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PHOSPHATE AND GAS PROCESSING INDUSTRY WASTES

JUL -5 1983

Mr. B. H. Conlin  
Komex Consultants Ltd.  
#300, 1615-10th Avenue S.W.  
Calgary, Alberta, Canada T3C 0J7

Dear Mr. Conlin:

I am writing to you in response to your letter of May 18, 1983, regarding practices and regulations for containment and disposal of solid wastes in the resource processing industry.

At the present time, waste gypsum produced as a by-product of processing phosphate rock is exempted by statute from regulation as a hazardous waste. The exemption, under Section 3001(b)(3)(A)(ii) of the Resource Conservation and Recovery Act of 1976 (RCRA), is in effect "until at least six months" after the date of submission of a report required under Section 8002(p) on "materials generated from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from uranium mining." EPA plans to submit the required report in October 1984.

The Agency is conducting two studies related to the phosphate industry. The first study, which focuses on the metals mining and processing industry, also includes sampling and analysis of phosphate industry solid wastes in Regions IV and X. A total of 77 waste samples (64 solid and slurry samples and 13 liquid samples) were collected and analyzed from the phosphate mining industry. Although most of these samples were collected from mining and beneficiating wastes, two samples were collected from gypsum waste--gypsum pond liquid and gypsum pond embankment. Analytical results indicate that metals concentrations in the gypsum pond liquid exceeded Ep toxicity values for cadmium and chromium. Acetic acid extract from the gypsum pond embankment did not fail any of the EP toxicity criteria. The gypsum pond embankment sample, however contained 5.4 picocuries/gram of Radium 226.

On December 18, 1978, EPA proposed hazardous waste regulations containing guidelines in the form of an advanced notice of proposed

rulemaking concerning Radium 226. According to the advanced notice of proposed regulations, a waste would be considered hazardous when the total analysis for Radium 226 was equal to or greater than a concentration of 5 picocuries/gram for solids. To date EPA has not promulgated this contemplated standard. If EPA does promulgate the standard at 5 picocuries/gram, the waste gypsum could be considered hazardous again, pending completion of the study and report to Congress.

In addition to this ongoing mining study, EPA has recently initiated another study focused specifically on waste gypsum from the phosphate processing industry. Initial sampling of wastes is scheduled to begin July 11, 1983. Currently, the EPA is negotiating with the Florida Institute of Phosphate Research (located in Bartow, Florida) to conduct the study as a joint effort.

At the present time, EPA is not regulating phosphate wastes as hazardous wastes. The State of Florida, however, has regulatory requirements for phosphate wastes. These requirements include groundwater monitoring of gypsum piles and will, in the near future, include groundwater monitoring of other phosphate waste disposal practices.

As you mentioned in your letter, wastes from the gas processing industry are frequently hazardous under EPA's hazardous waste characteristics (40 CFR 261). If wastes fail a characteristic or are listed as hazardous, the full standards for hazardous waste treatment, storage, or disposal facilities (40 CFR 264-265) apply. There are no special requirements for gas processing wastes.

You may obtain a copy of up-to-date regulations from the U.S. Government Printing Office at (202) 655-4000.

If you have any further questions, please contact Ms. Penelope Hansen of my staff at (202) 382-4761.

Sincerely,

John H. Skinner  
Director  
Office of Solid Waste (WH-562)

Enclosure