Source: Phelps Dodge Sierrita, Inc. dba Freeport McMoran Copper & Gold-Sierrita (FMCGS)

Minor Permit Revision # 46490

Air Pollution Control Equipment		FARR Cartridge-type dust collector		
Air Flow		9,500	acfm	Air coming from Secondary crusher #2.
		8,137	dscfm	
Emission factor for PM/PM_{10}	PM	0.002	grains/dscf	Vendor Number
	PM_{10}	0.001	grains/dscf	Vendor Number
	PM/PM_{10}	0.02	grains/dscf	40 CFR §60.382

Emissions from New Crusher- Controlled

Emission	lbs/hour	TPY
$E_{PM/PM10}$ =	(emission factor)*air flow*60/7000	
$E_{PM/PM10}$ =	1.39	6.11

The increse in emission of PM and PM_{10} by addition of #2 secondary crusher is 7.13 tons per year.
Emission calculation is based on emission factor provided in 40 CFR §60.382.
The increase is below the significant levels of 25 and 15 tons per year of PM and PM_{10}.

The cartridge type dust collector collects emission from the coarse ore stockpile to final disposition which will include #2 Apron feeders, #2B coarse ore reclaim conveyor belt, #2 scalping screen, #2 secondary crusher and discharge screen (pick up is located at the discharge screen), 7B conveyor (drop from #2 secondary discharge screen oversize), 8A conveyor (drop from #2 scalping screen undersize), and 8B conveyor (drop from #2 secondary crusher discharge screen undesize). The total air flow is 40,000 acfm. It has been found from the engineering calculations that the air flow from the secondary crusher #2 is 9500 acfm.

Routing emissions from the entire #2 secondary crushing line to one associated dust collector will simplify dust collection in the area and improve efficiency due to a significant decrease in dust work.

Actual

Flow through Secondary Crusher	9500 acfm
Pressure	26.15 inches mercury
Temperature	70 ^{0} F
Moisture content	2 %

Standard

Pressure	29.92 inches mercury
Temperature	70 ^{0} F
Flow through Secondary Crusher	8137 dscfm