

SEP 23 2013

DEPARTMENT OF
ENVIRONMENTAL QUALITY



September 23, 2013

Mr. Mukonde Chama
Air Quality Program
Pima County Department of Environmental Quality
33 N. Stone Ave., Suite 700
Tucson, AZ 85701

Re: Request for Minor Air Quality Permit Revision
ASARCO LLC—Mission Complex, Permit No. 2026
Installation of replacement Air Pollution Control Units 20-270 and 30-150

Dear Mr. Chama:

ASARCO LLC (“Asarco”) Mission Complex continues to replace and upgrade some of its air pollution control equipment. Specifically, Asarco plans the following projects:

- Replace SSOPS-4, Unit 20-270 Ducon wet scrubber, with a like-kind wet scrubber. The new unit will be the same size as the current unit (13,000 CFM) and meet the emission limits established for existing SSOPM-4.
- Replace SSOPS-4A, Unit 20-256, Ducon wet scrubber body. Asarco is permitted to move the existing wet scrubber 30-150 (renamed 20-256) as part of South Mill Expansion Major Permit modification, approved on December 1, 2011 (Permit Action #2026-11P). Asarco planned to refurbish the 30-150 Ducon wet scrubber unit prior to reinstalling it; however, upon removal of 30-150 from its current location, Asarco determined that the scrubber body and stack are compromised and must be completely replaced. Asarco wants to ensure that the replaced scrubber body and stack are permitted. The scrubber will maintain the same size, flow rate and emission limit of 0.01 gr/scf as currently permitted.

Pursuant to PCC 17.12.230, replacement of a piece of air pollution control equipment with an identical or substantially similar unit can be accomplished as a change without permit revision. However, Pima County SIP Rule 202.A requires an installation permit prior to addition of a

control device or an expansion. Therefore, Asarco is submitting a request for a minor permit revision to encompass the changes described above.

Asarco believes that the proposed replacement activities qualify for a minor permit revision for the following reasons:

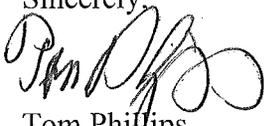
- Replacement of the pollution control equipment does not violate any applicable requirement;
- Replacement of the pollution control equipment does not require any substantive change to existing monitoring, reporting or recordkeeping requirements in the permit. The new equipment is adequately addressed by the existing requirements.
- Replacement of the pollution control equipment does not require or change a case-by-case determination of an emission limitation, other standard, or a source-specific determination of ambient impacts or visibility. The pieces of equipment merely substitute for existing equipment.
- The replacement of the pollution control equipment does not alter an emissions cap or federal alternative emissions limit. Instead, the units will comply with existing NSPS limits.
- The changes are not modifications under any provision of Title I. Only emissions controls are being replaced, so there is no impact on underlying NSPS equipment that could lead to an NSPS modification. Similarly, the amount of emissions increase, if any, is well below PSD “significant” thresholds, as demonstrated in the attached application materials.
- The proposed replacement of pollution control equipment is not a change in fuels.
- The proposed replacement of pollution control equipment will not cause a “significant” increase in air emissions.
- The proposed replacement of pollution control equipment is not required to be processed as a “significant” permit revision by PCC 17.12.260.

PCC 17.12.255.A. Asarco therefore believes that a minor permit revision satisfies both the Pima County Code and Pima County SIP provisions and requests that PDEQ issue the requested permit revision as soon as possible.

Asarco requests that minor permit processing procedures be used on this application. A copy of the standard permit application form and supporting emissions calculations is attached. Please contact Jamie Ekholm at 520-393-4671 if you have any questions or concerns.

I certify that the proposed revision meets the criteria for use of minor permit revision procedures and that the information contained in this document and all attachments is

true, accurate, and complete to the best of my knowledge after reasonable inquiry of those who prepare them.

Sincerely,

Tom Phillips
General Manager

Enclosures

ATTACHMENT "A"
Standard Permit Application

SEP 23 2013

DEPARTMENT OF
ENVIRONMENTAL QUALITY

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Program
33 N. Stone Avenue • Suite 700 • Tucson, AZ 85701 • Phone: (520) 243-7400

STANDARD PERMIT APPLICATION FORM FOR CLASS I SOURCES

(As required by A.R.S. § 49-480, and Title 17 of the Pima County Code)

2026-22P

1. Permit to be issued to (Arizona Corporate Commission Registered Name): ASARCO LLC

2. Mailing Address: 4201 West Pima Mine Road
City: Sahuarita State: AZ ZIP: 85629

3. Plant Name (if different than item #1): Mission Complex

4. Name (or names) of Owner or Operator: ASARCO LLC
FAX #: (520) 648-0802 Phone: (520) 648-2500
Email: NA

5. Name of Owner's Agent: Thomas H. Phillips
FAX #: (520) 625-9632 Phone: (520) 648-4528

6. Plant/Site Manager/Contact Person: Jamie Ekholm
FAX #: (520) 648-0802 Phone: (520) 393-4671
Email: jekholm@asarco.com

7. Proposed Equipment/Plant Location Address: Same as above
City: _____ State: _____ ZIP: _____

Indian Reservation (if applicable): NA T/R/S, Lat/Long, Elev: 31 59' 50.35"N/111 02'58.95" W, 3123 ft

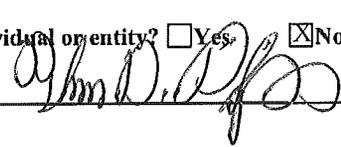
8. General Nature of Business: Mining
Standard Industrial Classification Code: 1021 State Permit Class: Title V, Class I

9. Type of Organization: Corporation Individual Owner Partnership Government Entity Other LLC

10. Permit Application Basis (Check all that apply): New Source General Permit
 Renewal Revision: Administrative Minor Significant Existing Permit # _____

Date of Commencement of Construction or Modification: Once approved

Is any of the equipment to be leased to another individual or entity? Yes No

11. Signature of Responsible Official of Organization: 
Official Title of Signer: General Manager

12. Typed or Printed Name & E-mail of Signer: Thomas H. Phillips
Date: 9-23-13 Telephone Number: (520) 648-4528

EMISSION SOURCES

COMPANY NAME ASARCO LLC

PAGE 1 OF 1
DATE September 2013

Estimated "Potential to Emit" per 17.04.340.A.164.

Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table.

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS									
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	REG. AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]					NONPOINT SOURCES [7]	
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	# HR. [3]	TONS/YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (ft)	HEIGHT ABOVE STRUC (ft)	EXIT DATA			LENGTH (ft)	WIDTH (ft)
										DIA. (ft)	VEL (fps)	TEMP. (°F)		
SSOPM-4	Wet Scrubber	PM	1.11	4.86	12	233,335	108,622	TBD	NA	TBD	TBD	TBD	NA	NA
SSOPM-4A	Wet Scrubber	PM	1.27	5.56	12	233,400	108,592	14	NA	2.27	37.6	60	NA	NA

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL 3123 feet. PDEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (17.04.340.A.210)

General Instructions:

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits, and Emissions Inventory Questionnaire. Include fugitive emissions. Limit emission point number to eight (8) character spaces. For each emission point use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler, tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are O.K.
2. Components to be listed include regulated air pollutants as defined in 17.04.340.A.182. Examples of typical component names are Carbon Monoxide (CO), Nitrogen Oxides (NO_x),

- Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), particulate matter (PM), particulate less than 10 microns (PM₁₀), etc. Abbreviations are O.K.
3. Pounds per hour (#/HR) is maximum potential emission rate expected by applicant.
4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.
5. As a minimum applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purposes of

demonstrating compliance with ambient air quality guidelines.

6. Supply additional information as follows if appropriate:
 - (a) Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate if horizontal discharge with a note.
 - (b) Stack's height above supporting or adjacent structures if structure is within 3 times the "stack height above the ground" of stack.
7. Dimensions of nonpoint sources as defined in 17.04.34.A.147.

Certification of Compliance with all Applicable Requirements

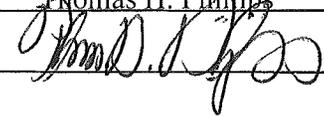
Permit Number (If existing source) 2026

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

The responsible official is defined as a person who is in charge of principal business functions or who performs policy or decision making functions for the business. This may also include an authorized representative for such persons. For a complete definition, see Pima County Air Quality Control, Title 17, Section 17.04.340(A)(186).

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Pima County Department of Environmental Quality (PDEQ) as public record. I also attest that I am in compliance with the applicable requirements and will continue to comply with such requirements and any future requirements that become effective during the life of my permit. I will present a certification of compliance to PDEQ no less than annually and more frequently if specified by PDEQ. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the requirements of Title 17 of the Pima County Code and any permit issued thereof.

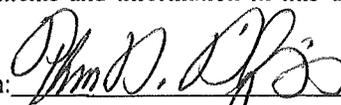
Name (Print/Type): Thomas H. Phillips Title: General Manager

(Signature):  Date: 9-23-13

Certification of Truth, Accuracy, and Completeness

17.12.160(H) - Certification of Truth, Accuracy, and Completeness. Any application form, report, or compliance certification submitted pursuant to this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

By my signature I,(Name) Thomas H. Phillips, hereby certify that based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Signature of Responsible Official of Organization: 

Title: General Manager Date: 9-23-13

Fee Summary for Class I Sources - Revised December 20, 2007	
Application Processing Fee \$105.80 [#] per hour (Minimum One Hour – No Maximum)	Accelerated Permit Application Fee \$15,000*
Class I Source Category	Administrative Fee
Aerospace	\$15,570
Cement Plants	\$47,680
Combustion/Boilers	\$11,590
Compressor Stations	\$9,530
Electronics	\$15,340
Expandable Foam	\$10,990
Foundries	\$14,610
Landfills	\$11,940
Lime Plants	\$44,660
Copper and Nickel Mines	\$11,220
Gold Mines	\$11,220
Mobile Home Manufacturing	\$11,110
Paper Mills	\$15,330
Paper Coaters	\$11,590
Petroleum Products Terminal Facilities	\$17,020
Polymeric Fabric Coaters	\$15,330
Reinforced Plastics	\$11,590
Semiconductor Fabrication	\$20,170
Copper Smelters	\$47,680
Utilities - Natural Gas	\$12,310
Utilities - Fossil Fuel Except Natural Gas	\$24,380
Vitamin/Pharmaceutical Manufacturing	\$11,830
Wood Furniture	\$11,590
Others	\$11,940
Others with Continuous Emissions Monitoring	\$15,340
Emission Based Fee/ Ton of regulated pollutants	\$14.18[#]

* Fee due 60 days prior to submitting application with letter requesting accelerated processing (No exceptions)

[#] Adjusted every November 1 based on the Consumer Price Index for urban consumers published by the US Dept. of Labor.

Information is taken from Pima County Code Title 17 Section 17.12.510. Refer to this section for more complete information.

ATTACHMENT "B"
Emissions Calculations

Emissions Calculations for SSOPM-4

The proposed unit is a like-kind replacement for the current 20-270 Ducon UW-4 wet scrubber. Air flow will remain the same at 13,000 cfm at an emission rate of 0.01 gr/dscf. Only particulate emissions are expected. The potential to emit of this unit is as follows:

$$0.01 \text{ gr/dscf} * 13000 \text{ dscf/min} * 60 \text{ min/1 hr} * 1 \text{ lb/7000 gr} = 1.11 \text{ lb/hr}$$
$$1.11 \text{ lb/hr} * 8760 \text{ hr/year} * 1 \text{ ton/2000 lbs} = 4.86 \text{ tpy}$$

This limit meets or exceeds the NSPS at 40 C.F.R. § 60.382(a)(1). The unit will be equipped with differential pressure and scrubber flow rate monitoring devices required by 40 C.F.R. § 60.384(a) and (b).

Based on this calculation, it is clear that the proposed replacement does not trigger PSD review because the total emissions of the project are less than 10 tons/year even without accounting for past emissions.

Emissions Calculations for SSOPM-4A

The 30-150 (renamed 20-256) Ducon UW-4 wet scrubber requires a replacement of its body and stack. Air flow will remain the same at 14,800 cfm at an emission rate of 0.01 gr/dscf. Only particulate emissions are expected. The potential to emit of this unit is as follows:

$$0.01 \text{ gr/dscf} * 14,800 \text{ dscf/min} * 60 \text{ min/1 hr} * 1 \text{ lb/7000 gr} = 1.27 \text{ lb/hr}$$
$$1.27 \text{ lb/hr} * 8760 \text{ hours/year} * 1 \text{ ton/2000 lbs} = 5.56 \text{ tpy}$$

This limit meets or exceeds the NSPS at 40 C.F.R. § 60.382(a)(1). The unit will be equipped with differential pressure and scrubber flow rate monitoring devices required by 40 C.F.R. § 60.384(a) and (b).

Based on this calculation, it is clear that the proposed replacement does not trigger PSD review because the total emissions of the project are less than 10 tons/year even without accounting for past emissions.

ATTACHMENT "C"
Controlled Equipment

SSOPM-4 Controlled Equipment

SSOPM-4 is controlling emissions from the Omnicone crushers (20-262 and 20-263), belt feeders (20-258 and 20-259), and surge bin feed conveyor (20-255) to conveyor 20-265.

SSOPM-4A Controlled Equipment

SSOPM-4A is controlling emissions from the intermediate ore stockpile vibratory feeders 20-252, 20-253 and 20-254 to conveyor 20-251, and conveyor transfer point 20-251 to 20-255.

**ATTACHMENT “D”
Additional Information**

1. Description of the process to be carried out by each unit.

Unit 20-270 and 30-150 (renamed 20-256) are wet scrubber air pollution control devices. The wet scrubbers remove particulate matter emissions by capturing dust particles from copper ore crushing and screening operations in a liquid stream.

2. Description of raw materials, intermediates and products.

The air pollution control devices are capturing emissions from copper ore crushing and screening operations.

3. Not Applicable

4. Not Applicable

5. Flow Diagram for All Processes

Attached as Attachment “E”.

6. Not Applicable

7. Emissions Related Information

See Attachment “B”.

8. Citation and description of all applicable requirements as defined in 17.04.340.A.25.

Federal New Source Performance Standard 40 C.F.R. § 60.382(a)(1) is applicable to these air pollution control devices. The units will be equipped with differential pressure and scrubber flow rate monitoring devices required by 40 C.F.R. § 60.384(a) and (b). Asarco will conduct initial performance tests of the new scrubbers and record measurements of differential pressure and flow rate at least weekly thereafter according to 40 C.F.R. § 60.385.

Air pollution control devices 20-270 (SSOPS-4) and 30-150 (SSOPS-4A) are currently regulated under Asarco’s Title V permit no. 2026 and the replacement units will be regulated under the same provisions.

9. Not Applicable

10. Not Applicable

11. Description of all process and control equipment for which permits are required

See "Standard Permit Application Form for Class I Sources," page 2.

12. Stack Information

See "Standard Permit Application Form for Class I Sources," page 3.

13. Site Diagram

Attached as Attachment "E".

14. Air Pollution Control Equipment

Test methods for determining compliance with applicable requirements will remain the same as currently required by Asarco's Title V permit no. 2026.

The basis of this permit application is for replacement of two current air pollution control devices. All operational details required by Question 14 are included in the Standard Permit Application Form and supplemental attachments.

15. Not Applicable

16. Compliance Plan and Schedule

Asarco is currently in compliance with all requirements applicable to SSOPS-4 and SSOPS-4A air pollution control device operation. Replacement/upgrade air pollution control device units will continue to meet all applicable regulations.

17. Compliance certification

ASARCO Mission Complex's responsible corporate official has certified this application as required.

18. Not Applicable

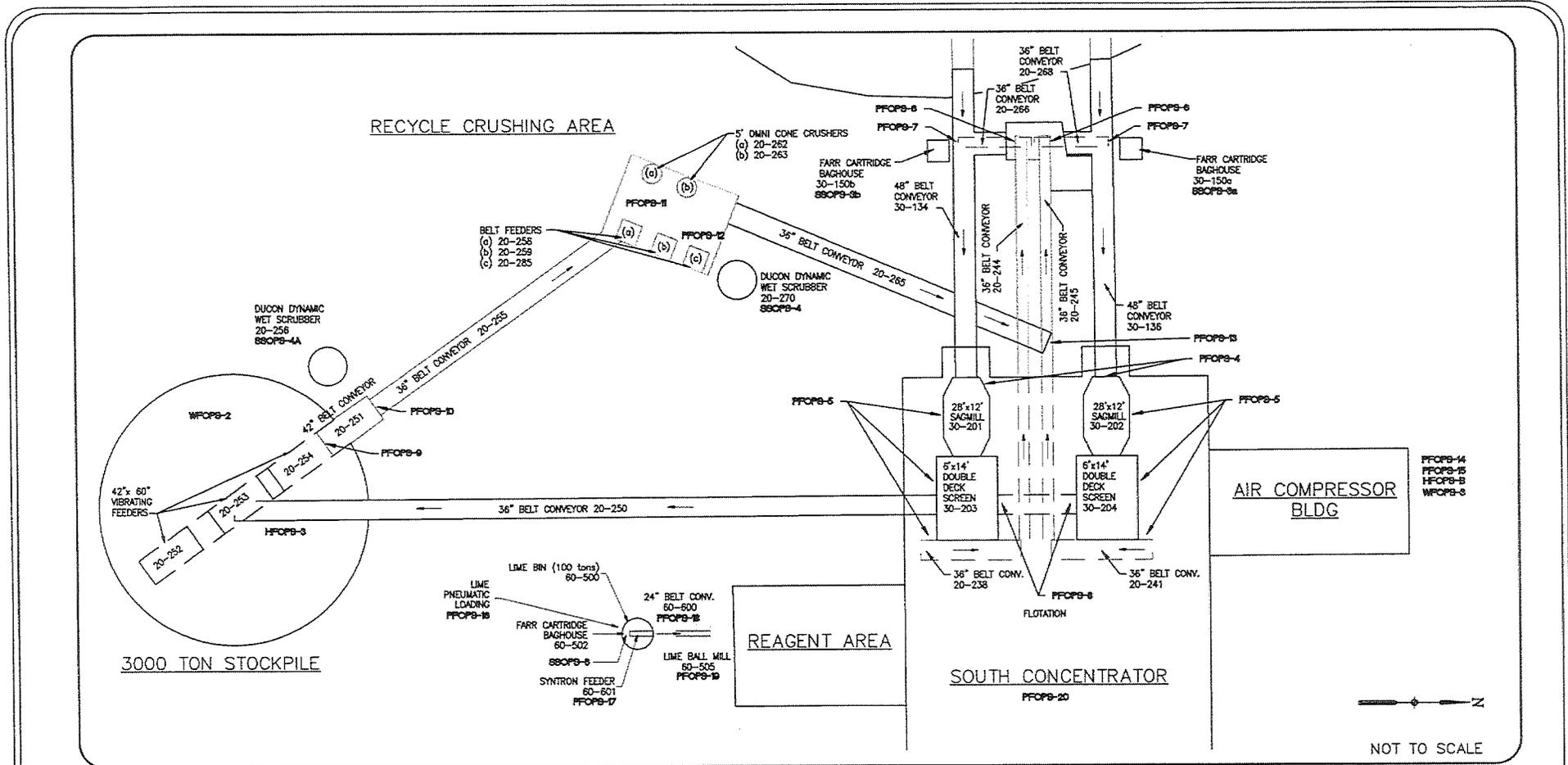
19. New major source or major modification requirements

Based on ASARCO's emission calculations contained in Attachment "B," the proposed replacement does not trigger PSD review because the total emissions of the project are less than 10 tons/year.

20. Calculations on which all information requested in this application are based

See Attachment "B".

ATTACHMENT "E"
Site & Flow Diagrams



EPN's:	SSOPS-3a	PFOPS-4	PFOPS-10	PFOPS-15	PFOPS-20
	SSOPS-3b	PFOPS-5	PFOPS-11	PFOPS-16	HFOPS-3
	SSOPS-4	PFOPS-6	PFOPS-12	PFOPS-17	HFOPS-A
	SSOPS-4A	PFOPS-7	PFOPS-13	PFOPS-18	HFOPS-B
	SSOPS-5	PFOPS-8	PFOPS-14	PFOPS-19	WFOPS-2
	SSOPS-6	PFOPS-9			WFOPS-3

MISSION AIR PERMIT		
Mission South Concentrator - Equipment Locations		
Project No. 934X009A	FIGURE 3	
Drawn By: MKE	Checked By: JE	Date: JUNE 2011 Revised Jan 2013

Mission Complex South Mill - Crushing & SAG Grinding

