

#### **Bureau of Air Pollution Control**

901 SOUTH STEWART STREET SUITE 4001 CARSON CITY, NEVADA 89701-5249 p: 775-687-9349 • ndep.nv.gov/air

### Facility ID No. A2342

### Permit No. AP1442-4782

### **CLASS II AIR QUALITY OPERATING PERMIT**

**Issued to:** Knox Excavating, Inc. (Hereinafter referred to as Permittee)

Mailing Address: 1165 SAWMILL ROAD, UNIT A, GARDNERVILLE NEVADA, 89410

**Physical Address:** 6 miles east of US 395 on Johnson Lane, Gardnerville, Nevada 89423

**Driving Directions:** From Minden, NV, take US-395 North to State Route 209/Johnson Lane. Turn right

ONTO STATE ROUTE 209/JOHNSON LANE AND CONTINUE FOR APPROXIMATELY 4 MILES TO THE JOHNSON LANE OHV AREA. KEEP RIGHT TO STAY ON JOHNSON LANE AND CONTINUE FOR APPROXIMATELY 1.2 MILES. CONTINUE ONTO SUNRISE PASS ROAD AND DRIVE FOR 0.8 MILES.

THE FACILITY WILL BE ON THE LEFT.

General Facility Location: SECTION 6, T 13 N, R 21 E, MDB&M

HA 105 – CARSON VALLEY / DOUGLAS COUNTY

NORTH 4,322,351 M, EAST 268,508 M, UTM ZONE 11, NAD 83

#### **Emission Unit List:**

#### A. System 1 – Jaw Crusher and Conveyor Transfers

PF1.001	Material	Transfer in	from Lo	oading or (	Other Perm	itted Equipmer	nt to Jaw	Crusher Hoppe	er
DE1 000	T 0	1 1 4		т с	(DIII C	1 77	OT ITE T	0 1 0	

PF1.002 Jaw Crusher and Associated Transfers (IN Jaw Crusher Hopper; OUT Jaw Crusher Conveyor 1)

PF1.003 Jaw Crusher Conveyor 1 transfer to Stockpile, or Other Permitted Equipment

#### B. System 2 – Dry Screen and Conveyor Transfers

PF1.004	Material Transfer in from	n Loading or Other P	ermitted Equipment t	o Screen #1 Hopper

PF1.005 Screen #1 and Associated Transfers (IN Screen #1 Hopper; OUT Fine Size Side Conveyor 1, Mid Size Side Conveyor

1, Oversize Tail Conveyor 1)

PF1.006 Fine Size Side Conveyor 1 transfer to Stockpile or Other Permitted Equipment

PF1.007 Mid Size Side Conveyor 1 transfer to Stockpile or Other Permitted Equipment

PF1.008 Oversize Tail Conveyor 1 transfer to Stockpile or Other Permitted Equipment

#### C. System 3 – Cone Crusher and Conveyor Transfers

PF1.009	Material Transfer in from Loading or Other Permitted Equipment to Cone Crusher Hopper	
PF1.010	Cone Crusher and Associated Transfers (IN Cone Crusher Hopper; OUT Crushed Stone Belt 1	)

PF1.011 Crushed Stone Belt 1 transfer to Stockpile or Other Permitted Equipment

#### D. System 4 – Wet Screen and Conveyor Transfers

	PF1.012	Material Transfer in	from Loading of	or Other Permitted Equipment to	Wash Screen #2 Hopper
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Wash Screen #2 and Associated Transfers (IN Wash Screen #2 Hopper; OUT Fine Size Side Conveyor 2, Mid Size Side

Conveyor 2, Oversize Tail Conveyor 2)

PF1.014 Fine Size Side Conveyor 2 to Stockpile or Other Permitted Equipment PF1.015 Mid Size Side Conveyor 2 to Stockpile or Other Permitted Equipment

PF1.016 Oversize Tail Conveyor 2 to Stockpile or Other Permitted Equipment

#### E. System 5 – Conveyor Transfers

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PF1.017	Radial Stacker Conveyor 1 to Stockpile or Other Permitted Equipment

PF1.018 Radial Stacker Conveyor 2 to Stockpile or Other Permitted Equipment PF1.019 Radial Stacker Conveyor 3 to Stockpile or Other Permitted Equipment

PF1.019 Radial Stacker Conveyor 3 to Stockpile or Other Permitted Equipment PF1.020 Radial Stacker Conveyor 4 to Stockpile or Other Permitted Equipment

PF1.021 Field Conveyor 1 to Stockpile or Other Permitted Equipment

PF1.022 Field Conveyor 2 to Stockpile or Other Permitted Equipment

PF1.023 Field Conveyor 3 to Stockpile or Other Permitted Equipment

PF1.024 Field Conveyor 4 to Stockpile or Other Permitted Equipment



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

**Emission Unit List: (Continued)** 

F. System 6 – Non-Emergency Screening Plant Internal Engine

S2.001 Chieftan 2200 Tracked Screening Plant Internal Engine (97 kW, CAT, C4.4, Manufactured 2007+)

G. System 7 – Non-Emergency Screening/Wash Plant Internal Engine

S2.002 Terrex M 2100 Tracked Screening/Wash Plant Internal Engine, (97 kW, Manufactured 2007+)

H. System 8 – Non-Emergency Jaw Crusher Internal Engine

S2.003 Jaw Crusher Internal Engine (230 kW, CAT, C9.3, Manufactured 2006+)

I. System 9 – Non-Emergency Cone Crusher Internal Engine

S2.004 Cone Crusher Internal Engine (328 kW, CAT, C13, ACERT, Manufactured 2006+)

J. System 10 – Non-Emergency Generator

S2.005 Whisperwatt AC Generator (142 kW, John Deere, 6081TF, Manufactured 2001)

K. System 11 – Non-Emergency Generator

S2.006 Multi-Quip 70KVA Model DCA (80 kW, John Deere, 70SSjU4i, Manufactured 2015)

L. System 12 – Non-Emergency Generator

S2.007 Multi-Quip 40KVA (36 kW, Kubota, DCA – 40SSKU4F2, Manufactured 2014+)

\*\*\*\*End of Emission Unit List\*\*\*\*



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### **Section I. General Provisions**

- A. Prohibited acts; penalty; establishment of violation; request for prosecution (NRS 445B.470) (State Only Requirement)
  - 1. A person shall not knowingly:
    - a. Violate any applicable provision, the terms or conditions of any permit or any provision for the filing of information;
    - b. Fail to pay any fee;
    - c. Falsify any material statement, representation or certification in any notice or report; or
    - d. Render inaccurate any monitoring device or method, required pursuant to the provisions of NRS 445B.100 to 445B.450, inclusive, or 445B.470 to 445B.640, inclusive, or any regulation adopted pursuant to those provisions.
  - 2. Any person who violates any provision of subsection 1 shall be punished by a fine of not more than \$10,000 for each day of the violation.
  - 3. The burden of proof and degree of knowledge required to establish a violation of subsection 1 are the same as those required by 42 U.S.C. § 7413(c), as that section existed on October 1, 1993.
  - 4. If, in the judgment of the Director of the Department or the Director's designee, any person is engaged in any act or practice which constitutes a criminal offense pursuant to NRS 445B.100 to 445B.640, inclusive, the Director of the Department or the designee may request that the Attorney General or the district attorney of the county in which the criminal offense is alleged to have occurred institute by indictment or information a criminal prosecution of the person.
  - 5. If, in the judgment of the control officer of a local air pollution control board, any person is engaged in such an act or practice, the control officer may request that the district attorney of the county in which the criminal offense is alleged to have occurred institute by indictment or information a criminal prosecution of the person.
- B. <u>Visible emissions: Maximum opacity; determination and monitoring of opacity</u> (NAC 445B.22017)

(Federally Enforceable SIP Requirement)

- 1. Except as otherwise provided in this section and NAC 445B.2202, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:
  - a. If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A of 40 CFR Part 60.
  - b. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 CFR 60.13(h).
- 2. The provisions of this section and NAC 445B.2202 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.
- 3. If the provisions of 40 CFR Part 60, Subpart D or Da apply to an emission unit, the emission unit must be allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR 60.42(a)(2) and 40 CFR 60.42a(b).
- 4. The continuous monitoring system for monitoring opacity at a facility must be operated and maintained by the owner or operator specified in the permit for the facility in accordance with NAC 445B.256 to 445B.267, inclusive.
- C. <u>Visible emissions: Exceptions for stationary sources</u> (NAC 445B.2202) (Federally Enforceable SIP Requirement)

The provisions of NAC 445B.22017 do not apply to:

- 1. Smoke from the open burning described in NAC 445B.22067;
- 2. Smoke discharged in the course of training air pollution control inspectors to observe visible emissions, if the facility has written approval of the Commission;
- 3. Emissions from an incinerator as set forth in NAC 445B.2207; or
- 4. Emissions of stationary diesel-powered engines during warm-up for not longer than 15 minutes to achieve operating temperatures.



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### Section I. General Provisions (continued)

- D. Odors (NAC 445B.22087) (State Only Requirement)
  - 1. No person may discharge or cause to be discharged, from any stationary source, any material or regulated air pollutant which is or tends to be offensive to the senses, injurious or detrimental to health and safety, or which in any way interferes with or prevents the comfortable enjoyment of life or property.
  - 2. The Director shall investigate an odor when 30 percent or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy. The sample must be at least 20 people or 75 percent of those exposed if fewer than 20 people are exposed.
  - 3. The Director shall deem the odor to be a violation if he or she is able to make two odor measurements within a period of 1 hour. These measurements must be separated by at least 15 minutes. An odor measurement consists of a detectable odor after the odorous air has been diluted with eight or more volumes of odor-free air.
- E. <u>Prohibited Conduct: Concealment of Emissions</u> (NAC 445B.225) (*Federally Enforceable SIP Requirement*)

  No person may install, construct or use any device which conceals any emission without reducing the total release of regulated air pollutants to the atmosphere.
- F. Prohibited conduct: Operation of source without required equipment; removal or modification of required equipment; modification of required procedure (NAC 445B.227) (Federally Enforceable SIP Requirement)

Except as otherwise provided in NAC 445B.001 to 445B.390, inclusive, no person may:

- 1. Operate a stationary source of air pollution unless the control equipment for air pollution which is required by applicable requirements or conditions of this Operating Permit is installed and operating.
- 2. Disconnect, alter, modify or remove any of the control equipment for air pollution or modify any procedure required by an applicable requirement or condition of the permit.
- G. Excess Emissions (NAC 445B.232) (State Only Requirement)
  - 1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
  - 2. Each owner or operator shall notify the Director of the proposed time and expected duration at least 30 days before any scheduled maintenance or testing which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled maintenance or testing must not be conducted unless the scheduled maintenance or testing is approved pursuant to subsection 1.
  - 3. Each owner or operator shall notify the Director of the proposed time and expected duration at least 24 hours before any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled repairs must not be conducted unless the scheduled repairs are approved pursuant to subsection 1.
  - 4. Each owner or operator shall notify the Director of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of that equipment.



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#### **Section I. General Provisions (continued)**

- G. Excess Emissions (NAC 445B.232) (State Only Requirement) (continued)
  - 5. Each owner or operator shall provide the Director, within 15 days after any malfunction, upset, start-up, shutdown or human error which results in excess emissions, sufficient information to enable the Director to determine the seriousness of the excess emissions. The information must include at least the following:
    - a. The identity of the stack or other point of emission, or both, where the excess emissions occurred.
    - b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable limitation on emission and the operating data and methods used in estimating the magnitude of the excess emissions.
    - c. The time and duration of the excess emissions.
    - d. The identity of the equipment causing the excess emissions.
    - e. If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunction.
    - f. The steps taken to limit the excess emissions.
    - g. Documentation that the equipment for controlling air pollution, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.
  - 6. Each owner or operator shall ensure that any notification or related information submitted to the Director pursuant to this section is provided in a format specified by the Director.
- H. Testing and Sampling (NAC 445B.252) (Federally Enforceable SIP Requirement)
  - 1. To determine compliance with NAC 445B.001 to 445B.390, inclusive, before the approval or the continuance of an operating permit or similar class of permits, the Director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and sampling or either of them must be conducted and the results submitted to the Director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Director.
  - 2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the Director:
    - a. Specifies or approves, in specific cases, the use of a method of reference with minor changes in methodology;
    - b. Approves the use of an equivalent method;
    - c. Approves the use of an alternative method, the results of which the Director has determined to be adequate for indicating whether a specific stationary source is in compliance; or
    - d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the Director's satisfaction that the affected facility is in compliance with the standard.
  - 3. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance test. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a performance test unless otherwise specified in the applicable standard.
  - 4. The owner or operator of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.
  - 5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
  - 6. All testing and sampling will be performed in accordance with recognized methods and as specified by the Director.



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#### **Section I. General Provisions (continued)**

- Η. Testing and Sampling (NAC 445B.252) (Federally Enforceable SIP Requirement) (continued)
  - The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power and other pertinent allied facilities as may be required and specified in writing by the Director must be provided and paid for by the owner of the stationary source.
  - All information and analytical results of testing and sampling must be certified as to their truth and accuracy and as to their 8. compliance with all provisions of these regulations, and copies of these results must be provided to the Director no later than 60 days after the testing or sampling, or both.
  - 9. Notwithstanding the provisions of subsection 2, the Director shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations for:
    - An emission unit that is subject to a testing requirement pursuant to Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations; or
    - An affected source. b.
- I. Permit Revision (NAC 445B.287(1)(b)) (Federally Enforceable SIP Requirement)

If a stationary source is a Class II source, a revision of the operating permit or the permit to construct is required pursuant to the requirements of NAC 445B.3465 before the stationary source may be modified.

- J. Violations: Acts constituting; notice (NAC 445B.275) (Federally Enforceable SIP Requirement)
  - Failure to comply with any requirement of NAC 445B.001 to 445B.390, inclusive, any applicable requirement or any condition of an operating permit constitutes a violation. As required by NRS 445B.450, the Director shall issue a written notice of an alleged violation to any owner or operator for any violation, including, but not limited to:
    - Failure to apply for and obtain an operating permit;
    - Failure to construct a stationary source in accordance with the application for an operating permit as approved by the b. Director:
    - Failure to construct or operate a stationary source in accordance with any condition of an operating permit; c.
    - d. Commencing construction or modification of a stationary source without applying for and receiving an operating permit or a modification of an operating permit as required by NAC 445B.001 to 445B.3477, inclusive, or a mercury operating permit to construct as required by NAC 445B.3611 to 445B.3689, inclusive;
    - Failure to comply with any requirement for recordkeeping, monitoring, reporting or compliance certification contained e. in an operating permit; or
    - Failure to pay fees as required by NAC 445B.327 or 445B.3689.
  - The written notice must specify the provision of NAC 445B.001 to 445B.390, inclusive, the condition of the operating permit 2. or the applicable requirement that is being violated.
  - 3. Written notice shall be deemed to have been served if delivered to the person to whom addressed or if sent by registered or certified mail to the last known address of the person.
- Operating permits: Imposition of more stringent standards for emissions (NAC 445B.305) K.

(Federally Enforceable SIP Requirement)

The Director may impose standards for emissions on a proposed stationary source that are more stringent than those found in NAC 445B.001 to 445B.390, inclusive, as a condition of approving an operating permit for the proposed stationary source.



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#### **Section I. General Provisions (continued)**

- L. <u>Contents of operating permits: Exception for operating permits to construct; required conditions (NAC 445B.315)</u>
  (Federally Enforceable SIP Requirement)
  - 1. Notwithstanding any provision of this section to the contrary, the provisions of this section do not apply to operating permits to construct
  - 2. The Director shall cite the legal authority for each condition contained in an operating permit.
  - 3. An operating permit must contain the following conditions:
    - a. The term of the operating permit is 5 years.
    - b. The holder of the operating permit shall retain records of all required monitoring data and supporting information for 5 years after the date of the sample collection, measurement, report or analysis. Supporting information includes all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.
    - c. Each of the conditions and requirements of the operating permit is severable, and if any are held invalid, the remaining conditions and requirements continue in effect.
    - d. The holder of the operating permit shall comply with all conditions of the operating permit. Any noncompliance constitutes a violation and is a ground for:
      - (1) An action for noncompliance;
      - (2) Revising, revoking, reopening and revising, or terminating the operating permit by the Director; or
      - (3) Denial of an application for a renewal of the operating permit by the Director.
    - e. The need to halt or reduce activity to maintain compliance with the conditions of the operating permit is not a defense to noncompliance with any condition of the operating permit.
    - f. The Director may revise, revoke and reissue, reopen and revise, or terminate the operating permit for cause.
    - g. The operating permit does not convey any property rights or any exclusive privilege.
    - h. The holder of the operating permit shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revising, revoking and reissuing, reopening and revising, or terminating the operating permit, or to determine compliance with the conditions of the operating permit.
    - i. The holder of the operating permit shall pay fees to the Director in accordance with the provisions set forth in NAC 445B.327 and 445B.331.
    - j. The holder of the operating permit shall allow the Director or any authorized representative, upon presentation of credentials, to:
      - (1) Enter upon the premises of the holder of the operating permit where:
        - (a) The stationary source is located;
        - (b) Activity related to emissions is conducted; or
        - (c) Records are kept pursuant to the conditions of the operating permit;
      - (2) Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the operating permit;
      - (3) Inspect, at reasonable times, any facilities, practices, operations or equipment, including any equipment for monitoring or controlling air pollution, that are regulated or required pursuant to the operating permit; and
      - (4) Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of the operating permit or applicable requirements.
    - k. A responsible official of the stationary source shall certify that, based on information and belief formed after a reasonable inquiry, the statements made in any document required to be submitted by any condition of the operating permit are true, accurate and complete.



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#### **Section I. General Provisions (continued)**

- M. Operating permits: Revocation and reissuance (NAC 445B.3265) (State Only Requirement)
  - 1. An operating permit may be revoked if the control equipment is not operating.
  - 2. An operating permit may be revoked by the Director upon determining that there has been a violation of NAC 445B.001 to 445B.390, inclusive, or the provisions of 40 CFR 52.21, or 40 CFR Part 60 or 61, Prevention of Significant Deterioration, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants, adopted by reference in NAC 445B.221.
  - 3. The revocation is effective 10 days after the service of a written notice, unless a hearing is requested.
  - 4. To reissue a revoked operating permit, the holder of the revoked permit must file a new application with the Director, accompanied by the fee for an initial operating permit as specified in NAC 445B.327. An environmental review of the stationary source must be conducted as though construction had not yet commenced.
- N. Required contents of permit (NAC 445B.346) (Federally Enforceable SIP Requirement)

In addition to the conditions set forth in NAC 445B.315, Class II operating permits must contain, as applicable:

- 1. Emission limitations and standards, including those operational requirements and limitations that ensure compliance with the conditions of the operating permit.
- 2. All requirements for monitoring, testing and reporting that apply to the stationary source.
- 3. A requirement that the owner or operator of the stationary source promptly report any deviations from any requirements of the operating permit.
- 4. The terms and conditions for any reasonably anticipated alternative operating scenarios identified by the owner or operator of the stationary source in his or her application and approved by the Director. Such terms and conditions must require the owner or operator to keep a contemporaneous log of changes from one alternative operating scenario to another.
- 5. A schedule of compliance for stationary sources that are not in compliance with any applicable requirement or NAC 445B.001 to 445B.390, inclusive:
  - a. Semiannual progress reports and a schedule of dates for achieving milestones;
  - b. Prior notice of and explanations for missed deadlines; and
  - c. Any preventive or corrective measures taken.

\*\*\*\*End of General Provisions\*\*\*\*



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### Section II. General Monitoring, Recordkeeping, and Reporting Conditions

A. Records Retention (NAC 445B.315(3)(b)) (Federally Enforceable SIP Requirement)

The holder of the operating permit shall retain records of all required monitoring data and supporting information for 5 years after the date of the sample collection, measurement, report or analysis. Supporting information includes all records regarding calibration

and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

- B. <u>Deviations</u> (NAC 445B.346(3)) (Federally Enforceable SIP Requirement)
  Under the authority of NAC 445B.346(3), and in addition to the conditions set forth in NAC 445B.315, the owner or operator of the stationary source shall promptly report to the Director any deviations from the requirements of the operating permit. The report to the Director shall include the probable cause of all deviations and any action taken to correct the deviations. For the operating permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 as reproduced in Section I.G. E-mail notifications to: <a href="mailto:aircompliance@ndep.nv.gov">aircompliance@ndep.nv.gov</a>
- C. Yearly Reports (NAC 445B.315(3)(h), NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

  Under the authority of NAC 445B.315(3)(h) and NAC 445B.346(2) the Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, emissions and supporting documentation to support the calculation of annual emissions. These reports and supporting documentation (if applicable) will be submitted via the State and Local Emissions. Inventory System (SLEIS) maintained by the Bureau of Air Quality Planning for all emission units/systems specified. The completed report must be submitted to the Bureau of Air Quality Planning no later than March 1 annually for the preceding calendar year.

\*\*\*\*End of General Monitoring, Recordkeeping, and Reporting Conditions\*\*\*\*



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#### **Section III. General Construction Conditions**

- A. Notification (NAC 445B.250; NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
  Under the authority of NAC 445B.250 and NAC 445B.346; the Director shall be notified in writing of the following for PF1.001
  through PF1.024, and S2.001 through S2.007:
  - 1. The date construction (or reconstruction as defined under NAC 445B.247) of the affected facility is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  - 2. The anticipated date of initial startup of an affected facility, postmarked no more than 60 days and no less than 30 days prior to such date.
  - 3. The actual date of initial startup of the affected facility, postmarked within 15 days after such date.
  - 4. The date upon which demonstration of the continuous monitoring system performance commences in accordance with NAC 445B.256 to 445B.267, inclusive. Notification must be postmarked not less than 30 days before such date.

\*\*\*\*End of General Construction Conditions\*\*\*\*

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### Section IV. Specific Construction Requirements

- A. <u>Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2))</u> (Federally Enforceable SIP Requirement)
  - 1. Under the authority of NAC 445B.22017, NAC 445B.252, and NAC 445B.346, the Permittee, upon issuance of this operating permit, shall conduct initial opacity compliance demonstrations and/or initial performance tests 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. The Permittee shall follow the test methods and procedures referenced in Table IV-1 below:

Table IV-1: Initi	al Opacity Co	ompliance Demoi	nstration
System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 1 – Jaw Crusher and Conveyor Transfers	PF1.001 through PF1.003		
System 2 – Dry Screen and Conveyor Transfers	PF1.004 through PF1.008		
System 3 – Cone Crusher and Conveyor Transfers	PF1.009 through PF1.011		Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity.  Opacity observations shall be conducted concurrently with the applicable
System 4 – Wet Screen and Conveyor Transfers	PF1.012 through PF1.016	Opacity	performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 5 – Conveyor Transfers	PF1.017 through PF1.024		
System 6 – Non- Emergency Screening Plant Internal Engine	S2.001		

### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** Knox Excavating, Inc. – Painted Rock Mine (As Permittee)

### Section IV. Specific Construction Requirements (continued)

- A. <u>Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2))</u> (Federally Enforceable SIP Requirement) (continued)
  - 1. Under the authority of NAC 445B.22017, NAC 445B.252, and NAC 445B.346, the Permittee, upon issuance of this operating permit, shall conduct initial opacity compliance demonstrations and/or initial performance tests 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. The Permittee shall follow the test methods and procedures referenced in Table IV-1 below (continued):

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 7 – Non- Emergency Screening/Wash Plant Internal Engine	S2.002		
System 8 – Non- Emergency Jaw Crusher Internal Engine	S2.003		
System 9 – Non- Emergency Cone Crusher Internal Engine	S2.004	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24)
System 10 – Non-Emergency Generator	S2.005	Ораспу	consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 11 – Non-Emergency Generator	S2.006		
System 12 – Non-Emergency Generator	S2.007		

# NDEP

#### Nevada Department of Conservation and Natural Resources • Division of Environmental Protection

#### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### Section IV. Specific Construction Requirements (continued)

- A. <u>Initial Opacity Compliance Demonstration and Initial Performance Tests</u> (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)
  - 2. All initial opacity compliance demonstrations must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All initial performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
  - 3. Testing shall be conducted on the exhaust stack (post controls).
  - 4. Initial opacity compliance demonstrations, as specified in Table IV-1 above, must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The Permittee shall make available to the Director such records as may be necessary to determine the conditions of the initial opacity compliance demonstrations. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of the initial opacity compliance demonstrations unless otherwise specified in the applicable standard. (NAC 445B.252(3))
  - 5. The Permittee shall give notice to the Director 30 days before the initial opacity compliance demonstrations to allow the Director to have an observer present. A written testing procedure must be submitted to the Director at least 30 days before the initial opacity compliance demonstrations to allow the Director to review the proposed testing procedures. (NAC 445B.252(4) and 40 CFR Part 60.7(a)(6))
  - 6. Within 60 days after completing the initial opacity compliance demonstrations contained in Table IV-1 of this section, the Permittee shall furnish the Director a written report of the results. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689, inclusive. (NAC 445B.252(8))
  - 7. Initial opacity compliance demonstrations required under this section that are conducted below the maximum allowable throughput, shall be subject to the Director's review to determine if the throughputs during the initial opacity compliance demonstrations were sufficient to provide adequate compliance demonstration. Should the Director determine that the initial opacity compliance demonstrations do not provide adequate compliance demonstration, the Director may require additional testing.

\*\*\*\*End of Specific Construction Requirements\*\*\*\*



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions**

#### A. Emission Units PF1.001 through PF1.003

System 1	- Jaw Crusher and Conveyor Transfers	Corner Location UTM (2	Zone 11, NAD 83)
System 1 -			m East
DE1 001	Material Transfer in from Loading or Other Permitted Equipment to Jaw	4,323,088	268,295
PF1.001	Crusher Hopper	4,323,080	268,916
PF1.002	Jaw Crusher and Associated Transfers (IN Jaw Crusher Hopper; OUT Jaw	4,322,532	268,901
PF1.002	Crusher Conveyor 1)	4,322,435	268,829
		4,322,420	268,819
		4,322,403	268,813
	Jaw Crusher Conveyor 1 transfer to Stockpile, or Other Permitted Equipment	4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
PF1.003		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement) Emissions from **PF1.001 through PF1.003**, each shall be controlled by water sprays.
- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. The maximum allowable throughput rate for **PF1.001 through PF1.003**, **each** shall not exceed **400.0** tons of **aggregate** per any one-hour period averaged over a daily basis, nor more than **1,456,000.0** tons per year.
  - b. Hours
    - (1) **PF1.001 through PF1.003, each,** may operate a total of **10** hours per day.
    - (2) **PF1.001 through PF1.003, each,** may operate a total of **3,640** hours per year.
    - (3) PF1.001 through PF1.003, each, may operate from 6:00 AM to 4:00 PM only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.001** and **PF1.003**, each, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.55** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.20** tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.017** pounds per hour, nor more than **0.030** tons per year.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.002** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.54** pounds per hour, nor more than **0.98** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.24** pounds per hour, nor more than **0.44** tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.036** pounds per hour, nor more than **0.066** tons per year.
  - c. The opacity from PF1.001 and PF1.003, each, shall not equal or exceed 20 percent.



#### **Bureau of Air Pollution Control**

### Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### A. Emission Units PF1.001 through PF1.003 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **PF1.001 through PF1.003**, each, on a daily basis.
- b. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **PF1.001** through **PF1.003**, each.
- c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
- e. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.001 through PF1.003, each, on a weekly basis for the first consecutive 12 months after permit issuance. After the initial 12-month period, conduct and record an observation of visible emissions (excluding water vapor) on PF1.001 through PF1.003, each, on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
- g. Conduct and record a Method 9 opacity test on **PF1.001 through PF1.003**, **each**, on a **monthly** basis for the first consecutive 12 months after permit issuance. Each Method 9 test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
- h. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
- i. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
  - a. Emission Limits (40 CFR Part 60.672, Table 3)
    On and after the sixtieth day after achieving the maximum production rate at which **PF1.001 through PF1.003**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.001** and **PF1.003**, each, will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
    - (2) Process fugitive emissions from **PF1.002** will not exceed **12 percent** opacity. (40 CFR Part 60.672(b))
    - (3) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))



#### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

- A. Emission Units PF1.001 through PF1.003 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

    New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
    - b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
    - c. Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
    - d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.001 through PF1.003**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
    - e. <u>Exemptions</u>
      - (1) **PF1.001** is exempt from 40 CFR Part 60 Subpart OOO when the unloading of nonmetallic minerals from moveable vehicles designed to transport nonmetallic minerals from one location to another are used. (40 CFR Part 60.671)
      - (2) **PF1.003** is exempt from 40 CFR Part 60 Subpart OOO when the conveyor transfers to a stockpile. (40 CFR Part 60.670(a)(1))



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### B. Emission Units PF1.004 through PF1.008

System 2	Duy Sanoon and Conveyon Transford	Corner Location UTM (2	Zone 11, NAD 83)
System 2 –	System 2 – Dry Screen and Conveyor Transfers		m East
PF1.004	Material Transfer in from Loading or Other Permitted Equipment to Screen	4,323,088	268,295
FF1.004	#1 Hopper	4,323,080	268,916
PF1.005	Screen #1 and Associated Transfers (IN Screen #1 Hopper; OUT Fine Size	4,322,532	268,901
PF1.003	Side Conveyor 1, Mid Size Side Conveyor 1, Oversize Tail Conveyor 1)	4,322,435	268,829
DE1 006	Fine Size Side Conveyor 1 transfer to Stockpile or Other Permitted	4,322,420	268,819
PF1.006 PF1.007 PF1.008	Equipment	4,322,403	268,813
	Mid Size Side Conveyor 1 transfer to Stockpile or Other Permitted	4,322,408	268,527
	Equipment	4,322,405	268,509
		4,322,394	268,491
	Oversize Tail Conveyor 1 transfer to Stockpile or Other Permitted Equipment	4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement) Emissions from **PF1.004 through PF1.008**, each, shall be controlled by water sprays.
- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. The maximum allowable throughput rate for **PF1.004 through PF1.008**, each, shall not exceed **400.0** tons of **aggregate** per any one-hour period averaged over a daily basis, nor more than **1,456,000.0** tons per year.
  - b. Hours
    - (1) **PF1.004 through PF1.008, each,** may operate a total of **10** hours per day.
    - (2) PF1.004 through PF1.008, each, may operate a total of 3,640 hours per year.
    - (3) PF1.004 through PF1.008, each, may operate from 6:00 AM to 4:00 PM only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.004, and PF1.006 through PF1.008, each, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.55** tons per year.
    - (2) The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.11 pounds per hour, nor more than 0.20 tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.017** pounds per hour, nor more than **0.030** tons per year.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.005** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **2.50** pounds per hour, nor more than **4.55** tons per year.
    - (2) The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.87 pounds per hour, nor more than 1.58 tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.13** pounds per hour, nor more than **0.24** tons per year.



### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

- B. Emission Units PF1.004 through PF1.008 (continued)
  - 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement) (continued)
    - c. The opacity from PF1.04 and PF1.006 through PF1.008, each, shall not equal or exceed 20 percent.
  - 4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for PF1.004 through PF1.008, each, on a daily basis.
- b. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **PF1.004 through PF1.008**, **each**.
- c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
- e. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.004 through PF1.008, each, on a weekly basis for the first consecutive 12 months after permit issuance. After the initial 12-month period, conduct and record an observation of visible emissions (excluding water vapor) on PF1.004 through PF1.008, each, on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
- g. Conduct and record a Method 9 opacity test on **PF1.004 through PF1.008**, each, on a monthly basis for the first consecutive 12 months after permit issuance. Each Method 9 test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
- h. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
- i. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

- a. Emission Limits (40 CFR Part 60.672, Table 3)
  - On and after the sixtieth day after achieving the maximum production rate at which **PF1.004 through PF1.008**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
  - (1) Process fugitive emissions from **PF1.004 through PF1.008, each,** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))



#### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

- B. Emission Units PF1.004 through PF1.008 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

    New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
    - a. <u>Emission Limits</u> (40 CFR Part 60.672, Table 3) (continued)

      On and after the sixtieth day after achieving the maximum production rate at which **PF1.004 through PF1.008**, **each**, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      - (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
    - b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
    - c. Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
    - d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.004 through PF1.008**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
    - e. <u>Exemptions</u>
      - (1) **PF1.004** is exempt from 40 CFR Part 60 Subpart OOO when the unloading of nonmetallic minerals from moveable vehicles designed to transport nonmetallic minerals from one location to another are used. (40 CFR Part 60.671)
      - (2) **PF1.006**, **PF1.007**, and **PF1.008** are exempt from 40 CFR Part 60 Subpart OOO when the conveyors transfer to a stockpile. (40 CFR Part 60.670(a)(1))



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

#### C. Emission Units PF1.009 through PF1.011

System 3 – Cone Crusher and Conveyor Transfers		Corner Location UTM (Z	Cone 11, NAD 83)
System 5 –	·		m East
DE1 000	Material Transfer in from Loading or Other Permitted Equipment to Cone	4,323,088	268,295
PF1.009	Crusher Hopper	4,323,080	268,916
PF1.010	Cone Crusher and Associated Transfers (IN Cone Crusher Hopper, OUT	4,322,532	268,901
PF1.010	Crushed Stone Belt 1)	4,322,435	268,829
		4,322,420	268,819
PF1.011		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
	Crushed Stone Belt 1 transfer to Stockpile or Other Permitted Equipment	4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement) Emissions from **PF1.009 through PF1.011, each,** shall be controlled by **water sprays**.
- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. The maximum allowable throughput rate for **PF1.009 through PF1.0111**, each, shall not exceed 400.0 tons of aggregate per any one-hour period averaged over a daily basis, nor more than 1,456,000.0 tons per year.
  - b. Hours
    - (1) **PF1.009 through PF1.011, each,** may operate a total of **10** hours per day.
    - (2) **PF1.009 through PF1.011, each,** may operate a total of **3,640** hours per year.
    - (3) PF1.009 through PF1.011, each, may operate from 6:00 AM to 4:00 PM only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1) NAC 445B.22017) (Federally Enforceable SIP Requirement)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.009** and **PF1.011**, each, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.55** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.20** tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.017** pounds per hour, nor more than **0.030** tons per year.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.010** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.54** pounds per hour, nor more than **0.98** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.24** pounds per hour, nor more than **0.44** tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.036** pounds per hour, nor more than **0.066** tons per year.
  - c. The opacity from PF1.009 and PF1.011, each, shall not equal or exceed 20 percent.



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#### **Section V. Specific Operating Conditions (continued)**

#### C. Emission Units PF1.009 through PF1.011 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for PF1.009 through PF1.011, each, on a daily basis.
- b. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **PF1.009** through **PF1.011**, each.
- c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
- e. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.009 through PF1.011, each, on a weekly basis for the first consecutive 12 months after permit issuance. After the initial 12-month period conduct and record an observation of visible emissions (excluding water vapor) on PF1.009 through PF1.011, each, on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
- g. Conduct and record a Method 9 opacity test on **PF1.009 through PF1.011, each,** on a **monthly** basis for the first consecutive 12 months after permit issuance. Each Method 9 test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
- h. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
- i. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
  - a. Emission Limits (40 CFR Part 60.672, Table 3)
    On and after the sixtieth day after achieving the maximum production rate at which **PF1.009 through PF1.011, each,** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.009** and **PF1.011**, each, will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
    - (2) Process fugitive emissions from **PF1.010** will not exceed **12 percent** opacity. (40 CFR Part 60.672(b))
    - (3) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

- C. Emission Units PF1.009 through PF1.011 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

    New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
    - The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
    - c. Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
    - d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.009 through PF1.011**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
    - e. <u>Exemptions</u>
      - 1) **PF1.009** is exempt from 40 CFR Part 60 Subpart OOO when the unloading of nonmetallic minerals from moveable vehicles designed to transport nonmetallic minerals from one location to another are used. (40 CFR 60.671)
      - (2) **PF1.011** is exempt from 40 CFR Part 60 Subpart OOO when the conveyor transfers to a stockpile. (40 CFR Part 60.670(a)(1))



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### **Section V. Specific Operating Conditions (continued)**

#### D. Emission Units PF1.012 through PF1.016

System 4 – Wet Screen and Conveyor Transfers		Corner Location UTM (	Zone 11, NAD 83)
System 4 –	wet screen and Conveyor Transfers	m North	m East
PF1.012	Material Transfer in from Loading Other Permitted Equipment to Wash	4,323,088	268,295
PF1.012	Screen #2 Hopper	4,323,080	268,916
	Wash Screen #2 and Associated Transfers (IN Wash Screen #2 Hopper, OUT	4,322,532	268,901
PF1.013	Fine Size Side Conveyor 2, Mid Size Side Conveyor 2, Oversize Tail	4,322,435	268,829
	Conveyor 2)	4,322,420	268,819
PF1.014 PF1.015	Fine Size Side Conveyor 2 transfer to Stockpile or Other Permitted	4,322,403	268,813
	Equipment	4,322,408	268,527
	Mid Size Side Conveyor 2 transfer to Stockpile or Other Permitted	4,322,405	268,509
	Equipment	4,322,394	268,491
		4,322,395	268,439
PF1.016		4,322,405	268,427
	Oversize Tail Conveyor 2 transfer to Stockpile or Other Permitted Equipment	4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. Emissions from PF1.012 shall be controlled by water sprays.
  - b. Emissions from **PF1.013** shall be controlled by **full saturation**.
  - c. Emissions from PF1.014 through PF1.016, each, shall be controlled by moisture carryover.
- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. The maximum allowable throughput rate for **PF1.012 through PF1.016**, each, shall not exceed 400.0 tons of aggregate per any one-hour period averaged over a daily basis, nor more than 1,456,000.0 tons per year.
  - b. Hours
    - (1) **PF1.012 through PF1.016, each,** may operate a total of **10** hours per day.
    - (2) **PF1.012 through PF1.016, each,** may operate a total of **3,640** hours per year.
    - (3) PF1.012 through PF1.016, each, may operate from 6 AM to 4 PM only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement)
  - The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.012** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.55** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.20** tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.017 pounds per hour, nor more than 0.030 tons per year.
    - (4) The opacity from **PF1.012** shall not equal or exceed **20** percent.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.013** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.



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#### **Section V. Specific Operating Conditions (continued)**

#### D. Emission Units PF1.012 through PF1.016 (continued)

- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement) (continued)
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.013** the following pollutants in excess of the following specified limits:
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.00 pounds per hour, nor more than 0.00 tons per year.
    - (4) The opacity from **PF1.013** shall not equal or exceed **0** percent.
  - c. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.014 through PF1.016**, **each**, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.18** pounds per hour, nor more than **0.33** tons per year.
    - (2) The discharge of **PM**<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.066** pounds per hour, nor more than **0.12** tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.010 pounds per hour, nor more than 0.018 tons per year.
    - (4) The opacity from PF1.014 through PF1.016, each, shall not equal or exceed 20 percent.

#### 4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for PF1.012 through PF1.016, each, on a daily basis.
- b. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **PF1.012** through **PF1.016**, each.
- c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
- e. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.012 through PF1.016, each, on a weekly basis for the first consecutive 12 months after permit issuance. After the initial 12-month period conduct and record an observation of visible emissions (excluding water vapor) on PF1.012 through PF1.016, each, on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
- g. Conduct and record a Method 9 opacity test on **PF1.012 and PF1.014 through PF1.016, each,** on a **monthly** basis for the first consecutive 12 months after permit issuance. Each Method 9 test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
- h. The Permittee of any affected facility that uses wet suppression to control emissions for **PF1.012** from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.



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#### **Section V. Specific Operating Conditions (continued)**

- D. Emission Units PF1.012 through PF1.016 (continued)
  - 4. <u>Monitoring, Recordkeeping, and Reporting</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued) The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
    - i. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

    New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
    - a. <u>Emission Limits</u> (40 CFR Part 60.672, Table 3)
      - On and after the sixtieth day after achieving the maximum production rate at which **PF1.012** and **PF1.014** through **PF1.016**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      - (1) Process fugitive emissions from **PF1.012 and PF1.014 through PF1.016, each,** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
      - (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
    - b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
    - c. Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
    - d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate PF1.012 and PF1.014 through PF1.016, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
    - e. Exemptions
      - (1) **PF1.012** is exempt from 40 CFR Part 60 Subpart OOO when the unloading of nonmetallic minerals from moveable vehicles designed to transport nonmetallic minerals from one location to another are used. (40 CFR Part 60.671)
      - (2) **PF1.014, PF1.015, and PF1.016** are exempt from 40 CFR Part 60 Subpart OOO when the conveyors transfer to a stockpile. (40 CFR Part 60.670(a)(1))



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### **Section V. Specific Operating Conditions (continued)**

#### E. Emission Units PF1.017 through PF1.024

System 5	Conveyen Tuenefore	Corner Location UTM (Z	Cone 11, NAD 83)
System 5 –	Conveyor Transfers	m North	m East
PF1.017	Radial Stacker Conveyor 1 to Stockpile or Other Permitted Equipment	4,323,088	268,295
PF1.018	Radial Stacker Conveyor 2 to Stockpile or Other Permitted Equipment	4,323,080	268,916
PF1.019	Radial Stacker Conveyor 3 to Stockpile or Other Permitted Equipment	4,322,532	268,901
PF1.020	Radial Stacker Conveyor 4 to Stockpile or Other Permitted Equipment	4,322,435	268,829
PF1.021	Field Conveyor 1 to Stockpile or Other Permitted Equipment	4,322,420	268,819
PF1.022	22 Field Conveyor 2 to Stockpile or Other Permitted Equipment	4,322,403	268,813
PF1.023		4,322,408	268,527
PF1.024		4,322,405	268,509
	Field Conveyor 4 to Stockpile or Other Permitted Equipment	4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement) Emissions from **PF1.017 through PF1.024**, each, shall be controlled by water sprays.
- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. The maximum allowable throughput rate for **PF1.017 through PF1.024**, each, shall not exceed 400.0 tons of aggregate per any one-hour period averaged over a daily basis, nor more than 1,456,000.0 tons per year.
  - b. Hours
    - (1) **PF1.017 through PF1.024, each,** may operate a total of **10** hours per day.
    - (2) PF1.017 through PF1.024, each, may operate a total of 3,640 hours per year.
    - (3) PF1.017 through PF1.024, each, may operate from 6:00 AM to 4:00 PM only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.017 through PF1.024**, **each**, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.55** tons per year.
    - (2) The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.11 pounds per hour, nor more than 0.20 tons per year.
    - (3) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.017** pounds per hour, nor more than **0.030** tons per year.
    - (4) The opacity from PF1.017 through PF1.024, each, shall not equal or exceed 20 percent.



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

#### E. Emission Units PF1.017 through PF1.024 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for PF1.017 through PF1.024, each, on a daily basis.
- b. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **PF1.017** through **PF1.024**, each.
- c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
- e. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.017 through PF1.024, each, on a weekly basis for the first consecutive 12 months after permit issuance. After the initial 12-month period, conduct and record an observation of visible emissions (excluding water vapor) on PF1.017 through PF1.024, each, on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
- g. Conduct and record a Method 9 opacity test on **PF1.017 through PF1.024**, **each**, on a **monthly** basis for the first consecutive 12 months after permit issuance. Each Method 9 test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
- h. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
- i. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
  - a. Emission Limits (40 CFR Part 60.672, Table 3)
    On and after the sixtieth day after achieving the maximum production rate at which **PF1.017 through PF1.024, each** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.017 through PF1.024, each**, will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))



#### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

- E. Emission Units PF1.017 through PF1.024 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

    New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
    - b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
    - c. Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
    - d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.017 through PF1.024**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
    - e. <u>Exemptions</u>
      - (1) **PF1.017 through PF1.024, each**, are exempt from 40 CFR Part 60 Subpart OOO when the conveyors transfer to a stockpile. (40 CFR Part 60.670(a)(1))





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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### F. Emission Unit S2.001

System 6 - Non-Emergency Screening Plant Internal Engine		Corner Location UTM (Zone 11, NAD 83)	
		m North	m East
	Chieftan 2200 Tracked Screening Plant Internal Engine (97 kW, CAT, C4.4, Manufactured 2007+)	4,323,088	268,295
		4,323,080	268,916
		4,322,532	268,901
		4,322,435	268,829
		4,322,420	268,819
		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.001** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 2.0 feet Stack Diameter: 0.17 feet Stack Temperature: 657 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.001** may consume only **diesel**.
    - b. The maximum allowable fuel consumption rate for **S2.001** shall not exceed **6.5 gallons** per any one-hour period. The sulfur content shall not exceed 0.0015 percent.
    - c. Hours
      - (1) **S2.001** may operate a total of **10** hours per day.
      - (2) **S2.001** may operate a total of **3,640** hours per year.
      - (3) **S2.001** may operate from **6:00 AM** to **4:00 PM** only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.001** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.064** pounds per hour, nor more than **0.12** tons per year.
- b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.064 pounds per hour, nor more than 0.12 tons per year.
- c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.064 pounds per hour, nor more than 0.12 tons per year.
- d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.26 pounds per hour, nor more than 0.48 tons per year.
- e. The discharge of  $NO_X$  (oxides of nitrogen) to the atmosphere shall not exceed **0.86** pounds per hour, nor more than **1.56** tons per year.



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### F. Emission Unit S2.001 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.001** the following pollutants in excess of the following specified limits:

- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.07** pounds per hour, nor more than **1.95** tons per year.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.33** pounds per hour, nor more than **0.60** tons per year.
- h. The opacity from S2.001 shall not equal or exceed 20 percent.
- 4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **S2.001**.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.001** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **F.2.b** of this section and the total daily hours of operation.
- c. Monitor and record the total yearly hours of operation of **S2.001** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
- d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary

  Compression Ignition Internal Combustion Engines
  - a. <u>Emissions Standards</u> (40 CFR 60.4204)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))

- (1) For a **2007** model year and later Tier **3** non-road engine with a rated power great than or equal to 75 kW and less than 130 kW: (40 CFR 60.4201(a), 40 CFR 1039 Appendix I)
  - (a) The discharge of PM to the atmosphere shall not exceed **0.30** grams/kW-hr (**0.064** pounds per hour).
  - (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**1.07** pounds per hour).
  - (c) The discharge of NMHC (non-methane hydrocarbon) +  $NO_X$  to the atmosphere shall not exceed **4.0** grams/kW-hr (**0.86** pounds per hour).
- (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 60.4201(a), 40 CFR 1039.105(b))
  - (a) 20 percent during the acceleration mode;
  - (b) 15 percent during the lugging mode; and
  - (c) 50 percent during the peaks in either the acceleration or lugging modes.



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### F. Emission Unit S2.001 (continued)

- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued) New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
  - b. <u>Fuel requirements</u> (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.
- c. <u>Monitoring requirements</u> (40 CFR 60.4209(b))

If your engine is equipped with a diesel particulate filter:

- (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
  - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
  - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068 except as permitted in **F.5.d.(3)** of this section. (40 CFR 60.4211(a))
  - (3) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
    - (a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))
- e. <u>National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR Part 63, Subpart ZZZZ Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:</u>
  If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### G. Emission Unit S2.002

System 7 – Non-Emergency Screening/Wash Plant Internal Engine		Corner Location UTM (Zone 11, NAD 83)	
		m North	m East
	Terrex M 2100 Tracked Screening/Wash Plant Internal Engine (97 kW, Manufactured 2007+)	4,323,088	268,295
		4,323,080	268,916
		4,322,532	268,901
		4,322,435	268,829
		4,322,420	268,819
		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
S2.002		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.002** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 2.0 feet Stack Diameter: 0.17 feet Stack Temperature: 657 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
- a. **S2.002** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.002** shall not exceed **6.5 gallons** per any one-hour period. The sulfur content shall not exceed 0.0015 percent.
  - c. Hours
    - (1) **S2.002** may operate a total of **10** hours per day.
    - (2) **S2.002** may operate a total of **3,640** hours per year.
    - (3) **S2.002** may operate from **6:00 AM** to **4:00 PM** only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.002** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.064** pounds per hour, nor more than **0.12** tons per year.
- b. The discharge of  $PM_{10}$  (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.064 pounds per hour, nor more than 0.12 tons per year.
- c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.064 pounds per hour, nor more than 0.12 tons per year.
- d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.26 pounds per hour, nor more than 0.48 tons per year.
- e. The discharge of  $NO_X$  (oxides of nitrogen) to the atmosphere shall not exceed **0.86** pounds per hour, nor more than **1.56** tons per year.



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

#### G. Emission Unit S2.002 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.002** the following pollutants in excess of the following specified limits:

- f. The discharge of CO (carbon monoxide) to the atmosphere shall not exceed 1.07 pounds per hour, nor more than 1.95 tons per year.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.33** pounds per hour, nor more than **0.60** tons per year.
- h. The opacity from \$2.002 shall not equal or exceed 20 percent.
- 4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for S2.002.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.002** (in **gallons**) either by the maximum fuel consumption rate provided on the manufacturer's specification sheet, to be kept onsite with records, or by use of a fuel flow meter.
- c. Monitor and record the total yearly hours of operation of **\$2.002** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
- d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary

  Compression Ignition Internal Combustion Engines
  - a. <u>Emissions Standards</u> (40 CFR 60.4204)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))

- (1) For a **2007** model year and later Tier **3** non-road engine with a rated power great than or equal to 75 kW and less than 130 kW: (40 CFR 60.4201(a), 40 CFR 1039 Appendix I)
  - (a) The discharge of PM to the atmosphere shall not exceed **0.30** grams/kW-hr (**0.064** pounds per hour).
  - (b) The discharge of CO to the atmosphere shall not exceed 5 grams/kW-hr (1.07 pounds per hour).
  - (c) The discharge of NMHC (non-methane hydrocarbon) +  $NO_X$  to the atmosphere shall not exceed 4 grams/kW-hr (0.86 pounds per hour).
- (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 60.4201(a), 40 CFR 1039.105(b))
  - (a) 20 percent during the acceleration mode;
  - (b) 15 percent during the lugging mode; and
  - (c) 50 percent during the peaks in either the acceleration or lugging modes.
- b. Fuel requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

- G. Emission Unit S2.002 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*) (continued) New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
    - c. <u>Monitoring requirements</u> (40 CFR 60.4209(b))

If your engine is equipped with a diesel particulate filter:

- (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
  - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
  - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068 except as permitted in **G.5.d.(3)** of this section. (40 CFR 60.4211(a))
  - (3) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
    - (a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))
- e. <u>National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR Part 63, Subpart ZZZZ Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:</u>
  If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

#### H. Emission Unit S2.003

System 8 – Non-Emergency Jaw Crusher Internal Engine		Corner Location UTM (Zone 11, NAD 83)	
		m North	m East
		4,323,088	268,295
		4,323,080	268,916
	Jaw Crusher Internal Engine (230kW, CAT, C9.3, Manufactured 2006+)	4,322,532	268,901
		4,322,435	268,829
		4,322,420	268,819
		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
S2.003		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.003** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 2.0 feet Stack Diameter: 0.17 feet Stack Temperature: 970 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
- a. **S2.003** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.003** shall not exceed **15.4 gallons** per any one-hour period. The sulfur content shall not exceed 0.0015 percent.
  - c. Hours
    - (1) **S2.003** may operate a total of **10** hours per day.
    - (2) **S2.003** may operate a total of **3640** hours per year.
    - (3) **S2.003** may operate from **6:00 AM** to **4:00 PM only**.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.003** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.18** tons per year.
- b. The discharge of  $PM_{10}$  (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.10 pounds per hour, nor more than 0.18 tons per year.
- c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.10 pounds per hour, nor more than 0.18 tons per year.
- d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.63 pounds per hour, nor more than 1.14 tons per year.



#### **Bureau of Air Pollution Control**

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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

#### **Section V. Specific Operating Conditions (continued)**

#### H. Emission Unit S2.003 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.003** the following pollutants in excess of the following specified limits:

- e. The discharge of NO<sub>X</sub> (oxides of nitrogen) to the atmosphere shall not exceed **2.03** pounds per hour, nor more than **3.69** tons per year.
- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.77** pounds per hour, nor more than **3.23** tons per year.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.66** pounds per hour, nor more than **1.20** tons per year.
- h. The opacity from **S2.003** shall not equal or exceed **20** percent.
- 4. <u>Monitoring, Recordkeeping, and Reporting</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for \$2.003.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.003** (in **gallons**) either by the maximum fuel consumption rate provided on the manufacturer's specification sheet, to be kept onsite with records, or by use of a fuel flow meter.
- c. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary

  Compression Ignition Internal Combustion Engines
  - a. Emissions Standards (40 CFR 60.4204)
    - The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in Table 1 for all pollutants, for the same model year and maximum engine power of **560** for their pre-2007 model year and later non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder. (40 CFR 60.4204(a), Table 1))
    - (1) For a **2006** model year and later Tier **3** non-road engine with a rated power greater than or equal to 225 kW and less than 450 kW (40 CFR 60.4201(a), Table 1):
      - (a) The discharge of PM to the atmosphere shall not exceed 0.54 grams/kW-hr (0.27 pounds per hour).
      - (b) The discharge of CO to the atmosphere shall not exceed 11.4 grams/kW-hr (5.78 pounds per hour).
      - (c) The discharge of HC (hydrocarbon) to the atmosphere shall not exceed **1.3** grams/kW-hr (**0.66** pounds per hour).
      - (d) The discharge of NO<sub>X</sub> to the atmosphere shall not exceed **9.2** grams/kW-hr (**4.66** pounds per hour).



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## **Section V. Specific Operating Conditions (continued)**

#### H. Emission Unit S2.003 (continued)

- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*) (continued) New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
  - b. <u>Fuel Requirements</u> (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engines: (40 CFR 60.4207(b), 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.
- c. Monitoring requirements (40 CFR 60.4209(b))

If your engine is equipped with a diesel particulate filter:

- (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- d. <u>Compliance Requirements</u> (40 CFR 60.4206, 40 CFR 60.4211)
  - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
  - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068, except as permitted in **H.5.d.(4)** of this section. (40 CFR 60.4211(a))
  - (3) The Permittee must demonstrate compliance according to one of the following methods: (40 CFR 60.4211(b))
    - (a) Purchasing an engine certified according to 40 CFR Part 1039 for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. (40 CFR 60.4211(b)(1))
    - (b) Keeping records of performance test results for each pollutant for a test conducted on a similar engine the test must have been conducted using the same methods specified is subpart IIII and these methods must have been followed correctly. (40 CFR 60.4211(b)(2))
    - (c) Keeping records of engine manufacturer data indicating compliance with the standards. (40 CFR 60.4211(b)(3))
    - (d) Keeping records of control device vendor data indicating compliance with the standards. (40 CFR 60.4211(b)(4))
    - (e) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable. (40 CFR 60.4211(b)(5))
  - (4) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
    - (a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## Section V. Specific Operating Conditions (continued)

- H. Emission Unit S2.003 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued) <u>New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</u>
    - e. <u>National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR Part 63, Subpart ZZZZ Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:</u>
      If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))





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## **Section V. Specific Operating Conditions (continued)**

#### I. Emission Unit S2.004

System 9 – Non-Emergency Cone Crusher Internal Engine		Corner Location UTM (Zone 11, NAD 83)	
		m North	m East
		4,323,088	268,295
	Cone Crusher Internal Engine (328 kW, CAT, C13 ACERT, Manufactured 2006+)	4,323,080	268,916
S2.004		4,322,532	268,901
		4,322,435	268,829
		4,322,420	268,819
		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.004** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 2.0 feet Stack Diameter: 0.17 feet Stack Temperature: 970 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
- a. **S2.004** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.004** shall not exceed **22.0** gallons per any one-hour period. The sulfur content shall not exceed 0.0015 percent.
  - c. Hours
    - (1) **S2.004** may operate a total of **10** hours per day.
    - (2) **S2.004** may operate a total of **3,640** hours per year.
    - (3) **S2.004** may operate from **6:00 AM** to **4:00 PM only**.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.004** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.14** pounds per hour, nor more than **0.26** tons per year.
- b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.14 pounds per hour, nor more than 0.26 tons per year.
- c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.14 pounds per hour, nor more than 0.26 tons per year.
- d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.89 pounds per hour, nor more than 1.63 tons per year.



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### **Section V. Specific Operating Conditions (continued)**

#### I. Emission Unit S2.004 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.004** the following pollutants in excess of the following specified limits:

- e. The discharge of NO<sub>x</sub> (oxides of nitrogen) to the atmosphere shall not exceed **2.89** pounds per hour, nor more than **5.26** tons per year.
- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **2.53** pounds per hour, nor more than **4.61** tons per year.
- g. The discharge of VOCs (volatile organic compounds) to the atmosphere shall not exceed **0.94** pounds per hour, nor more than **1.71** tons per year.
- h. The opacity from **S2.004** shall not equal or exceed **20** percent.
- 4. <u>Monitoring, Recordkeeping, and Reporting</u> (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for S2.004.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.004** (in **gallons**) either by the maximum fuel consumption rate provided on the manufacturer's specification sheet, to be kept onsite with records, or by use of a fuel flow meter.
- c. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary

  Compression Ignition Internal Combustion Engines
  - a. Emissions Standards (40 CFR 60.4204)
    - The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in Table 1 for all pollutants, for the same model year and maximum engine power of **560 kW** for their pre-2007 model year and later non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder. (40 CFR 60.4204(a), Table 1))
    - (1) For a **2006** model year and later Tier **3** non-road engine with a rated power greater than or equal to 225 kW and less than 450 kW (40 CFR 60.4201(a), Table 1):
      - (a) The discharge of PM to the atmosphere shall not exceed **0.54** grams/kW-hr (**0.39** pounds per hour).
      - (b) The discharge of CO to the atmosphere shall not exceed 11.4 grams/kW-hr (8.24 pounds per hour).
      - (c) The discharge of HC (hydrocarbon) to the atmosphere shall not exceed **1.3** grams/kW-hr (**0.94** pounds per hour).
      - (d) The discharge of NOx to the atmosphere shall not exceed 9.2 grams/kW-hr (6.65 pounds per hour).



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## **Section V. Specific Operating Conditions (continued)**

- I. Emission Unit S2.004 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*) (continued) New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
    - b. <u>Fuel Requirements</u> (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engines: (40 CFR 60.4207(b), 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.
- c. Monitoring requirements (40 CFR 60.4209(b))

If your engine is equipped with a diesel particulate filter:

- (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- d. <u>Compliance Requirements</u> (40 CFR 60.4206, 40 CFR 60.4211)
  - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
  - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068, except as permitted in **I.5.d.(4)** of this section. (40 CFR 60.4211(a))
  - (3) The Permittee must demonstrate compliance according to one of the following methods: (40 CFR 60.4211(b))
    - (a) Purchasing an engine certified according to 40 CFR Part 1039 for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. (40 CFR 60.4211(b)(1))
    - (b) Keeping records of performance test results for each pollutant for a test conducted on a similar engine the test must have been conducted using the same methods specified is subpart IIII and these methods must have been followed correctly. (40 CFR 60.4211(b)(2))
    - (c) Keeping records of engine manufacturer data indicating compliance with the standards. (40 CFR 60.4211(b)(3))
    - (d) Keeping records of control device vendor data indicating compliance with the standards. (40 CFR 60.4211(b)(4))
    - (e) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable. (40 CFR 60.4211(b)(5))
  - (4) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
    - (a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))



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**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## Section V. Specific Operating Conditions (continued)

- I. Emission Unit S2.004 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued) New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
    - e. National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR Part 63, Subpart ZZZZ Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:

      If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))





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## **Section V. Specific Operating Conditions (continued)**

#### J. Emission Unit S2.005

System 10 – Non-Emergency Generator		Corner Location UTM (Zone 11, NAD 83)	
		m North	m East
		4,323,088	268,295
	Whisperwatt AC Generator (142 kW, John Deere, 6081TF, Manufactured 2001)	4,323,080	268,916
		4,322,532	268,901
S2.005		4,322,435	268,829
		4,322,420	268,819
		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.005** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 4.90 feet Stack Diameter: 0.50 feet Stack Temperature: 703 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
- a. **S2.005** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for \$2.005 shall not exceed 9.50 gallons per any one-hour period.
  - c. Hours
    - (1) **S2.005** may operate a total of **10** hours per day.
    - (2) **S2.005** may operate a total of **3,640** hours per year.
    - (3) **S2.005** may operate from **6:00 AM** to **4:00 PM** only.
- 3. <u>Emission Limits</u> (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*) The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.005** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.17** pounds per hour, nor more than **0.31** tons per year.
  - b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.17 pounds per hour, nor more than 0.31 tons per year.
  - c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.17 pounds per hour, nor more than 0.31 tons per year.
  - d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.39 pounds per hour, nor more than 0.70 tons per year.
  - e. The discharge of NO<sub>X</sub> (oxides of nitrogen) to the atmosphere shall not exceed **2.88** pounds per hour, nor more than **5.24** tons per year.



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## **Section V. Specific Operating Conditions (continued)**

#### J. Emission Unit S2.005 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.005** the following pollutants in excess of the following specified limits:

- f. The discharge of CO (carbon monoxide) to the atmosphere shall not exceed **3.57** pounds per hour, nor more than **6.50** tons per year.
- g. The discharge of VOCs (volatile organic compounds) to the atmosphere shall not exceed **0.48** pounds per hour, nor more than **0.87** tons per year.
- h. The opacity from \$2.005 shall not equal or exceed 20 percent.
- 4. <u>Monitoring, Recordkeeping, and Reporting</u> (NAC 445B.346.2) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for \$2.005.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.005** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **J.2.b** of this section and the total daily hours of operation.
- c. Monitor and record the total yearly hours of operation per year. The annual hours of operation shall be determined as the sum of the monthly hours of operation for all previous months of that year.
- 5. <u>Federal Requirements</u> (NAC 445B.346.2) (Federally Enforceable SIP Requirement)

  <u>National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart ZZZZ for Stationary</u>

  Reciprocating Internal Combustion Engines
  - Emissions Limitations, Management Practices and Other Requirements (40 CFR 63.6603(a), Table 2d)
    The Permittee must comply with the following requirements, except during periods of startup:
    - (1) Change oil and filter every 1,000 hours of operation or annually, whichever comes first;
    - (2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
    - (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
  - b. Monitoring, Installation, Collection, Operation, Maintenance Requirements (40 CFR 63.6625)
    - (1) The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 63.6625(e))
    - (2) The Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in **J.5.a** of this section. (40 CFR 63.6625(h))



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## **Section V. Specific Operating Conditions (continued)**

- J. Emission Unit S2.005 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346.2) (Federally Enforceable SIP Requirement) (continued)

    <u>National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines</u>
    - Monitoring, Installation, Collection, Operation, Maintenance Requirements (40 CFR 63.6625) (continued)
      - (3) The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in **J.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **J.5.a.(1)** of this section. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. (40 CFR 63.6625(i))
    - c. <u>Compliance Requirements</u> (40 CFR 63.6605, 63.6640, Table 6)
      - (1) The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in Subpart ZZZZ that apply at all times. (40 CFR Part 63.6605(a))
      - (2) The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR Part 63.6605(b))
      - (3) The Permittee must also report each instance in which they did not meet the requirements in Table 8 to Subpart ZZZZ that apply.
      - (4) Permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2d to Subpart ZZZZ that applies to the Permittee according to methods specified below: (40 CFR 63.6640(a), Table 6)
        - (a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
        - (b) Develop and follow Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
    - d. Recordkeeping Requirements (40 CFR Part 63.6655)

The Permittee must keep the following records:

- (1) A copy of each notification and report that the Permittee submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR Part 63.10(b)(2)(xiv). (40 CFR 63.6655(a)(1))
- (2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. (40 CFR 63.6655(a)(2))
- (3) Records of performance tests and performance evaluations as required in 40 CFR Part 63.10(b)(2)(viii). (40 CFR 63.6655(a)(3))
- (4) Records of all required maintenance performed on the RICE and any air pollution control and monitoring equipment. (40 CFR 63.6655(a)(4))



### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

- J. Emission Unit S2.005 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346.2) (Federally Enforceable SIP Requirement) (continued)

    National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines
    - d. Recordkeeping Requirements (40 CFR Part 63.6655) (continued)

The Permittee must keep the following records:

- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with **J.5.c.(2)** of this section including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (6) The Permittee must keep the records required in with **J.5.c.(3)** of this section to show continuous compliance with each emission or operating limitation that applies. (40 CFR 63.6655(d))
- (7) The Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. (40 CFR 63.6655(e))





## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### K. Emission Unit S2.006

System 11 – Non-Emergency Generator		Corner Location UTM (Zone 11, NAD 83)	
System 11 – Non-Emergency Generator		m North	m East
		4,323,088	268,295
		4,323,080	268,916
	Multi-Quip 70 KVA, Model DCA (80 kW, John Deere, 70SSJU4i, Manufactured 2015)	4,322,532	268,901
		4,322,435	268,829
		4,322,420	268,819
S2.006		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.006** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 5.70 feet Stack Diameter: 0.25 feet Stack Temperature: 835 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
- a. **S2.006** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.006** shall not exceed **5.4 gallons** per any one-hour period. The sulfur content shall not exceed 0.0015 percent.
  - c. Hours
    - (1) **S2.006** may operate a total of **10** hours per day.
    - (2) S2.006 may operate a total of 3,640 hours per year.
    - (3) **S2.006** may operate from **6:00 AM** to **4:00 PM** only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.006** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0035** pounds per hour, nor more than **0.0064** tons per year.
- b. The discharge of  $PM_{10}$  (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.0035 pounds per hour, nor more than 0.0064 tons per year.
- c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.0035 pounds per hour, nor more than 0.0064 tons per year.
- d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.22 pounds per hour, nor more than 0.40 tons per year.
- e. The discharge of  $NO_X$  (oxides of nitrogen) to the atmosphere shall not exceed 0.071 pounds per hour, nor more than 0.13 tons per year.



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## **Section V. Specific Operating Conditions (continued)**

#### K. Emission Unit S2.006 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.006** the following pollutants in excess of the following specified limits:

- f. The discharge of CO (carbon monoxide) to the atmosphere shall not exceed **0.88** pounds per hour, nor more than **1.60** tons per year.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.034** pounds per hour, nor more than **0.061** tons per year.
- h. The opacity from \$2.006 shall not equal or exceed 20 percent.
- 4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for \$2.006.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.006** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **K.2.b** of this section and the total daily hours of operation.
- c. Monitor and record the total yearly hours of operation of **\$2.006** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
- d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary

  Compression Ignition Internal Combustion Engines
  - a. Emissions Standards (40 CFR 60.4204)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))

- (1) For a **2014** model year and later Tier **4** non-road engine with a rated power greater than or equal to 56 kW and less than 130 kW: (40 CFR 60.4201(a), 40 CFR 1039.101)
  - (a) The discharge of PM to the atmosphere shall not exceed 0.020 grams/kW-hr (0.0035 pounds per hour).
  - (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**0.88** pounds per hour).
  - (c) The discharge of NO<sub>X</sub> to the atmosphere shall not exceed **0.40** grams/kW-hr (**0.071** pounds per hour).
  - (d) The discharge of NMHC (non-methane hydrocarbon) to the atmosphere shall not exceed **0.19** grams/kW-hr (**0.034** pounds per hour).
- (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 60.4201(a), 40 CFR 1039.105(b))
  - (a) 20 percent during the acceleration mode;
  - (b) 15 percent during the lugging mode; and
  - (c) 50 percent during the peaks in either the acceleration or lugging modes.



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## **Section V. Specific Operating Conditions (continued)**

- K. Emission Unit S2.006 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued) New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
    - b. <u>Fuel requirements</u> (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.
- c. <u>Monitoring requirements</u> (40 CFR 60.4209(b))

If your engine is equipped with a diesel particulate filter:

- (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
  - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
  - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068 except as permitted in **K.5.d.(3)** of this section. (40 CFR 60.4211(a))
  - (3) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
    - (a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))
- e. <u>National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR Part 63, Subpart ZZZZ Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:</u>
  If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## **Section V. Specific Operating Conditions (continued)**

#### L. Emission Unit S2.007

System 12 – Non-Emergency Generator		Corner Location UTM (Zone 11, NAD 83)	
		m North	m East
		4,323,088	268,295
	Mult-Quip 40KVA (36 kW, Kubota, DCA-40SSKU4F2P, Manufactured 2014+)	4,323,080	268,916
		4,322,532	268,901
		4,322,435	268,829
		4,322,420	268,819
S2.007		4,322,403	268,813
		4,322,408	268,527
		4,322,405	268,509
		4,322,394	268,491
		4,322,395	268,439
		4,322,405	268,427
		4,322,411	268,403
		4,322,413	268,352
		4,322,448	268,319
		4,322,493	268,311
		4,322,519	268,301
		4,322,542	268,281

- 1. <u>Air Pollution Control Equipment</u> (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
  - a. **S2.007** has no add-on controls.
  - b. <u>Descriptive Stack Parameters</u>

Stack Height: 4.43 feet Stack Diameter: 0.16 feet Stack Temperature: 918 °F

- 2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
- a. **S2.007** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.007** shall not exceed **3.2 gallons** per any one-hour period. The sulfur content shall not exceed 0.0015 percent.
  - c. Hours
    - (1) **S2.007** may operate a total of **10** hours per day.
    - (2) **S2.007** may operate a total of **3,640** hours per year.
    - (3) **S2.007** may operate from **6:00 AM** to **4:00 PM** only.
- 3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.007** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0024** pounds per hour, nor more than **0.0043** tons per year.
- b. The discharge of  $PM_{10}$  (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.0024 pounds per hour, nor more than 0.0043 tons per year.
- c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.0024 pounds per hour, nor more than 0.0043 tons per year.
- d. The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed 0.13 pounds per hour, nor more than 0.24 tons per year.
- e. The discharge of  $NO_X$  (oxides of nitrogen) to the atmosphere shall not exceed 0.37 pounds per hour, nor more than 0.68 tons per year.



## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### **Section V. Specific Operating Conditions (continued)**

#### L. Emission Unit S2.007 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.007** the following pollutants in excess of the following specified limits:

- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.40** pounds per hour, nor more than **0.72** tons per year.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.16** pounds per hour, nor more than **0.30** tons per year.
- h. The opacity from \$2.007 shall not equal or exceed 20 percent.
- 4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for \$2.007.
- b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.007** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **L.2.b** of this section and the total daily hours of operation.
- c. Monitor and record the total yearly hours of operation of **\$2.007** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
- d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
- 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

  New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary

  Compression Ignition Internal Combustion Engines
  - a. Emissions Standards (40 CFR 60.4204)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))

- (1) For a **2014** model year and later Tier **4** non-road engine with a rated power greater than or equal to 19 kW and less than 56 kW: (40 CFR 60.4201(a), 40 CFR 1039.101)
  - (a) The discharge of PM to the atmosphere shall not exceed 0.030 grams/kW-hr (0.0024 pounds per hour).
  - (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**0.40** pounds per hour).
  - (c) The discharge of NMHC (non-methane hydrocarbon) +  $NO_X$  to the atmosphere shall not exceed 4.7 grams/kW-hr (0.37 pounds per hour).
- (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 60.4201(a), 40 CFR 1039.105(b))
  - (a) 20 percent during the acceleration mode;
  - (b) 15 percent during the lugging mode; and
  - (c) 50 percent during the peaks in either the acceleration or lugging modes.



### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

## **Section V. Specific Operating Conditions (continued)**

- L. Emission Unit S2.007 (continued)
  - 5. <u>Federal Requirements</u> (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued) New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
    - b. <u>Fuel requirements</u> (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.
- c. <u>Monitoring requirements</u> (40 CFR 60.4209(b))

If your engine is equipped with a diesel particulate filter:

- (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
  - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
  - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068 except as permitted in **L.5.d.(3)** of this section. (40 CFR 60.4211(a))
  - (3) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
    - (a) For CI ICE with a maximum engine power less than 100 hp, the Permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change the emission-related settings in a way that is not permitted by the manufacturer, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. (40 CFR 60.4211(g)(1))
- e. <u>National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR Part 63, Subpart ZZZZ Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:</u>
  If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

\*\*\*\*End of Specific Operating Conditions\*\*\*\*



## **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** Knox Excavating, Inc. – Painted Rock Mine (As Permittee)

Section VI. Emission Caps

A. Not Applicable

\*\*\*\*End of Emission Caps\*\*\*\*

# NDEP

#### Nevada Department of Conservation and Natural Resources • Division of Environmental Protection

### **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** KNOX EXCAVATING, INC. – PAINTED ROCK MINE (AS PERMITTEE)

### Section VII. Surface Area Disturbance Conditions

The surface area disturbance for **Painted Rock Mine** is **148.8** acres.

- A. <u>Fugitive Dust</u> (NAC 445B.22037) (Federally Enforceable SIP Requirement)
  - 1. No person may cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
  - 2. Except as otherwise provided in subsection 4, no person may cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction and revegetation.
  - 3. Except as otherwise provided in subsection 4, no person may disturb or cover 5 acres or more of land or its topsoil until he has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
  - 4. The provisions of subsections 2 and 3 do not apply to:
    - a. Agricultural activities occurring on agricultural land; or
    - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.
  - 5. All storage piles shall be stabilized to prevent fugitive dust emissions in a manner such as applying water or dust suppressants on a regular schedule and as needed during dry or windy conditions, keeping storage piles at a manageable height, and when practical, located behind wind barriers to further minimize wind erosion.
  - 6. Fugitive dust shall be mitigated from becoming airborne during all loading and unloading activities in a manner such as minimizing loading during high wind events or utilizing adjusted transfer rates.
  - 7. All haul trucks must be covered or loads need to be sufficiently wetted before leaving the facility to prevent fugitive dust emissions during transport and hauling.
  - 8. Mitigate dust and track-out at facility exit by installing and maintaining a track-out pad or utilizing other track-out control methods. Clean-up trackout at the end of each day of operation. Conduct and record an observation of visible emissions on facility exit and tracking controls on a weekly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.

\*\*\*\*End of Surface Area Disturbance Conditions\*\*\*\*



## **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

**Issued to:** Knox Excavating, Inc. – Painted Rock Mine (As Permittee)

## Section VIII. Schedules of Compliance

A. Not Applicable

\*\*\*\*End of Schedule of Compliance \*\*\*\*

# NDEP

## Nevada Department of Conservation and Natural Resources • Division of Environmental Protection

## **Bureau of Air Pollution Control**

## Facility ID No. A2342 Permit No. AP1442-4782 CLASS II AIR QUALITY OPERATING PERMIT

This permit:  1. Is non-tran  2. Will be po Requirement  3. Will expire (NAC 445)  4. A complete provided b	OX EXCAVATING, INC. – PAINTED  Amendments	ROCK WIINE (AS FERWITTEE)	
<ol> <li>Is non-tran</li> <li>Will be po Requirement</li> <li>Will expire (NAC 445)</li> <li>A complete provided b</li> </ol>			
<ol> <li>Is non-tran</li> <li>Will be po Requirement</li> <li>Will expire (NAC 445)</li> <li>A complete provided b</li> </ol>			
<ol> <li>Is non-tran</li> <li>Will be po Requirement</li> <li>Will expire (NAC 445)</li> <li>A complete provided b</li> </ol>			
<ol> <li>Is non-tran</li> <li>Will be po Requirement</li> <li>Will expire (NAC 445)</li> <li>A complete provided b</li> </ol>			
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Requirement 3. Will expire (NAC 445) 4. A complete provided b		erally Enforceable SIP Requirement,	
(NAC 4451 4. A complete provided b	ent)	ne stationary source. (NAC 445B.3	
provided b	e and be subject to renewal five (5 B.315) ( <i>Federally Enforceable SIP</i>		Date .
nermit (N.		operating permit must be submit t least 70 calendar days before the coable SIP Requirement)	
5. Any person	n aggrieved by a final decision of	the Department may, not later than ling a request for a hearing before t	
the State E		South Stewart Street, Suite 4001, (	
(See adop	oung agency for forms, (1916–1916)	sios of (Since Only Requirement)	
THIS PERM	MIT EXPIRES ON: Date		
	Signature:		
	Issued by:	Shantell Davis	
		Supervisor, Permitting Branch Bureau of Air Pollution Control	
		Dareau of the Foliation Collifor	
	Phone:	(775) 687- 9549 <b>Date</b> :	Date

ka 10/25

## Class II Insignificant Activities List Appended to Permit #AP1442–4782

Emission Unit #	Emission Unit Description
IA1.001	10,000 Gallon Off Road Diesel Tank