

program in lieu of the Federal program. On March 11, 1996, the Regional Administrator of EPA, Region 4, redelegated delisting authority to the Director of the Waste Management Division (Regional Delegation of Authority 8–19).

B. How Did EPA Evaluate This Petition?

This petition requests a delisting for a hazardous waste listed as F006. In making the initial delisting determination, EPA evaluated the petitioned waste against the listing criteria and factors cited in § 261.11 (a)(2) and (a)(3). Based on this review, the EPA agrees with the petitioner that the waste is nonhazardous with respect to the original listing criteria. (If EPA had found, based on this review, that the waste remained hazardous based on the factors for which the waste was originally listed, EPA would have proposed to deny the petition.) EPA then evaluated the waste with respect to other factors or criteria to assess whether there is a reasonable basis to believe that such additional factors could cause the waste to be hazardous. See § 260.22 (a) and (d). The EPA considered whether the waste is acutely toxic, and considered the toxicity of the constituents, the concentration of the constituents in the waste, their tendency to migrate and to bioaccumulate, their persistence in the environment once released from the waste, plausible and specific types of management of the petitioned waste, the quantities of waste generated, and waste variability.

1. What Is the EPACML Model That EPA Used in the Past for Determining Delisting Levels?

In the past, EPA used the EPA Composite Model for Landfills (EPACML) fate and transport model, modified for delisting, as one approach for determining the delisting levels for petitioned waste. See 56 FR 32993–33012, July 18, 1991, for details on the use of the EPACML model to determine the concentrations of constituents in a waste that will not result in groundwater contamination. With the EPACML approach, as used in the past, EPA calculated a delisting level for each hazardous constituent by using the maximum estimated waste volume to determine a Dilution Attenuation Factor (DAF) from a table of waste volumes and DAFs previously calculated by the EPACML model, as modified for delisting. See 56 FR 32993–33012, July 18, 1991. The maximum estimated waste volume is the maximum number of cubic yards of petitioned waste to be disposed of each year. The delisting level for each constituent was equal to

the DAF multiplied by the maximum contaminant level (MCL) which the Safe Drinking Water Act allows for that constituent in drinking water. The delisting level is a concentration in the waste leachate that will not cause the MCL to be exceeded in groundwater underneath a landfill where the waste is disposed. This method of calculating delisting levels resulted in conservative levels that were protective of groundwater, because the model did not assume that the landfill had the controls required of Subtitle D landfills. A Subtitle D landfill is a landfill subject to RCRA Subtitle D nonhazardous waste regulations, and to State and local nonhazardous waste regulations.

2. What Is the DRAS That Uses the New EPACMTP Model To Calculate Not Only Delisting Levels, But Also To Evaluate the Effects of the Waste on Human Health and the Environment?

The EPA is proposing to use the Delisting Risk Assessment Software (DRAS),² developed by EPA, Region 6, to evaluate this delisting petition. The DRAS uses a new model, called the EPA Composite Model for Leachate Migration with Transformation Products (EPACMTP). The EPACMTP improves on the EPACML model in several ways. EPA is proposing to use the DRAS to calculate delisting levels and to evaluate the impact of Bekaert's petitioned waste on human health and the environment. Delisting levels are the maximum allowable concentrations for hazardous constituents in the waste, so that disposal in a landfill will not harm human health and the environment by contaminating groundwater, surface water, or air.

Today's proposal provides background information on the mechanics of the DRAS, and the use of the DRAS in delisting decision-making.

² For more information on DRAS and EPACMTP, please see 65 FR 75637–75651, December 4, 2000 and 65 FR 58015–58031, September 27, 2000. The December 4, 2000 *Federal Register* discusses the key enhancements of the EPACMTP and the details are provided in the background documents to the proposed 1995 Hazardous Waste Identification Rule (HWIR) (60 FR 66344, December 21, 1995). The background documents are available through the RCRA HWIR FR proposal docket (60 FR 66344, December 21, 1995). URL addresses for Region 6 delisting guidance and software are the following:

1. Delisting Guidance Manual http://www.epa.gov/earthlr6/6pd/rcra_c/pd-o/dlistpdf.htm
2. Delisting Risk Assessment Software (DRAS) http://www.epa.gov/Arkansas/6pd/rcra_c/pd-o/dras/dras.htm
3. DRAS Technical Support Document (DTSd) http://www.epa.gov/earthlr6/6pd/rcra_c/pd-o/dtsd.htm
4. DRAS Users Guide http://www.epa.gov/earthlr6/6pd/rcra_c/pd-o/uguide.pdf Region 6 has made them available to the public, free of charge.

Please see the EPA, Region 6, *RCRA Delisting Technical Support Document* (RDTSD) for a complete discussion of the DRAS calculation methods. The RDTSD, and *Federal Registers*, 65 FR 75637–75651, December 4, 2000, and 65 FR 58015–58031, September 27, 2000, are the sources of the DRAS information presented in today's preamble, and are included in the RCRA regulatory docket for this proposed rule.

The DRAS performs a risk assessment for petitioned wastes that are disposed of in the two waste management units of concern: surface impoundments for liquid wastes and landfills for non-liquid wastes. Bekaert's petitioned waste is solid, not liquid, and will be disposed in a landfill; therefore, only the application of DRAS to landfills will be discussed in this preamble.

DRAS calculates releases from solid-phase wastes in a landfill, with the following assumptions: (1) The wastes are disposed in a Subtitle D landfill and covered with a 2-foot-thick native soil layer; (2) the landfill is unlined or effectively unlined due to a liner that will eventually completely fail. The two parameters used to characterize landfills are (1) area and (2) depth (the thickness of the waste layer). Data to characterize landfills were obtained from a nationwide survey of industrial Subtitle D landfills.³ Parameters and assumptions used to estimate infiltration of leachate from a landfill are provided in the *EPACMTP Background Document and User's Guide*, Office of Solid Waste, U.S. EPA, Washington, DC, September 1996.

DRAS uses the EPACMTP model to simulate the fate and transport of dissolved contaminants from a point of release at the base of a landfill, through the unsaturated zone and underlying groundwater, to a receptor well at an arbitrary downstream location in the aquifer (the rock formation in which the groundwater is located). DRAS evaluates, with the EPACMTP model, the groundwater exposure concentrations at the receptor well that result from the chemical release and transport from the landfill (*Application of EPACMTP to Region 6 Delisting Program: Development of Waste Volume-Specific Dilution Attenuation Factors*, U.S. EPA, August 1996). For the purpose of delisting determinations, receptor well concentrations for both carcinogens and non-carcinogens from finite-source degraders and non-degraders are determined with this model. Delisted waste is a finite source, because in a finite period of time, the

³ *Nationwide Survey of Industrial Subtitle D Landfills*, Westat, 1987