

**ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL CONSTRUCTION PERMIT**

Permit No. 406CP01

Date: Final – January 30, 2004

**TECK-POGO, INC.,
POGO MINE PROJECT**

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues an Air Quality Control Construction Permit to Teck-Pogo, Inc. for the Pogo Mine Project.

The permit authorizes the Permittee to develop a gold mine in accordance with the terms and conditions of this permit, and as described in the permit application and submittals listed in Exhibit D.

John F. Kuterbach, Manager

Air Permits Program

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Section 1. List of Abbreviations Used in this Permit

AAC	Alaska Administrative Code
ADEC/Department	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM	American Society for Testing and Materials
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
dscf	Dry standard cubic foot
EPA	US Environmental Protection Agency
FEL	Front End Loader
gr./dscf	grain per dry standard cubic foot (1 pound = 7000 grains)
HAPs or HACs	Hazardous Air Pollutants or Hazardous Air Contaminants [as defined in AS 46.14.990(14)]
hp	horsepower
ID	Emission Unit Identification Number
kW	kiloWatts
LHD	Load, haul, and dump
MMBtu/hr	Million British Thermal Units per hour
NAICS	North American Industry Classification System
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants [as contained in 40 C.F.R. 61 and 63]
NO _x	Nitrogen Oxides
NSPS	Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
O ₂	Oxygen
LPG	Liquified Petroleum Gas
PM	Particulate Matter
PM-10	PM less than or equal to a nominal ten microns in diameter
ppm	Parts per million
ppmv, ppmvd	Parts per million by volume on a dry basis
PSD	Prevention of Significant Deterioration
RTP	Recycle Tailings Pond
SAG	Semi-autogenous grinding
SIC	Standard Industrial Classification
SO ₂	Sulfur dioxide
tph	tons per hour
tpy	tons per year
VOC	volatile organic compound [as defined in 18 AAC 50.990(103)]
vol%	volume percent
wt%	weight percent

Section 2. Identification

Names and Addresses

Permittee: Teck-Pogo, Inc,
3520 International Street
Fairbanks, AK 99701

Facility Name: Pogo Mine

Location: 64° 27' 13.2" North; 144° 54' 14.6" West

Physical Address: Goodpaster River, Alaska

Owner: Teck-Pogo, Inc.

Operator: Teck-Pogo, Inc.

Permittee's Responsible Official: Karl Hanneman, Manager, Public and Environmental Affairs and
Special Projects
Teck-Pogo, Inc.

Designated Agent: Ruth Hamilton
Robertson, Monagle, and Eastaugh
Goldbelt Place, Suite 300
801 West 10th Street
Juneau, Alaska, 99802

Facility and Building Contact: Rick Zimmer, Vice President
Address and phone number to be determined

Fee Contact: Karl Hanneman, Alaska Regional Manager
Teck-Pogo, Inc.
3520 International Street
Fairbanks, AK 99701
Phone: (907) 455-8325
Fax:: (907) 455-8326

Facility Process Description

SIC Code: 1041
NAICS Code: 212221

Section 3. Source Specific Applicable Requirements

Emission Unit Inventory

1. General Requirements. The Permittee shall:

- 1.1 For existing Emission Units 201, 202, 401 and 402, label the emission units with the emission unit ID in a conspicuous location, on or adjacent to the source, within 90 days after the permit issue date.
- 1.2 For Emission Units 102 through 104, 106 through 110, 203 through 216, 403 through 415, 526 through 529, 532 through 534E, ALAB, CP, and AST-19 through AST-30, label each emission unit listed in Table A-1 in Exhibit A with the emission unit ID in a conspicuous location, on or adjacent to the source, within 90 days of initial startup.
- 1.3 For each emission unit described in condition 1.2, submit to the Department the installation date,¹ serial number, specification sheet,² and if applicable the electronic fuel control settings of the engine within 30 days after initial installation.
- 1.4 Record the installation date, relocation date, and decommissioning date for each nonroad engine (Emission Units 213 through 216, 412 and 413, and CP) and notify the Department within 30 days of each respective date.

2. Emission Unit Inventory During Construction. The Permittee is authorized under this permit to operate any of the units listed in Table A-1 of Exhibit A of this permit, during construction.³ For purposes of this permit, the construction phase ends when the total gold ore poured at the facility reaches 5,000 ounces, or two years after commissioning of any source authorized to be constructed under this permit, whichever comes first. For purposes of this condition, construction commences when the first of any emission units listed in condition 1.2 is placed on site. The permittee shall notify the department within ten calendar days after the start date.

[18 AAC 50.350(d)(2), 1/18/97]

3. Emission Unit Inventory During Operation. After the construction phase has ended, the Permittee is authorized under this permit to operate only Emission Units 102 through 110, 208 through 210, 302 and 303, 410 through 415, 516, 526 through 529, 532 through 533 and 534A through 534E, ALAB, CP, and AST-19 through AST-30 and fugitive dust generating activities listed in Table A-1 of Exhibit A of this permit.⁴ For purposes of this permit, the operation phase starts the day after the construction phase (described in condition 2) ends.

[18 AAC 50.350(d)(2), 1/18/97]

¹ The installation date is the same as the initial start-up date, i.e. the first day that the unit is operated.

² The specification sheet is a one to ten page summary of the unit, including applicable emissions specifications for the unit, if available.

³ This list does not include insignificant sources. Insignificant sources do not need to be authorized by a construction permit.

⁴ See footnote 3.

State Emission Standards for Industrial Processes and Fuel Burning Equipment

- 4. Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Emission Units 102 through 110, 201 through 212, 301 through 304, 401 through 408, 414 and 415, and 527 listed in Table A-1 to reduce visibility through the exhaust effluent by any of the following:

[18 AAC 50.350(d)(1)(C), 6/21/98]

- a. more than 20 percent for a total of more than three minutes in any one hour⁵;

[18 AAC 50.055(a)(1), 1/18/97]

- b. more than 20 percent averaged over any six consecutive minutes⁶.

[18 AAC 50.055(a)(1) and 50.346(c), 5/3/02]

- 4.1 For Emission Units 102 through 110, 201 through 212, and 401 through 408 (distillate fuel- and used oil-fired equipment) verify compliance using either condition 4.1a or 4.1b.

[18 AAC 50.346(c) and 50.350(g) – (i), 5/3/02]

- a. Prior to source installation, obtain a certified manufacturer guarantee that each emission unit will comply with the visible emission standard and attach a copy of the guarantee to the next operating report required under condition 43. (For Emission Units 103 and 110 the certification must cover used oil as well as distillate fuel).

- b. Conduct a visible emission source test, using each potential fuel, on each source, in accordance with condition 31.1 within 180 days of source initial start-up and attach a copy of the surveillance records to the next operating report required under condition 43.

- 4.2 For Emission Units 301 through 304 (explosives), conduct a visible emission source test at the mine adit in accordance with condition 31.1 within 180 days of source initial start-up and attach a copy of the surveillance records to the next operating report required under condition 43.

- 4.3 For Emission Units 414 and 415 (liquefied petroleum gas (LPG) –fired units), burn only LPG (includes propane) as fuel. Monitor by certifying in each operating report under condition 43 whether each of these emission units burned only LPG. Report under condition 41 if any fuel is burned other than LPG.

⁵ For purposes of this permit, the “more than three minutes in any one hour” criterion in this condition and condition 7.a will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA.

⁶ The six-minute average standard is enforceable only by the state until 18 AAC 50.055(a)(1), dated May 3, 2002, is approved by EPA into the SIP at which time this standard becomes federally enforceable.

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- 5. Particulate Matter (PM).** The Permittee shall not cause or allow PM emitted from Emission Units 102 through 110, 201 through 212, 301 through 304, 401 through 408, 414 and 415, and 527 listed in Table A-1 to exceed 0.05 grains per cubic foot (gr./dscf) of exhaust gas corrected to standard conditions and averaged over three hours

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.055(b)(1), 1/18/97; and 18 AAC 50.350(d)(1)(C), 6/21/98]
[18 AAC 50.350(g) – (i), 5/3/02]

- 5.1 For Emission Unit 527 (underground rock breaker), conduct a PM source test on the baghouse in accordance with condition 31.2 within 180 days of source initial start-up and attach a copy of the results to the next operating report required under condition 43.

- 6. Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from Emission Units 102 through 110, 201 through 212, 301 through 304, 401 through 408, 414 and 415, and 527 listed in Table A-1 to exceed 500 ppm averaged over three hours.

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.055(c), 1/18/97; and 18 AAC 50.350(d)(1)(C), 6/21/98]

- 6.1 For Emission Units 102 through 110, 201 through 212, and 401 through 408, use only fuel with a sulfur content less than 0.5 percent by weight.

[18 AAC 50.346(c) and 50.350(g) – (i), 5/3/02]

- a. For distillate fuel, use only fuel grades that require a sulfur content less than 0.5 percent by weight. Keep receipts that specify fuel grade and amount. Include in the operating report required under condition 43 a list of the fuel grades received at the facility during the reporting period.
- b. For used oil:
- (i) Except as provided in condition 6.1b(vi), obtain a representative sample from each storage tank that stores used oil once per calendar month, sometime during the first fifteen days of the calendar month.
 - (ii) analyze the sample obtained in condition 6.1b(i) or 6.1b(vi) for sulfur content using a sulfur test method listed in the ASTM Standard Specification for Fuel Oils (ASTM D-396) or in the ASTM Standard Specification for Diesel Fuel Oils (ASTM D-975);
 - (iii) if the analysis conducted under condition 6.1b(ii) results in a sulfur content of 0.5 percent or greater, then add more distillate oil to the blended fuel and retest until the blended fuel's sulfur content is less than 0.5 percent by weight;
 - (iv) maintain records showing the results of each analysis; and
 - (v) include a copy of the test results required under condition 6.1b(iv) with the report required under condition 43.

- (vi) If the highest resulting sulfur content from 12 consecutive monthly samples conducted under condition 6.1b(i) is less than 0.25 percent by weight, the Permittee may reduce the sampling frequency to once per calendar year; under this condition, the Permittee shall obtain the sample within the first 30 days of each calendar year.

- 6.2 For Emission Units 414 and 415, use only LPG as fuel. Monitor by certifying in each operating report required in condition 43 whether or not each of these sources fired only LPG during the reporting period.

[18 AAC 50.346(c) and 50.350(g) – (i), 5/3/02]

State Emission Standards for Incinerators

7. **Incinerator Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust of Emission Units 409 through 411 (incinerators), to reduce visibility by any of the following:

- a. more than 20 percent for a total of more than three minutes in any one hour⁷;

[18 AAC 50.050(a)(2), 5/3/02]

- b. more than 20 percent averaged over any six consecutive minutes.⁸

[18 AAC 50.050(a), 5/3/02]

Verify compliance using either condition 4.1a or 4.1b.

[18 AAC 50.350(g) – (i), 5/3/02]

Federal New Source Performance Standards (NSPS) Requirements

Subpart A – General Provisions

8. **NSPS Subpart A Notification and Recordkeeping.** Any owner or operator (i.e. the Permittee) subject to the provisions of Subpart A shall furnish to the Administrator⁹ (and the Department) written notifications or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification as follows:

[18 AAC 50.350(i), 1/18/97 & 18 AAC 50.040(a)(1), 8/15/02]
[40 C.F.R. 60.7(a), Subpart A, 7/1/01]

- 8.1 A notification of the date that construction (or reconstruction as defined in 40 C.F.R. 60.15) of an affected facility¹⁰ is commenced postmarked no later than 30 days after such date.

[40 C.F.R. 60.7(a)(1), Subpart A, 7/1/01]

⁷ See Footnote 5.

⁸ The six-minute average standard is enforceable only by the state until 18 AAC 50.050(a), dated May 3, 2002, is approved by EPA into the SIP at which time this standard becomes federally enforceable.

⁹ *Administrator* means the administrator of EPA or his authorized representative, as defined in 40 C.F.R. 60.2, effective 7/1/01.

¹⁰ *Affected Facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2, effective 7/1/01.

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- 8.2 A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
[40 C.F.R. 60.7(a)(3), Subpart A, 7/1/01]
- 8.3 A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies unless that change is specifically exempted under an applicable subpart or in 40 C.F.R. 60.14(e), this notice shall be postmarked 60 days or as soon as practicable before the change is commenced and as indicated in 40 C.F.R. 60.7(a)(4).
[40 C.F.R. 60.7(a)(4), Subpart A, 7/1/01]
- 8.4 A notification of the anticipated date for conducting the opacity observations required by 40 C.F.R. 60.11(e)(1). The notification shall also include, if appropriate, a request for the Administrator (and the Department) to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
[40 C.F.R. 60.7(a)(6), Subpart A, 7/1/01]
- 8.5 A notification whether continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by 40 C.F.R. 60.8 in lieu of Method 9 observation data as allowed by 40 C.F.R. 60.11(e)(5). This notification shall be postmarked not less than 30 days prior to the date of the performance test.
[40 C.F.R. 60.7(a)(7), Subpart A, 7/1/01]
- 9. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements.** Any owner or operator (i.e. the Permittee) subject to Subpart A shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility (Emission Units 414 and 415, and 533 through 534E); any malfunctions of the air-pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
[18 AAC 50.350(h), 5/3/02 & 18 AAC 50.040(a)(1), 8/15/02]
[40 C.F.R. 60.7(b), Subpart A, 7/1/01]
- 10. NSPS Subpart A Performance Tests.**
[18 AAC 50.350(i), 5/3/02 & 18 AAC 50.040(a)(1), 8/15/02]
- 10.1 Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator (or Department) under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator (and the Department) a written report of the results of such performance test(s).
[40 C.F.R. 60.8(a), Subpart A, 7/1/01]
- 10.2 Performance tests shall be conducted as indicated in 40 C.F.R. 60.8(b) & (c).
[40 C.F.R. 60.8(b) & (c), Subpart A, 7/1/01]

10.3 The owner or operator of an affected facility shall provide the Administrator (and Department) at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator (and the Department) the opportunity to have an observer present.

40 C.F.R. 60.8(d), Subpart A, 7/1/01]

10.4 The owner or operator shall provide, or cause to be provided, performance testing equipment as indicated in 40 C.F.R. 60.8(e).

40 C.F.R. 60.8(e), Subpart A, 7/1/01]

10.5 Each performance test shall be conducted in accordance with 40 C.F.R. 60.8(f).

[40 C.F.R. 60.8(f), Subpart A, 7/1/01]

11. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility (Emission Units 414 and 415, and 533 through 534E) including associated air pollution control equipment in a manner consistent with good air pollution practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 C.F.R. 60.11(d), Subpart A, 7/1/01]

12. NSPS Subpart A Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 C.F.R. 60 (condition 17), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been used.

[40 C.F.R. 60.11(g), Subpart A, 7/1/01]

13. NSPS Subpart A Concealment of Emissions. No owner or operator subject to the provisions of 40 C.F.R.60 shall build, erect, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 C.F.R. 60.12, Subpart A, 7/1/01]

14. Reconstruction. If an owner or operator (i.e. Permittee) of an existing facility proposes to replace components, and the fixed capital cost¹¹ of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator (and the Department) of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced, and must include the following information:

[18 AAC 50.350(i), 1/18/97 & 18 AAC 50.040(a)(1), 8/15/02]

¹¹ *Fixed Capital Cost* means the capital needed to provide all the depreciable components, as defined in 40 C.F.R. 60.15(c), 7/1/01.

[40 C.F.R. 60.15(d), 7/1/01]

- a. The name and address of owner or operator.
- b. The location of the existing facility.
- c. A brief description of the existing facility and the components which are to be replaced,
- d. A description of the existing air pollution control equipment and the proposed air pollution control equipment.
- e. An estimate of the fixed capital cost of the replacements, and of constructing a comparable entirely new facility,
- f. The estimated life of the existing facility after the replacements.
- g. A discussion of any economic or technical limitations the facility may have in complying with applicable standards of performance in 40 C.F.R. 60, after the replacements.

Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

15. NSPS Subpart Dc (Reporting and Recordkeeping Only). As indicated in 40 C.F.R. 60 48c(a)(1) and (3), the Permittee for each affected facility (Emission Units 414 and 415) shall:

- 15.1 Submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 C.F.R. 60.7 (condition 8). This notification shall include:
[40 C.F.R. 60.48c(a)(1) & (3), Subpart Dc, 7/1/01]
 - a. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
 - b. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
- 15.2 Record and maintain records of the amounts of each fuel combusted during each day.
[40 C.F.R. 60.48c(g), Subpart Dc, 7/1/01]
- 15.3 Maintain the records required under this condition for a period of two years following the date of such record.
[40 C.F.R. 60.48c(i), Subpart Dc, 7/1/01]

Subpart LL – Standard of Performance for Metallic Mineral Processing Plants

16. Applicability and Designation of Affected Facility.

16.1 The provisions of Subpart LL are applicable to the following affected facilities in metallic mineral processing plants: Each crusher and screen in open-pit mines, each crusher, screen, bucket elevator, conveyor belt transfer point, thermal dryer, product packaging station, storage bin, enclosed storage area, truck loading station, truck unloading station, railcar loading station, and railcar unloading station at the mill or concentrator with the following exceptions. All facilities located in underground mines are exempt from the provisions of Subpart LL. At uranium ore processing plants, all facilities subsequent to and including the beneficiation of uranium ore are exempted from the provision of Subpart LL. At the Pogo Mine, Emission Units 533 through 534E are subject to Subpart LL.

[40 C.F.R. 60.380(a), Subpart LL, 7/1/01]

16.2 An affected facility under 40 C.F.R. 60.380(a) (condition 16.1) that commences construction or modification after August 24, 1982 is subject to requirements of Subpart LL.

[40 C.F.R. 60.380(b), Subpart LL, 7/1/01]

17. Standard for Particulate Matter.

17.1 On and after the date on which the performance test required to be conducted by 40 C.F.R. 60.8 (condition 10) is completed, no owner or operator (i.e. Permittee) subject to this provisions of Subpart LL shall cause to be discharged into the atmosphere from an affected facility any stack emissions that:

[40 C.F.R. 60.382(a), Subpart LL, 7/1/01]

- a. Contain particulate matter in excess of 0.05 grams per dry standard cubic meter;
- b. Exhibit greater than seven percent opacity.

17.2 On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provision of this subpart shall cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than ten percent opacity.

[40 C.F.R. 60.382(b), Subpart LL, 7/1/01]

18. **Recordkeeping and Reporting Requirements.** The owner or operator subject to the provisions of Subpart LL shall conduct a performance test and submit to the Administrator (and the Department) a written report of the results of the test as specified in 40 C.F.R. 60.8(a) (condition 10.1).

[40 C.F.R. 60.386(a), Subpart LL, 7/1/01]

19. Test Methods and Procedures.

19.1 In conducting the performance tests required in 40 C.F.R. 60.8 (condition 10), the owner or operator shall use a reference methods and procedures the test methods in Appendix A of 40 C.F.R. 60 or other methods and procedures as specified in Subpart LL, except as provided in 40 C.F.R. 60.8(b).

[40 C.F.R. 60.386(a), Subpart LL, 7/1/01]

19.2 The owner or operator shall determine compliance with the particulate matter standards in 40 C.F.R. 60.382 (condition 17.1) as follows:

[40 C.F.R. 60.386(b), Subpart LL, 7/1/01]

- a. Use 40 C.F.R. 60, Appendix A, Method 5 or 17 to determine the particulate matter concentration as described in 40 C.F.R. 60.386(b)(1).
- b. Use 40 C.F.R. 60, Appendix A, Method 9 and the procedures in 40 C.F.R. 60.11 to determine the opacity from stack emission and process fugitive emissions as described in 40 C.F.R. 60.386(b)(2).

Requirements to Avoid Classification under NSPS Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants

20. Subpart OOO Avoidance. The Permittee shall ensure that Emission Unit CP (portable crusher) meets the definition of portable crusher in 40 CFR 60.671.¹²

Requirements to Avoid Classification as Prevention of Significant Deterioration (PSD) for NO_x and SO₂

21. NO_x Limits During Construction. The Permittee shall limit NO_x emissions from Emission Units 102 through 110, 201 through 212, 401 and 402, 403 through 408, and 409 through 411 (all fuel burning equipment) during construction to less than 240 tons per 12-month rolling period. Monitor, record, and report as follows:

21.1 Install a dedicated continuous fuel monitoring system for recording fuel consumption that is accurate to within two percent on each unit or group of similar units 102 through 110, 201 and 202, 203 through 205, 206 and 207 (211 and 212), 208 through 210, and 403 through 408.

21.2 For Emission Units 102 through 110 and 403 through 408, the Permittee may as an alternative to condition 21.1 track the amount of fuel delivered to each supply tank, using a fuel monitoring system accurate to within two percent.

¹² *Portable Crusher* as defined in 40 C.F.R. 60.671 means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

- 21.3 Track monthly fuel consumption for each unit or group of similar units listed in conditions 21.1 and 21.2.
- 21.4 For Emission Units 203 through 205, and 208 through 210, for each group of similar units (same make, model, and configuration), either
- a. provide to the Department engine-specific guaranteed vendor NO_x emission data for at least four loads within the normal operating range of the unit within 30 days after the first of similar unit on-site installation date;¹³ or
 - b. conduct NO_x emission source tests following procedures listed in Section 4, on one of similar units. Conduct each source test at three loads within the normal operating range of the unit within 120 days of the first similar unit’s startup on-site.
- 21.5 By the 15th of each month, calculate and record the monthly NO_x emissions for the prior month for each unit (or group of units) listed in condition 21.1, plus units 409 through 411, in tons per month using Equation 1, and add to the total for the previous 11 months to get the 12 month rolling total.

Equation 1 $NO_x = FC \times EF \times \frac{1 \text{ ton}}{2000 \text{ lb}} + IE$

Where: *NO_x* = NO_x emissions in tons per month
FC = Fuel consumption in gallons per month
EF = NO_x emission factor in pounds per gallon using the values in Table 1, except if source tests have been conducted under condition 21.6 for Emission Units 201 through 212. Use the same emission factor for all the units in each group of similar units: 201 and 202, 203 through 205, 206 and 207 (211 and 212), and 209 through 210.
IE = Incinerator Emissions (Emission Units 409 through 411) in tons per month = 1.7 tons per month during construction

Table 1 – NO_x Emission Factors During Construction

Emission Unit	Type	NO _x Emission Factor
102 – 110 and 403 - 408	Heater	20 lb/1,000 gal
201 & 202	Generator	Worst Case Emission Factor determined under condition 21.4
203 – 205	Generator	
206 & 207 (211 & 212)	Generator	
208 – 210	Generator	
401 & 402	Generator	0.604 lb/gal

¹ Refer to description of *EF* above for exceptions to this emission rate.

¹³ This requirement is in addition to the specification sheet requires under condition 1.2.

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- 21.6 Unless source tests have already been conducted under condition 21.4, if the 12 month rolling total NO_x emissions calculated in condition 21.4 exceeds 225 tpy, conduct NO_x emission source tests following procedures listed in Section 4, on one unit of each group of similar units (Emission Unit 201 and 202, 203 through 205, 206 and 207 (211 & 212), and 208 through 210). Conduct each source test at three loads within the normal operating range of the emission units according to Section 4 within 90 days of exceeding 225 tpy.
- a. Monitor and record the fuel consumption rate of each unit during each run of the test.
 - b. During the test, collect a fuel sample for each load and group of similar equipment.
 - c. Analyze the fuel to determine its higher heating value and specific gravity using ASTM methods incorporated by reference in ASTM 396-62, *Specifications for Fuel Oil*.
 - d. Within the test report, document the average firing rate, and fuel specific heat and gravity.
 - e. Determine the emission rate (lb/hour) and site-specific emission factor (lb/MMBtu) based on Method 19. If the maximum site-specific emission factor exceeds the values listed in Table 1, recalculate the monthly and 12-month rolling total emission for all periods prior to the source test report deadline, and submit an updated facility operating report for those periods.
- 21.7 Report as excess emissions under condition 41 if the NO_x emissions calculated under condition 21.4 or 21.6e exceed 240 tpy.
- 21.8 Include in the facility operating report required under condition 43:
- a. monthly fuel use for each unit or group of similar units; and
 - b. for each unit or group of similar units, list the monthly and 12-month rolling total NO_x emissions calculated under condition 21.4 or 21.6e.
- 22. SO₂ Limit During Construction.** the Permittee shall avoid PSD for SO₂ during construction by complying with the fuel limits in conditions 24 and 26.
- 23. NO_x Limit During Operation.** For Emission Units 208 through 210, the Permittee shall limit combined fuel consumption to 96,831 gallons of distillate fuel per 12 consecutive months during operation. Monitor, record and report as follows:
- 23.1 Using the fuel monitoring system required under condition 21.1, track and record the monthly fuel consumption for Emission Units 208 through 210. By the 15th of each month, calculate and record the monthly fuel consumption in gallons for the previous month, and add to the total for the previous 11 months to get the 12 month rolling total.
 - 23.2 Report as excess emissions under condition 41 if the fuel consumption calculated under condition 23.1 exceeds the limit in this condition.
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Ambient Air Quality Protection Requirements

- 24. Fuel Limit During Construction.** For the emission units shown in Table 2, the Permittee shall not cause or allow fuel consumption to exceed the limits shown in Table 2 during construction. Monitor, record and report as follows:

Table 2 – Fuel Limits During Construction

Emission Unit	Type	Fuel Limit (gallon/12 month period)
102 – 110 & 403 - 408	Heater	1,026,150
201 & 202	Generator	132,268
203 - 205	Generator	808,661
206 & 207 (211 & 212)	Generator	100,905
208 - 210	Generator	537,022
401 & 402	Generator	71,894

- 24.1 Using the fuel monitoring system required in condition 21.1, track and record the monthly fuel consumption for the emission units shown in Table 2. By the 15th of each month, calculate and record the monthly fuel consumption for group of units in gallons, and add to the total for the previous 11 months to get the 12 month rolling total.
- 24.2 Report as excess emissions under condition 41 if the fuel consumption calculated under condition 24.1 exceeds a limit shown in Table 2.
- 25. Fuel Limit During Operation.** For Emission Units 208 through 210, the Permittee shall limit combined fuel consumption to 96,831 gallons of distillate fuel per 12 consecutive months during operation. Monitor, record and report as indicated in condition 23.
- 26. SO₂ Limit.** The Permittee shall restrict fuel sulfur content as follows:
- 26.1 For Emission Units 102 through 110, 201 through 210, 213 through 216, 401 through 408, and 412 and 413 (all distillate fuel-, and used oil-fired units, including nonroad engines), do not allow distillate fuel sulfur content to exceed 0.5 percent by weight at any time. Verify compliance as required by condition 6.1.
- 26.2 For Emission Units 414 and 415 use only LPG as fuel. Verify compliance as required by condition 6.2.
- 27. Public Access Control Plan.** The Permittee shall comply with the provisions of the Public Access Control Plan contained in the application dated April 2003 and as follows:
- 27.1 The ambient air boundary shall be completely within the Millsite Lease Boundary established by the Alaska Department of Natural Resources.

27.2 Do not revise the ambient air boundary without department approval. Submit changes to the ambient air boundary, along with a revised ambient air impact analysis, to the department prior to any changes in the ambient air boundary.

27.3 Do not revise the Public Access Control Plan without Department concurrence. Submit revisions to the Public Access Control Plan (other than changes to the Ambient Air Boundary) to the department's compliance assurance group for approval prior to implementing changes to the plan.

28. General Ambient Air Requirements. The Permittee shall:

28.1 build the facility (including the exhaust stacks) as proposed in the application; and

28.2 use water spray dust controls after blasting.

Section 4. General Source Testing and Monitoring Requirements

- 29. 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), 1/18/97; 18 AAC 50.345(a) & (k), 5/3/02]
- 30. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing
[18 AAC 50.220(b) & 50.350(g), 1/18/97]
- 30.1 at a point or points that characterize the actual discharge into the ambient air; and
- 30.2 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.
- 31. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:
- 31.1 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 Exhibit B of this permit to record data.
[18 AAC 50.030, 5/3/02; 18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]
- 31.2 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)(4), 8/15/02; 18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
- 31.3 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), 7/2/00; 18 AAC 50.220(c)(1)(F) & 50.350(g), 1/18/97]
- 31.4 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.
[18 AAC 50.040(c)(19), 6/1/02; 18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]
- 32. 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 source 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) & 18 AAC 50.350(g), 1/18/97; 18 AAC 50.990(88), 5/3/02]
- 33. Test Exemption.** The Permittee is not required to comply with conditions 35, 36 and 37 when the exhaust is observed for visible emissions by Method 9 Plan (condition 4.1b)
[18 AAC 50.345(a), 5/3/02]

34. 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), 5/3/02]

35. Test Plans. Except as provided in condition 33, 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 source 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 29 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 done without resubmitting the plan.

[18 AAC 50.345(a) & (m), 5/3/02]

36. Test Notification. Except as provided in condition 33, 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), 5/3/02]

37. Test Reports. Except as provided in condition 33, 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 in the manner set out in condition 57. 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), 5/3/02]

38. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in condition 5, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f), 1/18/97]

Section 5. General Recordkeeping, Reporting, and Compliance Certification Requirements

39. 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 57.

[18 AAC 50.350(i), 1/18/97]

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

[40 C.F.R. 60.7(f), Subpart A, 7/1/01]

40.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

40.2 records of all monitoring required by this permit, and information about the monitoring including:

- 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.

41. Excess Emissions and Permit Deviation Reports.

41.1 Except as provided in condition 49, 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;

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- 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, except as provided in conditions 41.1c(ii); and
 - (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 41.1c(i).
- 41.2 When reporting excess emissions, the Permittee must report using either the Department's on-line form, which can be found at <http://www.state.ak.us/dec/dawq/aqm/eeform.pdf>, or if the Permittee prefers, the form contained in Exhibit C of this permit. The Permittee must provide all information called for by the form that is used.
- 41.3 When reporting a permit deviation, the Permittee must report using either the Department's on-line form, which can be found at <http://www.state.ak.us/dec/dawq/aqm/eeform.pdf>, or if the Permittee prefers, the form contained in Exhibit C of this permit. The Permittee must provide all information called for by the form.
- 41.4 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), & 50.350(i), 1/18/97; and 18 AAC 50.346(a)(3), 5/3/02]

42. NSPS and NESHAP Reports. The Permittee shall:

- 42.1 attach to the facility operating report required by condition 43, copies of any NSPS reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 as required by conditions 8 and 15.1; and
- 42.2 upon request by the Department, notify and provide a written copy of any EPA-granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

43. Operating Reports. During the life of this permit, the Permittee shall submit to the Department one 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.

[18 AAC 50.346(b)(3), 5/3/02; 18 AAC 50.350(d)(4), 6/21/98; and 18 AAC 50.350(f)(3) & (i), 1/18/97]

- 43.1 The operating report must include all information required to be in operating reports by other conditions of this permit.
- 43.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 43.1, 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 41 the Permittee may cite the date or dates of those reports.

Section 6. Standard Conditions

- 44. Assessable Emissions.** The Permittee shall pay to the Department an annual emission fee based on the facility'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 contaminant that the facility 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
[18 AAC 50.346(a)(1), 5/3/02 and 18 AAC 50.350(c) & %).400 – 50.420, 1/18/97]
- 44.1 the facility's assessable potential to emit of
- a. 1,170 tpy during construction; and
 - b. 420 tpy during construction; or
- 44.2 the facility'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.
- 45. Assessable Emission Estimates.** Emission fees will be assessed as follows:
[18 AAC 50.346(a)(1), 5/3/02 and 18 AAC 50.350(c) & %).400 – 50.420, 1/18/97]
- 45.1 no later than March 31 of each year, the Permittee may submit an estimate of the facility'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
- 45.2 If no estimate is received 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 44.1.

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- 46. Good Air Pollution Control Practice.** The Permittee shall do the following for all Emission Units listed in Table A-1, except for Emission Units 414, 415, 533, and 534A through 534E:
[18 AAC 50.346(b)(2), 5/3/02]
- 46.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
 - 46.2 keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
 - 46.3 keep a copy of either the manufacturer's or the operator's maintenance procedures.
- 47. Reasonable Precautions to Prevent Fugitive Dust.** The Permittee shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air as follows.
[18 AAC 50.346(c), 5/3/02; 18 AAC 50.045(d) & 50.350(g), 1/18/97 & 18 AAC 50.040(e), 8/15/02]
- 47.1 Keep records of
[18 AAC 50.350(h), 5/3/02]
 - a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and
 - b. any additional precautions that are taken
 - (i) to address complaints described in condition 47.1 or to address the results of Department inspections that found potential problems; and
 - (ii) to prevent future dust problems.
 - 47.2 Report according to condition 49.
[18 AAC 50.350(i), 5/3/02]
- 48. Facility-Specific Fugitive Dust Requirements.** In addition to the general requirements for controlling fugitive dust listed in condition 47, the Permittee shall comply with the following requirements specific to the Pogo Mine Project.
- 48.1 Perform a daily inspection of all unpaved roads (Emission Units 535 through 539), temporary ore stockpiles and rock storage areas, drystack tailings facility, and gravel pits for fugitive dust. If dust is present, and the road or stockpile is unfrozen, apply water or suitable dust suppression chemicals on roads and stockpiles, or cover the stockpiles. Maintain a log of daily inspection and actions to keep dust down. Keep the records for five years.
 - 48.2 For the baghouses on Emission Units 526 through 529, 532 through 534, and ALAB:
 - a. Monitor the pressure drop across each baghouse daily to ensure that it is within the limits recommended by the manufacturer.
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- b. Inspect each baghouse prior to initial startup, whenever the pressure drop across the baghouse is not within the limits recommended by the manufacturer, and every 180 days of operation. Replace worn or damaged bags prior to restarting the baghouse or within 72 hours of discovery, whichever occurs later.
 - c. Maintain maintenance logs detailing pressure drop across baghouse, baghouse inspections, and bag replacements. Keep records for five years.
- 48.3 During construction, use water control techniques to control dust on Emission Units 501 and 502, 506 and 507, and 511 and 512 (underground material transfer units).
- 48.4 During operation, use water control techniques to control dust on Emission Units 517 through 525 (underground material transfer units).
- 49. 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 50.346(a)(2), 5/3/02; 18 AAC 50.110, 5/26/72; 18 AAC 50.040(e), 8/15/02]
- 49.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 41.
- 49.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 49.
- 49.3 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 an investigation because of a complaint or other reason, the Permittee believes that emissions from the facility have caused or are causing a violation of condition 49; or
 - b. the Department notifies the Permittee that it has found a violation of condition 49.
- 49.4 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 49; and
 - d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

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- 49.5 With each facility operating report under condition 43, 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.
- 49.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.
[18 AAC 50.346(a)(2) & 50.350(g) - (i), 5/3/02]
- 50.** 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
[18 AAC 50.345(a), (c)(1) & (2), 5/3/02]
- 50.1 an enforcement action; or
- 50.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
- 51.** 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 50.345(a) & (d), 5/3/02]
- 52.** 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 50.345(a) & (e), 5/3/02]
- 53.** 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.
[18 AAC 50.345(a) & (f), 5/3/02]
- 54.** The permit does not convey any property rights of any sort, nor any exclusive privilege.
[18 AAC 50.345(a) & (g), 5/3/02]
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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 facility, 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 50.345(a) & (h), 5/3/02]

56. 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), 5/3/02]

57. Certification. The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted facility 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. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.345(a) & (j), 5/3/02]

EXHIBIT A
EMISSION UNIT INVENTORY TABLE

Table A-1 – Emission Unit Inventory¹

Emission Unit ID	Source Type	Make & Model	Location/Other Description	Fuel	Max. Capacity	Installation Date	Source During Construction	Source During Operation
102	Heater	TBD	300 Man Construction Camp	Distillate	4 MMbtu/hr	TBD	Yes	Yes
103	Heater	TBD	1525 Maintenance Shop	Distillate or Used Oil	0.35 MMbtu/hr	TBD	Yes	Yes
104	Heater	TBD	Water Treatment Plant	Distillate	0.35 MMbtu/hr	TBD	Yes	Yes
106	Heater	TBD	Mill Building	Distillate	18 MMbtu/hr	TBD	Yes	Yes
107	Heater	TBD	Filter/Backfill Plant	Distillate	6 MMbtu/hr	TBD	Yes	Yes
108	Heater	TBD	Permanent Camp	Distillate	3.75 MMbtu/hr	TBD	Yes	Yes
109	Heater	TBD	Mine Office & Dry	Distillate	3.5 MMbtu/hr	TBD	Yes	Yes
110	Heater	TBD	Truck Shop Complex	Distillate or Used Oil	4 MMbtu/hr	TBD	Yes	Yes
201	Generator	Caterpillar D-3412C	1525 Portal	Distillate	668 hp	1998	Yes	No
202	Generator	Caterpillar D-3412C	1525 Portal	Distillate	668 hp	1998	Yes	No
203	Generator	TBD	Construction Camp Bank	Distillate	1,227 hp	TBD	Yes	No
204	Generator	TBD	Construction Camp Bank	Distillate	1,227 hp	TBD	Yes	No
205	Generator	TBD	Construction Camp Bank	Distillate	1,227 hp	TBD	Yes	No
206 (211)	Generator	Komatsu NL6149-A	Airstrip-Batch Plant Bank/Primary	Distillate	680 hp	1998	Yes	No
207 (212)	Generator	Komatsu NL6149-A	Airstrip-Batch Plant Bank/Backup	Distillate	680 hp	1998	Yes	No
208	Generator	TBD	Mill Bench Unit Bank	Distillate	1,227 hp	TBD	Yes	Yes
209	Generator	TBD	Mill Bench Unit Bank	Distillate	1,227 hp	TBD	Yes	Yes
210	Generator	TBD	Mill Bench Unit Bank	Distillate	1,227 hp	TBD	Yes	Yes
213 ²	Portable Generator	TBD	1690 Portal/Backup	Distillate	1,220 hp	TBD	Yes	No

Emission Unit ID	Source Type	Make & Model	Location/Other Description	Fuel	Max. Capacity	Installation Date	Source During Construction	Source During Operation
214 ²	Portable Generator	TBD	1690 Portal/Primary	Distillate	1,220 hp	TBD	Yes	No
215 ²	Portable Generator	TBD	1875 Portal/Backup	Distillate	1,220 hp	TBD	Yes	No
216 ²	Portable Generator	TBD	1875 Portal/Primary	Distillate	1,220 hp	TBD	Yes	No
301	Explosives	TBD	Exhaust from 1525 Portal/Underground	N/A	1,373 lb/day	TBD	Yes	No
302	Explosives	TBD	Exhaust from 1690 Portal/Underground	N/A	1,373 lb/day	TBD	Yes	Yes
303	Explosives	TBD	Exhaust from 1310 Exhaust Rise/Underground	N/A	1,373 lb/day	TBD	Yes	Yes
304	Explosives	TBD	Exhaust from 1875 Portal/Underground	N/A	1,373 lb/day	TBD	Yes	No
401	Generator	Caterpillar D-3306	1525 Mine Air Compressor No. 1	Distillate	170 hp	1998	Yes	No
402	Generator	Caterpillar D-3306	1525 Mine Air Compressor No. 2	Distillate	170 hp	1998	Yes	No
403	Heater	TBD	1525 Mine Air Heater No. 1	Distillate	0.42 MMbtu/hr	TBD	Yes	No
404	Heater	TBD	1525 Mine Air Heater No. 2	Distillate	0.42 MMbtu/hr	TBD	Yes	No
405	Heater	TBD	1690 Portal Mine Air Heater No. 1	Distillate	0.42 MMbtu/hr	TBD	Yes	No
406	Heater	TBD	1690 Portal Mine Air Heater No. 2	Distillate	0.42 MMbtu/hr	TBD	Yes	No
407	Heater	TBD	1875 Portal Mine Air Heater No. 1	Distillate	0.42 MMbtu/hr	TBD	Yes	No
408	Heater	TBD	1875 Portal Mine Air Heater No. 2	Distillate	0.42 MMbtu/hr	TBD	Yes	No
409	Incinerator	TBD	Existing Camp	Solid Waste	50 lb/hr	TBD	Yes	No

Emission Unit ID	Source Type	Make & Model	Location/Other Description	Fuel	Max. Capacity	Installation Date	Source During Construction	Source During Operation
410	Incinerator	TBD	Construction Camp	Solid Waste	130 lb/hr	TBD	Yes	Yes
411	Incinerator	TBD	Permanent Camp	Solid Waste	130 lb/hr	TBD	Yes	Yes
412 ²	Light Plant	TBD	Light Plant No. 1	Distillate	180 KW	TBD	No	Yes
413 ²	Light Plant	TBD	Light Plant No. 2	Distillate	15 KW	TBD	No	Yes
414	Heater	TBD	1875 Mine Air Heater No. 1	LPG	28.2 MMBtu/hr	TBD	No	Yes
415	Heater	TBD	1875 Mine Air Heater No. 2	LPG	28.2 MMBtu/hr	TBD	No	Yes
501	Material Transfer	N/A	Underground-1525 Portal, LHD to Remuck	N/A	514 tpd	TBD	Yes	No
502	Material Transfer	N/A	Underground-1525 Portal, LHD to Truck	N/A	514 tpd	TBD	Yes	No
503	Material Transfer	N/A	Underground-1525 Portal, Truck to Pad	N/A	514 tpd	TBD	Yes	No
504	Material Transfer	N/A	Underground-1525 Portal, FEL to Truck	N/A	514 tpd	TBD	Yes	No
505	Material Transfer	N/A	Underground-1525 Portal, Truck to Pads	N/A	514 tpd	TBD	Yes	No
506	Material Transfer	N/A	Underground-1690 Portal, LHD to Remuck	N/A	514 tpd	TBD	Yes	No
507	Material Transfer	N/A	Underground-1690 Portal, LHD to Truck	N/A	514 tpd	TBD	Yes	No
508	Material Transfer	N/A	Underground-1690 Portal, Truck to Pad	N/A	514 tpd	TBD	Yes	No
509	Material Transfer	N/A	Underground-1690 Portal, FEL to Truck	N/A	514 tpd	TBD	Yes	No
510	Material Transfer	N/A	Underground-1690 Portal, Truck to RTP	N/A	514 tpd	TBD	Yes	No

Emission Unit ID	Source Type	Make & Model	Location/Other Description	Fuel	Max. Capacity	Installation Date	Source During Construction	Source During Operation
511	Material Transfer	N/A	Underground-1875 Portal, LHD to Remuck	N/A	514 tpd	TBD	Yes	No
512	Material Transfer	N/A	Underground-1875 Portal, LHD to Truck	N/A	514 tpd	TBD	Yes	No
513	Material Transfer	N/A	Underground-1875 Portal, Truck to Pad	N/A	514 tpd	TBD	Yes	No
514	Material Transfer	N/A	Underground-1875 Portal, FEL to Truck	N/A	514 tpd	TBD	Yes	No
515	Material Transfer	N/A	Underground-1875 Portal, Truck to RTP	N/A	514 tpd	TBD	Yes	No
516	Material Transfer	N/A	Aboveground-Concrete Batch Plant	N/A	10 tpd	TBD	Yes	Yes
517	Material Transfer	N/A	Underground-1875 Development Truck to Surface	N/A	2,822 tpd	TBD	No	Yes
518	Material Transfer	N/A	Underground-1310 Development LHD to Remuck	N/A	1,411 tpd	TBD	No	Yes
519	Material Transfer	N/A	Underground-1310 Development Remuck LHD to Truck	N/A	1,411 tpd	TBD	No	Yes
520	Material Transfer	N/A	Underground-1690 Development LHD to Remuck	N/A	1,411 tpd	TBD	No	Yes
521	Material Transfer	N/A	Underground-1310 Development Remuck LHD to Truck	N/A	1,411 tpd	TBD	No	Yes
522	Material Transfer	N/A	Underground-1310 Ore LHD to Remuck	N/A	1,750 tpd	TBD	No	Yes
523	Material Transfer	N/A	Underground-1310 Ore Remuck to Truck	N/A	1,750 tpd	TBD	No	Yes

Emission Unit ID	Source Type	Make & Model	Location/Other Description	Fuel	Max. Capacity	Installation Date	Source During Construction	Source During Operation
524	Material Transfer	N/A	Underground-1690 Ore LHD to Remuck	N/A	1,750 tpd	TBD	No	Yes
525	Material Transfer	N/A	Underground-1690 Ore Remuck to Truck	N/A	1,750 tpd	TBD	No	Yes
526	Baghouse	N/A	Underground Truck Dump to Ore Bin	N/A	750 ft ³ /min	TBD	No	Yes
527	Baghouse	N/A	Underground Rock Breaker	N/A	118 tph	TBD	No	Yes
528	Baghouse	N/A	Underground Apron Feeder No. 1	N/A	5,000 ft ³ /min	TBD	No	Yes
529	Baghouse	N/A	Underground Apron Feeder No. 2	N/A	5,000 ft ³ /min	TBD	No	Yes
530	N/A	N/A	Aboveground-1875 Development FEL to Truck	N/A	2,822 tpd	TBD	No	Yes
531	N/A	N/A	Aboveground-1875 Truck to Drystack	N/A	5,000 ft ³ /min	TBD	No	Yes
532	Baghouse	N/A	Backfill Plant Cement Silo	N/A	1,500 ft ³ /min	TBD	No	Yes
533	Baghouse	N/A	Conveyor to Surface Coarse Ore Bin/Above Ground	N/A	1,500 ft ³ /min	TBD	No	Yes
534	Baghouse	N/A	Surface Coarse Ore Bin Apron Feeder/Above Ground	N/A	5,000 ft ³ /min	TBD	No	Yes
534A	Bin	N/A	Surface Coarse Ore Bin	N/A	TBD	TBD	No	Yes
534B	Conveyor	N/A	Conveyor to SAG Mill/Above Ground	N/A	N/A	TBD	No	Yes
534C	Screen	N/A	Gravity Feed Screens (two)	N/A	N/A	TBD	No	Yes
534D	Screen	N/A	Trash Screen	N/A	N/A	TBD	No	Yes
534E	Screen	N/A	Safety Screen	N/A	N/A	TBD	No	Yes
535	Roads	N/A	Haul Truck-BF Plant to Drystack	N/A	N/A	TBD	No	Yes

Emission Unit ID	Source Type	Make & Model	Location/Other Description	Fuel	Max. Capacity	Installation Date	Source During Construction	Source During Operation
536	Roads	N/A	Haul Truck-Waste Stockpile to Drystack	N/A	N/A	TBD	No	Yes
537	Roads	N/A	Misc. Pickup Truck Trips	N/A	N/A	TBD	No	Yes
538	Roads	N/A	Misc. Cargo Truck Trips	N/A	N/A	TBD	No	Yes
539	Roads	N/A	Misc. Bus Trips	N/A	N/A	TBD	No	Yes
ALAB	Baghouse	N/A	Assay Lab	N/A	3,000 ft ³ /min	TBD	No	Yes
CP	N/A	N/A	Aboveground Portable Crusher	N/A	125 tons/hr	TBD	Yes	No
AST-19	Storage Tank	N/A	Exploration Portal	Distillate	2,500 gal	TBD	Yes	Yes
AST-20	Storage Tank	N/A	Process Plant	Distillate	2,500 gal	TBD	Yes	Yes
AST-21	Storage Tank	N/A	Mine Services Complex	Distillate	20,000 gal	TBD	Yes	Yes
AST-22	Storage Tank	N/A	Mine Services Complex	Distillate	20,000 gal	TBD	Yes	Yes
AST-23	Storage Tank	N/A	Mine Services Complex	Distillate	2,500 gal	TBD	Yes	Yes
AST-24	Storage Tank	N/A	Mine Services Complex	Used Oil	5,000 gal	TBD	Yes	Yes
AST-25	Storage Tank	N/A	Mine Services Complex	Gasoline	500 gal	TBD	Yes	Yes
AST-26	Storage Tank	N/A	Permanent Camp	Distillate	2,500 gal	TBD	Yes	Yes
AST-27	Storage Tank	N/A	Airstrip	Jet A	5,000 gal	TBD	Yes	Yes
AST-28	Storage Tank	N/A	Exploration Portal	LPG	50,000 gal	TBD	Yes	Yes
AST-29	Storage Tank	N/A	1875 Portal	LPG	50,000 gal	TBD	Yes	Yes
AST-30	Storage Tank	N/A	Process Plant	LPG	5,000 gal	TBD	Yes	Yes

TBD means “To Be Determined”, N/A means “Not Applicable”, LHD means “load, haul, and dump”, FEL means “Front End Loader”, and RTP means “recycle tailings pond”

Footnotes:

¹ The information in these tables is for identification purposes only

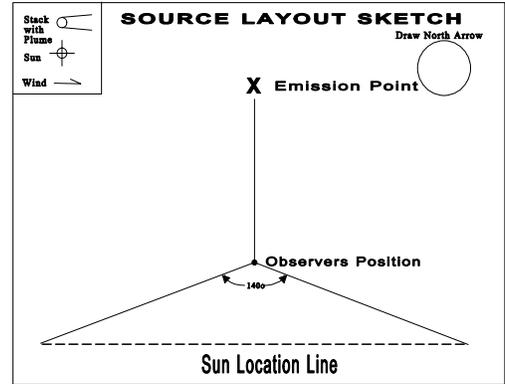
² Nonroad Engine

EXHIBIT B
VISIBLE EMISSIONS FORMS

Visible Emissions Field Data Sheet

Certified Observer: _____

Company & Facility: _____
 Location: _____
 Test No.: _____ Date: _____
 Source: _____
 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					

EXHIBIT C

ADEC NOTIFICATION FORM

ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

Teck-Pogo, Inc.
Company Name

Pogo Mine
Facility Name

Reason for notification:

Excess Emissions
*If you checked this box
Fill out section 1*

Other Deviation from Permit Condition
*If you checked this box
fill out section 2*

When did you discover the Excess Emissions or Other Deviation:

Date: __/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock):

	START Time: (hr:min):	END Time:	Duration
Date: _____	_____:	_____:	_____:
Date: _____	_____:	_____:	_____:
		Total:	_____:

(b) Cause of Event (Check all that apply):

START UP UPSET CONDITION CONTROL EQUIPMENT
 SHUT DOWN SCHEDULED MAINTENANCE OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) 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

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation
_____	_____
_____	_____
_____	_____

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

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:

Signature:

Date:

EXHIBIT D
PERMIT DOCUMENTATION

PERMIT DOCUMENTATION

- April, 2003 AQC Construction Permit Application for the Pogo Mine Project, prepared for Teck-Pogo Inc., by Hoefler Consulting Group.
- July 28, 2003 Email from Al Trbovich to Sally Ryan, including Compliance Demonstration Plan, map of project area showing the sources relative to the ambient air boundary, revised Table E-3, revised owner-requested fuel limits, and responses to ADEC questions and comment on application.
- July 28, 2003 Email from Al Trbovich to Sally Ryan containing revised NO_x modeling files.
- August 13, 2003 Fax from Al Trbovich to Sally Ryan containing NO_x emission factor calculations and vendor data.
- August 21, 2003 Email from Al Trbovich containing revised Tables B-3 to B-8, and E-3 to E-8, Vendor-provided Emissions and Fuel Consumption Data, and Response to email and voice mail questions.
- August 26, 2003 Email from Al Trbovich to Sally Ryan regarding NSPS Subpart LL applicability at the Pogo Mine Project.
- September 11, 2003 Email from Al Trbovich to Sally Ryan regarding NSPS Subpart OOO applicability at the Pogo Mine Project.
- September 15, 2003 Email from Al Trbovich to Sally Ryan regarding Portable Crusher.
- October 15, 2003 Federal Register, Volume 68, Number 1991, pages 59328 -59333, Final Rule, Amendments to *Standards of Performance for Volatile Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*)
- December 4, 2003 Letter from Karl Hanneman (Teck) to Jim Baumgartner (ADEC) dated December 4, 2003, Comments to Proposed Air Quality Control Construction Permit No. 406CP01.