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Senior Counsel

January 10, 2019

Ms. Maria Galanti  
Site Coordinator, Ohio EPA  
Division of Environmental Response and Revitalization  
2195 E. Front Street  
Logan, OH 44138

**Re: Former Satralloy Site—Response to Anonymous Letters**

Dear Ms. Galanti:

By this letter Cyprus Amax Minerals Company (“CAMC”) provides the Ohio Environmental Protection Agency (“OEPA”) responses to a series of five letters sent to OEPA by an anonymous author who wrote under the pseudonyms “Mingo Junction Anonymous” and then “Friends of Kolmont” (collectively referred to here as “FOK”). FOK wrote the five letters to OEPA between July 19 and September 5, 2018.

The letters rarely if ever refer to CAMC, which is the company that actually owns the Site, has provided the relevant draft reports to OEPA, and is named in the consent order with OEPA; instead FOK incorrectly refers to “Freeport McMoRan,” a parent corporation.

In the first letter, the author presents himself as a neighbor with limited knowledge (*e.g.*, “I talked to people that have recently done work at Satralloy and they said the owners of the property, Freeport McMoRan, has done a big report called a Remedial Investigation.”). Two weeks later, the author mentions the assistance of anonymous “friends and . . . people who have concerns” and assumes the role of an adverse expert who then lectures OEPA and accuses CAMC’s consultants of bias.

FOK’s anonymous claims of bias are false. In contrast to the mystery surrounding FOK, the qualifications and experience of CAMC’s experts are public and substantial. Attachment A to this letter summarizes their qualifications. These men and woman have built their careers with decades of training, detailed work, and professional interaction with governmental agencies in their fields of expertise.

Scientists and technical experts may not always agree, but they are trained to engage in fair and professional discussions of differing opinions. This continues to be the attitude and track record of CAMC’s experts on this project, which is documented in

OEPA's files as CAMC has responded to OEPA's comments on CAMC's 2016 draft Remedial Investigation report ("RI") and risk assessments, and as demonstrated by this letter.

The format of FOK's letters follows a pattern of quoting excerpts from either CAMC's 2016 draft report or a June 29, 2018 letter from Ms. Kristy Hunt of OEPA to Jefferson County Commissioner Tom Gentile, and then asking questions or making accusations. Attachment B to this letter is a review of FOK's principal questions or claims (paraphrased) and CAMC's detailed responses. Of course, OEPA already is aware of most of the information in Attachment B. CAMC is providing its responses so that FOK's accusations do not stand unanswered in the public record.

Below is an overview of the comments and responses:

- FOK questioned the thoroughness of the RI and sufficiency of the sampling program. The RI presents an extensive, thorough investigation of the results of chromium smelting operations at the Site, including chromium-containing dust. Sampling locations were picked to represent the Site conditions; no areas were intentionally avoided. The RI Workplan was reviewed and approved by OEPA, and the RI work conducted with OEPA oversight.
- FOK alleges that water and sediment in Cross Creek poses risks to humans. The effects of discharges from the Site into Cross Creek have been very extensively studied, as reported in the RI. Studies include two biocriteria studies and a mixing zone study. The risk assessments (human and ecological) address potential risks to Cross Creek, including discharges to Cross Creek regardless of origin. The draft human health risk assessment ("HHRA") evaluated risks qualitatively, and it is being revised to provide a quantitative risk assessment, supporting the original conclusion that there is negligible risk for recreational use of Cross Creek.
- FOK alleges that the RI does an inadequate job of estimating slag and dust quantities. This is simply not true. The quantity of slag at the Site was thoroughly studied, and a best estimate is provided. The quantity of dust collected will be added to the RI.
- FOK alleges that the components of slag and dust, and the toxicity of these components, was inadequately addressed. To the contrary, all components of the slag and dust matrices are addressed. All differences in transport mechanisms and exposure pathways relevant to components are addressed. There is extensive quantitative data on Cr(VI) in the RI (Sections 2, 4, and 5); it is the COPC given the greatest attention. The RI estimates the quantity of slag at the Site (Section 3.3.1) and presents the concentrations of Cr and Cr(VI) in the slag (Section 4.1) and chromium-containing dust (Section 4.2). There was no need in the RI, HHRA, or environmental risk assessment ("ERA") evaluations to estimate the quantity of Cr specifically.

- FOK alleges that evaluation of migration and natural attenuation of hexavalent chromium was incorrect and/or inadequate. Based on the factual errors in the FOK comments, FOK has practically no understanding of chromium geochemistry. The RI provides a detailed correct discussion of chromium geochemistry as it applies to the Site. Detailed responses in Attachment B demonstrate the correctness and adequacy of the RI evaluation of geochemistry and migration (fate and transport).
- FOK had several comments related to interim actions. CAMC performed interim actions in accordance with the workplan approved by OEPA to address immediate threats.

CAMC's responses are founded on its experts' knowledge and the extensive data collected and work performed by them for over a decade at the site under OEPA's approved workplans and oversight. Please let us know if OEPA has questions or wants additional detail.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Weaver", with a stylized flourish at the end.

Todd Weaver