portable Equipment	Facility does not operate portable equipment
501 - 509	<i>(Reserved)</i>	
517 - 527	Motor Vehicle Inspection And Maintenance Program	Requirements apply to specified counties, not individual sources.

Regulatory Citation	Requirement	Explanation of Non-Applicability
528 - 549	<i>(Reserved)</i>	
550 - 560	Air Pollution Emergency Rule	Administrative rules defining air pollution emergencies.
563 - 574	Transportation Conformity	Administrative rules for adoption and implementation of CAA Section 176 (c) and 23 USC 109(j).
575 - 582	Air Quality Standards And Area Classification	Rules requiring the state to establish ambient air quality standards and classification areas
583 - 584	<i>(Reserved)</i>	
588 - 589	<i>(Reserved)</i>	
591	National Emission Standards For Hazardous Air Pollutants	The facility does not fall under any National Emission Standards for Hazardous Air Pollutants under 40 CFR 61 or 40 CFR 63.
592 - 598	Stage 1 Vapor Collection	Facility does not meet applicability requirements.
599	Gasoline Cargo Tanks	Facility does not operate gasoline cargo tanks.
604 - 605	<i>(Reserved)</i>	
608	Weed Control Fires	Facility does not utilize weed control fires.
610	Industrial Flares	Facility does not contain industrial flares.
611	Residential Solid Waste Disposal Fires	Facility is not a residential facility.
612	Landfill Disposal Site Fires	Facility is not a landfill disposal site.
613	Orchard Fires	Facility does not utilize orchard fires.
614	Prescribed Burning	Facility does not perform prescribed burning.
615	Dangerous Material Fires	Facility does not conduct dangerous materials burning.
616	Infectious Waste Burning	Facility does not handle infectious waste.
617 - 624	Crop Residue Disposal	Facility does not conduct crop residue burning.
626	General Restrictions On Visible Emissions From Wigwam Burners	Facility does not utilize wigwam burners.
627 - 649	<i>(Reserved)</i>	
652	Agricultural Activities	Facility does not conduct agricultural activities.
653 - 664	<i>(Reserved)</i>	
665 - 668	Regional Haze Rules	Facility is not located in a Class 1 Area
669 - 674	<i>(Reserved)</i>	
675 - 681	Fuel Burning Equipment - Particulate Matter	No sources at the facility were constructed prior to October 1, 1979 and all facility boilers have a maximum rated heat input less than 10 MMBtu / hr or more.
682 - 699	<i>(Reserved)</i>	
702 - 703	Particulate Matter -- Existing Equipment Process Weight Limitations	Facility was constructed after the October 1, 1979 applicability date.
704 - 724	<i>(Reserved)</i>	
726 - 749	<i>(Reserved)</i>	
750 - 751	Rules For Control of Fluoride Emissions	Facility does not include a phosphate fertilizer plant.
752 - 759	<i>(Reserved)</i>	
760 - 764	Rules For The Control of Ammonia From Dairy Farms	Facility does not include a dairy farm.
765 - 774	<i>(Reserved)</i>	
777 - 784	<i>(Reserved)</i>	
785 - 787	Rules For Control of Incinerators	Facility does not include an incinerator.

Regulatory Citation	Requirement	Explanation of Non-Applicability
788 - 789	<i>(Reserved)</i>	
790 - 799	Rules For The Control of Nonmetallic Mineral Processing Plants	Facility does not include a nonmetallic mineral processing plant.
800 - 802	Registration Fee For Permit By Rule	Facility does not include any operations covered by a permit by rule.
803 - 804	<i>(Reserved)</i>	
805 - 808	Rules For Control of Hot-Mix Asphalt Plants	Facility does not include a hot-mix asphalt plant.
809 - 814	<i>(Reserved)</i>	
815 - 818	Rules For Control of Kraft Pulping Mills	Facility does not include a kraft pulping mill.
819 - 834	<i>(Reserved)</i>	
835 - 839	Rules For Control of Rendering Plants	Facility does not include a rendering plant.
840 - 844	<i>(Reserved)</i>	
845 - 848	Rules For Control of Sulfur Oxide Emissions From Sulfuric Acid Plants	Facility does not include a sulfuric acid plant.
849 - 854	<i>(Reserved)</i>	
855 - 858	Combined Zinc And Lead Smelters	Facility does not include a combined zinc and lead smelter.
859 - 860	Standards of Performance For Municipal Solid Waste Landfills	Facility does not include a municipal solid waste landfill.
861 - 999	<i>(Reserved)</i>	
<b>Federal Requirements</b>		
40 CFR 52.21	Prevention of Significant Deterioration (PSD)	Facility is not a major source, thus PSD requirements do not apply.
40 CFR 60	New Source Performance Standards (NSPS), except 40 CFR 60 Subpart IIII	Facility does not contain specified sources except for a small industrial-commercial-institutional steam generating unit which falls under 40 CFR 60 Subpart IIII.
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Facility does not operate steam generating units with heat input greater than 10 MMBtu/hr.
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAPS)	Facility does not contain or process specified toxic chemicals.
40 CFR 63	National Emission Standards for Hazardous Air Pollutants (NESHAP), except as designated below	Facility not subject to these standards except as listed below.
40 CFR 63 Subpart GGG	National Emission Standards for Pharmaceuticals Production	Facility is not a major source, and thus it is not subject to this rule.
40 CFR 63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	According to Subpart ZZZZ, §63.6590(c)(1), as a new stationary RICE located at an area source meeting the requirements of 40 CFR 60 Subpart IIII, no further requirements apply under this subpart.
40 CFR 63 Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	Facility is not subject to this rule as the facility utilizes only gas-fired boilers as defined in the regulation.
40 CFR 64	Compliance Assurance Monitoring	Facility is not a major facility having at least one controlled emission with pre-control emissions in excess of the major source threshold.
40 CFR 68	Chemical Accident Prevention Provisions	Facility does not use regulated materials above threshold quantities, thus the Chemical Accident Prevention Provisions do not apply.

<b>Regulatory Citation</b>	<b>Requirement</b>	<b>Explanation of Non-Applicability</b>
40 CFR 70	Standard permit requirements	Facility is not a major source, and thus not required to obtain a Title V operating permit.

## 40 CFR 60 Subpart III

### Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

**Source:** 71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6695, January 30, 2013; and 79 FR 11251, February 27, 2014.

#### What This Subpart Covers

##### § 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

*ALK-Abelló operates one Kohler Model 1000REOZDC generator with a displacement of less than 30 liters per cylinder, constructed in 2007, and is thus subject to Subpart IIII requirements. The generator is for emergency backup service only. ALK-Abelló does not meet the exemptions listed in §60.4200(b)-(e).*

## **Emission Standards for Manufacturers**

### **§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part

94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

- (1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and
- (2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

*ALK-Abelló is not a stationary compressed ignition internal combustion engine manufacturer, and thus the requirements of §60.4201 are not applicable.*

**§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine

power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

*ALK-Abelló is not a stationary compressed ignition internal combustion engine manufacturer, and thus the requirements of §60.4202 are not applicable.*

**§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

*ALK-Abelló is not a stationary compressed ignition internal combustion engine manufacturer, and thus the requirements of §60.4203 are not applicable.*

## Emission Standards for Owners and Operators

### § 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of  $\text{NO}_x$  in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of  $\text{NO}_x$  in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of  $\text{NO}_x$  in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $9.0 \cdot n^{-0.20}$  g/KW-hr ( $6.7 \cdot n^{-0.20}$  g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

*ALK-Abelló does not operate any non-emergency engines. As defined in this §63.4219, ALK-Abelló operates one emergency standard internal combustion engine. Thus the requirements of §60.4204 are not applicable.*

**§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

*ALK-Abelló does not operate any stationary compression ignition internal combustion engines with a model year pre-2007.*

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

*ALK-Abelló operates one 2007 model year or later emergency stationary compressed ignition internal combustion engine with a displacement of less than 30 liters per cylinder, and is thus subject to the emission standards in §60.4202. Manufacturer certification is on file at facility.*

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

*ALK-Abelló does not operate any fire pump engines.*

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

*ALK-Abelló does not operate any stationary compressed ignition engines with a displacement of greater than or equal to 30 liters per cylinder.*

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per

cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

*ALK-Abelló is not required to conduct performance tests pursuant to §60.4211.*

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

*ALK-Abelló does not operate any modified or reconstructed stationary compression ignition internal combustion engines.*

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

*ALK-Abelló acknowledges that the emission standards as required in §60.4205 must be met over the entire life of the engine.*

[76 FR 37969, June 28, 2011]

**Fuel Requirements for Owners and Operators**

**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

*As an owner and operator of a stationary compression ignition internal combustion engine subject to this subpart, beginning June 1, 2007, ALK-Abelló must meet the following per gallon standards, according to 40 CFR 80.510(a):*

- (1) Sulfur content. 500 parts per million (ppm) maximum.*
- (2) Cetane index or aromatic content, as follows:*
  - (i) A minimum cetane index of 40; or*
  - (ii) A maximum aromatic content of 35 volume percent.*

*Documentation is maintained at the facility.*

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

*As of June 1, 2010, ALK-Abelló must meet the following per gallon standards, according to 40 CFR 80.510(b):*

- (1) Sulfur content. 15 ppm maximum for nonroad diesel fuel.*
- (2) Cetane index or aromatic content, as follows:*
  - (i) A minimum cetane index of 40; or*
  - (ii) A maximum aromatic content of 35 volume percent.*

*Documentation is maintained at the facility.*

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

*ALK-Abelló does not operate as stationary compressed ignition internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder.*

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

*ALK-Abelló does not have a national security exemption under §60.4200(d), thus this exemption does not apply.*

### **Other Requirements for Owners and Operators**

#### **§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?**

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

*ALK-Abelló acknowledges the requirements for importing or installing stationary compressed ignition internal combustion engines produced in previous model years.*

**§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

*The ALK-Abelló emergency generator is equipped with a non-resettable hour meter, which was installed prior to startup of the engine.*

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

*As an emergency stationary compression ignition internal combustion engine, the ALK-Abelló generator is not subject to the emission standards of §60.4204.*

**Compliance Requirements**

**§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as

appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to

each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

*ALK-Abelló is not a stationary compression ignition internal combustion engine manufacturer, and thus the requirements of §60.4210 are not applicable.*

#### **§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

*As the owner or operator of a stationary compression ignition internal combustion engine, ALK-Abelló operates in compliance with the requirements of §60.4211(a)(1)-(2).*

*The emergency generator does not meet the applicability requirements for "nonroad" compression ignition engines under 40 CFR part 89, nor the applicability requirements of "marine" compression ignition engines in 40 CFR part 94. The emergency generator does not meet the applicability requirements under 40 CFR 1068, as the engine does not require performance testing or certification using the provisions of 40 CFR 1039 as indicated in this subpart (40 CFR 60 Subpart IIII).*

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

- (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.
- (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

*ALK-Abelló does not operate any stationary compressed ignition internal combustion engine with a model year pre-2007, and is thus not subject to the requirements of §60.4211(b).*

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

*As the owner or operator of a 2007 model year and later stationary compressed ignition internal combustion engine, ALK-Abelló has purchased an engine certified to the emission standards in §60.4205(b). Manufacturer certification is on file at facility.*

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

*ALK-Abelló does not operate any stationary compression ignition engines with a displacement of greater than or equal to 30 liters per cylinder, and is thus not subject to the requirements of §60.4205(d).*

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

*ALK-Abelló does not operate any modified or reconstructed stationary compressed ignition internal combustion engines.*

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency

situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

*ALK Abelló recognizes that operation of the emergency stationary internal combustion engine for maintenance checks and readiness testing is limited to 100 hours per year; and operation for non-emergency situations is limited to 50 hours of the 100 hours per year*

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you

must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

*The ALK-Abelló engine is installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions. Therefore, §60.4211(g) does not apply.*

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

### **Testing Requirements for Owners and Operators**

#### **§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

*ALK-Abelló is not required to conduct performance tests pursuant to §60.4211.*

**§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

$C_i$  = concentration of NO<sub>x</sub> or PM at the control device inlet,

$C_o$  = concentration of NO<sub>x</sub> or PM at the control device outlet, and

R = percent reduction of NO<sub>x</sub> or PM emissions.

(2) You must normalize the NO<sub>x</sub> or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O<sub>2</sub>) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO<sub>2</sub>) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \quad (\text{Eq. 3})$$

Where:

$C_{adj}$  = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

%O<sub>2</sub> = Measured O<sub>2</sub> concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of O<sub>2</sub> concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F<sub>o</sub> value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

F<sub>o</sub> = Fuel factor based on the ratio of O<sub>2</sub> volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O<sub>2</sub>, percent/100.

F<sub>d</sub> = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

F<sub>c</sub> = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X<sub>CO<sub>2</sub></sub> = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(iii) Calculate the NO<sub>x</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C<sub>adj</sub> = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

C<sub>d</sub> = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.

(e) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in ppm.

1.912x10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_{adj}$  = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

*ALK-Abelló does not operate any stationary compressed ignition engines with a displacement of greater than or equal to 30 liters per cylinder, and is thus not subject to the requirements of §60.4213.*

#### **Notification, Reports, and Records for Owners and Operators**

##### **§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

*ALK-Abelló does not operate a non-emergency stationary compressed ignition internal combustion engine and is thus not subject to the requirements of §60.4214(a).*

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

*As ALK-Abelló operates an emergency stationary internal combustion engine, no initial notification is required. The internal combustion engine does not fall within the model years listed in Table 5. Thus, no recordkeeping or reporting is required.*

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

*The ALK-Abelló stationary compressed ignition internal combustion engine is not equipped with a diesel particulate filter.*

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

*The ALK-Abelló stationary compressed ignition internal combustion engine is not rated for more than 100 HP nor is it contractually obligated to be available to provide non-emergency power.*

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013]

### Special Requirements

#### **§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?**

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

*The ALK-Abelló internal combustion engine is located in Post Falls, Idaho and thus not subject to the requirements of §60.4215.*

#### **§ 60.4216 What requirements must I meet for engines used in Alaska?**

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that

for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011]

*The ALK-Abelló internal combustion engine is located in Post Falls, Idaho and thus not subject to the requirements of §60.4216.*

**§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?**

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

*The ALK-Abelló engine does not use special fuels, and thus is not subject to the requirements of §60.4217.*

**General Provisions**

**§ 60.4218 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

*ALK-Abelló acknowledges the general provisions listed in Table 8 as applicable to the internal combustion engine, except that §60.8 and §60.13 do not apply since the emergency generator does not have a displacement  $\geq$  30 liters per cycle, and §60.7 does not apply as the generator is not subject to §60.4214(a).*

**Definitions**

**§ 60.4219 What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary

CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA

requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

*ALK-Abelló acknowledges the definitions above as applicable to the internal combustion engine.*

*Subpart* means 40 CFR part 60, subpart III.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013]

**Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder**

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO <sub>x</sub>	HC	NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

**Table 2 to Subpart III of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder**

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO <sub>x</sub> + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

[71 FR 39172, July 11, 2006]

**Table 3 to Subpart III of Part 60—Certification Requirements for Stationary Fire Pump Engines**

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d) <sup>1</sup>
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

<sup>1</sup>Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

**Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines**

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ <sup>1</sup>	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ <sup>1</sup>	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ <sup>2</sup>	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ <sup>3</sup>	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ <sup>3</sup>	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

<sup>1</sup>For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

<sup>2</sup>For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

<sup>3</sup>In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

[71 FR 39172, July 11, 2006]

**Table 5 to Subpart III of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines**

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

[71 FR 39172, July 11, 2006]

**Table 6 to Subpart III of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines**

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed <sup>1</sup>	Torque (percent) <sup>2</sup>	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

<sup>1</sup>Engine speed: ±2 percent of point.

<sup>2</sup>Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

[71 FR 39172, July 11, 2006]

**Table 7 to Subpart III of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of  $\geq 30$  Liters per Cylinder**

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of  $\geq 30$  liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of $\geq 30$ liters per cylinder	a. Reduce NO <sub>x</sub> emissions by 90 percent or more	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For NO <sub>x</sub> , O <sub>2</sub> , and moisture measurement, ducts $\leq 6$ inches in diameter may be sampled at a single point located at the duct centroid and ducts $> 6$ and $\leq 12$ inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is $> 12$ inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO <sub>x</sub> concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. (continued)	b. Limit the concentration of NO <sub>x</sub> in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine;		(a) For NO <sub>x</sub> , O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurement for NO <sub>x</sub> concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO <sub>x</sub> concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. (continued)	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.

<b>For each</b>	<b>Complying with the requirement to</b>	<b>You must</b>	<b>Using</b>	<b>According to the following requirements</b>
i. (continued)	d. (continued)	iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[71 FR 39172, July 11, 2006, as amended 79 FR 11251, Feb. 27, 2014]

**Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII**

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

<b>General Provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§60.1	<u>General applicability of the General Provisions</u>	Yes	
§60.2	<u>Definitions</u>	Yes	Additional terms defined in §60.4219.
§60.3	<u>Units and abbreviations</u>	Yes	
§60.4	<u>Address</u>	Yes	
§60.5	<u>Determination of construction or modification</u>	Yes	
§60.6	<u>Review of plans</u>	Yes	
§60.7	<u>Notification and Recordkeeping</u>	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	<u>Performance tests</u>	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	<u>Availability of information</u>	Yes	
§60.10	<u>State Authority</u>	Yes	
§60.11	<u>Compliance with standards and maintenance requirements</u>	No	Requirements are specified in subpart IIII.
§60.12	<u>Circumvention</u>	Yes	
§60.13	<u>Monitoring requirements</u>	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	<u>Modification</u>	Yes	
§60.15	<u>Reconstruction</u>	Yes	
§60.16	<u>Priority list</u>	Yes	
§60.17	<u>Incorporations by reference</u>	Yes	
§60.18	<u>General control device requirements</u>	No	
§60.19	<u>General notification and reporting requirements</u>	Yes	

[71 FR 39172, July 11, 2006]

## APPENDIX C – FEE CALCULATION

## APPENDIX C - PTC Fee Calculation

**Instructions:**

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

**Company:** ALK-Abello Source Materials, Inc.  
**Address:** 448 S. Lochsa St.  
**City:** Post Falls  
**State:** ID  
**Zip Code:** 83854  
**Facility Contact:** Warren Miller  
**Title:**  
**AIRS No.:**

- N** Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- Y** Did this permit require engineering analysis? Y/N
- N** Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

<b>Emissions Inventory</b>			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO <sub>x</sub>	3.7	0	3.7
SO <sub>2</sub>	0.0	0	0.0
CO	3.0	0	3.0
PM10	0.6	0	0.6
VOC	5.4	0	5.4
TAPS/HAPS	0.1	0	0.1
<b>Total:</b>	<b>0.0</b>	<b>0</b>	<b>12.8</b>
Fee Due	<b>\$ 5,000.00</b>		

Fee Amount (based on emisisions)  
 5000

Comments:

## APPENDIX D – FACILITY COMMENTS

## APPENDIX D – FACILITY DRAFT COMMENTS

### The following comments were received from the facility on March 4 2016:

**Facility Comment:** On page 6, The description of Table 2, last sentence notes that "All emissions were estimated at maximum capacity at 8,760 hours per year, except for the Cell 2 MTX Process estimated at 4680 hours per year for the entire process, and generators, which were estimated at 500 hours per year for each unit." The values in the table for the MTX Process emissions were not reduced from 8760 hours therefore, the corrected sentence should read: "All emissions were estimated at maximum capacity at 8,760 hours per year, except for generators, which were estimated at 500 hours per year for each unit."

**DEQ Response:** On page 6 correction made to read "All emissions were estimated at maximum capacity at 8,760 hours per year, except for generators, which were estimated at 500 hours per year for each unit."

**Facility Comment:** On page 7, the paragraph labelled "HAP Emissions" notes that "Methanol increased 0.1 T/yr as 5% of the ethanol used in the cell 2 Process." Methanol emissions actually increase 0.2 T/yr.

**DEQ Response:** On page 7 correction made to read 0.2 T/yr.

**Facility Comment:** On page 10, the paragraph labelled "Permit Conditions Review, the 4<sup>th</sup> paragraph beginning with "Section 2.7 "40 CFR60 Subpart IIII – Maximum Hours of Operation for Emergency Generator" lists a citation of "40 CFR 60(f)(2)(i)". I believe you meant to cite 40 CFR 60.4211(f)(2)(i).

**DEQ Response:** On page 10 correction made to 40 CFR 60.4211(f)(2)(i).

**Facility Comment:** Page 6, Section 2.7, "40 CFR 60 Subpart IIII – Maximum Hours of Operation for Emergency Generator" has dropped the permitted hours allowed for operation of the emergency generators to 100 hours per year. The original permit allowed 500 hours of operation of the emergency generator based on modelling and did so to avoid the requirement to submit an excess emissions report for each instance of operation in emergency conditions. ALK is OK with the reduction in hours to 100 per year for the two generators as we have not needed the generators for anywhere close to 100 hours per year. However, I am unclear under the new permit when exactly an excess emission report is required. Is an excess emission report only required when operation of the emergency generators exceeds 100 hours per year for any reason?

**DEQ Response:** No. Operations during emergency situations is not limited by the permit or the federal regulation.

**Facility Comment:** Page 9, Operating Requirements, Section 3.7 requires development of a "Baghouse/Filter Systems document" which details how weekly inspections will be conducted for "see-no-see" inspections of the stacks from baghouses and filters plus a Semi-annual inspection that includes "checking the bags, cartridges or filters for structural integrity and that they are properly secured in place." ALK has no issue with the requirement to prepare the inspection document nor the requirement for semi-annual inspections of the integrity of the baghouses and filters. However, we believe a weekly "see-no-see" inspection of the stacks is overkill for the very small amount of potential particulate emissions from these stacks. We suggest that a monthly "see-no-see" visual inspection would be adequate to insure these baghouses and filters are working correctly. In the nearly 6 years we have been operating, we have never seen emissions from any of these baghouses or filter systems.

**DEQ Response:** Suggested change incorporated for "monthly" inspections.