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United States Environmental Protection Agency  
Washington, D.C. 20460  
Office of Solid Waste and Emergency Response

August 24, 1992

Kathryn D. Lynnes  
Director of Environmental Compliance  
BHL Consultants, Ltd.  
2 Fountain Place, Suite 350  
Grand Rapids, Michigan 49503

Dear Ms. Lynnes:

I am writing in response to your inquiry concerning the regulation of the commercial chemical product cyclophosphamide as Hazardous Waste No. U058.

Cyclophosphamide is a hygroscopic substance and readily hydrates to cyclophosphamide monohydrate (CAS# 6055-19-2) on exposure to moisture. Storage in air tight containers is recommended. IARC cancer review indicates sufficient evidence of human carcinogenicity for both forms of the chemical. The carcinogenicity of cyclophosphamide was the basis for hazardous waste regulation.

As you are aware, 40 CFR 261.33(f) assigns hazardous waste number U058 to cyclophosphamide (CAS# 50-18-0). Cyclophosphamide is also listed as a hazardous constituent in 40 CFR 261 Appendix VIII. Chemical Abstract Numbers (CAS) were added "as an identification aid" to the tables in §261.33 (51 FR 28296). The hazardous waste codes of §261.33(e) and (f) apply to all commercial chemical products or manufacturing chemical intermediates having the generic name listed (§261.33(a)).

In the case of cyclophosphamide, separate CAS numbers are assigned to anhydrous cyclophosphamide (CAS# 50-18-0) and cyclophosphamide monohydrate (CAS# 6055-19-2) by the abstract service. However, both the anhydrous cyclophosphamide and cyclophosphamide monohydrate are generically referenced as simply "cyclophosphamide" and are regulated as Hazardous Waste No. U058.

RO 11687

Sincerely,  
Edwin F. Abrams, Chief  
Waste Identification Branch