

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL MINOR PERMIT

Permit AQ0352MSS01

Final – April 21, 2010

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit AQ0352MSS01 to the Permittee listed below.

Operator and Permittee: North Slope Borough
Department of Public Works, Division of Utilities, P. O. Box 69
Barrow, AK 99723

Owner: North Slope Borough

Stationary Source Nuiqsut Power & Light

Location: Latitude: 70 12' 59" North; Longitude 151° 0' 21" West

Physical Address: 3rd St, Nuiqsut, AK 99789

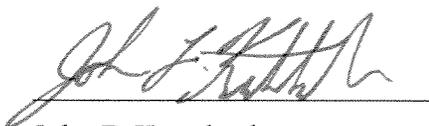
Permit Contact: Tom Nicolos, (907) 367 3948; tom.nicolos@north-slope.org

Project: Authorization to Install and Operate Two Gas-Fired Generators

This permit authorizes the installation and operation of two gas-fired generators and the operation of four existing diesel-fired generators. It also establishes an Owner Requested Limit (ORL) under 18 AAC 50.508(5) to reclassify the stationary source from a Title V source to a non-Title V source. The permit satisfies the obligation of the Permittee to obtain a minor permit under 18 AAC 50.

This permit authorizes the Permittee to operate under the terms and conditions of this permit, and as described in the original permit application and subsequent application supplements listed in Section 7, except as specified in this permit.

The Permittee may operate under the terms and conditions of this minor permit upon issuance.



John F. Kuterbach
Manager, Air Permits Program

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Section 1. Emission Unit Inventory

- 1. Emission Units (EU) Authorization.** The Permittee is authorized to install and operate the emission units listed in Table 1 per the terms and conditions of this permit. Except as noted elsewhere in the permit, the information in Table 1 is for identification purposes only. The specific unit descriptions do not restrict the Permittee from replacing an emission unit identified in Table 1 with one of the same nominal rating and fuel type. 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.

Table 1 –Minor Permit Emission Unit Inventory

Emission Unit	Description	Make/Model	Nominal Rating/Size	Fuel Type	Install Date
EU1	Generator	CAT 3512/67Z01688	910 kW	Diesel	2000
EU2	Generator	CAT 3512/67Z01658	910 kW	Diesel	2000
EU3	Generator	CAT 3508/70Z01007	455 kW	Diesel	2000
EU4	Generator	CAT 3508/70Z01008	455 kW	Diesel	2000
EU5	Generator	CAT G3516/ZBA00281	1,148 bhp	Natural Gas	2008
EU6	Generator	CAT G3516/ZBA00305	1,148 bhp	Natural Gas	2008

Section 2. Emission Fees

2. 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

- 2.1 the stationary source's assessable potential to emit of 140 TPY; or
- 2.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon 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 ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Suite 303, Juneau, AK 99811-1800; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
- 3.2 if no estimate is submitted on or before March 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.

Section 3. ORL to Avoid Classification as a Title V Source

4. The Permittee shall limit the combined fuel consumption of EU1 through EU4 to 185,200 gallons per rolling 12-month period.
 - 4.1 Monitor, record, and report the amount of fuel burned in the emission units as indicated in Condition 4.2 and Condition 4.3.
 - 4.2 Track the number of gallons burned in EU1 through EU4 with a fuel meter accurate to within five percent. Calculate and record the cumulative total of fuel burned in EU1 through EU4 every month and for the preceding 12 consecutive months.
 - 4.3 Include the records described in Condition 4.2 with the Operating Report described in Condition 10. If the amount of fuel burned exceeds 185,200 gallons, submit an excess emission report to the Department as described in Condition 9.

Section 4. General Recordkeeping Requirements

- 5. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:
 - 5.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
 - 5.2 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.
- 6. 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.
 - 6.1 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 6.1a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.
- 7. 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.

8. 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 5.

9. Excess Emissions and Permit Deviation Reports.

9.1 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 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 or is discovered, except as provided in conditions 9.1c(ii) and 9.1c(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 9.1c(i); and
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

9.2 The Permittee must report using either the Department's on-line form, or if the Permittee prefers, the form contained in Appendix of this permit. The Permittee must provide all information called for by the form that is used.

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

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

- 10.1 The operating report must include all information required to be in operating reports by other conditions of this permit.
- 10.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 10.1, 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 9 the Permittee may cite the date or dates of those reports.
11. **Operating Conditions.** The Permittee shall develop and implement standard operating and maintenance procedures for EU1 through EU6. The Permittee shall keep a copy of the procedures available at a location within the stationary source that is readily accessible to operators of the equipment and to authorized representatives of the Department.

Section 5. Requirements for Sources Without Title V Permits

12. Periodic Affirmation. The Permittee shall provide to the Department an annual affirmation by February 1st of each year, along with the operating report required in Condition 10, that the application and permit still accurately describes the stationary source during the preceding calendar year, and whether the owner or operator has made changes that would trigger the requirement for a new permit under 18 AAC 50.

12.1 In order to be consistent with the permit application,

- a. the maximum sulfur content of the diesel fuel burned in Emission Units EU1 through EU4 shall not exceed 0.5 percent, by weight.
 - (i) To determine compliance with Condition 12.1a, the Permittee shall obtain an annual certification from the fuel supplier that the sulfur content of the diesel fuel did not exceed 0.5 percent by weight.
- b. the maximum hydrogen sulfide content of the fuel gas burned in Emission Units EU5 and EU6 shall not exceed 200 ppmv.
 - (i) To determine compliance with Condition 12.1b, the Permittee shall obtain an annual certification from the gas supplier that the hydrogen sulfide content of the fuel gas did not exceed 200 ppmv. If the hydrogen sulfide content of the gas supplied to Nuiqsut exceeds 200 ppmv, NSB must request a permit revision to reflect the new H₂S content of the originating gas source.

12.2 Include in each periodic affirmation submitted under Condition 12,

- a. the maximum sulfur content of the diesel fuel burned in Emission Units EU1 through EU4 during the reporting period; and
- b. the maximum hydrogen sulfide content of the fuel gas burned in Emission Units EU5 and EU6 during the reporting period.

Section 6. Standard Terms and Conditions

- 13.** 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
 - 13.1 an enforcement action; or
 - 13.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
- 14.** 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.
- 15.** 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.
- 16.** 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.
- 17.** The permit does not convey any property rights of any sort, nor any exclusive privilege.

Section 7. Permit Documentation

- November 20, 2009 Email from Donna Shefcheck of HMM, Consultants for North Slope Borough confirming the sulfur content and heat content of the diesel fuel and natural gas burned in the generators. This was in response to an e-mail that Kwame Agyei (Department) sent to Donna.
- August 24, 2009 Application submitted by Tom Nicolos.