



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

April 25, 2013

**JEFFERSON COUNTY
SATRALLOY
CORRESPONDENCE FILE**

Barb Nielsen
Manager, Remediation Division
Freeport McMoRan Copper & Gold, Inc.
333 North Central Avenue
Phoenix, AZ 85004

RE: Former Satralloy Site, Conditional Approval of Interim Action Work Plan

Dear Ms. Nielsen,

Ohio EPA has reviewed the revised draft *Interim Action Work Plan for the Former Satralloy Site, Jefferson County, Ohio* submittals prepared by Golder Associates, Inc., dated November 15, 2012, and received in Ohio EPA's office on November 16, 2012. Ohio EPA approves the submitted work plan subject to incorporation of the conditions provided in the attachment.

Our goal with this letter is to finalize the last remaining details concerning the IA Work Plan such that this and other required work can proceed at the Site.

If you have any questions, or require clarification, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in blue ink that reads "Michael D. Sherron". The signature is fluid and cursive, with the first name "Michael" being the most prominent part.

Michael D. Sherron
Site Coordinator
Michael.Sherron@epa.state.oh.us
740-380-5251

April 25, 2013

Interim Action Work Plan – Conditions for Approval

With respect to the responses provided to Ohio EPA in the November 15, 2012, Response to Comments letter from Gallagher & Kennedy, on behalf of Cyprus Amax (G&K Letter), Ohio EPA provides the following comments and conditions.

GENERAL COMMENTS ON THE INTERIM ACTION WORK PLAN

GENERAL COMMENT A

Ohio EPA has reviewed the responses to General Comment A and has determined that the following conditions are necessary for approval of the Interim Action Work Plan.

Condition 1

Prevent Migration of Baghouse Dust Pile Materials to Surface Water: Cover

Within thirty (30) days of the date of this approval, Cyprus Amax shall cover (with heavy tarps) baghouse dust piles 1, 3, 6, 7 and 8 (North Mill Building) and baghouse dust piles 4 and 5 (South Mill Building), as depicted in drawing IAR210. These piles shall remain covered until they are addressed in a more permanent manner as outlined in the IA Work Plan.

Condition 2

Prevent Migration of Crushed Concrete Pile Materials to Surface Water: QC Sampling

Cyprus Amax has made good faith efforts to determine decontamination methods as indicated in the approved concrete test cleaning protocol and test cleaning report included as appendices to the IA Work Plan. The RCRA metals results in the concrete test cleaning report did not include any levels above TCLP hazardous waste limits in any of the concrete cleaning test samples.

Ohio EPA notes that the Cleaning Procedures in Appendix D, 3.1(A) of the IA Work Plan states, "Inclusion of this Specification of a cleaning method does not guarantee that the method will achieve environmental clearance and/or release." Given this statement, Ohio EPA maintains a concern with regard to the future usage and placement of the crushed concrete material. Additionally, assuming an exemption is issued by the Director allowing the crushed concrete material to be used in a manner akin to Clean Hard Fill, this material could be placed anywhere on the site. Therefore, Cyprus will be expected to conduct sampling and laboratory analyses in the areas where this material is placed in the future. These areas will be incorporated into the future Remedial Investigation as areas that need to be accounted for in the site-wide risk analysis.

Condition 3

Obtain exemptions pursuant to ORC 3734.02(G) and 3714.04(A)

Material resulting from the site building demolition activities would not meet the OAC 3745-400-01(E) and (F) definitions of clean hard fill (CHF) or construction and demolition debris (C&DD). The CHF definition specifically states that it does not include "materials contaminated with hazardous wastes, solid wastes, or infectious wastes." The C&DD definition does not include materials identified or listed as solid wastes, hazardous wastes, or infectious wastes. To the extent that a C&DD material is commingled with solid or hazardous wastes, it is no longer considered C&DD.

Therefore, placement of the crushed concrete on site would require the issuance of an exemption. The standards for exemptions under ORC 3734.02(G) (solid waste) and 3714.04(A) (construction and demolition debris) are virtually the same. Provided that Conditions 1 and 2 above and the exemption standards are met, Ohio EPA staff would be willing to recommend to the Director issuance of the necessary exemptions.

GENERAL COMMENTS B AND C

The responses to General Comments B and C are acceptable.

SPECIFIC COMMENTS ON THE INTERIM ACTION WORK PLAN

The responses to Specific Comments 1, 5, 6, 9 and 10 are acceptable. With regard to Specific Comment 10, provide the details of the treatment process for the recycling of the dust suppression waste water when it becomes available.

SPECIFIC COMMENTS ON THE INTERIM ACTION WORK PLAN

Specific Comment 2: Chromium compounds are included on the State and Federal hazardous / toxic air pollutants lists (CAA Section 112(b) and OAC rule 3745-114-01).

Air emissions from fugitive dust generation (*i.e.*, roadways, demolition, crushing or screening of concrete, etc.) are regulated unless an exemption has been identified in the rules of the Ohio Administrative Code. Also note that Ohio EPA may require an otherwise non-permitted source of fugitive dust to employ control measures or obtain installation and operating permits if such source is creating an air pollution nuisance (see OAC rules 3745-17-08(A)(2) and 3745-15-07).

At Ohio EPA's request, Cyprus Amax evaluated potential emissions of fugitive dust that may be associated with IA Work Plan activities to be conducted at the Site. Cyprus Amax consulted in detail with Ohio EPA DAPC Southeast District Office and Central Office with respect to its proposed approach to quantifying and evaluating the emissions from these activities, and the measures necessary to ensure that the emissions units will be operated in accordance with all applicable requirements.

Based on the information contained in the IA Work Plan, Ohio EPA concurs that the proposed **building demolition** activities include appropriate fugitive dust control measures, in accordance with the requirements for an asbestos abatement project. Ohio EPA agrees further that no air pollution permit is required for the building demolition aspect of the IA Work Plan activities.

Cyprus Amax provided detailed emission calculations, descriptions of control measures, results of air dispersion modeling, and a screening-level risk assessment study to Ohio EPA, DAPC for vehicle traffic and associated fugitive dust emissions from **roadways and parking areas** at their proposed maximum operating conditions. DAPC has reviewed these documents and found the proposed control measures (watering to maintain a 95% overall control efficiency) to meet all applicable requirements, including the site-specific limit contained in OAC rule 3745-17-13(B)(1), which states unpaved roadway visible particulate emissions (PE) shall not exceed 3 minutes in any 60 minute observation period. Cyprus Amax will, however, be required to apply for and obtain an air permit-to-install and operate (PTIO) for the fugitive dust emissions from the roadways and parking areas, and will need to conduct its IA activities in accordance with the requirements contained in such PTIO.

Cyprus Amax has also provided detailed emission calculations, descriptions of control measures (wetting of material prior to crusher load-in, use of crusher spray bars at all times during crusher operation and control of material handling/transfer point fugitive emissions, which may include watering and/or covering of conveyors, etc.), results of air dispersion modeling, and a screening-level risk assessment to Ohio EPA DAPC for **concrete crushing** (and associated transfer operations) and associated fugitive dust emissions at the maximum proposed operating conditions (crushing no more than 1,200 tons of concrete per day and operating no more than 5 days a week for 10 hours a day). DAPC has reviewed these documents and found the proposed control measures to meet all applicable requirements. Consistent with the discussions between Cyprus Amax and Ohio EPA DAPC, however, Cyprus Amax will need to pursue one of the following three options for the temporary, portable operation dedicated to crushing the concrete that will be accumulated as a result of the IA Work Plan activities:

- submit a PTIO application for a proposed crusher; obtain a PTIO; operate the crusher in accordance with the PTIO; or
- use a portable crusher that is already permitted for operation in Ohio and operate the unit in accordance with its PTIO; or
- use a crusher that has a rated capacity of no more than 150 tons per hour, and maintain appropriate daily records to demonstrate that the emissions unit has actual emissions of less than 10 pounds per day, in accordance with the Ohio “de minimis” rule (OAC rule 3745-15-05).

Any relaxations to the proposed control measures and/or operating restrictions contained in the emissions calculations and modeling information submitted to DAPC will require reevaluation of potential particulate and chromium emissions and dispersion modeling by DAPC.

Specific Comment 3 (Section 6.0, Management of “Actively Managed” Piles) and Specific Comment 8 (Appendix F, Section 2.2 Storage Duration) are addressed in Condition 3 of the General Comments.

Specific Comments 4 and 7: Specific Comments 4 and 7 are addressed in Conditions 1 and 2 of the General Comments.