

From: Balaji Valdivanathan
To: Latha K. Toopal
Subject: FW: Comments on Rosemont Copper Co. draft permit
Date: Wednesday, November 07, 2012 3:12:12 PM
Attachments: [Rosemont Copper permit comments 10312012.pdf](#)

From: Balaji Valdivanathan
Sent: Wednesday, November 07, 2012 12:00 PM
To: 'Kathy Arnold'; Trevor Burggraaf
Subject: FW: Comments on Rosemont Copper Co. draft permit

From: Michael_George@nps.gov [mailto:Michael_George@nps.gov]
Sent: Wednesday, October 31, 2012 4:01 PM
To: RosemontAirPermit
Cc: Susan_Johnson@nps.gov; Scott_Stonum@nps.gov
Subject: Comments on Rosemont Copper Co. draft permit

Attached please find our comments on the draft Class I synthetic minor permit for Rosemont Copper Co.

(See attached file: Rosemont Copper permit comments 10312012.pdf)

If you have any questions, please contact me.

Michael George
Air Resource Field Specialist
P.O. Box 25287
Denver, CO 80225
(303) 987-6926
(303) 969-2822 (fax)



United States Department of the Interior

NATIONAL PARK SERVICE

Air Resources Division

P.O. Box 25287

Denver, CO 80225-0287

IN REPLY REFER TO:

N3615 (2350)

October 31, 2012

Balaji Vaidyanathan
Air Quality Permits Section Manager
Arizona Department of Environmental Quality
1110 W. Washington St., 3415A-1
Phoenix, Arizona 85007

Dear Mr. Vaidyanathan:

The National Park Service submits the following comments on the draft Class II synthetic minor permit for Rosemont Copper Co., to construct and operate an open pit mine near Vail, Arizona. We appreciate the opportunity to comment on this proposed permit action.

We are concerned about possible impacts of operations at the proposed mine on air resources, including potential visibility degradation and increased nitrogen deposition at Saguaro National Park (NP) which is less than thirty kilometers away. The National Park Service is responsible for responding to any proposals and changes to nearby lands that may impact park resources based on the Organic Act (16 USC 1 et seq. Organic Act) and the Redwoods National Park Act (16 USC 79a-79q).

The predicted impacts to Saguaro (NP) were disclosed in the associated National Environmental Policy Act (NEPA) air quality assessment, completed in support of the proposal to allow Rosemont mine operations on federal land. However, the synthetic minor source permit is an opportunity to ensure these concerns are addressed. We have several recommendations for lessening the possible impacts on Saguaro NP.

In Attachment B, Section VII, Subsection F, it is proposed that stationary internal combustion engines be model year 2007 or newer. This may be acceptable for emergency engines that operate a very limited amount of time, but any engine that runs routinely should meet the most stringent Tier emission standards for the specific engine size class to minimize emissions of nitrogen oxides (NOx). We understand that this has been required for several of the haul trucks already, but broadening that requirement for further reductions of NOx is highly recommended. Nitrogen oxides can have multiple impacts on resources at Saguaro NP as it is a precursor for ozone and nitrate particle formation.

Dust is also of substantial concern for this project. Past Arizona projects similar to Rosemont, such as the Ajo mine (also in Pima County) have demonstrated that the management of tailings is a significant factor in controlling particulate emissions and resulting ambient concentrations. Attachment B, Section VIII, Subsection B.1.b(5) references a Tailings Construction Plan (TCP) and suggests that the TCP will be developed 90 days prior to startup of operations, after the permit is awarded. Given the significance of this plan to successfully control air pollution from the mine operations, it is appropriate to require this plan as a part of the permit application, similar to the Dust Control Plan provided in Appendix E. The TCP should be provided to the public for review and comment. There is a range of possibilities for controlling such emissions and we are hopeful that the most effective approach is adopted.

Much of the dust control plan is based on the assumption that measures will result in 90% control of fugitive dust. This level of control is good requirement, but in actuality it will likely be difficult to accomplish. A review of the literature suggests that the efficiency range for applying water to haul roads is more like 10 % to 74%. Dust suppressants can approach 90% with much diligence in application and maintenance, but the highest published efficiency we've seen is 84%. This introduces significant uncertainty regarding the ability to achieve the control efficiency assumed in the air quality analyses, and we would strongly recommend that the plan include monitoring and reporting requirements. The monitoring plan should require the installation and operation of ambient particulate samplers near the fence line in areas of highest projected impact, allowing the Arizona Department of Environmental Quality (ADEQ) to better assess the efficacy of dust control measures. This data would augment the opacity observations required elsewhere in the draft permit. Finally, requiring paving in high-traffic areas may substantially reduce particulate emissions.


There are several issues regarding the particulate emissions and their modeled impact to Saguaro NP. The technical support document (TSD) describes the AERMOD analysis performed in support of the permit application. On page 9, ADEQ discusses the background PM10 used in the NAAQS compliance assessment. The TSD states that the maximum modeled 24-hour PM10 concentration value collected at an on-site monitor within the Rosemont project area was discarded as a "statistical outlier." The TSD does not provide adequate justification for why this maximum concentration of 71.3 ug/m^3 was discarded, and should follow policy recommendations for determining "exceptional events" before the data point is excluded from the background concentration calculation.

The NPS notes that there are discrepancies in emission rates cited in the U. S. Forest Service VISCREEN protocol dated April 4, 2011, , and ADEQ's proposed permit emission limits. For example since the original VISCREEN protocol dated April 4, 2011, there has been a doubling in the proposed particulate emission rate from process and point sources. There are large differences in the proposed NOx and NO2 emissions in the VISCREEN protocol of April 4, 2011 and the NOx and NO2 emissions reported in the NEPA report and the State's proposed permit limits. For these reasons, the NPS requests that the State of Arizona include a visibility / VISCREEN analysis to assess impacts to visibility at Saguaro NP in the permit application.

Finally, the NPS also requests clarification of "fugitive" NOx emissions of 154 tons per year found in Table 1 of the State's permit Technical Support Document. The NPS does not consider NOx emissions from blasting as fugitive emissions since "blasting" NOx emissions have both velocity and buoyant heat in its plume rise component, and are not passive fugitive emissions such as windblown dust. Therefore, NOx emissions from blasting should be considered as non-fugitive and included in the revised VISCREEN visibility analysis. Revisiting these analyses as suggested may result in greater modeled impacts on air quality related values at Saguaro NP and therefore further consideration of mitigation than we describe above may be necessary.

Again, we appreciate the opportunity to review and comment on this action, as it will have a substantial potential for impacts on Saguaro NP. Please contact Mike George, (303) 987-6926, with any questions or comments.

Sincerely,



Susan Johnson
Chief, Policy, Planning and Permit Review Branch