

US EPA ARCHIVE DOCUMENT

## Identification and Description of Mineral Processing Sectors and Waste Streams

### I. EXECUTIVE SUMMARY

The purpose of this report is to present EPA's review of mineral commodities which may produce hazardous wastes as defined by RCRA Subtitle C. EPA studied mineral commodities as part of the RCRA requirements to establish treatment standards for newly identified RCRA hazardous wastes. Through a series of rulemakings (see Background below) EPA has established criteria for which mineral processing wastes are no longer exempt from Subtitle C regulation. These wastes are termed "newly identified" mineral processing wastes.

Any newly identified mineral processing waste that exhibits one of the four characteristics of a hazardous waste must be made subject to the Land Disposal Restrictions (LDRs). Accordingly, EPA will be proposing treatment standards (Best Demonstrated Available Technology, or BDAT) for newly identified mineral processing wastes, and expects to promulgate these standards by 1996. This work has required EPA to perform further data collection and analysis activities in order to better identify "newly identified" wastes and to develop BDAT treatment standards that are both adequately protective and achievable.

As part of this effort, EPA reviewed the 36 industrial sectors (commodities) and 97 different general categories of wastes identified in a previously published Advanced Notice of Public Rule Making (ANPRM) (October 21, 1991). EPA also reviewed a listing of more than 100 mineral commodities prepared by the U.S. Bureau of Mines (Bureau of Mine's 1987 Minerals Year Book, 1989-1995 Mineral Commodities Summary, and 1985 Mineral Facts and Problems). This information, in addition to data collected in previous EPA studies, was used to compile a comprehensive list of mineral commodity sectors. In the process, the Agency identified a total of 62 mineral commodities that could generate mineral processing waste streams that could potentially exhibit one of the characteristics of a RCRA hazardous waste.

The Agency used publicly available information to prepare this draft technical background document on the production of particular mineral commodities and associated operations that generate mineral processing wastes.

This document, available in the RCRA docket, represents the Agency's view that the wastes discussed are, in fact, mineral processing wastes, rather than beneficiation wastes (beneficiation wastes would be exempt from Subtitle C, because all beneficiation wastes remain within the scope of the Mining Waste Exclusion). The Agency will be soliciting comment on this document and expects to revise it during the course of this rulemaking. The Agency is also seeking comments as to whether this document, when finalized, should be a binding Agency determination. The other alternative is for the discussions of the wastes to be merely interpretive, as are letters that are sometimes provided to parties inquiring about the regulatory status of particular wastes. Such letters are non-binding and are not considered to be "final agency action" within the meaning of the Administrative Procedures Act, but provide useful guidance as to the Agency's initial assessment of the matter.

The Agency cautions that this draft document should not be construed to be an exclusive list of mineral processing and associated waste streams; other types of mineral processing wastes may exist. Moreover, the omission or inclusion of a waste stream in this background document does not relieve the generator from the responsibility for correctly determining whether each of its particular wastes is covered by the Bevill exemption.

This report includes separate chapters on a metal by metal basis.