

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

MEMORANDUM

SUBJECT: Inclusion of Additional Chemical Reagent Into Existing K062 Exemption

FROM: Michael H. Shapiro, Director  
Office of Solid Waste

TO: Maria Parisi Vickers, Director  
Office of RCRA Program, EPA Region III

In your letter of April 8, 1996 you asked the Office of Solid Waste to investigate whether or not we could provide a mechanism that would allow the Regions and States to approve the inclusion of a new stabilizing agent, magnesium hydroxide, into the existing exclusion in 40 CFR 261.3(c)(2)(ii)(A) (referred to hereafter as the K062 exemption). The K062 exemption published in the June 5, 1984 Federal Register (49 FR 23284) was promulgated in response to a rulemaking petition submitted by the American Iron and Steel Institute (AISI). The petition, and EPA's subsequent exclusion, pertains only to sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry.

You stated in your letter that Republic Steel, a Maryland waste generator, has access to magnesium hydroxide, and would like to use this chemical instead of lime to treat their spent pickle liquors. Republic Steel has asked whether their magnesium hydroxide stabilized sludge would be eligible for the exemption so that it can be disposed of in the Modem Landfill, a permitted solid waste management unit in Lancaster, Pennsylvania.

As you know, AISI's original petition requested only the exclusion of lime stabilized spent pickle liquor sludge. Therefore, the Agency, after reviewing and noticing the available data on effectiveness of lime treatment, granted the exclusion for lime stabilized spent pickle liquor sludge. However, because the Agency did not receive or review data on the effectiveness of stabilizing the, spent pickle liquor with any other treatment agent, no evaluation was made as to the effectiveness of any other treatment agent or process. Thus, the exclusion does not apply if other treatment agents (e.g., magnesium hydroxide) or processes are used. While magnesium hydroxide may be an effective stabilizing agent for spent pickle liquors, it clearly does not meet the definition

of lime. Republic Steel may have generated preliminary data showing that magnesium hydroxide can stabilize waste pickle liquor sludge to be nonhazardous. However, the Agency lacks comprehensive industry-wide data on long-term stability of magnesium hydroxide stabilized waste pickle liquor sludge.

In addition, and perhaps more important, after EPA granted the exclusion for lime stabilized spent pickle liquor sludge, Congress amended RCRA to require that all delisting petitions address not only the hazardous constituents for which the wastes are listed, but all other hazardous constituents that might cause the waste to be hazardous. RCRA section 3001 (f). Thus, to make a determination regarding whether magnesium hydroxide may render spent pickle liquor sludge nonhazardous requires analysis of all hazardous constituents in the sludge. This is an involved undertaking. In addition, the 1984 rule did not fully consider the presence of underlying hazardous constituents in spent pickle liquor sludge (since EPA was not required to do so at the time), and so the 1984 exclusion does not directly support extension to another category of spent pickle liquor sludge.

Expansion of the existing exclusion to include additional chemical agents (e.g., magnesium hydroxide) requires time and resources to solicit data and comments from the iron and steel industry. Unfortunately, because of the limited resources available to the Office of Solid Waste for implementing a variety of mandated waste programs, we will not be able to amend the current exclusion. Furthermore, magnesium hydroxide is five to ten times more expensive than lime, therefore, it is unlikely that magnesium hydroxide stabilization would be widely used by the iron and steel industry. Hence, expansion of the current exclusion as a national rulemaking does not appear to be a high priority.

There is a possible alternative to expanding the exclusion that should be considered. You may advise Republic Steel to contact David Friedman of your staff for submission of a delisting petition to have their specific treated wastes excluded. That provides a means to evaluate data Republic Steel has or can collect on its wastes, without having to characterize possible variability of such wastes across other facilities in this industry. In the meantime, the sludge generated from treatment of spent pickle liquor by any chemical other than lime would be a hazardous waste and should be managed as such.

Should you have any questions regarding this matter, please have your staff contact Shen-yi Yang of my staff at (703) 308-0437.