



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

## Department of Environmental Conservation

DIVISION OF AIR QUALITY  
AIR PERMITS PROGRAM

410 Willoughby Avenue, Suite 303  
P.O. Box 111800  
Juneau, Alaska 99811-1800  
Main: 907.465.5100  
Toll free: 866.241.2805  
Fax: 907.465.5129  
<http://www.dec.state.ak.us>

February 11, 2013

Re: 2012 Triennial Point Source Emission Inventory for Stationary Source:

Dear :

The Alaska Department of Environmental Conservation (ADEC) is required by Federal Regulation 40 CFR 51.30 to submit a statewide point-source emission inventory to the United States Environmental Protection Agency (EPA). An annual emissions inventory (EI) report is required for sources with the potential emissions at or above one of the following thresholds:

2500 tons per year of SO<sub>x</sub>, NO<sub>x</sub>, or CO  
250 tons per year of VOC, PM<sub>10</sub>, or PM<sub>2.5</sub>

For stationary source, ADEC is requesting emission inventory data through permit under permit. The pollutant potential to emit tons per year was the triggering point for annual reporting. 18 AAC 50.200 Information requests, as well as Standard Permit Condition XV, adopted by reference September 27, 2010, require submittal of the EI information requested. For further information about who is required and what is submitted in an emission inventory, please visit EPA's website [http://www.epa.gov/ttn/chief/acrr/final\\_published\\_acrr.pdf](http://www.epa.gov/ttn/chief/acrr/final_published_acrr.pdf).

An emission inventory provides information about air pollutants emitted to the atmosphere and is the basis for air quality planning. Emission inventory information is also important in maintaining State primacy of air quality issues on which regulations and rules may be based.

We require your assistance collecting the data needed for the 2012 Emission Inventory. Along with the pollutants data, information about the release points and stack data need to be reviewed, completed, and corrected where required. Detailed instructions are enclosed as Attachment A and can also be found online at: <https://myalaska.state.ak.us/dec/air/airtoolsweb/Common/Docs/EIInstructions.pdf>.

EI data is due no later than March 31, 2013. If you have any questions or would like further information please contact me at 907-465-5128 or at [nattinee.nipataruedi@alaska.gov](mailto:nattinee.nipataruedi@alaska.gov).

Sincerely,

Nattinee Nipataruedi  
Environmental Program Specialist

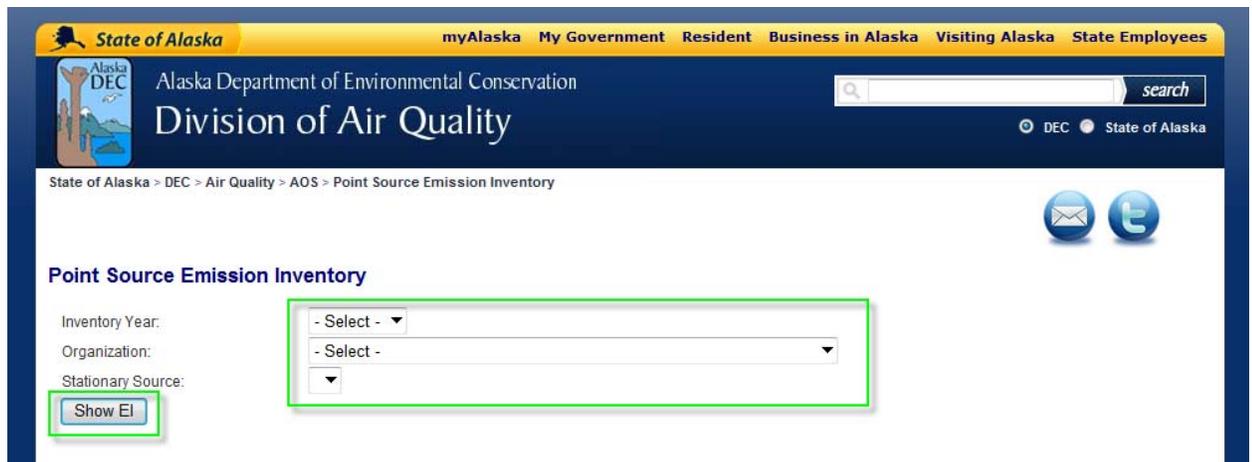
## 2011 Triennial Emission Inventory Submission Instructions

You may submit your EI data either electronically (via email) or in hard copy format.

1. Access your stationary source data online at:  
<https://myalaska.state.ak.us/dec/air/airtoolsweb/AirOnlineServices.aspx>.
  - Under “Service” select Point Source Emission Inventory.



- Select your most recent inventory year (either 2011 if you report annually or triennially), your organization, and the stationary source name.



- Then click on the “Show EI” button.

## Attachment A

2. If you wish to submit your EI data through email (preferred method), select all of the items in the report and paste into a spreadsheet file (such as excel).

OR – If you wish to submit your EI data by hardcopy, print out the EI report.

3. Review, update, complete, and correct data as needed.
  - Highlighted items are required.
  - A description of each field follows these instructions and starts on page 4 of this attachment.
  - In an effort to update our files, we request that you also review the stack description items for accuracy and completeness.
    - Stack parameters
      - Stack height
      - Stack diameter
      - Exit gas temperature
      - Exit gas velocity
      - Exit gas flow rate
      - Parameters data source (engineering estimate, source test, or vendor data)
      - Description
    - Stack location
      - Stack latitude and longitude
      - Datum
      - Horizontal accuracy
      - Horizontal collection method
      - Base elevation
      - Location description
4. If you have units that are not listed in your EI report, please provide information on that source. Blank forms attached at the end of this attachment (starting at page 9) or are available at: <https://myalaska.state.ak.us/dec/air/airtoolsweb/PrintEI.aspx>
5. Please make sure your response is signed and certified as required by 18 AAC 50.205.
6. Submit your completed EI data to Nattinee Nipataruedi.
  - Electronically: [nattinee.nipataruedi@alaska.gov](mailto:nattinee.nipataruedi@alaska.gov)

Attachment A

- In hardcopy:  
ADEC Air Permit Program  
Attn: Nattinee Nipataruedi  
410 Willoughby Ave., Suite 303  
PO Box 111800  
Juneau Alaska 99811-1800

## Emission Inventory Field Descriptions (highlighted fields are required)

### General Facility Information

**DEC ID:** (leave blank- filled in by department)

**Facility name:** Legal name of the facility.

**AFS ID:** This is the Air Facility Subsystem ID assigned by EPA. If you do not know your AFS ID, please contact the Department

**Census Area/Community:** Please provide the Census area for which the facility is located. If unknown, you may provide the nearest city, town, or borough in which the facility is located. (<http://labor.alaska.gov/research/census/maps.htm#cen2010> )

**Line of Business:** Please provide the North American Industry Classification System (NAICS) code for your business. The NAICS code numerically indicates the primary activity of a business. (For example 5153 is a grain elevator; 2951 is an asphalt plant). The first two digits indicate the broad category and the second two digits are industry specific. NAICS codes can be found at the EPA website: <http://www.epa.gov/ttn/chief/codes/index.html#naics>. Please note NAICS codes replace SIC codes.

**Contact name:** Please provide the name of the contact person at the facility.

**Contact phone:** Please provide the telephone number where the contact person can be reached.

**Physical address:** Please provide the street address of a facility. This address describes the location where emissions occur; not, for example, corporate headquarters.

**Mailing address:** Please provide the address where all written correspondence to the facility should be sent.

### Emission Unit

**Emission unit ID:** Please assign a unique numerical identifier to each source. These identifiers will be entered into the State's database and used to identify a particular unit for the lifetime of the unit.

**Emission unit description/name:** Provide a name or brief description of the source. Examples are "#1 Power Boiler," "West Soybean Drier," or "Coal Stack Pile." These are typically a description of the equipment.

**Model Number:** Sources, particularly engines, come with model numbers assigned by the manufacture. Please provide the model number here.

**Serial Number:** Sources, particularly engines, come with serial numbers assigned by the manufacture. Please provide the serial number here.

**Manufactured Year:** Please indicate the year the source was manufactured.

**Design Capacity:** A measure of point source size, based on the reported maximum continuous capacity of the unit.

### Control Equipment

***Please complete this section for each emission unit if it employs pollution controls***

**ID:** Please assign a unique identifier to each piece of control equipment.

**Control Device Type:** Name of control device type (e.g., wet scrubber, flaring, or process change). Please indicate if it is the primary or secondary control device.

**Control Device Manufacturer:** Please provide the name of control device manufacturer.

**Control Device Model:** If available, please provide the model number of the control device assigned by the manufacture.

**Control efficiency %:** Please provide the percent value of emissions controlled (not emitted) as a result of the control device.

**Capture efficiency %:** Please provide the percent capture efficiency if available. This is the percent of total emissions captured and routed to air pollution control equipment. Please note that capture efficiency is not applicable to the control of fugitive emissions. Enter 100% capture efficiency for all sources using water suppressant or water spray controls, such as haul roads, storage piles, or conveyors. For point sources, capture efficiency is determined at each emission point with a control device, regardless of control device location. If a facility has a single central control device, and that device takes in pollutants from multiple emission points, capture efficiency must be determined for each point. Please use the following hierarchy to determine capture efficiency.

**Total Capture Efficiency%:** means the net emission reduction efficiency of all emissions collection devices

**Pollutants Controlled:** Please list the pollutants controlled by the control device.

### Process

**Primary/secondary process:** If a unit uses more than one fuel, information must be completed for both the primary and secondary processes. For example, a Unit 1 might use natural gas for 900 hours and diesel for 300 hours; natural gas is the primary process and diesel is the secondary. Fill out a separate process description for each primary and secondary process.

**SCC (Source Classification Code):** A process-level code describing the equipment or operation or both which is emitting pollutants. These codes are found at the EPA website: <http://www.epa.gov/ttn/chief/codes/index.html#sc>.

**Material Processed:** The type of fuel combusted, raw material processed, product manufactured, or material handled or processed. Examples of throughput material include coal, natural gas, sludge, solid waste, and asphalt. Enter the total amount of fuel used by the source in tons, pounds, gallons, or standard cubic feet.

**Operational Periods:** Within an inventoried year, list when the engine begins and end operation. The purpose of this input is to capture seasonal sources. An engine operating all year long, but one day a week, would have a start date of January 1 and an end date of December 31.

**Start Date:** Provide month, date, and year when source begins operation.

**End Date:** Provide month, date, and year when source ends operation.

### **Fuel Information:**

**Ash content (weight %): (if applicable)** Please provide the mass percentage ash content in the process fuel as an annual average. The value for the percentage of ash must be entered as the weight of the ash in the fuel compared with the weight of the fuel when it was received by the facility. The percentage of ash value for coal and oil must agree with the supplier statement. If more than one shipment of the same fuel type was received and used during the year, the percentage of ash must be calculated as a weighted average, using the percentage ash and the amount of each different fuel shipment used during the year.

**Elemental Sulfur content (weight %):** Please provide the mass percentage of sulfur in the process fuel as an annual average. The value for the percentage of sulfur must be entered as the weight of the sulfur in the fuel as compared with the weight of the fuel when the facility received it. The percentage of sulfur value for coal, oil and LPG/Propane must agree with the statement from your supplier. If more than one shipment of the same fuel type was received and used during the year, the percentage of sulfur must be calculated as a weighted average, using the percentage sulfur and the amount of each different fuel shipment used during the year.

**Heat content (e.g. MMBtu/1000 gal or MMBtu/MMscf):** Please provide the amount of thermal heat energy in solid, liquid, or gaseous fuel burned in the source. Fuel heat content is typically expressed in units of million BTU's per ton of coal, 1000 gallons of oil, or million standard cubic feet (SCF) of gas.

**Heat Input (MMBtu/hr):** This is generally calculated by determining the amount of fuel used per hour and converting it into million BTUs.

**Mechanical Output (horsepower or KW-hour):** Some emission calculations use mechanical or power output as the activity data. These engines include diesel and gasoline fueled internal combustion engines. Please provide the mechanical output of source if applicable.

### **Throughput:**

**Total Throughput Amount:** A measurable factor or parameter relating directly or indirectly to source emissions of air pollution. Depending on the source type, throughput may refer to the amount of fuel combusted, raw material processed, product manufactured, or material handled or processed in one year. Throughput is typically the value that is multiplied against an emission factor to generate an emissions estimate. Examples of throughput include 6.60 million cubic feet (mmscf) of natural gas or 30,000 gallons of diesel. Please provide the source throughput here.

**Quarterly throughput:** The percentage of annual production, use of the source, or throughput, occurring during each quarter. 100% represents the actual operations during the calendar year, not the potential to emit of the source. The seasons represent the four quarters of the year. Their total must equal 100% or 0%. Please provide percentages in whole numbers.

**Summer:** Represents June 2012, July 2012, and August 2012.

**Fall:** Represents September 2012, October 2012, and November 2012.

**Winter:** Represents December 2012, January 2012, and February 2012.

**Spring:** Represents March 2012, April 2012, and May 2012.

If the source operated and emitted, before controls, one or more of reportable air contaminants, then 100% must be reported over all four quarterly throughput entries. For example, the quarterly throughput would read 25%, 25%, 25%, and 25% for a source operating 24 hours per day for seven days per week for the entire year. In a second case, the quarterly throughput would read 100%, 0%, 0%, and 0% if the source operated for 123 hours only in the first quarter of the year and did not operate the rest of the year. A source may operate 1 hour or 8760 hours during the year and either figure would represent 100% of its throughput.

**Hours/year:** Please provide the hours for 2012 the emitting process operates.

**Hours/day:** Please provide the average hours per day the emitting process operates over the inventory period. For example if you know the hours/year then take that number and divide by 365 (since there are 365 days per year).

**Days/week:** Please provide the average days per week the emitting process operates over the inventory period. Take the hours/year and divide by 52. Then take that number and divide by 24 and that will give you the days/week.

**Weeks/year:** Please provide the average weeks per 2012 year; the emitting process operates. For example take the hours per year [the first number hours/year] and divide by 168 (there are 168 hours in a week) will give you the weeks per year.

## Emissions

**Pollutant:** The reportable pollutants include carbon monoxide (CO), Ammonia (NH<sub>3</sub>), Nitrogen Oxides (NO<sub>x</sub>), fine and coarse Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>), Sulfur Oxides (SO<sub>x</sub>), Lead and Lead Compounds (Pb), and Volatile Organic Compounds (VOC).

**Emission factor:** Emission factors are a ratio relating emissions of a specific pollutant to an activity or material throughput level, such as lbs/standard cubic feet (SCF) or lbs/gal. When reporting an emission factor, the form asks for the Emission Factor number, the Emission Factor numerator, and the Emission Factor Denominator.

**The Emission Factor number:** This is the value of the emission factor.

**Emission Factor Numerator:** This is the weight or mass of pollutant released per unit of activity. This is usually given in pounds.

**Emission Factor Denominator:** This is the unit of source activity. This is usually given in gallons burned, cubic feet used, or pounds of material processed.

**Emission Factor Source:** Please reference the source of the emission factor; such as “AP-42 Table 3.2-1”. Emission factors are not required when direct measurement is used to estimate emissions such as continuous emission monitors (CEM’s), mass balance equations, and predictive emissions monitoring. Departmentally approved stack testing is also acceptable.

**Tons Emitted:** Please provide the actual emissions for a plant, point, or process (measured or calculated) within a calendar year. Note whether this is a Total or Daily Average.

## Stack Detail

**ID:** If a unit has more than one stack, please assign each stack an ID such as one (1), two (2), or three (3). Each stack must reference an emission unit ID. A unit ID can have one or several stacks (each with a stack ID) associated with it.

**Type:** Please enter the type of stack, such as fugitive, vertical, horizontal, goose neck, vertical with rain cap, or downward facing vent.

**Base Elevation:** Please indicate how many feet above sea level the base of the stack.

**Stack height:** Please provide a stack’s physical height measured in feet above the surrounding terrain; i.e. the height above the ground at the base of the stack. The database range for this value is 0.01 to 1000 feet. Values outside of this range will be recorded but not published in the 2006 EI.

**Stack diameter:** Please provide the stack’s inner physical diameter, measured in feet. The database range is 0.1 to 50 ft. Values outside of this range will be recorded but not published.

**Exit gas temperature:** Please provide the numeric value of an exit gas stream’s temperature (°F). The database range is 50 to 1800°F. Values outside of this range will be recorded but not published.

**Exit gas velocity:** Please provide the numeric value of an exit gas stream's velocity (ft/sec). The database range is 1 to 560 fps. Values outside of this range will be recorded but not published

**Actual Exit Gas Flow Rate:** Please provide numeric value of the stack gas's measured flow rate (ft/sec).

**Data Source:** Please indicate how your facility determines the gas temperature, velocity and flow rates.

**Location:** Please use the coordinates for each stack. If coordinates for any one stack are not available, then provide coordinates for the center of the facility

**Latitude:** Please report latitude in decimal degrees

**Longitude:** Please report longitude in decimal degrees

**Location Description:** Please give description of facility or stack locations such as nearby town, river, or landmark. This is especially important for rural facilities which are remote from communities or roads.

**Horizontal Accuracy (m):** Latitude and longitude data sets often come with a state resolution or accuracy given in meters. Please provide that number in this field

**Datum:** Please enter whether the latitude and longitude derive from North American Datum of 1927, 1983, or some other database.

## Blank Emission Inventory Point Source Form

Emission Inventory - 2012

(mandatory information highlighted)

### Facility Information

ADEC PERMIT ID \_\_\_\_\_

Stationary Source

(Facility) Name: \_\_\_\_\_

AFS ID: \_\_\_\_\_

Census Area/Community: \_\_\_\_\_

Line of Business (NAICS): \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Phone: \_\_\_\_\_

Physical Address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

### Emission Unit

ID: \_\_\_\_\_

Description: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Manufactured Year: \_\_\_\_\_

Design Capacity: \_\_\_\_\_

### CONTROL EQUIPMENT

(if applicable):

ID: \_\_\_\_\_

Type: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model: \_\_\_\_\_

Control Efficiency (%): \_\_\_\_\_

Capture Efficiency (%): \_\_\_\_\_

Total Capture Efficiency (%): \_\_\_\_\_

Pollutants Controlled:

**PROCESS:**

**SCC Code:** \_\_\_\_\_

**Material Processed:** \_\_\_\_\_

**Operational Periods: Start Date:** \_\_\_\_\_

**End Date:** \_\_\_\_\_

**FUEL INFORMATION**

**Ash Content (weight %):** \_\_\_\_\_

**Elem. Sulfur Content (weight %):** \_\_\_\_\_

**H2S Sulfur Content (ppmv):** \_\_\_\_\_

**Heat Content:**  
(MMBtu/1000 gal or MMBtu/MMscf)

**Heat Input (MMBtu/hr):** \_\_\_\_\_

**Heat Output (MMBtu/hr):** \_\_\_\_\_

**THROUGHPUT**

**Total Amount:** \_\_\_\_\_

**Summer:** \_\_\_\_\_

**Fall:** \_\_\_\_\_

**Winter:** \_\_\_\_\_

**Spring:** \_\_\_\_\_

**Days/Week:** \_\_\_\_\_

**Weeks/Periods:** \_\_\_\_\_

**Hours/Day:** \_\_\_\_\_

**Hours/Period:** \_\_\_\_\_

**EMISSIONS**

<b>Pollutant</b>	<b>Emission Factor Type (T - Total Tons Emitted Or AD- Average Daily)</b>	<b>Emission Factor Numerator</b>	<b>Emission Factor Denominator</b>	<b>Emission Factor Source</b>	<b>Tons Emitted</b>
CO					
NH3					

NOX					
PM10-PRI					
PM2.5-PRI					
SO2					
VOC					
Lead and Lead compound					

**STACK DETAIL**

<b>ID:</b>	
<b>Type:</b>	
<b>Measurement Units:</b>	
<b>Base Elevation:</b>	
<b>Stack Height:</b>	
<b>Stack Diameter:</b>	
<b>Exit Gas Temp:</b>	
<b>Exit Gas Velocity:</b>	
<b>Actual Exit Gas Flow Rate:</b>	
<b>Data Source:</b>	
<b>Description:</b>	
<b>Latitude:</b>	
<b>Longitude:</b>	
<b>Horizontal Accuracy</b>	
<b>Location Description:</b>	
<b>Accuracy (m):</b>	
<b>Datum:</b>	