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

February 23, 1993

Mr. Larry E. Perry, P.E.  
Divisional Environmental Manager  
Frito-Lay, Incorporated  
P.O. Box 660634  
Dallas, Texas 75266-0634

Dear Mr. Perry:

Thank you for your letter of December 31, 1992, in which you inquire about the proper disposal of silver nitrate and chloroform as laboratory chemicals. Specifically, you wished to know how the laboratory wastewater exclusion of 40 CFR 261.3(a)(2)(iv)(E) applies to your facilities.

As we understand your situation (based on your letter and telephone conversation between your company and my staff), you use silver nitrate and chloroform in quality control experiments in the laboratory. These laboratories have quality control (QC) functions incidental to production. However, the filtrate from use of these particular chemicals contains them at levels above the regulatory levels for chloroform and silver specified in 40 CFR 261.24 (the Toxicity Characteristic, or TC). In addition, you noted the presence of chloroform as a commercial chemical product, EPA Hazardous Waste No. U044, in your wastewater.

On December 22, 1992, Messrs. Abrams, Brandes, and Josephson of my staff confirmed to you that based on the information you provided, your facilities may qualify for the laboratory wastewater exclusion, but only if there is a listed waste involved. I would like, again, to stress several additional points to remember in qualifying for this exclusion:

- 1) This exclusion pertains only to listed hazardous wastes (that are designated as toxic (T)) from laboratory operations and only at the headworks of the wastewater treatment

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facility. As we understand it, your facilities would only qualify for this exclusion if unused chloroform was disposed of in your laboratory sinks or drains (U044). Chloroform is not an F001 or F002 solvent, but is on the toxicity characteristic list and on the product list (40 CFR 261.33(f)). Chloroform used as a solvent and then disposed would not meet the listing description for U044.

- 2) The exclusion applies to incidental losses of listed hazardous wastes (in your case, unused chloroform) from laboratory operations, not deliberate bulk discharges of chemicals that are not part of laboratory operations.
- 3) This exclusion applies to wastewater discharges that are subject to regulation under either section 402 or 307(b) of the Clean Water Act. Many facilities receive indirect discharge permits based on the operational parameters of the local publicly-owned treatment works (POTW). The POTW, in turn, sets indirect discharge standards to avoid plant upsets, generation of hazardous sludges, health hazards to their employees, and violation of its own discharge permit.
- 4) The laboratory wastewater exclusion is based on the total quantity of listed wastes from laboratory operations. The introduction of other listed wastes into the plant wastewater system (outside the conditions set forth in 40 CRF 261.3(a)(2)(iv)(A) - (E) may void the exclusion for the facility.
- 5) If any of the wastes in the laboratory wastewater discharge are subject to the Land Disposal Restrictions (40 CFR 268), the facility must keep records showing their generation and disposition according to §268.7(a).
- 6) Your letter states that you have investigated

"specific representative cases." As you know, the exclusion at 40 CFR 261.3(a)(2)(iv)(E) must be met by each individual facility, and this letter should not be construed as a regulatory determination on any particular wastestream. EPA regulations at 40 CFR 262.11 require each generator of solid waste to determine if that waste is hazardous.

You note in your letter that 1) the total annualized average flow of laboratory wastewater is below one percent of total facility flow, and 2) the total laboratory chemical concentration based on facility purchase and inventory records is less than one part per million. A facility must meet one of these two criteria in order to qualify for the wastewater exclusion.

Laboratory wastes that are hazardous because they exhibit one of the characteristics of a hazardous waste (see 40 CFR 261 Subpart C) are not addressed by the exclusion in 40 CFR 261.3(a)(2)(iv)(E). Therefore, TC hazardous levels of silver and chloroform in your laboratory wastewater would be discharged to publicly owned treatment works (POTWs). However the pretreatment (before discharge to POTWS) of laboratory wastewaters could generate a sludge that would be under RCRA Subtitle C control if it exhibited any of the hazardous waste characteristics.

Your should be aware that, even if the facilities meet the terms of the laboratory wastewater exclusion according to Federal regulations, states may have more stringent hazardous waste regulations. Please check with the applicable state agency for further details on state regulations.

Thank you for your inquiry. If you have any questions, please contact Ron Josephson of my staff at (202) 260-4770.

Sincerely,  
Sylvia K. Lowrance, Director  
Office of Solid Waste

cc: Ken Gigliello, OWPE (OS-520); Mark Badalamente, OGC (LE-132S); Ron Josephson, OSW (OS-333)