DEPARTMENT OF ENVIRONMENTAL CONSERVATION AIR QUALITY CONTROL MINOR PERMIT

Permit No. AQ1086MSS03

Preliminary - September 24, 2015

Rescinds Minor Permit No. AQ1086MSS02

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit No. AQ1086MSS03 to the Permittee listed below.

Permittee:	Matanuska Electric Association PO Box 2929 163 E. Industrial Way Palmer, Alaska 99645
Owner/Operator:	Same as Permittee
Stationary Source	Eklutna Generation Station
Location:	Latitude: 61° 27' 34.5" N; Longitude: 149° 20' 33.9" W
Physical Address:	28705 Dena'ina Elders Road, Eklutna, Alaska 99567
Permit Contact:	Traci Bradford, (907) 761-9374; traci.bradford@mea.coop
Project:	Revise Emission Control Operating Parameters

This permit is classified under 18 AAC 50.508(6) for revising or rescinding the terms and conditions of a Title I permit. This permit also carries forward the classifications of 18 AAC 50.502(c)(1) and 18 AAC 50.508(5) from Permit No. AQ1086MSS01. The 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

John F. Kuterbach, Manager Air Permits Program

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Section 1. Emission Inventory

1. Emission Unit Authorization. The Permittee is authorized to install and operate emission units (EUs) listed in Table 1. Except as noted elsewhere in the permit, the information in Table 1 is for information purposes only. The specific unit descriptions do not restrict the Permittee from replacing an emission unit identified in Table 1. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement emission unit, including any applicable minor or construction permit requirements.

EU ID	Description	Make / Model	Rating	Fuel Type	Install Date
1	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	March 2015
2	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	March 2015
3	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	March 2015
4	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	March 2015
5	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	March 2015
6	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	March 2015
7	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	February 2015
8	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	February 2015
9	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	February 2015
10	Generator Engine	Wartsila 18V50DF	17.1 MW	NG/ULSD	February 2015
11	Firewater Pump	John Deere JU6H- UFADN0	197 hp	ULSD	October 2014
12	Black Start Generator	Cummins 1000DQFAD	1,490 hp	ULSD	April 2015
13	Auxiliary Boiler	Cleaver-Brooks FLX200-1650	15.75 MMbtu/hr	NG/ULSD	October 2014
14	Auxiliary Boiler	Cleaver-Brooks FLX200-1650	15.75 MMbtu/hr	NG/ULSD	October 2014
15	Diesel Storage Tank	Rockford Corporation	436,842 gal	Diesel	November 2014
16	Diesel Storage Tank	Rockford Corporation	436,842 gal	Diesel	November 2014
17	NG Fuel Heater	ETI	7.0 MMBtu/hr	Natural Gas	TBD
18	Black Start Generator	Cummins 1000DQFAD	1,490 hp ULSD Apri		April 2015

Unit 2	Inventory
	Unit

Table Notes:

NG / ULSD: Natural Gas / Ultra Low Sulfur Diesel

TBD: To Be Determined

1.1 The Permittee shall maintain the equipment listed in Table 1 according to the manufacturers' or operator's maintenance procedures and shall keep copies of the maintenance procedures.

Section 2. Emission Fees

- 2. Assessable Emissions. The Permittee shall pay the Department an annual emission fee 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(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year (tpy). The quantity for which fees will be assessed is the lesser of:
 - 2.1 the stationary source's assessable potential to emit of 795 tpy; or
 - 2.2 the stationary source's projected annual rate of emissions that will occur from July 1st to the following June 30th, based upon actual annual emissions emitted during the most recent calendar year or another 12-month period approved in writing by the Department, when demonstrated by
 - 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; or
 - d. other methods and calculations approved by the Department.
- 3. Assessable Emission Estimates. Emission fees will be assessed as follows:
 - 3.1 no later than March 31st of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to the Department, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; 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 31st of each year, emission fees for the next fiscal year will be based on the potential to emit set forth 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 through 405.

Section 3. Requirements to Avoid Classification under PSD

- 5. Operation Hour Limits for EU IDs 1 through 10: The Permittee shall limit the combined hours of operation of EU IDs 1 through 10 to no more than 1,680 hours per 12-month rolling period when firing ultra-low sulfur diesel (ULSD) exclusively.
 - 5.1 The Permittee shall burn only natural gas and ULSD in EU IDs 1 through 10.
 - 5.2 Install and maintain a non-resettable hour meter on each of EU IDs 1 through 10.
 - 5.3 Monitor and record the hours of operation each month for each of EU IDs 1 through 10 when firing ULSD exclusively.
 - 5.4 By the end of each calendar month, calculate and record the combined hours of operation for EU IDs 1 through 10 when firing ULSD exclusively during the previous month, then calculate the 12-month rolling combined hours for EU IDs 1 through 10 when firing ULSD exclusively.
 - 5.5 Report in the operating report under Condition 22 the rolling 12-month combined hours of operation for EU IDs 1 through 10 when firing ULSD exclusively.
 - 5.6 Notify the Department under Condition 21 if the consecutive 12-month combined hours of operation for EU IDs 1 through 10, when firing ULSD exclusively, exceed 1,680 hours.
- 6. **Operation Hour Limits for EU ID 11:** The Permittee shall limit the operation of EU ID 11 to no more than 500 hours per year.
 - 6.1 Install and maintain a non-resettable hour meter on EU ID 11.
 - 6.2 Monitor and record the monthly hours of operation for EU ID 11.
 - 6.3 By the end of each month, calculate and record the operating hours of EU ID 11 for the previous month.
 - 6.4 Report in the operating report under Condition 22 the rolling 12-month hours of operation of EU ID 11.
 - 6.5 Notify the Department under Condition 21 if the rolling 12-month hours of operation for EU ID 11 exceed 500 hours.
- 7. Operation Hour Limits for EU IDs 13 and 14: The Permittee shall limit the combined hours of operation of EU IDs 13 and 14 to no more than 1,000 hours per rolling 12-month period when firing ULSD exclusively.
 - 7.1 The Permittee shall fire only natural gas and ULSD in EU IDs 13 and 14.
 - 7.2 Install and maintain a non-resettable hour meter on each of EU IDs 13 and 14.
 - 7.3 Monitor and record the monthly operating hours for each of EU IDs 13 and 14 when firing ULSD exclusively.

- 7.4 By the end of each month, calculate and record the combined operating hours of EU IDs 13 and 14 when firing ULSD exclusively during the previous month, then calculate the 12-month rolling combined hours for EU IDs 13 and 14 when firing ULSD exclusively.
- 7.5 Report in the operating report under Condition 22 the rolling 12-month combined operating hours of EU IDs 13 and 14 when firing ULSD exclusively.
- 7.6 Notify the Department under Condition 21 if the rolling 12-month combined hours of operation, for EU IDs 13 and 14, when firing ULSD exclusively, exceeds 1,000 hours.
- 8. Control Equipment: The Permittee shall operate and maintain a combined Selective Catalytic Reduction (SCR) and Catalytic Oxidation (CATOX) control equipment downstream of each of EU IDs 1 through 10 according to the manufacturer's instructions and as follows:
 - 8.1 For the combined control equipment¹, while operating on natural gas, monitor and record hourly:
 - a. the rate of injection of the reducing aqueous ammonia reagent into the flue gas leaving the emission unit. The 3-hour rolling average ammonia injection rate shall be no less than 1.0 gallons per hour (gal/hr) and no more than 38.5 gal/hr², except during startup and shutdown.
 - b. the temperature of the flue gas leaving the combined control equipment. The 3-hour rolling average temperature of the flue gas leaving the combined control equipment shall be no less than 536° F and no more than 997° F³, except during startup and shutdown.
 - c. the pressure drop across the combined control equipment. The 3-hour rolling average pressure drop shall be no less than 1.5 inches of water and no more than 10 inches of water, except during startup and shutdown.
 - 8.2 Keep on site the necessary manufacturer-recommended spare parts, reagents, catalysts, and operation manual for the control equipment.
 - 8.3 In case of equipment malfunction, implement manufacturer-recommended corrective actions and record:
 - a. complete description of the corrective action; and
 - b. date(s) of the corrective action
 - 8.4 Keep records of:
 - a. all control equipment system repairs;

¹ SCR and CATOX with the CATOX downstream of the SCR.

² The minimum injection rate is from the permit application. The maximum injection rate is from the manufacturer's specifications.

³ The temperature rates are from the manufacturer specifications.

- b. hourly operating parameters established in Condition 9.1, dates and times each control equipment is started up or shut down.
- c. System alarm logs including time and date of occurrence
- d. receipts for all aqueous ammonia purchases (with dates and quantities);
- 8.5 Report under Condition 21 all
 - a. Control equipment malfunctions and associated corrective actions;
 - b. Operating parameters that are outside the ranges in Condition 9.1.
 - c. Periods (starting and ending hour) during which a control equipment was not operating within the ranges established in Condition 9.1 while its associated generator was operating.

Section 4. Requirements to Avoid Classification as a HAP Major Source

9. Formaldehyde (CH₂O) Emission Limit: The Permittee shall limit CH₂O emissions from EU IDs 1 through 10 while firing natural gas to no more than 9.6 tpy during any consecutive 12 months by complying with Condition 8.

Section 5. State Emission Standards

- **10.** Visible Emissions. The Permittee shall not cause or allow visible emissions (VE), excluding condensed water vapor, emitted by EU IDs 1 through 14, 17, and 18 to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.
- **11. Particulate Matter**: The Permittee shall not cause or allow particulate matter (PM) emitted from EU IDs 1 through 14, 17, and 18 to exceed 0.05 grains per dry standard cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.
- **12.** Sulfur Compound Emissions: The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from EU IDs 1 through 14, 17, and 18 to exceed 500 ppm averaged over three hours.
 - 12.1 The Permittee shall monitor, record, and report as described in Condition 16.

Section 6. Protection of Ambient Air Quality

- **13. Annual NO₂ Ambient Air Quality Protection:** To protect the annual NO₂ ambient air quality standard, the Permittee shall:
 - 13.1 For EU IDs 1 through 10, the Permittee shall maintain a release height for each stack that equals or exceeds 30.0 meters above grade.
- **14. Annual NO₂ and 24-hr PM-10 Ambient Air Quality Protection:** To protect the annual NO₂ and 24-hr PM-10, the combined operating hours for EU IDs 12 and 18 shall not exceed 1,000 hours per rolling 12-month period.
 - 14.1 Install and maintain a non-resettable hour meter on each of EU IDs 12 and 18.
 - 14.2 Monitor and record the hours of operation of each emission unit and the combined hours of operation for EU IDs 12 and 18 for each month.
 - 14.3 At the end of each month, calculate and record for the previous month, the combined hours of operation for EU ID 12 and EU ID 18 during the month, then calculate the combined 12-month rolling total hours of operation by adding the hours of operation for the previous 11 months.
 - 14.4 Report in the operating report under Condition 22 the combined rolling 12-month hours of operation for EU IDs 12 and 18.
 - 14.5 Notify the Department under Condition 21 should the combined consecutive 12month operating hours for EU IDs 12 and 18 exceed 1,000 hours.

Section 7. Requirements to Avoid Minor Permitting under 18 AAC 50.502(c)(1)(c)

- **15. Fuel Sulfur Requirements:** The Permittee shall monitor the sulfur content of the ULSD and hydrogen sulfide (H₂S) content of the natural gas burned as follows:
 - 15.1 The H₂S content of the natural gas burned in EU IDs 1 through 10, 13, 14, and 17 shall not exceed 20 parts per million by volume (ppmv).
 - a. Monitor and record the H₂S content of the natural gas monthly by obtaining and keeping a current certified letter, valid purchase contract, tariff sheet, or transportation contract from the supplier stipulating that the natural gas supplied during the month does not contain more than 20 ppmv H₂S.
 - b. Report in the operating report under Condition 22 the monthly H₂S content of the natural gas. Report under Condition 21 if the H₂S content of the natural gas exceeds 20 ppmv.
 - 15.2 The sulfur content of the diesel fuel burned in EU IDs 1 through 10, 13, and 14 when burning diesel and in EUs 11, 12, and 18 shall not exceed 15 parts per million by weight (ppmw) of sulfur.
 - a. Monitor and record monthly the sulfur content of the diesel fuel burned by obtaining and keeping a current certified letter or fuel receipts from the diesel fuel supplier that the diesel fuel supplied during the month was ULSD.
 - b. Report in the operating report under Condition 22 the type of diesel fuel received for each shipment. Report under Condition 21 if the fuel received was not ULSD.

Section 8. General Recordkeeping, Reporting, and Certification Requirements

- 16. Certification. The Permittee shall certify all reports, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: "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." Excess emissions reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.
- **17. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send two copies of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 17.
- **18. Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke, reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.
- **19. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:
 - 19.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
 - 19.2 records of all monitoring required by this permit, and information about the monitoring including (if applicable):
 - a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
 - b. sampling dates and times of sampling or measurements;
 - c. the operating conditions that existed at the time of sampling or measurement;
 - d. the date analyses were performed;
 - e. the location where samples were taken;
 - f. the company or entity that performed the sampling and analyses;
 - g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.

20. Excess Emissions and Permit Deviation Reports.

- 20.1 Except as provided in Condition 23, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:
 - a. In accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the Permittee believes to be unavoidable;
 - b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that caused emissions in excess of a technology based emissions standard;
 - c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which emissions or deviation occurs or is discovered, except as provided in Conditions 21.1c(ii) and 21.1c(iii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 21.1c(i); and
 - (iii)for failure to monitor, as required in other applicable conditions of this permit.
- 20.2 The Permittee must report using either the Department's on-line form, or if the Permittee prefers, the form contained in Attachment 2. The Permittee must provide all information called for by the form that is used.
- 20.3 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.
- **21. Operating Reports.** During the life of this permit, the Permittee shall submit to the Department an original and two copies of an operating report by August 1st for the period January 1st through June 30th of the current year and by February 1st for the period July 1st through December 31st of the previous year.
 - 21.1 The operating report must include all information required to be in operating reports by other conditions of this permit
 - 21.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 22.1, either
 - a. The Permittee shall identify
 - (i) the date of the deviation;

(ii) the equipment involved;

(iii)the permit condition affected;

- (iv)any corrective action or preventative measures taken and the date of such actions; or;
- b. when excess emissions or permit deviations have already been reported under Condition 21 the Permittee may cite the date or dates of those reports.
- 22. Air Pollution Prohibited. No person may permit any emissions which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.
 - 22.1 If emissions present a potential threat to health or safety, the Permittee shall report any such emissions according to Condition 21.
 - 22.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 23.
 - 22.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
 - a. after investigation because of complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 23; or
 - b. the Department notifies the Permittee that it has found a violation of Condition 23.
 - 22.4 The Permittee shall keep records of
 - a. the date and time, and nature of all emissions complaints received;
 - b. the name of the person or persons that complained, if known;
 - c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 23; and
 - d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source
 - 22.5 With each operating report under Condition 22, the Permittee shall include a brief summary report which must include
 - a. the number of complaints received;
 - b. the number of times the Permittee or the Department found corrective action necessary;
 - c. the number of times action was taken on a complaint within 24 hours; and

- d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.
- 22.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

Section 9. General Source Test Requirements

- **23. Requested Source Tests.** In addition to any source testing explicitly required by this permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.
- 24. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing
 - 24.1 at a point or points that characterize the actual discharge into the ambient air; and
 - 24.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air
- **25. Reference Test Methods.** The Permittee shall use the following references for test methods when conducting source testing for compliance with this permit:
 - 25.1 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in 40 C.F.R. 60, Appendix A, Reference Method 9. The Permittee may use the form in Attachment 1 of this permit to record data.
 - 25.2 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.
 - 25.3 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202. For EUs with stack temperatures exceeding 500 degrees Fahrenheit, source testing may be conducted in accordance with the procedures specified in 40 C.F.R. 60, Appendix A, Method 5 and 40 C.F.R. 51, Appendix M, Method 202.
 - 25.4 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.
- 26. Test Deadline Extension. The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

- 27. Test Plans. Before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emissions unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete test plan at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.
- **28.** Test Notification. At least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and time the source test will begin.
- **29.** Test Reports. Within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results as set out in Condition 17. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

Section 10. Standard Terms and Conditions

- **30.** The Permittee must comply with each permit term and condition. Noncompliance 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
 - 30.1 an enforcement action; or
 - 30.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
- **31.** 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.
- **32.** 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.
- **33.** 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.
- 34. The permit does not convey any property rights of any sort, nor any exclusive privilege.

Section 11. Permit Documentation

July 23, 2015Matanuska Electric Association (MEA) submits a minor permit
application to revise Minor Permit AQ1086MSS02

Attachment 1. Visible Emissions Form

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions form 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."

- 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 VE observation is being made.
- Phone (Key Contact): number for appropriate contact.
- 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 clineometer.
- 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 Present?: check "yes" if visible water vapor is present.
- If Present, is Plume...: check "attached" if water droplet plume forms prior to exiting stack, and "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 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.

		ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION AIR QUALITY DIVISION - VISIBLE EMISSIONS OBSERVATION FORM Page No.								
Source Name		Type of s	Source		Observatio	n Date		Start T	ime	End Time
					Sec	0	15	30	45	Comments
Address					Min					
City	State		Zip		1	•				
		-			2					
Phone # (Key Contact)		Source ID Nur	nber		3					
Process Equipment		Operating Mod	de		4					
Control Equipment		Operating Mod	de							
Describe Emission Point										
Uninki akaya ayayad kural	It all a bet and a first		la alla annata a	Deediee	6					
Height above ground level	Height relativ	/e to observer	Inclinometer	Reading	7					
Distance From Observer		Direction From Start	n Observer End		8					
Describe Emissions & Colo	r									
Start		End			9					
Visible Water Vapor Prese	nt? If yes, de	etermine approx	kimate distan	ce from the						
No Yes	stack ex	it to where the	plume was r	ead	10					
Point in Plume at Which Ope	acity Was Def	termined			11					
Describe Plume Backgroun	d	Background C	olor		12					
Start		Start								
End		End			13					
Sky Conditions: Start					14					
Fnd										
Wind Speed		Wind Direction	From End		15					
Ambient Temperature		Wet Bulb Tem	p	RH percent	16					
NOTES: 1Stack or Poin	t Being Read	2 Wind Direction	n From		17					
3 Observer Location 4 Sun	Location 5 N	Jorth Arrow 6 C	Ither Stacks		18					
					10					
					13					
					20					
					21					
					22					
					23					
					24					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					Range of	Opacity				
					Ministra			Maxim		
I have received a conv of t	hese onacity	observations			Print Obse	erver's N	ame	maximu	п	
		- Sect rations			Frint Observer's Name					
Print Name:					Observer	s Signati	ure	Date		
Signature:										
Title		Date			Organizat	ion				
					Certified F	lv:			Date	

Attachment 2. ADEC	Notification Form					
Eklutna Generation StationAQ1086MSS03						
Stationary Source Name	- 4•	Ai	ir Quality Permi	t No.		
Matanuska Electric Associa	ation	- <u> </u>	ate			
When did you discover the F	Tyeose Emissions/Pormi	t Dovistion?				
Date: / /	Excess Emissions/1 ermi		Time:	:/		
When did the event/deviatio	n occur?					
Begin Date: /	/ Time:	:	(Use 2	24-hr clock.)		
End Date /	/ Time:	:	(Use 2	24-hr clock.)		
What was the duration of the event/deviation?	he	: (hr	s:min) or	days		
(total # of hrs, min, or days, if inter	mittent then include only the	duration of the	actual emissions/	deviation)		
Reason for Notification: (ple	ase check only 1 box and	l go to the co	rresponding se	ection)		
Excess Emissions – Cor	nplete Section 1 and Cer	tify				
Deviation from Permit	Condition – Complete Se	ction 2 and C	Certify			
Deviations from COBC	, CO, or Settlement Agre	ement – Con	nplete Section	2 and Certify		
(a) Was the exceedance:	Section 1. Excess En	missions or	Continuou	S		
(b) Cause of Event (Check of	one that applies):					
Start Up/Shut Down	Natural Cause (wea	ther/earthqual	ke/flood)			
Control Equipment Failure	Schedule Maintena	nce/Equipmen	t Adjustment			
Bad Fuel/Coal/Gas	Upset Condition	Other				
 (c) Description Describe briefly, what has exceeded, limits, monito 	appened and the cause. In ring data and exceedance	nclude the pa	rameters/opera	ting conditions		

 (d) Emissions Units Involved: Identify the emission unit involved in the event, using the same identification number and name <u>as in the permit</u>. 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 cł	neck only one):					
	Opacity 9	6	Uenting		gas/scf	Cor Down	ntrol Eq	uipment
	Fugitive Emissions	8	Emission Lin	mit Exo	ceeded	D Other		
(f)	Marine Vessel Opa Unavoidable Emis	acity ssions:	Flaring		-			
Do una	you intend to assert voidable?	t that the	se excess emissio	ns wer	e		Yes	🗌 No
Do	you intend to assert	t the affin	rmative defense o	f 18 A.	AC 50.23	5?	Yes	🗌 No
Cert	ify Report (Go to er	nd of forn	n.)					
			Section 2. Pern	nit Dev	riations			
(a)	Permit Deviation T	ype (che	ck only one box,	corresp	onding w	with the s	ection in	n the permit):
	Emission Unit-Speci	fic		G	enerally A	pplicable	Require	ments
	Failure to Monitor/R	eport		🗌 Re	eporting/M	Ionitoring	g for Die	sel Engines
	General Source Test	/Monitori	ng Requirements	🗌 Re	ecordkeep	ing Failur	e	
	Recording/Reporting	g/Complia	nce Certification	In:	significant	t Emission	n Unit	
Per	Standard Conditions mit	Not Inclu	uded in the	St	ationary S	ource Wi	de	
	Other Section:					(Title numb	of section of of you	on and section or permit).
(b)	Emission Unit Invo	olved:					2	•
							~ .	

Identify the emission unit involved in the event, using the same identification number and name <u>as in the permit.</u> 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:					
Fax to: 907-451-2187					
Or					
Email to: DEC.AQ.Airreports@alaska.gov					
If faxed or emailed, the report must be certified within the operating report required for the same reporting period per Condition 21.					
Or					
Mail to: ADEC					
Air Permits Program					
610 University Avenue					
Fairbanks, AK 99709-3643					
Or					
Phone Notification: 907-451-5173					
Phone notifications require a written follow-up report.					
Or					
Submission of information contained in this report can be made electronically at the following website:					
https://myalaska.state.ak.us/dec/air/airtoolsweb/					
If submitted online, report must be submitted by an authorized E-Signer for the stationary source.					