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MINING WASTE EXCLUSION FOR A FERROALLOY FACILITY

June 10, 1986

MEMORANDUM

SUBJECT: RCRA Regulatory Interpretation Assistance
Request-Application of Mining Waste Exclusion
to a Ferroalloy Facility

FROM: Marcia Williams, Director
Office of Solid Waste (WH-562)

TO: David Wagoner, Director
Waste Management Division
Region VII

In your memorandum of May 13, 1986, you sought guidance on the regulatory status of a ferroalloy facility and the wastes it generates in the production of ferrosilicon (silvery iron). The ferrosilicon alloy is produced by mixing quartzite ore, metallurgical coal, and steel scrap in submerged arc electric furnaces. Based on telephone conversations between our respective staffs, I understand that steel scrap is the predominant input. Wastes generated by this process are kish reclaim system rejects, venturi scrubber sludge, and baghouse dust. The scrubber sludge has been identified as being EP toxic for lead.

The ferroalloy sector was included in the studies supporting the reinterpretation of the mining waste exclusion. Most ferroalloys are produced from various combinations of ores, metal oxides, lime and coke or other reducing agents. However, ferrosilicon is made from scrap steel and quartzite in the presence of metallurgical coal as the reducing agent.

As you know, the Bevill exclusion for mining waste only applies to wastes from the extraction, beneficiation, and processing of ores and minerals. The Agency has consistently held that metal scrap is neither an ore nor a mineral. Therefore, if the predominant input to the process is steel scrap, the waste from the ferroalloy facility does not qualify

for the mining waste exclusion. This ferroalloy facility would be in the same category as a secondary lead smelter, reclaiming lead from old batteries, or other secondary processes; their wastes are not excluded from regulation either. (In fact, there are two listed hazardous wastes (K069 and K100) generated by secondary lead smelters.)

As you also know, last October the Agency proposed to reinterpret the mining waste exclusion as it applied to processing wastes so only large-volume wastes would qualify for the exclusion. Under this rulemaking, all ferroalloy facilities using ore (rather than scrap) and generating hazardous waste would become subject to the Subtitle C regulations because none would qualify individually or collectively as generators of large-volume processing wastes. Altogether, the 10 plants producing ferrosilicon in 1984 generated about 18,000 metric tons of slag; 36,000 metric tons of furnace emission control dust; 3,000 metric tons of product crushing and sizing emission control dust; and unknown quantities of emission control sludge. The sludge quantities are believed to be in the 3,000 - 36,000 tons/year range. It should be noted that the emission control dust tested EP toxic for selenium at one ferrosilicon facility (not at Keokuk).

In summary, it would appear that the facility in question is currently subject to RCRA requirements. Its status will be further clarified by promulgation of the final rule on the reinterpretation of the mining waste exclusion.