

# **DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

## **AIR QUALITY CONTROL MINOR PERMIT**

**Minor Permit: AQ0196MSS07**

**Preliminary - August 20, 2018**

Revises Minor Permit: AQ0196MSS04

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit AQ0196MSS07 to the Permittee listed below.

**Permittee:** **Kotzebue Electric Association**  
P.O. Box 44  
Kotzebue, AK 99752

**Stationary Source:** Kotzebue Power Plant

**Project:** Minor permit to authorize used oil-fired boiler.

**Location:** Latitude: 66.89391 N, Longitude: 162.59598 W

**Permit Contact:** Martin Shroyer  
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907.442.3491

This project is classified under 18 AAC 50.508(6) for revising or rescinding the terms and conditions of a Title I permit.

This permit satisfies the obligation of the Permittee to obtain a minor permit under 18 AAC 50. As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this permit.

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James R. Plosay, Manager  
Air Permits Program

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## Section 1 Emissions Unit Inventory

**Emissions Unit Authorization.** The Permittee is authorized to install and operate the emissions units listed in Table 1 in accordance with the terms and conditions of this permit and the minor permit application. Unless noted elsewhere in this permit, the information in Table 1 is for identification purposes only. The specific EU descriptions do not restrict the Permittee from replacing an EU identified in this section.

**Table 1 – Emissions Unit Inventory**

EU ID	EU Description	Make/Model	Rating	Installation Date
7B	Diesel Electric Generator	Caterpillar 3516	1,135 kW	1987
10	Diesel Electric Generator	GM EMD 20-710-G4	3,080 kW	1992
14	Diesel Electric Generator	GM EMD 16-710-G4	2,865 kW	1994
15	Diesel Electric Generator	GM EMD 16-710-G4	2,865 kW	2005
16	Diesel Electric Generator	GM EMD 8-710-GC	1,441 kW	2013
17	Diesel Electric Generator	Caterpillar C27	725 kW	2015
18	Used Oil Boiler	Inov8 B1050	1.16 MMBtu/hr	TBD
T2	Fuel Storage Tank (AST)	unknown	10 <sup>6</sup> gallons	1978
T3	Fuel Storage Tank (AST)	unknown	10 <sup>6</sup> gallons	1984
19	Indirect Heater	unknown	0.4 MMBtu/hr	TBD
20	Indirect Heater	unknown	0.4 MMBtu/hr	TBD
21	Space Heater	unknown	0.02 MMBtu/hr	TBD
22	Space Heater	unknown	0.02 MMBtu/hr	TBD
23	Residential Furnace	Toyostove Laser 73	0.04 MMBtu/hr	TBD
24	Wind Site Furnace	Toyostove Laser 56	0.022 MMBtu/hr	TBD

Notes:

EU IDs 7B, 10, 14–17, T2, and T3 were authorized under previous Title I permits.

TBD: to be determined

1. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement EU, including any applicable minor or construction permit requirements.

## **Section 2      Fee Requirements**

- 2. Assessable Emissions.** The Permittee shall pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of:
  - 2.1 the stationary source's assessable potential to emit of 551 tpy; or
  - 2.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon credible evidence of actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by the most representative of one or more of the following methods:
    - a. an enforceable test method described in 18 AAC 50.220;
    - b. material balance calculations;
    - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035;
    - d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.
- 3. Assessable Emission Estimates.** Emission fees will be assessed as follows:
  - 3.1 No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Suite 303, PO Box 111800, Juneau, AK 99811-1800; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
  - 3.2 If no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set out in Condition 2.1.
- 4. Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-403.

### **Section 3        Revisions to Minor Permit AQ0196MSS04**

- 5.**    Condition 14.1 of Minor Permit AQ0196MSS04 is rescinded and replaced with Condition 5.1 of this permit.

5.1    Burn only Ultra-Low Sulfur Diesel (ULSD) fuel in EU IDs 7B, 10, 14, and 15.

- a.    Keep the receipts of each fuel shipment indicating the sulfur content of all the fuel delivered at the stationary source and provide copies of the fuel receipts in the operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50; and
- b.    Notify the Department, as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, if any fuel burned in EU IDs 7B, 10, 14, and 15 is not ULSD.

#### **Section 4    Limit to Avoid PSD Modification under 18 AAC 50.306 and Minor Permitting under 18 AAC 50.502(c)(3)**

- 6.**    Limit the combined SO<sub>2</sub> emissions from EU IDs 16 and 17 to no greater than 1 ton in any consecutive 12-month period.
  - 6.1    Burn only ULSD fuel in EU IDs 16 and 17.
    - a.    Maintain records in accordance with Condition 5.1a; and
    - b.    Notify the Department, as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, if any fuel burned in EU IDs 16 and 17 is not ULSD.

## Section 5 State Emission Standards

7. **Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU ID 18 listed in Table 1 to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.
- 7.1 For EU ID 18, monitor, record and report in accordance with Conditions 8 through 10.
8. **Visible Emissions Monitoring.** The Permittee shall observe the exhaust of EU ID 18 for visible emissions using either the Method 9 Plan under Condition 8.1 or the Smoke/No-Smoke Plan under Condition 8.2 **while burning the same used oil/ULSD blend that is burned during normal operations.** The Permittee may change visible-emissions plans for an emission unit at any time unless prohibited from doing so by Condition 8.3. The Permittee may for each unit elect to continue the visible emissions monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable.
- 8.1 **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.
- a. **First Method 9 Observation.**
- (i) The Permittee shall observe the exhaust of EU ID 18 within 60 calendar days of the emission unit becoming fully operational<sup>1</sup>.
- (ii) For any unit, observe exhaust for 18 minutes within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 8.2. For any unit replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.
- b. **Monthly Method 9 Observations.** After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that an emission unit operates.
- c. **Semiannual Method 9 Observations.** After observing emissions for three consecutive operating months under Condition 8.1b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, perform 18-minute observations:
- (i) Within six months after the preceding observation, or

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<sup>1</sup> Fully operational is defined as completing all testing and commissioning requirements after unit installation. Installation is defined as the point when unit is ready for testing. Testing and commissioning requirements shall not exceed 60 days after unit installation.

- (ii) For an emission unit with intermittent operations, during the next scheduled operation immediately following six months after the preceding observation.
  - d. **Annual Method 9 Observations.** After at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, perform 18-minute observations:
    - (i) Within twelve months after the preceding observation; or
    - (ii) For an emission unit with intermittent operations, during the next scheduled operation immediately following twelve months after the preceding observation
  - e. **Increased Method 9 Frequency.** If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that emission unit to at least monthly intervals as described in Condition 8.1b, until the criteria in Condition 8.1c for semiannual monitoring are met.
- 8.2 **Smoke/No Smoke Plan.** Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.
  - a. **Initial Monitoring Frequency.** Observe the exhaust during each calendar day that an emission unit operates.
  - b. **Reduced Monitoring Frequency.** After the emission unit has been observed on 30 consecutive operating days, if the emission unit operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that an emission unit operates.
  - c. **Smoke Observed.** If smoke is observed, either begin the Method 9 Plan of Condition 8.1 or perform the corrective action required under Condition 8.3.
- 8.3 **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 8.2, then the Permittee shall either follow the Method 9 Plan of Condition 8.1 or
  - a. initiate actions to eliminate smoke from the emission unit within 24 hours of the observation;
  - b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and
  - c. after completing the actions required under Condition 8.3a,
    - (i) take smoke/no smoke observations in accordance with Condition 8.2.



- (A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and
- (B) continue as described in Condition 8.2b; or
- (ii) if the actions taken under Condition 8.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of Condition 8.3c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under Condition 8.2a.

**9. Visible Emissions Recordkeeping.** When required by Condition 7.1, or in the event of replacement of EU ID 18 during the permit term, the Permittee shall keep records as follows:

**9.1** When using the Method 9 Plan of Condition 8.1,

- a. the observer shall record
  - (i) the name of the stationary source, emission unit and location, emission unit type, observer's name and affiliation, and the date on the Visible Emissions Observation Form in Attachment 1;
  - (ii) the time, estimated distance to the emissions location, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating mode (load or fuel consumption rate or best estimate if unknown) on the sheet at the time opacity observations are initiated and completed;
  - (iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
  - (iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emission Observation Form in Attachment 1, and
  - (v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.
- b. To determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet.

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- c. Calculate and record the highest 6-minute and 18-consecutive-minute averages observed.
  - 9.2 If using the Smoke/No Smoke Plan of Condition 8.2, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:
    - a. the date and time of the observation;
    - b. whether visible emissions are present or absent in the exhaust;
    - c. a description of the background to the exhaust during the observation;
    - d. if the emission unit starts operation on the day of the observation, the startup time of the emission unit;
    - e. name and title of the person making the observation; and
    - f. operating mode (load or fuel consumption rate).
  - 10. Visible Emissions Reporting.** When required by Condition 7.1, or in the event of replacement of EU ID 18 during the permit term, the Permittee shall report visible emissions as follows:
    - 10.1 Include in each operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, for the period covered by the report:
      - a. which visible-emissions plan of Condition 8 was used for each emission unit; if more than one plan was used, give the time periods covered by each plan;
      - b. for each emission unit under the Method 9 Plan,
        - (i) copies of the observation results (i.e. opacity observations) for each emission unit that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and
        - (ii) a summary to include:
          - (A) number of days observations were made;
          - (B) highest six-minute average observed; and
          - (C) dates when one or more observed six-minute averages were greater than 20 percent;
      - c. for each emission unit under the Smoke/No Smoke Plan, the number of days that smoke/no smoke observations were made and which days, if any, that smoke was observed; and
      - d. a summary of any monitoring or recordkeeping required under Conditions 8 and 9 that was not done;

10.2 Report to the Department as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50:

- a. the results of Method 9 observations that exceed an average of 20 percent opacity for any six-minute period; and
- b. if any monitoring under Condition 8 was not performed when required, report within three days of the date the monitoring was required.

**11. Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from EU ID 18 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

**11.1 Used Oil Authorization.**<sup>2</sup> The Permittee may burn used oil mixed with ULSD in EU ID 18 as follows:

- a. Measure and record the ash content of a representative sample of the used oil at least once every six months using ASTM D482 or an appropriate alternative method adopted in 18 AAC 50.035(c).
- b. Comply with the state particulate matter standard listed in Condition 8 by blending the used oil with ULSD using a metering system or other reproducible method accurate to plus or minus five percent, at a ratio of 1:X, where X is calculated as follows:

$$X \geq \frac{0.3A - 0.05}{.040}$$

Where:

**A** = the most recently measured weight percent of ash in the used oil.

**X** = number of parts of ULSD to be mixed with 1 part of used oil.

- c. Record the date, quantity of used oil blended (gallons), and the quantity of ULSD blended (gallons) for combustion in EU ID 18.
- d. Inspect the used oil/ULSD fuel tank at least once every five calendar years to ensure that suspended solids are not accumulating in the tank. If suspended solids are present, clean the tank and report actions taken in the operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50.
- e. Include the ash content records from Condition 11.1a and the blending records from Condition 11.1c in the operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50.

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<sup>2</sup> CAUTION! Although this condition should ensure compliance with the applicable emission standards of 18 AAC 50, this permit does NOT ensure compliance with other applicable state or federal laws concerning management, use, or disposal of used oil.

- f. Notify the Department as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, if any of Conditions 11.1a through 11.1e are not met.

**12. Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as sulfur dioxide (SO<sub>2</sub>), from EU ID 18 listed in Table 1 to exceed 500 ppm averaged over three hours.

12.1 Comply with Condition 11.1.

## **Section 6        Federal Requirements**

### **40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)**

#### **13.    NESHAP Subpart A Requirements.**

- 13.1 For EU ID 18, the Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to Subpart JJJJJ.

#### **Subpart JJJJJ – Oil-fired Boilers at Area Sources**

- 14.** For EU ID 18, the Permittee shall comply with all applicable requirements of NESHAP Subpart JJJJJ for oil-fired boilers located at an area source of hazardous air pollutant (HAP) emissions that commenced construction after June 4, 2010.

- 14.1 The Permittee must conduct a performance tune-up of EU ID 18 according to Condition 14.1a and keep records as required in Condition 14.4c to demonstrate continuous compliance. The Permittee must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
- a. You must conduct a tune-up of the boiler every five years to demonstrate continuous compliance as specified in Conditions 14.1a(i) through 14.1a(vii). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler, the first 5-year tune-up must be no later than 61 months after the initial startup.
- (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
- (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
- (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available.

- (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
  - (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in Conditions 14.1a(vi)(A) through 14.1a(vi)(C).
    - (A) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
    - (B) A description of any corrective actions taken as a part of the tune-up of the boiler.
    - (C) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
  - (vii) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.
- 14.2 At all times operate and maintain EU ID 18, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- 14.3 For EU ID 18, the Permittee shall comply with the following
- a. For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable 5-year tune-up as specified in Condition 14.1a no later than 61 months after the initial startup of the new or reconstructed affected source.

- b. For affected boilers that switch fuels or make a physical change to the boiler that results in the applicability of a different subcategory within subpart JJJJJ, you must demonstrate compliance within 180 days of the effective date of the fuel switch or the physical change. Notification of such changes must be submitted according to Condition 14.4f.

14.4 For EU ID 18, the Permittee shall comply with the following:

- a. You must submit all of the notifications in 40 CFR 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in Conditions 14.4a(i) and 14.4a(ii).
  - (i) An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to NESHAP Subpart JJJJJ.
  - (ii) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in 40 CFR 63.11196. If you own or operate a new boiler subject to a requirement to conduct a tune-up, you are not required to prepare and submit a Notification of Compliance Status for the tune-up. You must submit the Notification of Compliance Status in accordance with Conditions 14.4a(ii)(A) and 14.4a(ii)(C). The Notification of Compliance Status must include the information and certification(s) of compliance in Conditions 14.4a(ii)(A) and 14.4a(ii)(B), as applicable, and signed by a responsible official.
    - (A) You must submit the information required in 40 CFR 63.9(h)(2), except the information listed in 40 CFR 63.9(h)(2)(i)(B), (D), (E), and (F).
    - (B) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.”
    - (C) The notification must be submitted electronically using 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 Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.
- b. You must prepare, by March 1 every 5 years, and submit to the delegated authority upon request, a 5-year compliance certification report for the previous 5 calendar years containing the information specified in Conditions 14.4b(i) and 14.4b(ii).
  - (i) Company name and address.

- (ii) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of NESHAP Subpart JJJJJ. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
    - (A) “This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler.”
    - (B) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.”
- c. You must maintain the records specified in Conditions 14.4c(i) through 14.4c(iv).
  - (i) As required in 40 CFR 63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with NESHAP Subpart JJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.
  - (ii) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11223 as specified in Conditions 14.4c(ii)(A) and 14.4c(ii)(B).
    - (A) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
    - (B) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), you must keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2 and each of the legitimacy criteria in 40 CFR 241.3(d)(1). If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR 241.4, you must keep records documenting that the material is a listed non-waste under 40 CFR 241.4(a).



- (iii) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.
  - (iv) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Condition 14.2, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
- d. Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.
- e. If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify the information in 40 CFR 63.11225(f)(1) through (4).
- f. If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within subpart JJJJJ or in the boiler switching out of subpart JJJJJ due to a change to 100 percent natural gas, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the change. The notification must identify the information in 40 CFR 63.11225(g)(1) and (2).

## **Section 7        Standard Permit Conditions**

- 15.** The Permittee must comply with each permit term and condition. Non-compliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
  - 15.1** an enforcement action; or
  - 15.2** permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
- 16.** It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
- 17.** Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
- 18.** The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- 19.** The permit does not convey any property rights of any sort, nor any exclusive privilege.

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## **Section 8      Permit Documentation**

### Date

### Document Details

June 1, 2018	Department receives application to revise Minor Permit AQ0196MSS04.
June 12, 2018	Department receives 1996 reference document to support used oil ash content assumption of 0.5 percent.

## Attachment 1 – Visible Emissions Form

### VISIBLE EMISSIONS OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, “Visual Determination of the Opacity of Emissions from Stationary Sources.” Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to “Instructions for Use of Visible Emission Observation Form” <https://www3.epa.gov/ttnemc01/methods/webinar8.pdf>

- Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where visible emissions observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Stationary Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clinometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor, note in comments section if visible water vapor is present.
- If Plume is present, note in comments section “attached” if water droplet plume forms prior to exiting stack, or “detached” if water droplet plume forms after exiting stack.
- Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
- Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
- Background Color: sky blue, gray-white, new leaf green, etc.
- Sky Conditions: indicate color of clouds and cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.
- Wet Bulb Temperature: can be measured using a sling psychrometer
- RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.
- Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.
- Sun’s Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen’s shadow crosses the observer’s position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.
- Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.
- Range of Opacity: note highest and lowest opacity number.
- Observer’s Name: print in full.
- Observer’s Signature, Date: sign and date after performing VE observation.
- Organization: observer’s employer.
- Certified By, Date: name of “smoke school” certifying observer and date of most recent certification.

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## Attachment 2 - ADEC Notification Form

Kotzebue Power Plant  
Stationary Source Name  
Kotzebue Electric Association

Company Name

AQ0196MSS07  
Air Quality Permit No.

Date

### When did you discover the Excess Emissions/Permit Deviation?

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Time: \_\_\_\_ : / \_\_\_\_

### When did the event/deviation occur?

Begin Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Time: \_\_\_\_ : \_\_\_\_ (please use 24-hr clock.)

End Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Time: \_\_\_\_ : \_\_\_\_ (please use 24-hr clock.)

What was the duration of the event/deviation? : (hrs:min) or days

(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

### Reason for Notification: (please check only 1 box and go to the corresponding section)

- ☐ Excess Emissions – Complete Section 1 and Certify
- ☐ Deviation from Permit Condition – Complete Section 2 and Certify
- ☐ Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

#### Section 1. Excess Emissions

(a) Was the exceedance: ☐ Intermittent or ☐ Continuous

(b) Cause of Event (Check one that applies):

- ☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)
- ☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment
- ☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other \_\_\_\_\_

(c) Description

Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emissions Units Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

EU ID	EU Name	Permit Condition Exceeded/Limit/Potential Exceedance

(e) Type of Incident (please check only one):

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Opacity _____ %       | <input type="checkbox"/> Venting _____ gas/scf   | <input type="checkbox"/> Control Equipment Down |
| <input type="checkbox"/> Fugitive Emissions    | <input type="checkbox"/> Emission Limit Exceeded | <input type="checkbox"/> Recordkeeping Failure  |
| <input type="checkbox"/> Marine Vessel Opacity | <input type="checkbox"/> Flaring                 | <input type="checkbox"/> Other _____            |

(f) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable? ☐ Yes ☐ No

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐ Yes ☐ No

Certify Report (go to end of form.)

## Section 2. Permit Deviations

(a) Permit Deviation Type (check only one box, corresponding with the section in the permit):

- |   |  |
|---|--|
| <input type="checkbox"/> Emission Unit-Specific   | <input type="checkbox"/> Generally Applicable Requirements       |
| <input type="checkbox"/> Failure to Monitor/Report  | <input type="checkbox"/> Reporting/Monitoring for Diesel Engines |
| <input type="checkbox"/> General Source Test/Monitoring Requirements                                | <input type="checkbox"/> Recordkeeping Failure                   |
| <input type="checkbox"/> Recordkeeping/Reporting/Compliance Certification                           | <input type="checkbox"/> Insignificant Emission Unit             |
| <input type="checkbox"/> Standard Conditions Not Included in the Permit                             | <input type="checkbox"/> Stationary Source Wide                  |
| <input type="checkbox"/> Other Section: _____ (Title of section and section number of your permit). |  |

(b) Emission Unit Involved:

Identify the emission units involved in the event, using the same identification number and name as in the permit. List the corresponding permit conditions and the deviation.

EU ID	EU Name	Permit Condition/ Potential Deviation

(c) **Description of Potential Deviation:**

**Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation.**

(d) **Corrective Actions:**

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

### Certification:

**Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.**

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature: \_\_\_\_\_ Phone Number: \_\_\_\_\_



**NOTE:** *This document must be certified in accordance with 18 AAC 50.345(j)*

**To Submit this Report:**

1. Fax to: 907-451-2187

Or

2. Email to: [DEC.AQ.Airreports@alaska.gov](mailto:DEC.AQ.Airreports@alaska.gov)

*If faxed or emailed, the report must be certified within the operating report required by the operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, for the same reporting period.*

Or

3. Mail to:     ADEC  
                  Air Permits Program  
                  610 University Avenue  
                  Fairbanks, AK 99709-3643

Or

4. Phone Notification: 907-451-5173

*Phone notifications require a written follow-up report.*

Or

5. Submission of information contained in this report can be made electronically at the following website: <http://dec.alaska.gov/Applications/Air/airtoolsweb/>