

**TECHNICAL SUPPORT DOCUMENT (TSD)**

**I. GENERAL COMMENTS:**

**A. Company Information**

Business Name: ASARCO LLC (Mission Complex)

Facility Address: 4201 W. Pima Mine Road  
Sahuarita, Arizona 85629

Mailing Address (Same as Facility Address)

**B. Background**

The ASARCO LLC, Mission Complex, was first permitted in August 1969. The initial permit (containing a one year permit term) was renewed annually until the facility received their first 5-year permit effective June 16, 2003.

On December 13, 2007, ASARCO LLC submitted a permit renewal application; however the application was determined to be incomplete. The application was deemed complete on June 13, 2008 after receipt of additional information. This permit and TSD supports the permit written as a result of the renewal application.

The facility is required to obtain an air quality permit due to emissions of regulated air pollutants, generated primarily from mining activities, exceeding the permitting and major source thresholds. The facility is subject to 40 CFR Part 70 permitting requirements, New Source Performance Standards (NSPS) for Metallic Mineral Processing Plants (Part 60 Subpart LL) and Title 17 of the Pima County Code.

**C. Attainment Classification**

This facility is located in a region that is designated as attainment for all criteria pollutants.

**II. FACILITY DESCRIPTION**

**A. Process Description and Operating Hours**

The ASARCO LLC (Mission Complex) is an open pit copper mine. Approximately 54,000 tons of copper ore is extracted each day. The ore is crushed, ground and concentrated using the conventional froth floatation method. The final product is a copper concentrate which is shipped off site for smelting.

The facility currently operates 24 hours per day, 365 hours per year except during periods of preventative maintenance, shutdown or repair of equipment.

The emission sources at the facility include fugitive emissions from mining and mineral processing and regulated pollutants generated from fuel-fired equipment.

## B. Air Pollution Control Equipment

The following sections are identified within the air quality operating permit as including air pollution control equipment:

Section 1	Mission Primary Crusher and Stockpile
Section 2	Mission Secondary Crusher
Section 3	Mission Concentrator
Section 4	Mission North Primary Crusher and Stockpile
Section 5	Mission South Primary Crusher and Stockpile
Section 6	Mission South Concentrator
Section 10	By-Product (Molybdenum Plant)
Section 11	Gasoline Dispensing Facilities

The air pollution control equipment section comprises dry dust collectors, wet scrubbers, precipitators, spray bars and submerged filling pipes on all gasoline storage tanks.

## III. REGULATORY HISTORY

### A. Testing & Inspections

Regular inspections have been conducted by Pima County Department of Environmental Quality (PDEQ) since the initial permit was issued. Within the past 10 years, the following enforcement actions have issued as result of PDEQ inspections:

- Following the May 29-May 31, 2003 inspection, a compliance status letter was issued for the following non-compliance determinations:
  - 1) Failure to prevent excessive amounts of fugitive emissions from becoming airborne during construction of the mineral tailings piles.
  - 2) Failure to prevent the diffusion of fugitive emissions beyond the property boundary.
  - 3) Failure to prevent the effluent of fugitive emissions greater than 20% opacity.

[These compliance deficiencies were adequately resolved on February 10, 2005.]

- Following submittal of the September 3, 2004 excess emissions report, a notice of violation was issued for the failure to prevent the effluent of fugitive emissions greater than 20% opacity as observed from Tailing Dam Number 6 and 7. [These compliance deficiencies were adequately resolved on February 10, 2005.]
- Following the September 29, 2004 inspection, a notice of violation was issued for the failure to control fugitive emissions from the northeast corner of Tailing Dam 7. [This violation was closed on March 21, 2005.]
- Following submittal of the October 25, 2004 excess emissions report, a notice of violation was issued for the failure to prevent the effluent of fugitive emissions greater than 20% opacity as observed from Tailing Dam Number 6. [This compliance deficiency was adequately resolved on March 21, 2009.]
- Following the January 25, 2006 inspection, a notice of violation was issued for the failure to control fugitive emissions from Tailing Dam 8 and from mine activities (vehicle traffic). [This violation was closed on October 17, 2007.]

- Following the March 10, 2006 inspection, a notice of violation was issued for the failure to control fugitive emissions from Tailing Dam 4 and from mine activities (vehicle traffic). [This violation was closed on October 17, 2007.]
- Following submittal of the June 8, 2007 excess emissions report, a notice of violation was issued for the failure to prevent the effluent of fugitive emissions greater than 20% opacity as observed from mine Tailing Dam 5 and 7. The notice of violation also included the failure to report the excess emission within 24hrs of the time the Permittee first learned of the excess emissions. [This compliance deficiency was adequately resolved on September 21, 2007.]
- Following submittal of the June 17, 2008 excess emissions report, a notice of violation was issued for the failure to maintain all NSPS air pollution control equipment in good working order. [This compliance deficiency was adequately resolved on January 13, 2009.]
- Following a compliance inspection conducted on October 21 and 27, 2009, an opportunity to correct was issued for the failure to monitor for fugitive emissions from tailing number 8 once per week in accordance with the visual observation plan. [This opportunity to correct was adequately resolved on December 23, 2009.]
- Following a compliance inspection conducted on November 12, 2009, a notice of violation was issued for the failure to prevent the effluent of fugitive emissions greater than 20% opacity as observed from Tailing Dam 8. [This violation was adequately resolved on October 18, 2010.]
- Following a compliance inspection conducted on December 22, 2009, a notice of violation was issued for the failure to prevent the effluent of fugitive emissions greater than 20% opacity as observed from Tailing Dam 8. [This violation was adequately resolved on October 18, 2010.]
- Following a compliance inspection conducted on March 17, 2011, an opportunity to correct was issued for the failure to prevent the effluent of fugitive emissions beyond the property boundary line. [This violation was adequately resolved on June 29, 2011.]
- Following a full compliance evaluation conducted on March 14, 2012, PDEQ determined that ASARCO LLC was in substantial compliance with air quality regulations contained in the Pima County Code.

## **B. Permit Deviation Reports**

ASARCO LLC has submitted the following permit deviation reports to Pima County Department of Environmental Quality as required under their existing operating permit # 2026, Part A, Section XIII:

- September 3, 2004 excess emissions observed from visual observation point T-4;
- September 20, 2004 excess emissions observed from visual observation point T-4;
- October 24, 2005 excess emissions observed from visual observation point T-4;
- April 14, 2007 monitoring and reporting deficiencies;
- July 6, 2007 excess emissions observed from tailing #5;
- July 27, 2009 wet scrubber operation - monitoring and recordkeeping deficiency;
- July 12, 2008 non-functional wet scrubber resulting in excess emissions;
- September 24, 2008 excess emissions observed from tailing dam #8;
- November 17, 2008 wet scrubber operation - monitoring and recordkeeping deficiency;
- March 2, 2009 monitoring and recordkeeping deficiency – opacity checks.

## **C. Enforcement Actions**

ASARCO LLC has to date resolved all historical notices of violations and opportunity to correct notices.

## D. Permitting Actions

ASARCO LLC has to date submitted several permit revision applications.

Date Application Received	Type of Revision	Details of the Revision	PDEQ Revision Issued Date	Change in Potential Emissions
06/04/2007	Significant	Development and implementation of ASARCO LLC. Non-Point Source Monitoring Plan.	7/15/2008	No change
05/27/2009	Minor	Replacement of air pollution control devices.	03/18/2010	+ 0.6 tpy of PM
04/12/2011	Minor	Update listed capacities for process equipment and conveyor upgrade.	02/07/2012	+ 7.1 tpy of PM
08/03/2011	Significant	South Mill Expansion: Throughput limitations and installation of additional air pollution control equipment	12/01/2011	- 4.8 tpy of PM
03/15/2012	Minor	Molybdenum plant restart	08/03/2012	+ 14.4 tpy of PM
05/01/2012	Minor	Replace and upgrade air pollution control equipment.	08/03/2012	+ 7.51 tpy of PM
9/06/2012	Minor	Installation of a stationary emergency generator.	2/12/2013	+ 0.28 tpy of PM + 1.02 tpy of CO + 3.97 tpy of NO <sub>x</sub>

Key: PM – Particulate Matter CO – Carbon Monoxide NO<sub>x</sub> – Nitrogen Oxide

## IV. EMISSION ESTIMATES

### A. Facility Wide Estimates

The following table of emission estimates submitted by ASARCO LLC has been reviewed and approved by PDEQ.

The emission factors used to calculate the PTE estimates are based on AP-42 and past performance test data. (Reference: Renewal application dated December 10, 2007 and 2011 Emission Inventory).

**Table I – Potential to Emit**

Pollutant	South Mill Expansion	Facility Wide Potential To Emit (Process and Fugitive) (Tons per Year)
Particulate Matter (as PM)	137.91	7512.9
Particulate Matter (as PM <sub>10</sub> )	62.20	3639.9
Particulate Matter (as PM <sub>2.5</sub> )	17.72	532.3
Nitrogen Oxides (NO <sub>x</sub> )	-	221.0
Sulfur Oxides (SO <sub>x</sub> )	-	55.0
Carbon Monoxide (CO)	-	367.7

Based on the facility throughput and PTE, ASARCO LLC, is a **Class I; Major Source** for PM, PM<sub>10</sub>, NO<sub>x</sub> and a true minor for all other regulated pollutants.

**V. APPLICABLE REQUIREMENTS**

**A. Code of Federal Regulations (CFR):**

- 40 CFR 60 Subpart LL Standards of Performance for Metallic Mineral Processing plants.
- 40 CFR 63 Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)
- 40 CFR Part 64 Compliance Assurance Monitoring (CAM)
- 40 CFR Part 63 Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Gasoline-Dispensing Facilities

**B. Pima County Code State Implementation Plan (SIP):**

- Rule 224 Fugitive Dust producing Activities
- Rule 315 Roads and Streets
- Rule 316 Particulates Materials
- Rule 321 Opacity Standards and Applicability
- Rule 332 Compilation of Mass Rates and Concentrations
- Rule 343 Visibility Limiting Standard
- Rule 314 Petroleum Liquids

**C. Pima County Code (PCC) Title 17, Chapter 17.16:**

The ASARCO LLC (Mission Complex) is also subject to local (Pima County) air pollution emission standards. The specific Pima County conditions applicable to the ASARCO (Missions Complex) are identified below:

- 17.16.020 Noncompliance with Applicable Standards
- 17.16.040 Visible Emission Standards: Standards and applicability (Include NESHAP)
- 17.16.050 Visibility Limiting Standards
- 17.16.060 Fugitive Dust Producing Activities
- 17.16.090 Roads and Streets
- 17.16.100 Particulate Materials
- 17.16.110 Storage Piles
- 17.16.120 Mineral Tailings
- 17.16.130 NSPS Applicability
- 17.16.140 Compilation of mass rates and concentrations
- 17.16.160 Standards of Performance for Fossil-Fuel Fired Steam Generators and General Fuel Burning Equipment
- 17.16.340 Standards of Performance for Stationary Rotating Machinery
- 17.16.360 Standards of Performance for Nonferrous Metals Industry Sources
- 17.16.230 Standards of Performance for Storage Vessels for Petroleum Liquids

**VI. PERMIT CONTENTS**

The following section of the TSD refers to the specific conditions of the permit and explains in detail why

the permit was written with the conditions as seen.

**A. Applicability:**

The ASARCO LLC (Mission Complex) is subject to a Federal New Source Performance Standard (NSPS) namely Title 40, Code of Federal Regulations (CFR), Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing plants). The standards of performance are promulgated for the control of particulate matter and apply to new, modified and reconstructed facilities.

The provisions of this NSPS Subpart LL apply to the following affected facilities at the Mission Complex: Each crusher and screen in open-pit mines; each crusher, screen, bucket elevator, conveyor belt transfer point, thermal dryer, product packaging station, storage bin, enclosed storage area, truck loading station, truck unloading station, railcar loading station, and railcar unloading station at the mill or concentrator.

The NSPS Subpart LL identifies a stack emission limitation for particulate matter (PM). It also provides emission limits for fugitive dust emissions by adopting a opacity or visibility of fugitive dust emissions and compares it with established limits. Finally the rule requires periodic monitoring of baghouses which are PM emissions control devices. It also requires periodic monitoring for water sprays that are used to control fugitive PM emissions. Testing is required once every five years to assure that fugitive emissions that are not controlled by water sprays are minimized.

EPA exempts wet material processing operations from the requirements of this standard. These processes as defined, have no potential for PM emissions.

**B. Emission Limitations and Standards:**

The specific emission limits and standards applicable to the Mission Complex have been grouped by operation type and called Sections. Each section represents a particular process or operation at the facility. The Control Officer has (where possible) organized the specific conditions identified in each Section parallel to where the process/operation starts and ends.

Part B Section	Emission Group	Description of Permit Content
1-6	A	The equipment identified within this group is subject to a local opacity limitation only. The more stringent opacity standard identified in the NSPS Subpart LL is applicable only to those process fugitive emissions that are not collected by a capture system. All fugitive emissions from the crushers and belt conveyors located immediately below the crushing surfaces are controlled with air pollution control devices including spray bars and wet scrubbers.
1-6	B	Emissions from this equipment group are captured and released through a stack, chimney or flue. All process stack sources at the facility encompass air pollution control (APC) equipment used to remove particulate matter by means of a wet scrubbing. The emission point (the stack) is subject to the NSPS Subpart LL particulate matter and opacity limitation.

Part B Section	Emission Group	Description of Permit Content
1	C	Emissions from this equipment group are those that are not collected by a capture system. The predominant source of such fugitive emissions arise from material handling operations. A single emission standard associated with fugitive sources is common to all fugitive sources within Pima County. The opacity standard of 20 % is pursuant to Title 17 of the Pima County Code.
3	A	Reserved
3	B	Emissions from this equipment group are those that are not collected by a capture system. The predominant source of such fugitive emissions arise from material handling operations and wind erosion. The opacity standard identified in the NSPS Subpart LL is applicable to those process fugitive emissions that are not collected by a capture system.
4	C	
5	C	
7	A	<p>Affected facility regulated under federal regulation 40 CFR 63 Part ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (Area Source of HAP Emissions).</p> <p>Limitation and Standards include: Changing Oil and filter, inspect air cleaner and inspect hoses and belts.</p> <p>Local regulatory conditions include: Opacity: By law, the Permittee cannot allow any equipment under his control to emit effluents (such as exhaust from a generator) that exceed specific values of opacity (the degree to which light cannot pass through the plume of effluent/exhaust.) The Permittee demonstrates compliance with this regulation to PDEQ by checking the exhaust from the generators under his control monthly, and keeping complete records of these checks.</p> <p>Fuel Limitation: Prohibition from firing fuels other than those allowed by the permit. This is a material permit condition as alternate fuels may result in an increase in emissions for this group of equipment to above major source thresholds.</p>
8	A	Requirement for the submittal of a Tailing Management Plan within 90 days of permit renewal issuance.
	B	Provision to address the prevention and control of potential fugitive emissions from vehicles travelling on unpaved surfaces.
	C	General non-point source fugitive emissions control procedures as referenced in Pima County Code.
	D	Reference provided to the requirements of NESHAP Subpart M, Asbestos handling and disposal.
9	Total of 15 Emission Points	This section of the permit identifies the Compliance Assurance Monitoring Plan (CAM) rule, which requires the monitoring, compliance certification, periodic reporting, and recordkeeping requirements for the controlled pollutant specific emissions units (PSEU's) that have a pre-control potential to emit major amounts of regulated air pollutants.

Part B Section	Emission Group	Description of Permit Content
10	A	The emission limitations and standards of this section apply to the emission points identified at the By-Product (Molybdenum) Plant. Emission group A identifies two emission points associated at the screw dryer process.
	B	Emission limitations associated with the single emission point on air pollution control device.
11	N/A	The provisions of this Section apply to the Gasoline Dispensing Facility, subject to the National Emission Standards for Hazardous Air Pollutants. General housekeeping control measures are used to minimize and prevent the potential air emissions from this facility operation.

**C. Monitoring Requirements:**

Part B Section	Emission Group	Description of Permit Content
1-6	A	Requirement to demonstrate compliance with the local opacity standard detailed in the permit by periodically monitoring the emissions from the equipment group every two weeks. The frequency of monitoring was developed from corrective action requirements associated with recorded emission violations.
1-6	B	Requirements to install, calibrate and maintain a monitoring device on the wet scrubbing emission control devices. This permit condition is a federal requirement applicable to all affected sources subject to the NSPS subpart. The air pollution control devices are also subject to a local only enforceable opacity limitation which shall be monitored biweekly.
1	C	The fugitive emissions from all material handling operations in this Section are required to be monitored biweekly.
3	B	The fugitive emissions from all material handling operations in this Section are required to be monitored biweekly. The frequency of monitoring was developed from corrective action requirements associated with recorded emission violations
4	C	
5	C	

Part B Section	Emission Group	Description of Permit Content
7	A	<p>Operational Limitation: Demonstration to Prohibition from operating affected stationary rotating machinery in excess of the allowable hours of operation in any 12-consecutive month period. This synthetic minor limitation pursuant to PCC 17.12.190.B is provided to mirror the potential emission calculations provided by ASARCO in Section 20 of the permit application.</p> <p>Opacity: The Permittee demonstrates compliance with this regulation by checking the exhaust from the generators monthly, and keeping complete records of these checks.</p> <p>Fuel Limitation: Each type of fuel burned in equipment powered by combustion has a unique blend of constituents. When burned, each fuel results in the release of regulated pollutants to the atmosphere at characteristic levels. This permit is written to account for only the fuels specified in Section 7 of the permit. Use of fuels other than those specified would result in different rates of pollutant emission. Therefore, the Permittee must only burn the designated fuels specified in Section 7 of the permit to remain in compliance with the conditions of this permit.</p>
8	A	Requirement for the Permittee to adhere to the provisions in the approved tailing management plan. Permittee is required to review the plan annually to ensure that the controls identified are affective to manage potential fugitive emissions.
8	B	Requirement for the Permittee to periodically conduct visible emission checks on each general non-point process. If the Permittee discovered emissions above the allowable, then the Permittee is required to apply dust control measures that are adequate to demonstrate compliance with the emission limitations.
9	Total of 15 Emission Points	The Permittee shall maintain and operate all PSEU's identified in the table above, in a manner consistent with the provisions of the approved ASARCO LLC CAM plan document.
10	A	General opacity and operating temperature monitoring provisions to demonstrate compliance with Pima County Code.
	B	General opacity monitoring provisions to demonstrate compliance with Pima County Code.

Part B Section	Emission Group	Description of Permit Content
11	A	Operational Limitations as identified in the applicable federal regulation. The Permittee is required to maintain the Gasoline Dispensing Facility (GDF) consultant with good air pollution control practices.
	B	Provision to require the Permittee to annually inspect the GDF to prevent and control potential fugitive HAP emissions.

**D. Facility Changes:**

The Permittee retains the ability to modify operations at the facility. However, the permit covering the facility must reflect the current state of operations *at all times*. Therefore, provisions have been made in the Pima County Code to allow changes in operating permits to reflect new facility conditions. The proper procedure must be followed when making certain modifications to the facility, and the permit. See the rules referenced in the permit for enumeration of these requirements.

**E. Alternate Operating Scenarios:**

As part of the normal operations, the ASARCO, LLC facility does not have an alternate operating scenario that would trigger a different set of applicable requirements.

The facility occasionally produces a by-product molybdenum concentrate which originates from diverting the copper concentrate from the Mission Mill to the By-Products plant. The by-products plant process involves additional flotation to produce the molybdenum concentrate. By-product production may be temporarily suspended at the By-Products plant during time of depressed molybdenum prices and resume when prices recover and profitability improves. The specific requirements applicable to the by-products plant are identified in Section 3 of the permit. The air pollution control device (#353-115) is an applicable NSPS unit and as such will be subject to the same requirements as the air pollution control devices in Section 3, Emission Group A of the permit.

**F. Miscellaneous Comments**

1. This Title V operating permit renewal contains all applicable requirements to which ASARCO LLC is subject to under the Clean Air Act. These include:

- State Implementation Plan (SIP) regulations
- New Source Performance Standards (NSPS)
- National Emission Standards for Hazardous Air Pollutants (NESHAP)/ Maximum Achievable Control Technology (MACT) standards
- Pima County Code regulations

The following permitting streamlining improvements have been incorporated into this permit renewal or carried over from the expired permit:

- The affected emission sources are grouped into emission limitation sections to aid the source, Control Officer and the public determine the applicable requirements for each emission source or group.
- In some cases, the referenced citations for applicable requirements have been streamlined where applicable with the most stringent condition listed in the permit.
- A grouped approach for activities subject to certain general applicable requirements (Section 12).

2. Any emission source subject to a percent opacity limitation and a particulate matter emission standard stated in terms of a weight of particulate per unit volume of air (e.g., grains per dry standard cubic foot) shall demonstrate compliance with both emission limitations. A demonstration of compliance with the opacity emission limitation cannot be used as a surrogate to demonstrate compliance with the particulate matter standard or vice versa.
3. Several federal and PCDEQ particulate matter and visibility requirements apply to ASARCO's mining and mineral processing equipment. The Applicability Section VI of this TSD states that provisions of NSPS Subpart LL apply to "... each crusher, screen, bucket elevator, conveyor belt transfer point..." However, Mission North Primary Crushers (Operating Permit, p. 17) 361-26-1, 361-38-1 and 361-02A are not subject to NSPS Subpart LL. These units are not applicable because the units predate the NSPS and they have not been modified or reconstructed. Equipment that is subject to NSPS is specifically identified in the table(s) at the beginning of each section.
4. Where a control device controls a NSPS unit, ASARCO LLC treats the control device as subject to the NSPS regardless of the date of the control device. Applicability is based upon the underlying units controlled by the control device.
5. Pima County Code 17.16.650 applies to emissions of hazardous air pollutants (HAP). The combined HAP emissions from the ASARCO LLC facility operations amount to 2.6 tons/ year. Sources of HAPs less than 10 tons/year (single HAP) and less than 25 tons/year (total HAP) are considered minor sources. The Control Officer has determined that the applicability of PCC 17.16.650 is not necessary as there is no substantial benefit to include this rule into the operating permit.
6. CAM is applicable to pollutant specific emissions units (PSEU) that meet the following criteria:
  - the PSEU is located at a major source for which a Title V permit is required;
  - the PSEU is subject to an emission limitation or standard for the applicable pollutant;
  - the PSEU uses a control device to achieve compliance with a federally enforceable limit or standard;
  - the potential pre-control emissions of any applicable pollutant(s) from the PSEU are at least 100 percent of the major source amount; and
  - the PSEU is not otherwise exempt from CAM [40 CFR 64.2(b)]

The specific emission sources at the facility have been identified in Section 9 of the operating permit. All the emission sources subject to CAM have post-control emissions of over 100 tpy. PDEQ has deemed it unnecessary for the source to submit pre-control emissions from the PSEUs given that the post control emissions are over 100 tpy. In addition, all units subject to CAM are grandfathered PSD sources so there are no pre-defined pre-control emissions per se. Compliance methods chosen have followed EPA's Draft CAM guidance document which prescribes listing the selection criteria for the PSEU, the applicable condition and monitoring approach elements.

The rationale for the numerical limits chosen in the CAM plans are based on performance tests results and monitoring levels of the instruments used during those tests. A factor of safety has been allowed based on the manufacturer's specifications of the units or monitoring instruments or pre-approved performance plans.

7. The tailings management plan is a stand alone document and elements of the plan will not be incorporated as federally enforceable permit conditions as these elements allow ASARCO the flexibility to easily change the plan should a need arise. Incorporating them as part of the permit prevents ASARCO from implementing improvements as expeditiously as is possible.

## VII. IMPACTS TO AMBIENT AIR QUALITY

None required as the source is not subject to PSD or NSR because it is a grandfathered PSD source

## VIII. CONTROL TECHNOLOGY DETERMINATION

No control technologies needed to be determined. This facility is in an area of attainment and is not a new source.

## IX. PREVIOUS PERMIT CONDITIONS

The permit conditions have been updated to reflect ASARCO's current operations. There are no previous permit conditions that have been removed reduce permit requirements.

## X. INSIGNIFICANT ACTIVITIES

The following activities are considered insignificant pursuant to PCC 17.04.340(A)(114) and EPA "White Paper for Streamline Development of Part 70 Permit Applications", 7/10/95:

- Landscaping, building maintenance or janitorial activities
- Diesel and fuel storage tanks with a capacity of 40,000 gallons or less,
- Batch mixers with a rated capacity of 5 cubic feet or less,
- Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, precision parts, leather, metals, plastics, fiberboard, masonry, carbon, glass or wood,
- Internal combustion (IC) engine-driven compressors, IC engine-driven electrical generator sets, and IC engine-driven water pumps used only for emergency replacement or standby service,
- Lab equipment used exclusively for chemical and physical analyses,
- Storage and Distribution Tanks: Ammonia Nitrate Storage Hoppers located at the Mission Mill and South Mill areas, storage and process holding tanks listed below:

<b>Tank</b>	<b>Date</b>	<b>Chemical</b>	<b>Capacity</b>
N- 1	approx. 1960	MIBC	16,000
N-2	approx. 1960	Sodium Hydrosulfide	10,000
N-3	approx. 1960	Sodium Hydrosulfide	10,000
N-4	approx. 1960	Sodium Silicate	15,500
N-5	Vendors tank	Xanthate Blend	7,800
N-6	Vendors tank	AERO 4037	8,500
N-7	Vendors tank	Cytec- AD- 100	8,400
N- 8	approx. 1960	Sodium Hydrosulfide	10,000
N-9	approx. 1960	Pine Oil	17,000
N- 10	approx. 1960	Pine Oil	3,300
N-11	approx. 1991	C-530 (Phosphonate Terpolymer)	4,500
N-12	approx. 1960	"Milk of Lime"	80,000
N-13	approx. 1960	"Milk of Lime"	80,000
<b>Tank</b>	<b>Date</b>	<b>Chemical</b>	<b>Capacity</b>
S-1	approx. 1991	MIBC	8,400
S-2	approx. 1991	Pine Oil	10,000
S-3	approx. 1991	Aerodri- 104	7,000
S-4	approx. 1991	Cytec 4037	7,000
S-5	1972(N. Tank)	"Milk of Lime"	34,000
S-6	1991(S. Tank)	"Milk of Lime"	56,800
S-7	approx. 1991	Cyanamid	8,000
S-8	approx. 1991	Liquid Xanthate	8,000

**Tripper Deck**

1.	1961	Collector	950
2.	1961	2-6 mix Collector	950
3.	1961	Pine Oil Emulsion	950
4.	1961	Fuel Oil	950
5.	1961	Cytec 4037	70

**Mission Concentrator Reagent Bldg.**

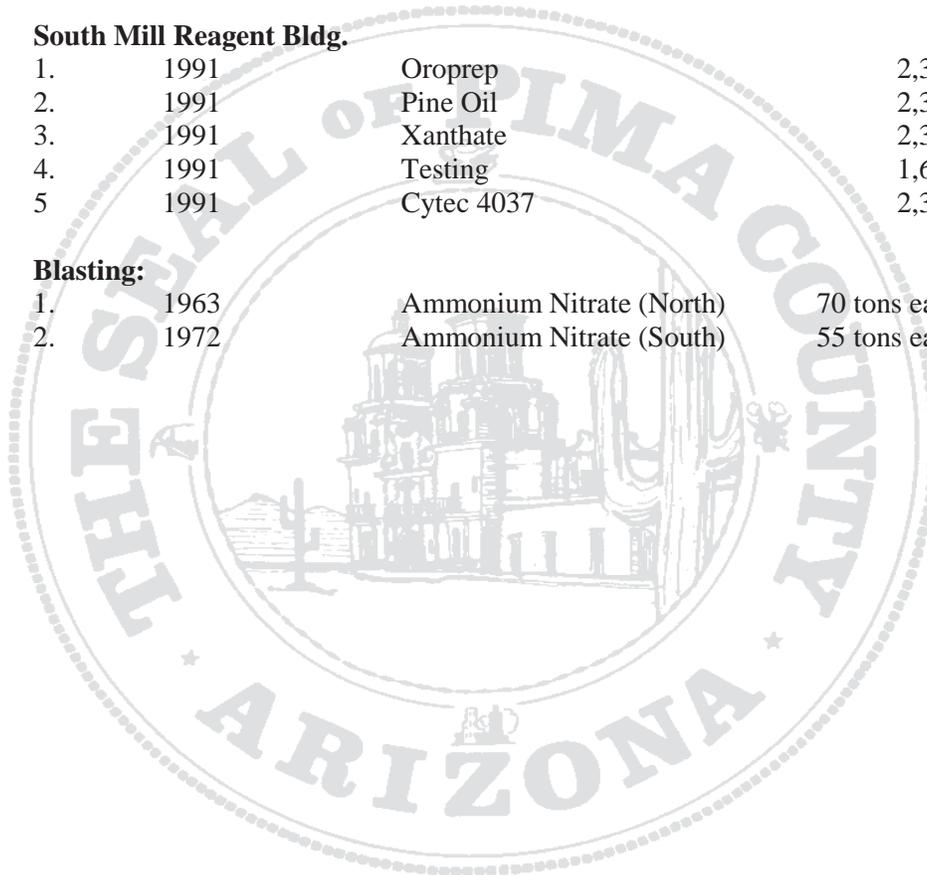
1.	1961	MIBC	1,000
2.	1961	MIBC	500
3.	196 1	MIBC	500
4.	196 1	Pine Oil	1,300
5.	1961	Aeroflo-Xanthate	3,500
6.	1961	Cytec 4037	3,500

**South Mill Reagent Bldg.**

1.	1991	Oroprep	2,300
2.	1991	Pine Oil	2,300
3.	1991	Xanthate	2,300
4.	1991	Testing	1,600
5.	1991	Cytec 4037	2,300

**Blasting:**

1.	1963	Ammonium Nitrate (North)	70 tons each
2.	1972	Ammonium Nitrate (South)	55 tons each



## EPA Determination Detail Control #0500092



### Compliance Monitoring

<http://cfpub2.epa.gov/adl/index.cfm?CFID=24475501&CFTOKEN=851096208&jsessionid=4a30b5ee02b4b050c150666c64681705e1538> requesttimeout=180  
Last updated on Wednesday, September 22, 2010

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### Determination Detail

Control Number: 0500092

**Category:** NSPS  
**EPA Office:** Region 4  
**Date:** 06/27/2002  
**Title:** Waiver of Visible Emission Test Requirements  
**Recipient:** Fogle, Michael E.  
**Author:** Neeley, R. Douglas  
**Comments:**

**Subparts:** Part 60, LL      Metallic Mineral Processing Plants

**References:** 60.382(b)  
60.386(b)(2)  
60.672(e)  
60.672(a)(2)  
60.8(b)(4)  
60.672(b)

#### Abstract:

**Q:** Does EPA waive the requirement, under 40 CFR part 60, subpart LL, to perform visible emissions tests on several affected facilities located inside a building at the Treibacher Schleifmittel grit plant in Andersonville, Georgia?

**A:** Yes. EPA waives the NSPS subpart LL requirement to conduct separate visible emission tests on each of the fugitive emission sources inside the facility because the results of EPA Method 22 observations conducted on the exterior of the building provide adequate assurance of compliance for the facilities located inside.

#### Letter:

Michael E. Fogle, Manager  
Industrial Source Monitoring Program  
Air Protection Branch  
Environmental Protection Division  
Georgia Department of Natural Resources  
4244 International Parkway, Suite 120  
Atlanta, Georgia 30354

Dear Mr. Fogle:

Thank you for your letter dated March 27, 2002, regarding a request for a waiver of the requirement to make separate opacity readings for several fugitive emission sources located in a building at the Treibacher Schleifmittel grit plant located in Andersonville, Georgia. These fugitive emission sources are subject to 40 C.F.R. Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants), and based upon a demonstration that there were no fugitive emissions from this building during a performance test conducted in 1999, Treibacher Schleifmittel requested a waiver of the requirement to conduct separate visible emission test for each piece of equipment in the building. This request is acceptable to the U.S. Environmental Protection Agency (EPA) Region 4. Details regarding the company's proposal and the basis for our determination are provided in the remainder of this letter.

The Subpart LL opacity limit promulgated for process fugitive emission sources at 40 C.F.R. 60.382(b) is 10 percent, and several facilities subject to this standard are located inside of a building at Treibacher Schleifmittel. According to the testing provisions in 40 C.F.R. 60.386(b)(2), EPA Method 9 must be used for determining compliance with opacity limits under Subpart LL, and observers must read opacity only when emissions are clearly identified as coming solely from the affected facility being observed. During an initial performance test conducted at Treibacher Schleifmittel on March 31, 1999, the Georgia Environmental Protection Division allowed the company to demonstrate compliance with the applicable opacity limits for its fugitive emission sources by collecting EPA Method 22 data verifying that there were no fugitive emissions from the building in which these sources are located.

At the time of the initial performance test, it was thought that Treibacher Schleifmittel's fugitive emission sources were subject to 40 C.F.R. Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), and applicability under this regulation was the basis for allowing the company to verify compliance based upon Method 22 results for the building. Under provisions in 40 C.F.R. 60.672(e), owners and operators of Subpart OOO facilities located inside buildings have the option of demonstrating opacity compliance individually for each facility or demonstrating that the building has no fugitive emissions other than those from a stack that complies with the seven percent opacity limit in 40 C.F.R. 60.672(a)(2).

After the initial performance test at Treibacher Schleifmittel, it was determined that the company's fugitive emission sources are actually subject to Subpart LL which does not contain provisions for determining compliance based upon visible emission observations made outside a building containing fugitive emission sources. In a March 20, 2002, letter to your agency, Treibacher Schleifmittel requested that the Method 22 testing conducted on the outside of the building containing its fugitive emission sources be approved as an alternative to conducting separate Method 9 tests on each facility in the building. We reviewed this request to determine whether a waiver of the requirement to conduct individual testing on the facilities inside the building would be justified under the provisions in 40 C.F.R. 60.8(b)(4) which allow the initial performance tests to be waived when a source owner or operator demonstrates through other means to the Administrator's satisfaction that a source is in compliance with applicable emission limits.

Based upon our review the results from the testing conducted on the building enclosing the fugitive emission sources at Treibacher Schleifmittel, the requirement to conduct separate visible emission tests on each fugitive emission source in the building can be waived under the provisions in 40 C.F.R. 60.8(b)(4). This conclusion is based upon the fact that Subparts LL and OOO both regulate similar types of materials handling and processing equipment (crushers, screens, convey belts, etc.) and impose the same 10 percent opacity limit on process fugitive emissions from such equipment. Because of the similarities in the types of equipment regulated and the emission standards under Subparts LL and OOO, the initial performance test that Treibacher Schleifmittel conducted in accordance with the Subpart OOO provisions in 60.672(e) provides adequate assurance that the fugitive emissions sources at the company's Andersonville plant were in compliance with the Subpart LL opacity limit in 40 C.F.R. 60.672(b) during the test. Therefore, a waiver of the requirement to conduct separate visible emission testing on each of the sources located in the building at this plant is acceptable to Region 4.