1. Applicable or relevant and appropriate requirements and Remedial Action objectives

This section discusses the potentially applicable or relevant and appropriate requirements (ARARs) and remedial action objectives (RAOs) for the Satralloy Site (Site). ARARs are combined with risk considerations to develop RAOs. Although the State of Ohio oversees the remedial activities at the Site, the ARARs and RAO process suggested in EPA guidance (EPA 1988b), §121(d) for CERCLA remedial activities provides the framework for this discussion.

* 1. Potential Applicable or Relevant and Appropriate Requirements

Identification of ARARs must be made on a site-specific basis and involves a two-part analysis: first, a determination is made whether a given promulgated requirement is applicable; then, if it is not applicable, a determination is made whether it is both relevant and appropriate. A requirement may be either “applicable” or “relevant and appropriate,” but not both. Applicable requirements are defined as cleanup standards, requirements, criteria or limitations promulgated under state or federal environmental laws that specifically address a hazardous constituent, remedial action, location, or other circumstance found at a site.

Relevant and appropriate requirements are cleanup standards, and other substantive requirements, criteria, or limitations promulgated under state or federal laws that, while not ‘applicable’ to a site, address problems or situations sufficiently similar to those encountered at a site that their use is well suited to the particular site.

* 1. Discussion of Potential ARARs

Potential ARARs are comprehensively evaluated in Table 1. The following discussion of ARARs focuses on the most significant potential ARARs.

* + 1. Air Pollution Control (APC)

The Clean Air Act (CAA) regulates emission of pollutants to the air. In Ohio, CAA authority has been delegated to the State of Ohio by the USEPA and is implemented by law at ORC Chapter 3704 and the corresponding rules in the OAC.

Any remedial action that involves excavation, consolidation, or crushing of concrete or slag may trigger APC regulations due to the generation of dust from these activities, which would result in particulate emissions. Air emissions relevant to stack releases are not applicable as there is no stack at the Site. Regulations related to municipal landfills, open burning, sulfur dioxide emissions, and volatile organic chemical treatment systems are not applicable because these activities or conditions do not occur at the Site.

Asbestos removal has occurred at the Site. Additional asbestos removal (transite roofing and siding) will be required during building demolition whenever it occurs and will be conducted pursuant to OAC Chapter 3745-20. The Site is not an asbestos disposal site, however.

* + 1. Waste Management

Regulations related to waste management include solid and infectious waste, construction and demolition debris and hazardous waste.

* + - 1. Hazardous Waste (HW)

The Resource Conservation and Recovery Act (RCRA) and federal regulations define “hazardous wastes”. In Ohio, RCRA authority has been delegated to the State of Ohio by the USEPA and is implemented by law at ORC Chapter 3734 and the corresponding rules in the OAC.

Mineral by-products and wastes at the Site not “actively managed” would not be regulated under RCRA if they are not actively managed in the future. The future Site remediation, however, will be conducted pursuant to the U.S. EPA Area of Contamination (AOC) policy and the issuance by the Director of the OEPA of an exemption under Section 3734.02(G) of the Ohio Revised Code (“02(G) Exemption”).[[1]](#footnote-1) The AOC policy, which interprets certain activities as not constituting generation or active management, and the 02(G) Exemption are designed to facilitate and encourage remediation, such as that contemplated for the Site. Thus, RCRA obligations will not be triggered regardless of the extent of future Site remediation.

Site investigation and remediation activities involving the former Bevill-exempt materials and/or any other materials at the Site, including any remediation to be conducted in the future, will be performed in accordance with the AOC policy pursuant to the letter from Michael Sherron to Barbara Nielsen dated October 19, 2012. Specifically, this letter stated: “Ohio EPA acknowledges that Cyprus has demonstrated that contamination appears to be present across the Site in the continuous and contiguous fashion that designation of the AOC requires, and thus we conclude that the AOC concept is applicable.” The letter further stated: “In the event that Cyprus is able to demonstrate in the future, to the satisfaction of Ohio EPA, that continuous and contiguous contamination is present in additional locations on or off the Satralloy property, the Agency acknowledges that the AOC concept would be applicable to such areas as well.” As discussed during the September 25, 2012 meeting between the parties, and as set forth in the Preliminary Evaluation Report and Remedial Investigation/Feasibility Study Workplan for the Former Satralloy Site, Cyprus Amax has documented that continuous and contiguous contamination is present across the Site and in certain off-property areas, including areas where slag piles extend beyond the property boundary and the rail spur area at the facility. Because it has already been demonstrated that continuous and contiguous contamination is present across the Site, all the remediation activities in the selected remedy will be performed in accordance with the AOC policy.

* + - 1. Non-Hazardous Waste

OAC Chapter 3745-27 contains regulations pertaining to solid and infectious wastes. Many of these regulations are intended for specific solid waste facilities and conditions that do not occur at the Site. They include rules governing explosive gas, incineration of waste, infectious waste, open burning, residual solid wastes, sanitary landfills, and transfer facilities.

OAC Chapter 3745-400 contains regulations governing the management of construction and demolition debris (C&DD) in Ohio. Similarly, many of these regulations are intended for specific C&DD facilities and conditions that do not occur at the Site. They include rules governing facility design requirements, construction specifications, operation of facilities, final closure of facilities, and financial assurance for C&DD facilities.

Regulations covering disposal of non-hazardous waste could be applicable to on-Site disposal of some Site materials (e.g., slag or residuals from slag processing). A 02(G) exemption will be requested to allow the selected remedy to be based on Site-specific considerations of risk and risk reduction.

* + - 1. 3734.O2(G) Exemption

A 02(G) Exemption from the Director will be requested prior to managing any materials at the Site that could be considered solid or hazardous waste or C&DD. The 02(G) Exemption will allow implementation of a remedy based on Site-specific considerations of risk and risk reduction.

Specifically, ORC Section 3734.02(G) states, in pertinent part, that “[t]he director, by order, may exempt any person generating, collecting, storing, treating, disposing of, or transporting solid wastes, infectious wastes, or hazardous waste………in such quantities or under such circumstances that, in the determination of the director, are unlikely to adversely affect the public health or safety or the environment from any requirement to obtain a registration certificate, permit, or license or comply with the manifest system or other requirements of this chapter.” On July 26, 2013, the Director of the Ohio EPA issued Director’s Final Findings and Orders (DFFOs) exempting Cyprus Amax from the requirements to comply with ORC Chapters 3714 and 3734 and the rules promulgated thereunder during the implementation of the approved RI/FS Work Plan and the approved IA Work Plan at the Site. Cyprus Amax will be requesting that the Director issue a further 02(G) Exemption to facilitate the remediation of the Site once a remedy has been approved by the agency.

* + 1. Division of Surface Water (DSW)

The Clean Water Act (CWA) regulates emission of pollutants to surface water. In Ohio, CWA authority has been delegated to the State of Ohio by the USEPA and is implemented by law at ORC Chapter 6111 and the corresponding rules in the OAC.

The Site is not an active industrial facility and thus does not produce an industrial process water discharge. Site seeps and surface water may contain COPCs (particularly chromium) originating in slag. Surface water from the Site discharges under County Road 74 into Cross Creek through a number of culverts. Cyprus Amax has obtained a discharge permit under the Ohio EPA Industrial Storm Water General Permit related to discharges into Cross Creek affected by Site COPCs.

Regulations related to discharges to publicly owned treatment works and dredging/filling are not applicable because these activities or conditions do not occur on the Site.

On-Site wetlands and surface waters regulated under the federal Clean Water Act (CWA) and state of Ohio regulations have been identified on the Site. These wetlands may be affected during remedial activities, and will be managed under their corresponding state or federal regulations.

* + 1. Groundwater (GW)

Groundwater monitoring wells exist on-Site and require monitoring to evaluate potential impacts from slag to groundwater quality. Regulations related to the design, construction, maintenance, and closure of groundwater monitoring wells are applicable to the Site.

There are no microbial contamination impacts, or radioactive impacts, and there are no drinking water wells on Site or drinking water uses in Cross Creek, therefore regulations related to these conditions are not applicable. There have been limited impacts to the Valley Fill Aquifer underlying the site. Drinking water regulations would only apply if a “public water system” using water from the Valley Fill Aquifer were installed in the area.

1. Remedial Action Objectives

RAOs are site-specific remediation goals that define the desired outcome of actions taken to reduce human health or environmental risk due to chemicals of concern. Development of remedial action objectives requires consideration of potential human health and ecological risks, potential safety hazards and, where applicable, additional legal requirements. In addition, RAOs may incorporate non-regulatory considerations, such as land use considerations.

The RAOs for remediation of the Site are:

* Reduce physical hazards at the Site
* Prevent direct contact with Site slag
* Prevent off-Site migration of Site slag in surface water or air
* Decrease the potential for leaching of COPCs from slag
* Sell processed slag for off-Site beneficial use to the extent practical and allowable
* Prevent potable use of Site groundwater where affected by Site COPCs
* Provide ecological habitat enhancements as part of the remedy

1. Development of Cleanup Levels

[To be developed based on discussions with OEPA]

1. It is Cyprus’ view that the AOC policy alone is legally sufficient to allow the on-site management of the former Bevill materials, without the need for the 02(G) Exemption. Nevertheless, Cyprus is agreeable to obtaining an 02(G) Exemption, without waiving its position that the AOC policy is applicable and sufficient. [↑](#footnote-ref-1)