FREEPORT-McMoRAN

Cyprus Amax Minerals Company
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Shannon Cook
Site Coordinator
Division of Environmental Response and Revitalization
Ohio Environmental Protection Agency
Southeast District Office
2195 Front Street
Logan, Ohio 43138

RE: Amendment No. 6 to the Interim Action Workplan
Former Satralloy Site

Dear Mr. Cook:

Cyprus Amax Minerals Company (Cyprus) would like to amend the Interim Action Workplan in accordance with the Consent Order for Preliminary Injunction (COPI) Section VI (Interim Action) paragraph 13(d) and Section XII (Review of Submittals) paragraph 32: "All work plans, reports, or other items required to be submitted to Ohio EPA under this COPI, including any approved additional Work, shall, upon approval by Ohio EPA, be deemed to be incorporated in and made an enforceable part of this COPI."

SCHEDULE

1: Cyprus is currently negotiating with a contractor who will complete the building demolition phase of the Interim Action work, which was addressed in Amendment 5 to the Workplan. The demolition phase of the Interim Action work is expected to begin in fall 2019 and be completed in 2020.

2: In preparation for demolition, additional materials sampling will be performed on building materials identified since the prior supplemental data gap regulated materials surveys were completed in late 2018 and early 2019. In addition, soil in four proposed borrow areas – shown in attached Figures 1 and 2 - will be sampled to verify that it is not impacted with constituents-of-concern (COCs). The additional sampling addressed in this amendment is currently scheduled for the week of August 26, 2019.

SCOPE OF WORK

Golder Associates Inc. (Golder) and HEPACO (formerly Environmental Management Specialists, Inc., EMS) will collect the samples. HEPACO will also provide access to sampling locations and excavate test

pits in proposed soil borrow areas. The sampling is intended to provide additional information for the Interim Action demolition contractor. Building materials analyses may include asbestos-containing materials (ACM) by polarized light microscopy (PLM); Toxicity Characteristic Leaching Procedure (TCLP) testing for eight metals (arsenic, barium, cadmium, chromium, lead, selenium, silver and mercury); and, polychlorinated biphenyls (PCBs) by method 8082. Soil samples from the potential borrow areas will include metals by method 6010B (custom subset) including mercury; hexavalent chromium by method 7199; semi-volatile organic compounds (SVOCs) by method 8270C, and PCBs by method 8082A. If other suspect materials are discovered during this work, those materials will also be sampled and analyzed by the appropriate analytical methods. Sampling will be performed in or near the North Mill Building (NMB), South Mill Building (SMB), the former administration building, pump house, electrical building and at four potential soil borrow areas shown in Figures 1 and 2. Samples will be shipped to TestAmerica Canton analytical laboratory under standard handling and shipping protocols on a standard turnaround time (TAT). TestAmerica will forward suspect ACM samples for analysis to EMLab P&K, a TestAmerica company, located in Fort Lauderdale, Florida.

Cyprus proposes to collect and analyze the following materials under this Amendment:

- **Flat roof materials** – flat roof asphalt roofing material from the NMB, SMB, administration building, pump house and electrical building will be analyzed for potential ACM materials.
- **Exterior fiberglass wall panels –** fiberglass panels on the exterior walls of the NMB and SMB will be analyzed for potential ACM.
- **Flat wall board inside SMB –** cement wall board inside the SMB will be analyzed for potential ACM.
- **Accreted dust –** dust accreted to interior surfaces of the NMB and SMB will be analyzed for metals by TCLP.
- **Dust Pile in NMB –** a pile of dust/soil inside the NMB will be analyzed for metals by TCLP.
- **Glazed tiles in the NMB –** glazed ceramic tiles in the NMB will be analyzed for metals by TCLP.
- **Debris in 1-cy Sacks** – thirteen 1-cubic yard sacks containing miscellaneous and random debris requiring profiling for disposal currently reside in the maintenance shop of the NMB. As each bag is inventoried to determine its entire contents, debris in the sacks will be collected and analyzed for metals by TCLP, at a minimum, and PCBs if oily material is encountered. Additional analysis may be requested as necessary.
- **Lead caps (transite bolt covers)** – metallurgical base metal analysis will be performed to determine the lead content (percent) for recycling.

BORROW AREAS SAMPLING

Four potential soil borrow areas have been identified on the site; native soil sampling will be performed to verify that these sources are not impacted with COCs. Borrow areas A, B and 3G are in the plant area (Figure 1); the Upland borrow area is located on the north end of the site adjacent to the north section of the Mine Perimeter Road (Figure 2).

Cyprus proposes to conduct the following sampling and analysis at each proposed borrow area:

- Four to five test pits are planned for each borrow area. Four depths are proposed to be sampled in native soil below any slag, railroad ballast or other deleterious material; these depths include 1, 3, 6 and 10-feet. Each sample will be analyzed for metals by method 6010B, including hexavalent chromium by method 7199; SVOCs by method 8270C; and PCBs by method 8082. Native soil samples will also be collected and analyzed by Golder for geotechnical properties.

Cyprus respectfully requests approval of the additional Work described above. Please call me if you have any questions.

Sincerely,

Barbara K. Nielsen
Manager, Remediation Projects

cc: