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AIR QUALITY DIVISION

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Sierrita Operations
6200 West Duval Mine Road
PO Box 527
Green Valley, AZ 85622-0527

CTS:175051

January 24, 2008

RETURN RECEIPT REQUESTED
CERTIFIED MAIL: 7006 2150 0004 3614 2016

Ms. Nancy Wrona
Director, Air Quality Division
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

**Re: Minor Permit Revision for the Installation of Lime Handling Facility
Alternate Wet Scrubber; Phelps Dodge Sierrita Inc., Permit #M190699P2-99**

Dear Ms. Wrona:

Phelps Dodge Sierrita, Inc., d/b/a Freeport-McMoRan Copper and Gold - Sierrita Operations (Sierrita), is submitting the enclosed minor permit revision application in accordance with Arizona Administrative Code (A.A.C.) R18-2-319. This minor permit revision application is for the installation of an alternate wet scrubber to control emissions from the Sierrita Lime Handling Facility (Source ID 063) to facilitate routine scrubber maintenance.

Description of Proposed Changes

Emissions from the Sierrita Lime Handling Facility are currently controlled by one 6,400 acfm wet scrubber. To facilitate routine maintenance of this wet scrubber, Sierrita proposes to install an alternate wet scrubber to control emissions during periods when the existing primary wet scrubber must be shut down for maintenance. Once installed, both scrubbers will be available for use on an alternate basis as needed (only one scrubber will be operated at a time to control emissions from the facility).

Change in Emissions of Regulated Air Pollutants

The potential to emit of the Lime Handling Facility is calculated using emission factors from AP-42, Chapter 11.24-2 (Material Handling and Transfer) with an estimated 96% control efficiency for the use of the wet scrubber. The maximum capacity of the Lime Handling System is 10 tons per hour.

Controlled Emissions (Potential to Emit after the proposed change)

PM 87,600 tons per year x 0.12 lbs PM/ton x (1-0.96) x 1 ton/2000 lbs = 0.21 tpy PM
PM₁₀ 87,600 tons per year x 0.06 lbs PM/ton x (1-0.96) x 1 ton/2000 lbs = 0.11 tpy PM₁₀

Past 24-Month Average Actual Emissions:

PM $75,096 \text{ tons per year} \times 0.12 \text{ lbs PM/ton} \times (1-0.96) \times 1 \text{ ton}/2000 \text{ lbs} = 0.18 \text{ tpy PM}$

PM₁₀ $75,096 \text{ tons per year} \times 0.06 \text{ lbs PM/ton} \times (1-0.96) \times 1 \text{ ton}/2000 \text{ lbs} = 0.09 \text{ tpy PM}_{10}$

Change in Emissions as a Result of the Proposed Change (Potential – Past Actual):

PM: $0.21 \text{ tons} - 0.18 \text{ tons} = (+) 0.03 \text{ tons PM per year}$

PM₁₀: $0.11 \text{ tons} - 0.09 \text{ tons} = (+) 0.02 \text{ tons PM}_{10} \text{ per year.}$

Regulatory Requirements

Emissions from the Lime Handling Facility are currently controlled by one 6,400 acfm wet scrubber. The proposed alternate wet scrubber will be used to control emissions from the Lime Handling Facility in the same way as the existing 6,400 acfm wet scrubber and will therefore be subject to the same requirements located in Section VII of the Sierrita Air Quality Permit No. M190699P2-99.

Pursuant to A.A.C. R-18-2-319(A), minor permit revision procedures may be used only for those changes at a source that satisfy eight requirements. Each of those requirements is addressed below.

1. The proposed changes must not violate any applicable requirements.

The installation of an alternate wet scrubber at the Lime Handling Facility will not violate any applicable requirements.

2. The changes must not involve substantive changes to existing monitoring, reporting, or recordkeeping requirements in the permit.

No changes to existing monitoring, reporting, or recordkeeping requirements in the permit are proposed in this application.

3. The changes must not require or change a case-by-case determination of an emission limitation or other standard, or a source specific determination of ambient impacts, or a visibility or increment analysis.

Because the potential emissions increase from the proposed project will not be “significant” as defined in A.A.C. R18-2-101(104), New Source Review (NSR) and Prevention of Significant Deterioration (PSD) permitting are not required for this project. Consequently, the proposed project will not require or change a case-by-case determination of emission limitations, ambient air impacts determinations, or visibility or increment analyses.

4. The changes must not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject.

The proposed project does not seek to establish or change any permit term or condition for which there is no corresponding underlying applicable requirement. No emission limitations or other permit conditions have been proposed in order to avoid requirements which would otherwise apply.

5. The changes must not be modifications under any provision of Title I of the Clean Air Act.

The proposed changes are not “modifications” under Title I of the Clean Air Act (i.e., a “major modification” subject to major NSR/PSD or a “modification” subject to the NSPS.)

6. The proposed revisions must not involve changes in fuels not represented in the permit application or provided for in the permit.

No fuel changes are included in the proposed project.

7. The increase in the source's potential to emit any regulated air pollutant must not be significant as defined in A.A.C. R18-2-101.

As shown above, the increase in potential emissions of regulated pollutants will not be "significant" as defined under A.A.C. R18-2-101(104).

8. The changes must not require processing as a significant revision under A.A.C. R18-2-320.

As demonstrated in #1 through #7 above, the proposed project meets the requirements for processing as a minor permit revision. The proposed project does not require a significant change in existing monitoring permit terms or conditions or a relaxation of reporting or recordkeeping permit terms or conditions. Furthermore, the proposed project does not constitute a modification to a major source of federally listed hazardous air pollutants, or reconstruction of a source, process, or production unit under Section 112(g) of the Clean Air Act. Accordingly, the project does not require processing as a significant permit revision under A.A.C. R18-2-320.

Please contact me at (520) 648-8605 if you have any questions concerning this submittal. Thank you for your timely review of the permit application.

Sincerely,



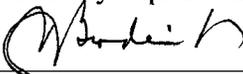
Kali Hoyack
Environmental Engineer

Attachments

20080124_001

CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

I certify that to the best of my knowledge, based on information and belief formed after reasonable inquiry, that the statements made in the minor permit revision application, and draft revised operating permit are true, accurate, and complete. I further certify that the proposed project meets the criteria for use of minor permit revision procedures and hereby request that the procedures be used.

Signature of Responsible Official: 

Title of Signer: General Manager

Typed or Printed Name of Signer: John Broderick

Date: 01/24/08

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
3033 N. Central Ave. ☐ Phoenix, AZ 85012-2809-33 ☐ Phone: (602) 207-2338

STANDARD PERMIT APPLICATION FORM
(As required by A.R.S. 49-426, and Chapter 2, Article 3, Arizona Administrative Code)

1. Permit to be issued to: (Business License name of organization that is to receive permit) _____
Phelps Dodge Sierrita, Inc.
2. Mailing Address: P. O. Box 527
City: Green Valley State: Arizona ZIP: 85622-0527
3. Previous Company Name: (if applicable)
 NA
4. Name (or names) of Owners/Principals: John Broderick
FAX #: 520.648.8573 Phone: 520.648.8500
5. Name of Owner's Agent:

FAX #: _____ Phone: _____
6. Plant/Site manager/Contact Person and Title: Kali Hoyack, Environmental Engineer
7. Plant Site Name: Phelps Dodge Sierrita Inc. d/b/a Freeport McMoRan Copper and Gold - Sierrita
Plant Site Location/Address: Sierrita Operations, 6200 West Duval Mine Road
City: Green Valley County: Pima ZIP: 85614
Indian Reservation (if applicable, which one): NA
Latitude/Longitude, Elevation: 31°52'30" / 111° 06', 3700 ft. elevation
8. Equipment Purpose: Alternate Wet Scrubber for control of particulate emissions
Equipment List/Description: See attached listing of equipment.
9. Type of Organization:
 X Corporation Individual Owner
 Partnership Government Entity (Government Facility Code: _____)
 Other _____
10. Permit Application Basis: New Source **X Revision** Renewal of Existing Permit
(Check all that apply.) Portable Source General Permit
For renewal or modification, include existing permit number (and exp. date): M190699P2-99
 as amended by Significant Permit Revision No. 35636 (6/24/07)
Date of Commencement of Construction or Modification: February 1, 2008
Is any of the equipment to be leased to another individual or entity? Yes **X No**
Standard Industrial Classification Code: 1021 State Permit or Class: I
11. Signature of Responsible Official of Organization: _____
Official Title of Signer: General Manager
12. Typed or Printed Name of Signer: John Broderick
Date: 01/24/08 Telephone Number: 520.648.8500

COMPANY NAME: Phelps Dodge Sierrita Inc.
EMISSION SOURCES

Estimated "Potential to Emit" per R18-2-101
 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		R. AIR POLLUTANT EMISSION RATE			UTM COORDINATES OF EMISSION PT. (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 (feet)	HEIGHT ABOVE STRUC. (feet)	DIA. (ft.)	VEL. (fps.)	TEMP. (EF)	LENGTH (ft.)	WIDTH (ft.)
063	Lime Unloading & Handling Processes	PM	0.048	0.21				N/A	N/A					
		PM-10	0.025	0.11										

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL 3700 feet.
 ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)
 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 (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 R18-2-101. 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 purpose of demonstrating compliance with ambient air quality guidelines.
 6. Supply additional information as follows if appropriate:
 (a) Stack exist. 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 'stack height above the ground' of stack.
 7. Dimensions of nonpoint sources as defined in R18-2-101.

Please note that the PTE values provided on this form are for information purposes only. The PTE values presented are not permit limitations. Additionally, the PTE values presented are the maximum potential to emit resulting from the changes described in this permit application.

**Phelps Dodge Sierrita, Inc.
Emission Source Equipment List**

ID	EQUIPMENT NAME	CAPACITY	YEAR	NSPS	MATERIAL HANDLING FACILITY	MAKE, MODEL AND/OR SN
<i>SECTION V: FINE ORE STORAGE AND HANDLING (REQUIREMENTS IN PERMIT SECTION IV)</i>						
Lime Unloading and Handling System (Requirements in permit section V)						
063	Lime Unloading and Handling Processes	10 tph	1968	N	N	
	Wet Scrubber	6400 acfm		N	N	Ducon UW-4X, III, size 48, SI 16062140
	Alternate Wet Scrubber	6400 acfm	2008	N	N	Ducon UW-4X, III, size 48

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
1110 West Washington St. • Phoenix, AZ 85007 Phone: (602) 771-2338

MINOR PERMIT REVISION AIR QUALITY CONTROL PERMIT

(As required by Title 49, Chapter 3, Article 2, Section 49-426 Arizona Revised Statutes)

This air quality control permit does not relieve applicant for meeting all air pollution regulations.

1. REVISION TO BE ISSUED TO (Business License Name of Organization that is to receive permit:
Phelps Dodge Sierrita Inc.

2. NAME (OR NAMES) OF OWNER OR PRINCIPALS DOING BUSINESS AS THE ABOVE ORGANIZATION:
Phelps Dodge Sierrita Inc.

3. MAILING ADDRESS *P.O. Box 527*
Green Valley *Arizona* *85622*
CITY OR COMMUNITY STATE ZIP

4. ORIGINAL EQUIPMENT LOCATION ADDRESS *Sierrita Property -*
6200 W Duval Mine Road
Green Valley *Arizona* *85614*
CITY OR COMMUNITY STATE ZIP

5. FACILITIES OR EQUIPMENT DESCRIPTION: *This permit allows the installation of an alternate wet scrubber at the Lime Handling Facility.*

6. THIS REVISION ISSUED SUBJECT TO THE FOLLOWING *Conditions contained in Operating Permit # M190699P2-99 as amended by Significant Permit Revision No. 35636.*

7. ADEQ PERMIT NUMBER # *M190699P2-99 as amended by Significant Permit Revision No. 35636.* PERMIT CLASS *I*

EXPIRATION DATE: *June 24, 2007*

REVISION ISSUED THIS _____ DAY OF _____ 2008

Director, Air Quality Division

SIGNATURE

TITLE

MINOR PERMIT REVISION DESCRIPTION

This minor permit revision for Phelps Dodge Sierrita Inc. permits the installation of an alternate wet scrubber for the Sierrita Lime Handling Facility to facilitate routine maintenance of the existing wet scrubber.

The installation of an alternate wet scrubber for the Sierrita Lime Handling Facility will result in total potential emissions of 0.21 tons per year of particulate matter and 0.11 tons per year of particulate matter with an aerodynamic diameter less than 10 microns. The Lime Handling Facility is not a "metallic mineral processing plant" as defined in 40 CFR 60, Subpart LL; therefore, NSPS requirements do not apply. The applicable requirements for both the existing wet scrubber and the new alternate wet scrubber are contained in Attachment "B", Section VII of Operating Permit No. M190699P2-99.

Pursuant to Arizona Administrative Code, Title 18, Chapter 2, Section 101.97 (A.A.C. R18-2-101.97), the potential emissions increase from the installation and operation of this equipment is less than significant. This equipment will be operated in accordance with the provisions of Section VII of Operating Permit No. M190699P2-99 as amended by Significant Permit Revision No. 35636.

ATTACHMENT "C" - EQUIPMENT LIST
Addenda (Minor Revision) to Operating Permit No. M190699P2-99 as amended by
Significant Permit Revision No. 35636

for

Phelps Dodge Sierrita Inc.

The following shall be added to Attachment "C" of Operating Permit No. M190699P2-99 as amended by Significant Permit Revision No. 35636.

ID	EQUIPMENT NAME	CAPACITY	YEAR	NSPS	MATERIAL HANDLING FACILITY	MAKE, MODEL AND/OR SN
<i>SECTION V: FINE ORE STORAGE AND HANDLING (REQUIREMENTS IN PERMIT SECTION IV)</i>						
063	Lime Unloading and Handling System (Requirements in permit section V)					
	Lime Unloading and Handling Processes	10 tph	1968	N	N	
	Wet Scrubber	6400 acfm		N	N	Ducon UW-4X, III, size 48, SI 16062140
	Alternate Wet Scrubber	6400 acfm	2008	N	N	Ducon UW-4X, III, size 48