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C.H. HUCKELBERRY
County Administrator

September 11, 2018

Mr. William James, National Mining Expert
U. S. Army Corps of Engineers
3701 Bell Road
Nashville, Tennessee 37214-2660

Re: **New Air Quality Emissions, Rosemont Copper Project ACOE Application No. SPL – 2008-00816-MB**

Dear Mr. James:

The U. S. Forest Service (USFS) and U. S. Army Corps of Engineers (USACE) must rely on the conclusions of fact in the Final Environmental Impact Statement (FEIS) and other records relating to the Rosemont Copper project. From time to time, as conditions change, the agencies must consider whether new information or conclusions of fact require re-analysis.

Since the Forest Service concluded the EIS process and issued its Record of Decision, certain conditions have changed. This letter advises you of additional information for your consideration.

Revised Air Quality Emissions

The State of Arizona has amended the air quality permit for the Rosemont Copper Project. We note the following changes:

1. The 2013 permit limited the amount of rock mined to no more than 359,500 tons per day on a calendar day basis. The 2018 permit limits the amount of rock mined to no more than 420,000 tons per day, calendar day basis. This is an increase in the amount of rock mined per day by 16.8 percent.

2. The 2013 permit limited the amount of ammonium nitrate and fuel oil (ANFO) used during blasting to no more than 52 tons per day. The 2018 permit limits the amount of ammonium nitrate and fuel oil (ANFO) used during blasting to no more than 250 tons per day. This is an increase in the amount of ANFO used per day by 380 percent.

3. Potential emissions have been revised according to the schedule below[1]. Highlighted cells indicate increased fugitive or total emissions. Although total greenhouse gases, volatile organic compounds, and Hazardous Air Pollutant emissions declined, we are particularly concerned about the increased emissions of nitrogen oxides and particulates.

Table 1: Potential Non-Fugitive and Fugitive Emissions Pollutant	Non-Fugitive Emissions (tons per year)	Fugitive Emissions (tons per year)	TOTAL (tons per year)
PM	50.23	4986.73	5036
PM_{10}	24.73	1384.55	1435
$PM_{2.5}$	8.55	156.28	165
NO_x	14.89	205.56	221
CO	8.36	810.13	818
SO_2	0.02	24.18	24
VOC	2.37	0.00	2
GHG	1663.83	4581.82	6245
HAPs	0.04	2.69	3

Since these changes may potentially affect the ambient air quality impacts from the facility's emissions, ADEQ requested Rosemont perform dispersion modeling to demonstrate that the facility's emissions will not interfere with attainment and maintenance of the National Ambient Air Quality Standards (NAAQS). The pollutants subject to this ambient assessment review are PM10, PM2.5, NOx, CO and ozone.

Ambient Assessment

Modeled Results for PM10, PM2.5, NO_2, SO_2 and CO are presented in Table below, which summarizes the modeled results for PM10, Primary PM2.5, NO2, SO2 and CO as presented in the ambient assessment. Representative background concentrations were added to modeled impacts and the total concentrations were then compared to the NAAQS. Based on the table, the state has determined emissions from the Rosemont project would not cause

[1] Technical Review and Evaluation of Application for Air Quality Permit No. 67001, April 24, 2018.

or contribute to a violation of the NAAQS under the operational limits/conditions as proposed in the permit. The AERMOD modeling analysis also revealed that the modeled design concentrations for all pollutants occurred within or near the ambient air boundary. Because PM10 is the primary pollutant of concern, the state requires Rosemont to install and operate a PM10 monitor in the area, to provide additional assurances that the project's operations are protective of NAAQS.

Table 1: Modeled Results for PM10, Primary PM2.5, NOx, SO2 and CO[2]

Pollutant	Averaging Period	Modeled Concentration (µg/m3)	Background Concentration (µg/m3)	Maximum Ambient Concentration (µg/m3)	NAAQS (µg m3)
PM_{10}	24-hour	97.66	47.7	145.4	150
$PM_{2.5}$	24-hour	9.31	9.3	18.6	35
	Annual	2.91	3.2	6.11	12
NO_2	1-hour	127.5	26.3	153.8	188.6
	Annual	15.2	4.0	19.2	100
SO_2	1-hour	26.1	22.6	48.7	196
	Annual	0.03	3	3.03	80
CO	1-hour	1,711	582	2,293	40,000
	8-hour	277.6	582	859.6	10,000

<u>The FEIS underestimated air quality impacts</u>

We continue to believe that the potential air quality impacts of the Rosemont Copper Mine Project have been underestimated due to incorrect assumptions used to model air quality impacts. The incorrect assumptions resulted in inaccurate conclusions regarding the mine's impact on air quality and visibility in the FEIS[3]. Because nitrogen oxide and particulate emissions have been revised upward, we ask again for your independent consideration of ozone and visibility impacts as you conclude your public interest review.

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[2] *Id.*

[3] Letter to Jim Upchurch by C. H. Huckelberry, August 14, 2013. Pima County Comments—Rosemont Copper Mine Preliminary Administrative Final Environmental Impact Statement.

Given the potential impacts of increased NO_x, a conservative approach to protecting air quality dictates the use of a photochemical model, especially since more than a million people live in the air shed. The federal agencies have unique obligations under the NEPA to determine if the permit would significantly degrade the environment. The federal responsibilities are distinct from this state's, and must be exercised to protect the public.

Sincerely,

C.H. Huckelberry
County Administrator

CHH/mp

c: Kerwin Dewberry, Forest Supervisor
Elizabeth Goldmann, U. S. Environmental Protection Agency