

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0209TVP03

Issue Date: Public Comment - April 8, 2010

Expiration Date: Five Years

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **Alaska Electric Light & Power Company**, for the operation of the **Lemon Creek Standby Generation Station**.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

Citations listed herein are contained within 18 AAC 50 dated June 19, 2009, Register 190. All federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

Upon effective date of this permit, Operating Permit No. AQ0209TVP02 expires.

This Operating Permit becomes effective <insert date—30 days after issue date>.

John F. Kuterbach, Manager
Air Permits Program

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List of Abbreviations Used in this Permit

AAC.....	Alaska Administrative Code	MR&R.....	Monitoring, Recordkeeping, and Reporting
ADEC	Alaska Department of Environmental Conservation	NESHAPs.....	Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
AP-42.....	EPA's Compilation of Stationary Source Emission Factors	NOx.....	Nitrogen Oxides
AS	Alaska Statutes	NSPS	Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
ASTM.....	American Society for Testing and Materials	O & M	Operation and Maintenance
BACT	Best Available Control Technology	O ₂	Oxygen
BHp	Boiler Horsepower	PAL	Plantwide Applicability Limitation
C.F.R.	Code of Federal Regulations	PM-10	Particulate Matter less than or equal to a nominal ten microns in diameter
The Act.....	Clean Air Act	ppm	Parts per million
CO	Carbon Monoxide	ppmv, ppmvd	Parts per million by volume on a dry basis
dscf	Dry standard cubic foot	psia	Pounds per Square Inch (absolute)
EPA	US Environmental Protection Agency	PSD	Prevention of Significant Deterioration
EU.....	Emission Unit	PTE	Potential to Emit
gr./dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	SIC.	Standard Industrial Classification
GPH.....	gallons per hour	SIP.....	State Implementation Plan
HAPs	Hazardous Air Pollutants [HAPs as defined in AS 46.14.990]	SO ₂	Sulfur dioxide
ID.....	Emission Unit Identification Number	TPH.....	Tons per hour
kPa.....	kiloPascals	TPY	Tons per year
LAER.....	Lowest Achievable Emission Rate	VOC	volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
lb/kW-h.....	pounds per kilowatt hour	VOL	volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]
MACT	Maximum Achievable Control Technology [MACT as defined in 40 C.F.R. 63]	vol%	volume percent
MMBtu/hr.....	Million British thermal units per hour	wt%	weight percent
MMSCF.....	Million standard cubic feet		

Section 1. Stationary Source Information

Identification

Permittee:	Alaska Electric Light & Power Company 5601 Tonggard Court Juneau, AK 99801-7201
Stationary Source Name:	Lemon Creek Standby Generation Station
Location:	58° 21' 00" North; 134° 30' 00" West
Physical Address:	5601 Tonggard Court Juneau, AK 99801-7201
Owner:	Alaska Electric Light & Power Company 5601 Tonggard Court Juneau, AK 99801-7201
Operator:	Alaska Electric Light & Power Company 5601 Tonggard Court Juneau, AK 99801-7201
Permittee's Responsible Official:	K. Scott Willis, Vice President, Power Generation 5601 Tonggard Court Juneau, AK 99801-7201
Designated Agent:	William A. Corbus Alaska Energy Resources Company 5601 Tonggard Court Juneau, AK 99801-7201
Stationary Source and Building Contact:	K. Scott Willis, Vice President, Power Generation 5601 Tonggard Court Juneau, AK 99801-7201 (907) 780-2222 scottwillis@aelp.com
Fee Contact:	K. Scott Willis, Vice President, Power Generation 5601 Tonggard Court Juneau, AK 99801-7201 (907) 780-2222 scottwillis@aelp.com
Permit Contact:	K. Scott Willis, Vice President, Power Generation 5601 Tonggard Court Juneau, AK 99801-7201 (907) 780-2222 scottwillis@aelp.com
Process Description SIC Code:	4911, Electric Services

[18 AAC 50.040(j)(3) & 50.326(a)]
[40 C.F.R. 71.5(c)(1 & 2)]

Section 2. Emission Unit Inventory and Description

Emission units listed in Table A have specific monitoring, recordkeeping, or reporting conditions in this permit. Emission unit descriptions and ratings are given for identification purposes only.

Table A - Emission Unit Inventory

EU ID	Emission Unit Name	Emission Unit Description	Construction Date	Rating/Size
1	Diesel Generator	EMD 20-645-E4, SN 69D1-147	1969	2,600 kW
2	Diesel Generator	EMD 20-645-E4, SN 75D3-1189	1969	2,600 kW
3	Diesel Generator	EMD 20-645-E4, SN 74J1-1155	1975	2,600 kW
5	Gas Turbine	Pratt & Whitney FT4A-8, SN 612591	1981	17,900 kW
6	Gas Turbine	Pratt & Whitney FT4A-8, SN 612607	1981	17,900 kW
7	Diesel Generator	EMD 20-645-E4, SN 72E3-1136	1983	2,600 kW
8	Diesel Generator	EMD 20-645-E4, SN 67E1-1073	1985	2,600 kW
9	Diesel Generator	EMD 20-645-E4, SN 67E1-1093	1985	2,600 kW
10	Diesel Generator	EMD 20-645-E4, SN 67E1-1026	1984	2,600 kW
11	Diesel Generator	EMD 20-645-E4, SN 67E1-1106	1984	2,600 kW
12	Diesel Generator	EMD 20-645-E4, SN 76D3-1121	1984	2,600 kW

[18 AAC 50.326(a)]
[40 C.F.R. 71.5(c)(3)]

Section 3. State Requirements

Visible Emissions Standards

- 1. Industrial Process and Fuel-Burning Equipment Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 3 and 5 through 12 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j), 50.055(a)(1), & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

- 1.1. For EU IDs 1 through 3 and 5 through 12, monitor, record and report in accordance with Conditions 2 - 4.

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

Visible Emissions Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Emission Units (EU IDs 1 through 3 and 5 through 12)

- 2. Visible Emissions Monitoring.** The Permittee shall observe the exhaust of EU IDs 1 through 3 and 5 through 12 for visible emissions using either the Method 9 Plan under Condition 2.1 or the Smoke/No-Smoke Plan under Condition 2.2. The Permittee may change visible-emissions plans for an emission unit at any time unless prohibited from doing so by Condition 2.3. The Permittee may for each unit elect to continue the visible emission monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable.

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

- 2.1. **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. For EU IDs 1 through 3 and 5 through 12, observe exhaust for 18 minutes within six months after the issue date of this permit. For any unit, observe exhaust for 18 minutes within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.2. 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 2.1.b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, perform 18-minute observations at least semiannually.

Semiannual observations must be taken between four and seven months after the previous set of observations.

- 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 at least annually.

Annual observations must be taken between 10 and 13 months after the previous observations.

- 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, until the criteria in Condition 2.1.c for semiannual monitoring are met.

- 2.2. **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 2.1 or perform the corrective action required under Condition 2.3

- 2.3. **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 2.2, then the Permittee shall either follow the Method 9 plan of Condition 2.1 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 2.3.a,
- (i) take Smoke/No Smoke observations in accordance with Condition 2.2.
- (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 2.2.b; or

- (ii) if the actions taken under Condition 2.3.a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of Condition 2.3.c(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 2.2.a.

3. Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

3.1. When using the Method 9 Plan of Condition 2.1,

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 Field Data Sheet in Section 10;
- (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 rate (load or fuel consumption rate) 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 Emissions Observation record in Section 10, 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.

c. Calculate and record the highest 18-consecutive-minute averages observed.

3.2. If using the Smoke/No Smoke Plan of Condition 2.2, 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. from Table A, the ID of the emission unit observed;
- c. whether visible emissions are present or absent in the exhaust;
- d. a description of the background to the exhaust during the observation;
- e. if the emission unit starts operation on the day of the observation, the startup time of the emission unit;
- f. name and title of the person making the observation; and
- g. operating rate (load or fuel consumption rate).

4. Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

- 4.1. Include in each stationary source operating report under Condition 44, include for the period covered by the report:
 - a. which visible-emissions plan of Condition 2 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 2 and 3 that was not done;
- 4.2. Report under Condition 43:
 - 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 2 was not performed when required, report within three days of the date the monitoring was required.

Particulate Matter Emissions Standards

5. **Fuel-Burning Equipment Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 3 and 5 through 12 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.040(j), 50.055(b)(1) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

- 5.1. For EU IDs 1 through 3 and 5 through 12, monitor, record and report in accordance with Condition 6

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

PM Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Engines and Turbines (EU IDs 1 through 3 and 5 through 12)

6. **Particulate Matter Monitoring for Diesel Engines and Liquid Fuel-Fired Turbines.** The Permittee shall conduct source tests on diesel engines and liquid fuel-fired turbines, EU IDs 1-3 and 5-12, to determine the concentration of particulate matter (PM) in the exhaust of an emission unit in accordance with this Condition 6.

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

- 6.1. Except as provided in Condition 6.4 within six months of exceeding the criteria of Conditions 6.2.a or 6.2.b, either
 - a. conduct a PM source test according to requirements set out in Section 5; or
 - b. make repairs so that emissions no longer exceed the criteria of Condition 6.2; to show that emissions are below those criteria, observe emissions as described in Condition 2.1 under load conditions comparable to those when the criteria were exceeded.
- 6.2. Conduct the PM test or make repairs according to Condition 6.1 if
 - a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or
 - b. for an emission unit with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

- 6.3. During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the highest average 6-minute opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.
- 6.4. The automatic PM source test requirement in Conditions 6.1 and 6.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

7. Particulate Matter Reporting for Diesel Engines and Liquid-Fired Turbines. The Permittee shall report as follows:

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

- 7.1. Report under Condition 43
 - a. the results of any PM source test that exceeds the PM emissions limit; or
 - b. if one of the criteria of Condition 6.2 was exceeded and the Permittee did not comply with either Condition 6.1.a or 6.1.b, this must be reported by the day following the day compliance with Condition 6.1 was required;
- 7.2. Report observations in excess of the threshold of Condition 6.2.b within 30 days of the end of the month in which the observations occur;
- 7.3. In each operating report under Condition 44, include for the period covered by the report:
 - a. the dates, EU IDs 1 through 3 and 5 through 12, and results when an observed 18-minute average was greater than an applicable threshold in Condition 6.2;
 - b. a summary of the results of any PM testing under Condition 6; and
 - c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 6.2, if they were not already submitted.

Sulfur Compound Emission Standards Requirements

8. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from EU IDs 1 through 3 and 5 through 12 to exceed 500 ppm averaged over three hours.

[18 AAC 50.040(j), 50.055(c), & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

For Fuel Oil¹ (EU IDs 1 through 3 and 5 through 12)

- 8.1. The Permittee shall do one of the following for each shipment of fuel:
 - a. test the fuel for sulfur content; or
 - b. obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.
- 8.2. Fuel testing under Condition 8.1 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).
- 8.3. **Reporting:** The Permittee shall include in the report required by Condition 44 a list of the fuel sulfur of each shipment of fuel.

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

Stationary Source-Wide Specific Requirements

9. **NO_x PSD Avoidance Limit.** The Permittee shall avoid the requirement of a PSD review for NO_x by limiting EU ID 5 to no more than 207 tons in any 12 consecutive months, and by limiting EU IDs 6 through 12 to no more than 83 tons in any 12 consecutive months, as follows:

- 9.1. Limit EU ID 5 to no more than 52,400 MW-hrs in any 12 consecutive months.
- 9.2. Limit EU ID 6's MW-hrs plus 4.93 times the total MW-hrs from EU IDs 7 through 12 to no more than 21,000 MW-hrs in any 12 consecutive months

[Condition 2.2, Minor Permit No. AQ0209MSS01, 11/12/09]
[Permit to Operate No. 9311-AA001, 1/25/93]

- 9.3. Monitor as follows:
 - a. Measure the monthly power output from each of EU IDs 5 through 12 using watt-hour meters accurate to within 1%.
 - b. At a consistent time each month, monitor and record the monthly power produced from each of EU IDs 5 though 12.
 - c. At a consistent time each month, calculate and record the power produced for the past 12 consecutive months for EU ID 5 and for EU IDs 6 through 12 using a 4.93 multiplier for EU IDs 7 through 12 as set out by Condition 9.2.
- 9.4. Report as follows:

¹ *Oil* means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 C.F.R. 60.41b, effective 7/1/07.

- a. Report in the Operating Report in accordance with Condition 44, the power produced for the past 12 consecutive months for EU ID 5 and for EU IDs 6 through 12 using a 4.93 multiplier for EU IDs 7 through 12 as set out by Condition 9.2.
 - b. Report in accordance with Condition 43, whenever the limits in Condition 9 are exceeded and whenever the monitoring and reporting of Conditions 9.3 or 9.4 are deviated
- 9.5. **Source Testing.** Conduct a one-time NO_x emission source test when the MW-hrs for EU IDs 6 though 12 exceeds 18,900 in any 12 consecutive months using a 4.93 multiplier for EU IDs 7 through 12 as set out by Condition 9.2. The source test shall be conducted as follows:
- a. The source test shall be conducted within 90 days after reaching the 18,900 MW-hr trigger;
 - b. The source test shall be in accordance with the requirements set forth in Section 5 of this permit;
 - c. Test one of EU IDs 7 through 12 at no less than three loads (high, mid, and low) within the normal operating range of the units;
 - d. During each test, monitor and record the units' load, electric generation rate, and fuel consumption no less than once every five minutes;
 - e. Obtain for each fuel used during the testing, the fuel specific high heating value (gross heat value) or analyze a representative sample of the fuel using an approved ASTM method such as ASTM D 240, 4809 or 2382;
 - f. Determine the load specific NO_x emission factors (pounds per gallon and pounds per hour) expressed as NO₂, using exhaust properties determined by both Method 19 and exhaust gas measurements;
 - g. If the worst case emission factor is greater than 0.039 lb/kW-hr, the Permittee shall calculate a new MW-hr limit for Condition 9.2 for Department approval and apply for a minor permit revision;
 - h. Report information obtained in Conditions 9.5.a through 9.5.g in the source test report required in Section 5.

[Condition 2.2, Minor Permit No.AQ0209MSS01, 11/12/09]
[Permit to Operate No. 9311-AA001, 1/25/93]

- 9.6. **Periodic Source Testing.** Conduct periodic NO_x emission source tests as follows:
- a. Conduct a source test within 5 years of the most recent source test by testing EU ID 6 and one of EU IDs 7 through 12 which was not tested during the most recent source test at no less than three loads (high, mid, and low) within the normal operating range of the unit;

- b. The source test shall be in accordance with the requirements set forth in Section 5 of this permit;
- c. During each test, monitor and record the units' load, electric generation rate, and fuel consumption no less than once every five minutes;
- d. Obtain for each fuel used during the testing, the fuel specific high heating value (gross heat value) or analyze a representative sample of the fuel using an approved ASTM method such as ASTM D 240, 4809 or 2382;
- e. Determine the load specific NO_x emission factors (pounds per gallon and pounds per kw-hour) expressed as NO_x, using exhaust properties determined by both Method 19 and exhaust gas measurements;
- f. If the worst case emission factor is greater than 0.039 lb/kW-hr, the Permittee shall calculate a new MW-hr limit for condition 9.2 for Department approval and apply for a minor permit revision;
- g. Report information obtained in conditions 9.6.a through 9.6.f in the source test report required in Section 5.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

10. Fuel Oil Sulfur Content Limit. The Permittee shall not burn any liquid fuel with a sulfur content greater than 0.3% by weight.

- 10.1. Monitor, record, and report according to Condition 8.
- 10.2. Notify the Department as set out in Condition 43 if the fuel sulfur content limit in Condition 10 is exceeded.

[Permit to Operate No. 9311-AA001, 1/25/93]
[18 AAC 50.040(j) & 50.326(j)]

Insignificant Emission Units

11. For emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

- 11.1. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.050(a) & 50.055(a)(1)]

- 11.2. The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1)]

- 11.3. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c)]

11.4. General MR&R for Insignificant Emission Units

- a. The Permittee shall submit the compliance certifications of Condition 45 based on reasonable inquiry for Condition 10;
- b. The Permittee shall comply with the requirements of Condition 22;
- c. The Permittee shall report in the operating report required by Condition 44 if an emission unit is insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and actual emissions become greater than any of those thresholds; and
- d. No other monitoring, recordkeeping or reporting is required.

[18 AAC 50.346(b)(4)]

Section 4. General Conditions

Standard Terms and Conditions

- 12.** 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 AAC 50.326(j)(3), 50.345(a) & (e)]
- 13.** The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[18 AAC 50.326(j)(3), 50.345(a) & (f)]
- 14.** The permit does not convey any property rights of any sort, nor any exclusive privilege.
[18 AAC 50.326(j)(3), 50.345(a) & (g)]
- 15. Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-405.
[18 AAC 50.326(j)(1), 50.400, 50.403, & 50.405]
[AS 37.10.052(b), 11/04; AS 46.14.240, 6/7/03]
- 16. Assessable Emissions.** The Permittee shall pay to 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. The quantity for which fees will be assessed is the lesser of
- 16.1. the stationary source's assessable potential to emit of 2,331 TPY; or
 - 16.2. the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, 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.
- [18 AAC 50.040(j)(3), 50.035, 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

17. Assessable Emission Estimates. Emission fees will be assessed as follows:

- 17.1. 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., 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
- 17.2. 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 forth in Condition 16.1.

[18 AAC 50.040(j)(3), 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

18. Good Air Pollution Control Practice. The Permittee shall do the following for IDs 1 through 3 and 5 through 12:

- 18.1. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 18.2. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- 18.3. keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030, 50.326(j)(3), & 50.346(b)(5)]

19. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.045(d), 50.040(e), 50.326(j)(3), & 50.346(c)]

20. Dilution. The Permittee shall not dilute emissions with air to comply with this permit. Monitoring shall consist of an annual certification that the Permittee does not dilute emissions to comply with this permit.

[18 AAC 50.045(a)]

21. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.

[18 AAC 50.055(g)]

- 22. Air Pollution Prohibited.** No person may permit any emission 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.

[18 AAC 50.110, 50.040(e), 50.326(j)(3), & 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

- 22.1. Monitoring, Recordkeeping, and Reporting for Condition 22
- a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 43.
 - b. 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 22.
- 22.2. 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 an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 22; or
 - b. the Department notifies the Permittee that it has found a violation of Condition 22.
- 22.3. The Permittee shall keep records of
- a. the date, 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 22; and
 - d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.
- 22.4. With each stationary source operating report under Condition 44, 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.

- 22.5. 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.
- 23. Technology-Based Emission Standard.** If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235(d), causes emissions in excess of a technology-based emission standard² listed in Condition 25 (refrigerants) the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 43 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 43.
- [18 AAC 50.235(a), 50.326(j)(4), & 50.040(j)(4)]
[40 C.F.R. 71.6(c)(6)]
- 24. Asbestos NESHAP.** The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.
- [18 AAC 50.040(b)(1) & (2)(F), & 50.326(j)]
[40 C.F.R. 61, Subparts A & M, and Appendix A]
- 25. Refrigerant Recycling and Disposal.** The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F.
- [18 AAC 50.040(d) & 50.326(j)]
[40 C.F.R. 82, Subpart F]

NESHAPs Applicability Determinations

- 26.** The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b) and 63.10(b)(3). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, the Permittee shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 C.F.R. 63.6(c).

² *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

- 26.1. The Permittee must keep a record of any applicability determination required under 40 C.F.R. 60.10(b)(3) on site for a period of 5 years after the determination or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the Permittee believes the source is unaffected. The analysis (or other information) must be sufficiently detailed to allow the Department to make a finding about the source's applicability status with regard to the relevant standard or other requirement.

[18 AAC 50.040(c)(1)(A) & (E), 50.040(j), & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]
[40 C.F.R. 63.1(b), 63.6(c)(1), & 63.10(b)(3)]

Halon Prohibitions, 40 C.F.R. 82

27. The Permittee shall comply with the applicable prohibitions set out in 40 C.F.R. 82.174 (Protection of Stratospheric Ozone Subpart G – Significant New Alternatives Policy Program).

[18 AAC 50.040(d)]
[40 C.F.R. 82.174 (b) - (d),]

28. The Permittee shall comply with the applicable prohibitions set out in 40 C.F.R. 82.270 (Protection of Stratospheric Ozone Subpart G – Halon Emission Reduction).

[18 AAC 50.040(d)]
[40 C.F.R. 82.270 (b)-(f)]

Open Burning Requirements

29. **Open Burning.** If the Permittee conducts open burning at this stationary source, the Permittee shall comply with the requirements of 18 AAC 50.065.

29.1. The Permittee shall keep written records to demonstrate that the Permittee complies with the limitations in this condition and the requirements of 18 AAC 50.065. Upon request by the Department, submit copies of the records.

29.2. Compliance with this condition shall be an annual certification conducted under Condition 45.

[18 AAC 50.065, 50.040(j), & 50.326(j)]
[40 C.F.R. 71.6(a)(3)]

Section 5. General Source Testing and Monitoring Requirements

- 30. Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.
[18 AAC 50.220(a) & 50.345(a) & (k)]
- 31. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing
[18 AAC 50.220(b)]
- 31.1. at a point or points that characterize the actual discharge into the ambient air; and
- 31.2. at the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.
- 32. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:
- 32.1. Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in Section 10 to record data.
[18 AAC 50.030 & 50.220(c)(1)(D)]
- 32.2. 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.
[18 AAC 50.040(a)(3) & 50.220(c)(1)(E)]
[40 C.F.R. 60, Appendix A]
- 32.3. 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.
[18 AAC 50.035(b)(2) & 50.220(c)(1)(F)]
[40 C.F.R. 51, Appendix M]
- 32.4. Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.
[18 AAC 50.040(c)(24) & 50.220(c)(2)]
[40 C.F.R. 63, Appendix A, Method 301]

- 33. Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emission unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3) & 50.990(102)]

- 34. Test Exemption.** The Permittee is not required to comply with Conditions 36, 37 and 38 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.1) or Smoke/No Smoke Plan (Condition 2.2).

[18 AAC 50.345(a)]

- 35. 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.

[18 AAC 50.345(a) & (l)]

- 36. Test Plans.** Except as provided in Condition 34, 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 emission unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 30 and 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 performed without resubmitting the plan.

[18 AAC 50.345(a) & (m)]

- 37. Test Notification.** Except as provided in Condition 34, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.

[18 AAC 50.345(a) & (n)]

- 38. Test Reports.** Except as provided in Condition 34, 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 additionally certify the results in the manner set out in Condition 40. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (o)]

Section 6. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

- 39. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.326(j)]
[40 C.F.R 60.7(f), Subpart A]
[40 C.F.R 71.6(a)(3)(ii)(B)]

- 39.1. copies of all reports and certifications submitted pursuant to this section of the permit; and
- 39.2. records of all monitoring required by this permit, and information about the monitoring including:
 - a. the date, place, and time of sampling or measurements;
 - b. the date(s) analyses were performed;
 - c. the company or entity that performed the analyses;
 - d. the analytical techniques or methods used;
 - e. the results of such analyses; and
 - f. the operating conditions as existing at the time of sampling or measurement.

Reporting Requirements

- 40. Certification.** The Permittee shall certify any permit application, report, affirmation, or compliance certification 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 emission 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.

- 40.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if
 - a. a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and
 - b. the person providing the electronic signature has made an agreement, with the certifying authority described in Condition 40.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.345(a) & (j), 50.205, & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

41. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original and one copy 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 40.

[18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

42. 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 and 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.

[18 AAC 50.345(a) & (i), 50.200, & 50.326(a) & (j)]
[40 C.F.R. 71.5(a)(2) & 71.6(a)(3)]

43. Excess Emissions and Permit Deviation Reports.

43.1. Except as provided in Condition 22, 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 non routine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in Conditions 43.1.c(ii) and 43.1.c(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 43.1.c(i); and
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

43.2. When reporting excess emissions or permit deviations, the Permittee must report using either the Department's on-line form, which can be found at <http://www.dec.state.ak.us/air/ap/site.htm> or <https://myalaska.state.ak.us/deca/air/airtoolsweb/>, or if the Permittee prefers, the form contained in Section 12 of this permit. The Permittee must provide all information called for by the form that is used.

43.3. If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), 50.326(j)(3), & 50.346(b)(2) & (3)]

44. Operating Reports. During the life of this permit³, the Permittee shall submit to the Department an original and one copy of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

44.1. The operating report must include all information required to be in operating reports by other conditions of this permit. 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 Departmental submission requirements.

44.2. If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 44.1, either

a. The Permittee shall identify

(i) the date of the deviation;

(ii) the equipment involved;

(iii) the permit condition affected;

(iv) a description of the excess emissions or permit deviation; and

(v) any corrective action or preventive measures taken and the date of such actions; or

b. When excess emissions or permit deviations have already been reported under Condition 43 the Permittee shall cite the date or dates of those reports.

³ *Life of this permit* is defined as the permit effective dates, including any periods of reporting obligations that extend beyond the permit effective dates. For example if a permit expires prior to the end of a calendar year, there is still a reporting obligation to provide operating reports for the periods when the permit was in effect.

- 44.3. The operating report must include a listing of emissions monitored under Conditions 2.1.e, 2.2.c, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report.
- a. the date of the emissions;
 - b. the equipment involved;
 - c. the permit condition affected; and
 - d. the monitoring result which triggered the additional monitoring.
- 44.4. Transition from expired to renewed permit. For the first period of this renewed operating permit, also provide the previous permit's facility operating report elements covering that partial period immediately preceding the effective date of this renewed permit.

[18 AAC 50.346(a) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

45. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an original and one copy of an annual compliance certification report⁴. The Permittee, at their discretion, may submit one copy in electronic format (PDF or other Department compatible image format).

- 45.1. Certify the compliance status of the stationary source over the preceding calendar year consistent with the monitoring required by this permit, as follows:
- a. identify each term or condition set forth in Section 3 through Section 8, that is the basis of the certification;
 - b. briefly describe each method used to determine the compliance status;
 - c. state whether compliance is intermittent or continuous; and
 - d. identify each deviation and take it into account in the compliance certification;
- 45.2. Transition from expired to renewed permit. For the first period of this renewed operating permit, also provide the previous permit's annual compliance certification report elements covering that partial period immediately preceding the effective date of this renewed permit.
- 45.3. In addition, submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.205, 50.345(a) & (j), & 50.326(j)]
[40 C.F.R. 71.6(c)(5)]

⁴ See Condition 45.2 for clarification on the number of reports required.

46. NSPS and NESHAP Reports. The Permittee shall:

- 46.1. attach to the facility operating report required by Condition 44, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10; and
- 46.2. upon request by the Department, notify and provide a written copy of any EPA-granted alternative monitoring requirement, custom monitoring schedule or waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements.

[18 AAC 50.326(j)(4) & 50.040(j)]
[40 C.F.R. 60.13]
[40 C.F.R. 71.6(c)(6)]

Section 7. Permit Changes and Renewal

47. Permit Applications and Submittals. The Permittee shall comply with the following requirements for submitting application information to the EPA Region 10:

47.1. The Permittee shall provide a copy of each application for modification or renewal of this permit, including any compliance plan, or application addenda, at the time the application or addendum is submitted to the Department⁵;

47.2. The information shall be submitted to the same address as in Condition 45.3.

47.3. To the extent practicable, the Permittee shall provide to EPA applications in portable document format (PDF); MS Word format (.doc); or other computer-readable format compatible with EPA's national database management system; and

47.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

[18 AAC 50.040(j)(7) & 50.326(b)]
[40 C.F.R. 71.10(d)(1)]

48. Emissions Trading. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(8)]

49. Off Permit Changes. The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 C.F.R. Part 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

49.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;

49.2. Provide contemporaneous written notice to EPA and the Department of each such change, except for changes that qualify as insignificant under 18 AAC 50.326(d) – (i). Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change;

49.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f);

⁵ The documents required in Condition 47.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek, Suite 249, Anchorage, AK 99501.

- 49.4. The Permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(12)]

- 50. Operational Flexibility.** The Permittee may make changes within the permitted stationary source without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions):

- 50.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.
- 50.2. For each such change, the written notification required above shall include a brief description of the change within the permitted stationary source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- 50.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 50.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(13)]

- 51. Permit Renewal.** To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than [**18 months**] before and no later than [**6 months**] before the expiration date of this permit. **The renewal application shall be complete before the permit expiration date listed on the cover page of this permit.** Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 C.F.R. 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3), 50.326(c)(2) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii) & 71.7(b) & (c)(1)(ii)]

Section 8. Compliance Requirements

General Compliance Requirements

- 52.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 52.1. included and specifically identified in the permit; or
 - 52.2. determined in writing in the permit to be inapplicable.
- [18 AAC 50.326(j)(3) & 50.345(a) & (b)]
- 53.** The Permittee must comply with each permit term and condition.
- 53.1. For applicable requirements with which the stationary source is in compliance, the Permittee will continue to comply with such requirements.
 - 53.2. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 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
 - a. an enforcement action;
 - b. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
 - c. denial of an operating permit renewal application.
- [18 AAC 50.326(j)(3) & 50.345(a) & (c)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]
- 54.** 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.
- [18 AAC 50.326(j)(3) & 50.345(a) & (d)]
- 55.** The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to
- 55.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
 - 55.2. have access to and copy any records required by the permit;
 - 55.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 55.4. sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.
- [18 AAC 50.326(j)(3) & 50.345(a) & (h)]

Section 9. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the permit application, this section of the permit contains the requirements determined by the Department not to be applicable to the stationary source. AEL&P did not request any permit shields for the Lemon Creek Standby Generating Station.

56. Nothing in this permit shall alter or affect the following:

- 56.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or
- 56.2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

[18 AAC 50.326(j)]
[40 C.F.R. 71.6(f)(3)(i) & (ii)]

Section 10. Visible Emissions Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company &
 Stationary
 Source: _____

Location: _____

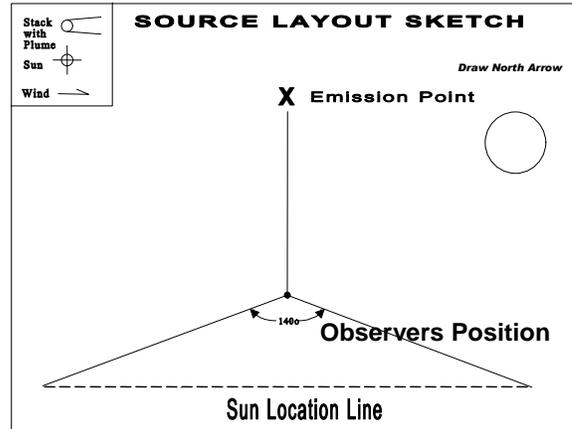
Test No.: _____ Date: _____

Emission Unit: _____

Production Rate/Operating
 Rate: _____

Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Section 11. Material Balance Calculation

If the sulfur content of a fuel shipment is greater than 0.75 percent by weight, calculate the three-hour exhaust concentration of SO₂ using the following equations:

$$\begin{aligned}
 \text{A.} &= 31,200 \times [\text{wt}\% \mathbf{S}_{\text{fuel}}] = 31,200 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{B.} &= 0.148 \times [\text{wt}\% \mathbf{S}_{\text{fuel}}] = 0.148 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{C.} &= 0.396 \times [\text{wt}\% \mathbf{C}_{\text{fuel}}] = 0.396 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{D.} &= 0.933 \times [\text{wt}\% \mathbf{H}_{\text{fuel}}] = 0.933 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{E.} &= \text{B} + \text{C} + \text{D} = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{F.} &= 21 - [\text{vol}\%_{\text{dry}} \mathbf{O}_2, \text{ exhaust}] = 21 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{G.} &= [\text{vol}\%_{\text{dry}} \mathbf{O}_2, \text{ exhaust}] \div \text{F} = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{H.} &= 1 + \text{G} = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{I.} &= \text{E} \times \text{H} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \mathbf{SO}_2 \text{ concentration} &= \text{A} \div \text{I} = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ ppm}
 \end{aligned}$$

The wt% S_{fuel}, wt% C_{fuel}, and wt% H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Condition 8.1. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%_{dry} O₂, exhaust) is obtained from oxygen meters, manufacturer’s data, or from the most recent ORSAT analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt% S_{fuel} = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%_{dry} O₂, exhaust = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 12. ADEC Notification Form⁶

Lemon Creek Standby Generation Station

AQ0209TVP03

Stationary Source Name

Air Quality Permit No.

Alaska Electric Light & Power Company

Company Name

Date

When did you discover the Excess Emissions/Permit Deviation?

Date: _____ / _____ / _____

Time: _____ : / _____

When did the event/deviation occur?

Begin Date: _____ / _____ / _____

Time: _____ : _____ (Use 24-hr clock.)

End Date: _____ / _____ / _____

Time: _____ : _____ (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

⁶ Revised as of August 20, 2008.

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

- Opacity _____ %
 Venting _____ gas/scf
 Control Equipment Down
 Fugitive Emissions
 Emission Limit Exceeded
 Other _____
 Marine Vessel Opacity
 Flaring _____

(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):

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

(b) Emission Unit Involved:

Identify the emission unit 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:

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 44.

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/deca/air/airtoolsweb/>

If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

[18 AAC 50.346(b)(3)]