



**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT NO. 64548**

**Freeport Minerals Corporation -Bee Canyon Well-Field Site**

**I. INTRODUCTION**

This Class II air quality permit is issued to Freeport Minerals Corporation, the Permittee, for operation of the Bee Canyon Well-Field Site. The facility is located near Morenci in Greenlee County, Arizona. This Class II Permit will supersede the General Permit No. 55094.

**A. Company Information**

1. Facility Name: Freeport Minerals Corporation
2. Facility Location: Bee Canyon Well-Field Site  
Morenci, Greenlee County, AZ 85540
3. Mailing Address: Freeport-McMoRan Morenci Inc.  
4521 U.S. Hwy 191  
Morenci, AZ 85540

**B. Attainment Classification**

The facility is located in an area classified as attainment or unclassified for all criteria pollutants.

**C. Background Information**

The facility currently operates 5 diesel engines in accordance with Air Quality General Permit No. 55094. Since ADEQ has decided to not renew the General Permit for Stationary Generators, the facility has submitted a Class II Permit application for the continued operation of the well-field site.

**II. PROCESS DESCRIPTION**

The Bee Canyon Well-Field Site provides water for industrial, commercial and domestic use at Morenci and Clifton in Greenlee County, AZ. The operations at the well-field site consist of 5 production wells operated by diesel engines.

**III. EMISSIONS**

Emissions for the engines calculated on the basis of EPA Engine Family Certification Levels are provided in the table below:

**Table 1: Potential Emissions**

<b>Pollutant</b>	<b>Emissions (tons per year)</b>
<b>PM</b>	2.61
<b>PM<sub>10</sub></b>	2.61
<b>PM<sub>2.5</sub></b>	2.61
<b>NO<sub>x</sub></b>	78.68
<b>CO</b>	41.67
<b>SO<sub>2</sub></b>	0.14
<b>VOC</b>	3.97
<b>HAPs</b>	0.29

**IV. MINOR NEW SOURCE REVIEW (NSR)**

The facility is an existing source and is currently operating under a General Permit for Stationary Generators. The facility is now being issued a class II permit for continued operation as the Department has decided to not renew the Generators General Permit. There is no change in facility operations. Hence the facility is not subject to minor NSR review.

**V. APPLICABLE REGULATIONS**

Table 2 displays the applicable requirements for each permitted piece of equipment along with an explanation of why the requirement is applicable.

**Table 2: Verification of Applicable Regulations**

<b>Unit</b>	<b>Control Device</b>	<b>Rule</b>	<b>Discussion</b>
IC Engines	N.A.	40 CFR 60 Subpart III	<p>The IC engines are manufactured in 2009 and are, thus, subject to New Source Performance Standards (NSPS) under 40 CFR 60 Subpart III.</p> <p>As per 40 CFR 63.6590(c), the engines comply with National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR 63 Subpart ZZZZ by complying with NSPS standards under 40 CFR 60 Subpart III.</p>



Unit	Control Device	Rule	Discussion
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6	These standards are applicable to all non-point sources of fugitive dust at the facility.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	This standard is applicable to any spray painting operation.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.
Mobile sources	None	A.A.C. R18-2-801	These are applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.

## VI. MONITORING REQUIREMENTS

### A. IC Engines

1. The Permittee is required to purchase engines certified to the applicable emission standards, and install and configure the engines according to the manufacturer's emission-related specifications, except as permitted by 40 CFR 60.4211(g).
2. To demonstrate compliance with the emission standards the Permittee is required to:
  - a. Operate and maintain the engines and control devices according to the manufacturer's emission-related written instructions, except as permitted by 40 CFR 60.4211(g);
  - b. Change only those emission-related settings that are permitted by the manufacturer, except as permitted by 40 CFR 60.4211(g).

### B. Fugitive Dust

The Permittee is required to keep record of the dates and types of dust control measures employed.

### C. Periodic Activities

1. The Permittee is required to record the date, duration and pollution control



measures of any abrasive blasting project.

2. The Permittee is required to record the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.
3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.

**D. Mobile Sources**

The Permittee is required to keep records of all emission related maintenance performed on the mobile sources.

**VII. LIST OF ABBREVIATIONS**

A.A.C.....	Arizona Administrative Code
ADEQ.....	Arizona Department of Environmental Quality
CO.....	Carbon Monoxide
HAP.....	Hazardous Air Pollutant
ICE.....	Internal Combustion Engine
lb.....	Pound
NESHAP.....	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub> .....	Nitrogen Oxide
NO <sub>2</sub> .....	Nitrogen Dioxide
NSPS.....	New Source Performance Standards
NSR.....	New Source Review
PM.....	Particulate Matter
PM <sub>10</sub> .....	Particulate Matter Nominally less than 10 Micrometers
PM <sub>2.5</sub> .....	Particulate Matter Nominally less than 2.5 Micrometers
PTE.....	Potential-to-Emit
SO <sub>2</sub> .....	Sulfur Dioxide
TPY.....	Tons per Year
VOC.....	Volatile Organic Compound
yr.....	Year