PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

Airbus Industrie: Docket 2000–NM–79–AD.

Applicability: Model A330 and A340 series airplanes, certificated in any category; excluding those on which Airbus Modification 43021 has been installed.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking at the rib 1/center spar angle and bottom corner fitting, which could result in reduced structural capability of the wing, accomplish the following:

Modification

(a) Modify the rib 1/wing center spar attachment, as specified by paragraph (a)(1) or (a)(2), as applicable, of this AD.

(1) For Model A330 series airplanes: Modify before the accumulation of 9,600 total flight cycles or 29,900 total flight hours, whichever occurs first. Do the modification in accordance with Airbus Service Bulletin A330–57–3017 including Appendix 01, Revision 02, dated October 11, 1999.

(2) For Model A340 series airplanes: Modify before the accumulation of 9,300 total flight cycles or 37,200 total flight hours, whichever occurs first. Do the modification in accordance with Airbus Service Bulletin A340–57–4022 including Appendixes 01 and 02, dated October 8, 1999.

Note 2: Modification prior to the effective date of this AD in accordance with Airbus Service Bulletin A330–57–3017, dated October 14, 1998, or Revision 01, dated April 9, 1999, is acceptable for compliance with the requirements of paragraph (a) of this AD.

Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM–116, Transport Airplane Directorate, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM–116.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch.

Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Note 4: The subject of this AD is addressed in French airworthiness directives 2000–073–111(B) and 2000–074–136(B), both dated February 23, 2000.

Issued in Renton, Washington, on September 21, 2000.

Donald L. Riggin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 00–24753 Filed 9–26–00; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[SW–FRL–6878–3]

Hazardous Waste Management System; Proposed Exclusion for Identification and Listing Hazardous Waste

AGENCY: Environmental Protection Agency, (EPA).

ACTION: Proposed rule and request for comment.

SUMMARY: The EPA (also, ''the Agency'' or ''we'' in this preamble) is proposing to grant a petition submitted by USG Corporation (USG), Chicago, Illinois, to exclude (or ''delist''), on a one-time basis, certain solid wastes that are interred at an on-site landfill at its American Metals Corporation (AMC) facility in Westlake, Ohio from the lists of hazardous wastes contained in Subpart D of 40 Code of Federal Regulations (CFR) Part 261. This landfill was used exclusively by Donn Corporation, the original site owner, for disposal of its wastewater treatment plant (WWTP) sludge from 1968 to 1978.

USG submitted the petition under 40 CFR 260.20 and 260.22(a). Section 260.20 allows any person to petition the Administrator to modify or revoke any provision of parts 260 through 266, 268 and 273. Section 260.22(a) specifically provides a generator the opportunity to petition the Administrator to exclude a waste on a ''generator specific'' basis from the hazardous waste lists.

The Agency has tentatively decided to grant the petition based on an evaluation of waste-specific information provided by USG. This proposed decision, if finalized, conditionally excludes the petitioned waste from the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA).

We conclude that USG's petitioned waste is nonhazardous with respect to the original listing criteria or factors which could cause the waste to be hazardous.

DATES: *Comments.* We will accept public comments on this proposed decision until November 13, 2000. We will stamp comments postmarked after the close of the comment period as ''late.'' These ''late'' comments may not be considered in formulating a final decision.

Request for Public Hearing. Your request for a hearing must reach EPA by October 12, 2000. The request must contain the information prescribed in § 260.20(d).

ADDRESSES: *Comments.* Please send two copies of your comments to Todd Ramaly, Waste Management Branch (DW–8J), Environmental Protection Agency, 77 W. Jackson Blvd., Chicago, IL 60604.

Request for Public Hearing. Any person may request a hearing on this proposed decision by filing a request with Robert Springer, Director, Waste, Pesticides and Toxics Division, Environmental Protection Agency, 77 W. Jackson Blvd., Chicago, IL 60604.

FOR FURTHER INFORMATION CONTACT: For technical information concerning this document, contact Todd Ramaly at the address above or at 312–353–9317. The RCRA regulatory docket for this proposed rule is located at the EPA Region 5, 77 W. Jackson Blvd., Chicago, IL 60604, and is available for viewing from 8:00 a.m. to 4:00 p.m., Monday through Friday, excluding federal holidays. Call Todd Ramaly at (312) 353–9317 for appointments. The public may copy material from the regulatory docket at $0.15 per page.

SUPPLEMENTARY INFORMATION:

I. Overview Information

A. What Action Is EPA Proposing?

The EPA is proposing to grant USG's petition to have its wastewater treatment sludge excluded, or delisted, from the definition of a hazardous waste. We evaluated the petition using a fate and transport model to predict the concentration of hazardous constituents which could be released from the petitioned waste after it is disposed.

B. Why Is EPA Proposing To Approve This Delisting?

USG petitioned EPA to exclude, or delist, the wastewater treatment sludge because USG believes that the petitioned waste does not meet the criteria for which EPA listed it. USG also believes there are no additional constituents or factors which could cause the wastes to be hazardous. Based on our review described below, we agree with the petitioner that the waste is nonhazardous.

In reviewing this petition, we considered the original listing criteria and the additional factors as required by the Hazardous and Solid Waste Amendments of 1984 (HSWA). See 222 of HSWA, 42 U.S.C. 6921(f), and 40 CFR 260.22 (d)(2) through (4). We evaluated the petitioned waste against the listing criteria and factors cited in § 261.11(a)(2) and (3) and in the background documents.

We also evaluated the waste for other factors including (1) the toxicity of the constituents; (2) the concentration of the constituents in the waste; (3) the tendency of the hazardous constituents to migrate and to bioaccumulate; (4) persistence in the environment of any constituents released from the waste; (5) plausible and specific types of management of the petitioned waste; (6) the quantity of waste produced; and (7) waste variability.

We believe that the petitioned waste does not meet the criteria for which the waste was listed, and have tentatively decided to delist waste from the AMC Westlake landfill.

C. How Will USG Manage the Waste If It Is Delisted?

If the petitioned waste is delisted, USG must dispose of it in a Subtitle D landfill which is permitted, licensed, or registered by a state to manage industrial waste. This exclusion does not change the regulatory status of the landfill in Westlake, Ohio where the waste has been disposed.

D. When Would EPA Finalize the Proposed Delisting Exclusion?

HSWA specifically requires the EPA to provide notice and an opportunity for comment before granting or denying a final exclusion. Thus, EPA will not make a final decision or grant an exclusion until it has addressed all timely public comments (including those at public hearings, if any) on today's proposal.

Since this rule would reduce the existing requirements for persons generating hazardous wastes, the regulated community does not need a six-month period to come into compliance in accordance with section 3010 of RCRA as amended by HSWA. Therefore, the exclusion would become effective upon finalization.

E. How Would This Action Affect the States?

Because EPA is issuing today's exclusion under the federal RCRA delisting program, only states subject to federal RCRA delisting provisions would be affected. This exclusion may not be effective in states having a dual system that includes federal RCRA requirements and their own requirements, or in states which have received our authorization to make their own delisting decisions.

Under section 3009 of RCRA, EPA allows states to impose their own non-RCRA regulatory requirements that are more stringent than EPA's. These more stringent requirements may include a provision that prohibits a federally issued exclusion from taking effect in the state. Because a dual system (that is, both federal (RCRA) and state (non-RCRA) programs) may regulate a petitioner's waste, we urge petitioners to contact the state regulatory authority to establish the status of their wastes under the state law.

EPA has also authorized some states to administer a delisting program in place of the federal program, that is, to make state delisting decisions. Therefore, this exclusion does not apply in those authorized states. If USG transports the petitioned waste to or manages the waste in any state with delisting authorization, USG must obtain a delisting from that state before it can manage the waste as nonhazardous in the state.

II. Background

A. What Is the History of the Delisting Program?

The EPA published an amended list of hazardous wastes from nonspecific and specific sources on January 16, 1981, as part of its final and interim final regulations implementing Section 3001 of RCRA. The EPA has amended this list several times and published it in 40 CFR 261.31 and 261.32.

We list wastes as hazardous because: (1) they typically and frequently exhibit one or more of the characteristics of hazardous wastes identified in Subpart C of Part 261 (that is, ignitability, corrosivity, reactivity, and toxicity) or (2) they meet the criteria for listing contained in § 261.11(a)(2) or (3).

Individual waste streams may vary depending on raw materials, industrial processes, and other factors. Thus, while a waste described in these regulations generally is hazardous, a specific waste from an individual facility meeting the listing description may not be.

For this reason, 40 CFR 260.20 and 260.22 provide an exclusion procedure, called delisting, which allows a person to demonstrate that EPA should not regulate a specific waste from a particular generating facility as a hazardous waste.

B. What Is a Delisting Petition, and What Does It Require of a Petitioner?

A delisting petition is a request from a facility to EPA or an authorized state to exclude waste generated at a particular facility from the list of hazardous wastes.

In a delisting petition, the petitioner must show that wastes generated does not meet any of the criteria for listed wastes and does not exhibit any of the hazardous waste characteristics in 40 CFR Part 261, Subpart C. The criteria for which EPA lists a waste are in 40 CFR 261.11 and in the background documents. The petitioner must also present sufficient information to determine whether factors other than those for which the waste was listed warrant retaining it as a hazardous waste. (See § 260.22, 42 U.S.C. 6921(f) and the background documents for the listed wastes.)

A generator remains obligated under RCRA to confirm that its waste remains nonhazardous based on the hazardous waste characteristics even if EPA has ''delisted'' the wastes.

C. What Factors Must EPA Consider in Deciding Whether To Grant a Delisting Petition?

EPA must also consider as a hazardous waste, a mixture containing listed hazardous wastes and wastes derived from treating, storing, or disposing of a listed hazardous waste. See 40 CFR 261.3(a)(2)(iv) and (c)(2)(i), called the ''mixture'' and ''derived-from'' rules, respectively. These wastes are also eligible for exclusion and remain hazardous wastes until excluded.

The ''mixture'' and ''derived-from'' rules are now final, after having been vacated, remanded, and reinstated.

III. EPA's Evaluation of the Waste Information and Data

A. What Wastes Did USG Petition EPA To Delist?

On May 22, 1997, USG petitioned EPA to exclude the estimated total landfill volume of the WWTP sludge (estimated at 12,400 cubic yards) from the list of hazardous wastes contained in 40 CFR 261.31 in order to facilitate ongoing corrective action at the AMC site. The WWTP sludge is described in USG's petition as a mixture of (1) EPA Hazardous Waste Number F019 wastewater treatment sludge that was generated from the chemical coating of aluminum, (2) other nonhazardous wastewater treatment sludges derived from the chemical coating of steel and galvanized steel, and (3) various nonhazardous solid wastes. F019 is defined as ''Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.'' The constituents of concern for which F019 is listed are hexavalent chromium and complexed cyanide.

B. What Information and Analyses Did USG Submit To Support This Petition?

To support its petition, USG submitted (1) descriptions and schematic diagrams of its manufacturing and wastewater treatment processes, including historical information on past waste generation and management practices; (2) detailed chemical and physical analysis of the landfilled sludge (see Section III.D.); and (3) environmental monitoring data from recent studies of the facility, including groundwater data from wells located in and around the on-site landfill.

C. How Did USG Generate the Petitioned Waste?

AMC began generating wastewater treatment sludge in 1965 with the start of its metal coil coating line. After 1967, AMC cleaned, chemically coated, painted, and slit large coils of steel, galvanized steel, and aluminum, into metal strips that were fabricated into the structural components for suspended ceiling panels. Wastewater from the coil coating line contained dissolved metals and vegetable oils that were treated in the AMC WWTP. As part of the wastewater treatment process, oils were removed in an oil/water separator and metals were precipitated in a ''lime'' sludge. The AMC wastewater treatment system received process water from the coil coating process line from the initial wash and rinse phase and from the chemical processing phase. The pH was adjusted and the solid materials were precipitated. When steel or galvanized coils were processed, wastewater treatment sludges were generated which were not listed RCRA hazardous waste. The F019 listed wastes were generated when aluminum coils were processed. Both the listed and the non-listed sludges were commingled and pumped into several on-site surface impoundments for settling and drying. In 1965 and 1966, sludges were transferred to surface impoundments for settling and drying. From 1968 to 1978, this sludge was transferred from the surface impoundments to the landfill or were disposed of off-site. Sludges that were placed in the landfill were co-mingled with other waste debris. The landfill was covered with a layer of clay soils obtained from an off-site highway construction project. In 1978, the use of the landfill was discontinued and the landfill was covered with approximately 1 to 5 feet of fill soils.

The AMC WWTP would batch treat process wastewater from the coil coating final hot rinse step in order to reduce hexavalent chromium to trivalent chromium. The wastewater was treated with sodium metabisulfite and emptied once a week into the chemical sump for further treatment in the WWTP.

D. How Did USG Sample and Analyze the Data in This Petition?

USG analyzed the landfilled sludge and groundwater samples from the monitoring well network for hazardous constituents listed in 40 CFR Part 264, Appendix IX and for other parameters.

USG's sampling strategy consisted of dividing the landfill surface area into four equal quadrants. One boring was drilled near the center of each quadrant. One composite sample representing the total depth of the landfill was collected and submitted. The Agency evaluated the petitioned waste using these four samples in combination with data from the RCRA Facility Investigation (up to 20 additional samples) and subsequent waste designation studies (up to 13 additional samples).

To quantify the total constituent and leachate concentrations, USG used the following SW–846 Methods: 6010/7000 series for antimony, arsenic, barium, beryllium, cadmium, chromium, hexavalent chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, tin, vanadium, and zinc; 8240 for Appendix IX Volatile Organic Compounds (VOCs); 8270 for Appendix IX Semi-Volatile Organic Compounds (SVOCs); 8080 for organochlorine pesticides and polychlorinated biphenyls (PCBs); 8140 for organochlorine pesticides; 8150 for chlorinated herbicides. USG used these methods along with the Toxicity Characteristic Leaching Procedure (TCLP, SW–846 Method 1311) to determine leachate concentrations of metals, herbicides, pesticides, PCBs, VOCs, and SVOCs. Characteristic testing of the filter cake samples also included analysis of ignitability (SW–846 Method 1010) and corrosivity (SW–846 Method 9095). Historical analysis for dioxins and furans was done using method 8280. More recent dioxins and furans data was submitted using EPA Method 8290.

E. What Were the Results of USG's Analysis?

The maximum total and leachate concentrations for 17 metals, total cyanide and all detected organic constituents in USG's waste samples are summarized in the table found in section VI.A. below. We believe it is inappropriate to evaluate a constituent in our modeling efforts if the constituent was not detected using an appropriate analytical method. EPA does not generally verify submitted test data before proposing delisting decisions. The sworn affidavit submitted with the petition binds the petitioner to present truthful and accurate results. USG submitted a signed Certification of Accuracy and Responsibility statement presented in 40 CFR 260.22(i)(12).

IV. Methodology for Risk Assessment

A. How Did EPA Evaluate the Risk of Delisting This Waste?

For this delisting determination, we used information gathered to identify plausible exposure routes (*i.e.,* groundwater, surface water, air) to hazardous constituents present in the petitioned waste. We estimated the risk posed by the waste if disposed of in an unlined Subtitle D landfill which, under a plausible mismanagement scenario, did not receive daily cover for 30 days at a time. Constituents of concern are assumed to migrate to a receptor through groundwater, air, and surface water routes. We used a Windows based software tool, the Delisting Risk Assessment Software Program (DRAS) developed by Region 6, to estimate the potential releases of waste constituents and to predict the risk associated with those releases. A detailed description of DRAS and the fate, transport and risk models it uses follows.

1. Introduction

During a delisting determination, the Agency uses risk assessment methodologies to predict the concentration of hazardous constituents released from the petitioned waste after disposal to determine the potential impact on human health and the environment. The DRAS Program has been used to estimate the potential releases of waste constituents to waste management units. The program also predicts the risk associated with exposure to those releases using fate and transport mechanisms to predict releases and risk assessment algorithms to estimate adverse effects from exposure to those chemical releases. The DRAS computes chemical-specific exit values or ''delisting levels.'' The delisting levels are calculated using modeled, medium-specific chemical concentrations and standard EPA exposure assessment and risk characterization algorithms. We detailed all chemical release, exposure, and risk characterization methodologies in the EPA Region 6 RCRA Delisting Technical Support Document.

The Agency has used the maximum estimated annual waste volume and the maximum reported leachate and total waste constituent concentrations as the input data into the DRAS program to generate compliance point concentrations and estimate risk. The compliance point is the location of an individual exposed to potential releases of delisted wastes for the purpose of evaluating risk. Compliance point concentrations are generated in a two-part process. First, the DRAS back-calculates a waste constituent concentration that an individual (receptor) may be exposed to without unacceptable risk. Then, knowing the maximum concentration permitted at the compliance point, the fate and transport models are used to back-calculate the maximum permissible concentration at the waste management unit that could be disposed of without exceeding the compliance point concentration.

The risk assessment performed by the DRAS program which underlies the proposed rule is based upon a comprehensive approach to evaluating the movement of waste constituents from their waste management units, through different routes of exposure or pathways, to the points where human and ecological receptors are potentially exposed to these constituents. This risk assessment is being used in today's proposed rule to determine whether the petitioned RCRA listed waste can be defined as ''low-risk'' waste, able to exit the Subtitle C system and be managed in Subtitle D units. Low risk wastes are generally defined by Region 5 as wastes with a cancer risk of no more than 1×10^{-6} or a hazard quotient of no more than 1.0. A cancer risk of 1×10^{-6} indicates a one in 1,000,000 probability of an individual developing cancer over a lifetime. For noncarcinogenic chemicals, a hazard quotient of one represents potential exposure equal to the safe toxicity threshold value. The program back-calculates allowable waste constituent concentrations at the selected risk levels.

Although the pathway of ingestion of contaminated groundwater may be appropriate to propose exit levels for some wastes and constituents, it may not be protective for others, depending on the physical and chemical properties of each waste constituent. Some constituents have a high potential to bioaccumulate or bioconcentrate in living organisms. Pathways in which these constituents come in contact with fish would be important to evaluate.

The DRAS program performs an extensive risk assessment that examines numerous exposure pathways, rather than just the groundwater ingestion pathway. The DRAS program evaluates exposures associated with managing wastes in Subtitle D landfills or surface impoundments. Elements of the risk assessment procedure performed by the DRAS that support this proposal have undergone review by the Science Advisory Board and EPA's Office of Research and Development. The use of CMTP as used in the DRAS was favorably received by the SAB. ORD reviewed all other aspects of the DRAS program and responded favorably with comments. All ORD comments were addressed and incorporated into the DRAS program.

2. What Conditions Does the Agency Use in Determining Whether a Waste May Be Delisted?

The EPA's approach in RCRA delisting risk analyses has typically been to represent a reasonable worst-case waste disposal scenario for the petitioned waste rather than use of site-specific factors. The Agency believes that a reasonable worst-case scenario results in conservative values for the compliance point concentrations and is appropriate when determining whether a waste should be relieved of the management constraints of RCRA Subtitle C. Site-specific factors (*e.g.,* site hydrogeology) are not considered because a delisted waste is no longer subject to hazardous waste control, and therefore, the Agency is generally unable to predict and does not control where and how a waste will be managed after delisting.

3. How Is the Risk Assessment in the DRAS Program Structured?

The assessment estimated the risk associated with constituent-specific concentrations in the petitioned waste at the management unit that could be expected to result in an acceptable exposure to human or ecological receptors (determined through using the toxicity benchmarks such as reference doses—RfDs). The risk assessment took into account the various pathways by which waste constituents may move through the environment from the waste management unit to a receptor. The DRAS uses the fate and transport mechanisms to predict waste constituent movement. The potential exposure pathways considered in the assessment are not all-inclusive but were selected to reflect those that might be commonly associated with the management of wastes in Subtitle D units. The management units could potentially be located in the range of environments that exist across the United States. Various environments have differing characteristics (*e.g.,* meteorological conditions, soil type) with some environments more conducive for the movement of certain constituents in certain pathways. Conditions resulting in a conservative evaluation were used for each pathway, regardless of whether or not these conditions are likely to occur simultaneously at any one location. The assessment was structured using a deterministic approach. A deterministic approach uses a single, point estimate of the value of each input or parameter and calculates a single result based on those point estimates. The assessment used the best data available to select typical (*i.e.,* approximately 50th percentile) and high-end (*i.e.,* approximately 90th percentile) values for each parameter or parameter. The DRAS code which performs the assessment is constructed as a set of calculations that begin with an acceptable exposure level for a constituent to a receptor, and back-calculates to a waste constituent concentration in the management unit that corresponds to the acceptable risk level.

The steps of the assessment which provide estimates of acceptable constituent-specific concentrations in waste include the following:

Step 1—Specify acceptable risk levels for each constituent and each receptor.

Step 2—Specify the exposure medium. Using the toxicity benchmarks as a starting point and the exposure equations, the assessment back calculates the concentration of contaminant in the medium (*e.g.,* air, water, soil) that corresponds to ''acceptable'' exposure at the specified risk level. The exposure equations coded into the DRAS software include a quantitative description of how a receptor comes into contact with the contaminant and how much the receptor takes in through specific mechanisms (*e.g.,* ingestion, inhalation, dermal adsorption) over some specified period of time.

Step 3—Calculate the point of release concentration from the exposure concentration. Based on the back-calculated concentration in the exposure medium (from Step 2), the concentration in the medium to which the contaminant is released to the environment (*i.e.,* air, soil, groundwater) for each pathway/receptor was modeled. The end result of this calculation is a waste constituent concentration at the point of release from the waste management unit (where the exempted waste is disposed) that will not result in adverse effects to human health and the environment.

4. When Assessing the Risk of the Exempted Waste, Where Does the DRAS Assume the Waste is Deposited?

The DRAS risk assessment evaluates risks associated with petitioned RCRA wastes deposited to two waste management scenarios: landfills and surface impoundments. A landfill waste management scenario is used for the evaluation of solid wastes, while a surface impoundment waste management scenario is used for the evaluation of liquid wastes. The determination of whether a waste is a liquid waste is made using EPA approved Test Method 9095, referred to as the Paint Filter Test. Data to characterize landfills were obtained from a 1987 nationwide survey of industrial Subtitle D landfills. For releases to groundwater, EPA's Composite Model for leachate migration with Transformation Products (EPACMTP) fate and transport model was used by DRAS. The model assumes that solid wastes remain uncovered for thirty days after disposal and that the landfill will finally be covered with a 2-foot-thick native soil layer. The Subtitle D landfill is assumed to be unlined or if lined, that any liner at the base of the landfill will eventually completely fail.

The DRAS assumes that liquid industrial wastes are disposed of in an unlined surface impoundment with a sludge or sediment layer at the base of the impoundment and that releases of contaminants originate from the surface impoundment. The surface impoundment is taken to have a 20-year operational life. After this period, the impoundment may be filled in, or simply abandoned. In either case, the remaining waste in the impoundment will leach into the unsaturated zone relatively quickly. Therefore, the duration of the leaching period in the modeling analysis is set equal to 20-years.

5. What Types of Chemical Releases From the Waste Management Units Does the DRAS Evaluate?

The DRAS evaluates chemical releases of waste constituents from the waste management units to air, surface runoff and ground water. Using the EPACMTP fate and transport model, DRAS evaluates the potential release of waste contaminants to the ground water. In this evaluation, the differences between waste management units are represented by different values or frequency distributions of the source-specific parameters. Source-specific parameters used by the EPACMTP predict releases to the ground water from landfills include:

- Capacity and dimensions of the waste management unit;
- Leachate concentration;
- Infiltration and recharge rates;
- Pulse duration;
- Fraction of hazardous waste in the waste management unit;
- Density of the waste and;
- Concentration of the chemical constituent in the hazardous waste.

The source-specific parameters used by the model for surface impoundments include:

- The area;
- The ponding depth (such as the depth of liquid in the impoundment) and;
- The thickness and hydraulic conductivity of the sludge or sediment layer at the bottom of the impoundment.

Data on the areas, volumes, and locations of waste management units were obtained from the 1987 EPA Survey of Industrial Subtitle D waste facilities in the United States. Derivation of the parameters for each type of waste management unit is described in the EPACMTP Background Document and User's Guide.

For finite-source scenarios, simulations are performed for transient conditions, and the source is assumed to be a pulse of finite duration. In the case of landfills, the pulse duration is based on the initial amount of contaminant in the landfill, infiltration rate, landfill dimensions, waste and leachate concentration, and waste density. For surface impoundments, the duration of the leaching period is determined by the waste management unit's lifetime (the default value is 20 years). For a finite-source scenario, the model can calculate either the peak receptor well concentration for noncarcinogens or an average concentration over a specified period for carcinogens. The finite-source methodology in the EPACMTP is discussed in detail in the background document.

The DRAS evaluates releases of waste constituents from the waste management to the air. Releases of chemicals to the air may be in the form of either particulates or volatile concentrations. Inhalation of particulates and their absorption into the lungs at the point of exposure (POE) and air deposition of particulates and subsequent ingestion of the soil-waste mixture at the POE are a function of particulate releases. The DRAS calculates particulate emissions resulting from wind erosion of soil-waste surfaces, from vehicular traffic, and from waste loading and unloading. To estimate the respirable particulate emissions resulting from wind erosion of surfaces with an infinite source of erodible particles, DRAS uses the methodology documented in Rapid Assessment of Exposure to Particulate Emissions from Surface Contamination Sites (RAEPE). The methodologies documented in Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources (AP–42) were employed to calculate the dust and particulate emissions resulting both from vehicular traffic and from waste loading and unloading operations at a facility.

Particulate emission rates computed using these methodologies were summed and entered in the Ambient Air Dispersion Model, a steady-state, Gaussian plume dispersion model developed by EPA to predict the concentrations of constituents 1,000 feet downwind of a hypothetical land disposal facility. For a complete description and discussion, refer to the 1985 Ambient Air Dispersion Model (AADM). The model assumes that:

1—the emission rate is constant over time;

2—the emissions arise from an upwind virtual point source with emissions occurring at ground level and;

3—no atmospheric destruction or decay of the constituent occurs.

The DRAS assumes typical or conservative values for all variables that are likely to influence the potential for soil erosion, including wind velocity and vegetative cover. The AADM unit dimension assumptions were modified to more closely resemble a landfill's. The DRAS equations compute emissions resulting from wind erosion, vehicular traffic, and waste loading and unloading. These equations are thoroughly described in the Region 6 Delisting Technical Support Document. For the landfill waste disposal scenario, the DRAS assumed that no vegetative cover is present, thereby assuming enhanced erodability of soil or waste. The mean annual wind speed is assumed to be 4 meters per second. This value represents the average of the wind speeds registered at U.S. climatological stations as documented in Table 4–1 of RAEPE. The DRAS assumes a month's (30 days') worth of waste would be uncovered at any one time.

Although particulates greater than 10 micrometers (μm) in size generally are not considered respirable, the DRAS calculates the emission rate for particle sizes up to 30 μm in order to assess the potential impact of deposition and ingestion of such particulates using the distributions of wind-eroded particulates presented in RAEPE. Specifically, these distributions indicate that the release rate for particulates up to 30 μm in size should be approximately twice the release rate calculated for particulates 10 μm in size. The DRAS calculates the total annual average emissions of respirable particulates by summing for wind erosion, for vehicle travel, and for waste loading and unloading operations. The DRAS evaluates air deposition of the annual total emissions of particulates less than or equal to 30 μm in size to soil 1,000 feet from the edge of a disposal unit. DRAS calculates the resulting soil concentration after one year of accumulation, conservatively assuming no constituent removal (no leaching, volatilization, soil erosion, or degradation).

The DRAS also evaluates the atmospheric transport and inhalation of volatile constituents which was developed by EPA's Office of Air Quality Planning and Standards (OAQPS) and has been recommended for use in risk assessments conducted under the Superfund program. The DRAS program, is currently being revised to incorporate Shen's modification of Farmer's equation which will result in a better estimate of volatile emissions. Since the maximum concentration of volatiles in USG's waste is low, this pathway will not be reevaluated using the revised approach, unless the revised version of DRAS becomes available. Estimates of emissions of VOCs from disposal of wastewaters in surface impoundments are computed with EPA's Surface Impoundment Modeling System (SIMS). SIMS was developed by EPA's OAQPS. Further information can be found in the Background Document for the Surface Impoundment Modeling System Version 2.0. The volatile emission rates derived from the respective waste management scenario are used by the AADM steady-state Gaussian plume dispersion model to predict the concentrations of constituents 1,000 feet downwind of a hypothetical disposal facility.

The DRAS evaluates potential releases of waste constituents to accessible surface waters. Exposure through the surface water pathway results from erosion of hazardous materials from the surface of a solid waste landfill and transport of these constituents to nearby surface water bodies. The DRAS uses the universal soil loss equation (USLE) to compute long-term soil and waste erosion from a landfill in which delisted waste has been disposed of. The USLE is used to calculate the amount of waste that will be eroded from the landfill. In addition, the size of the landfill is computed using the waste volume estimate provided by the petitioner. The volume of surface water into which runoff occurs is determined by estimating the expected size of the stream into which the soil is likely to enter. The amount of soil delivered to surface water is calculated using a sediment delivery ratio. The sediment delivery ratio determines the percentage of eroded material that is delivered to surface water based on the assumption that some eroded material will be redeposited between the landfill and the surface water body. A distance of 100 meters (m) to the nearest surface water body is assumed. The DRAS program as used here is currently being revised to account for partitioning between water and suspended solids when the eroded waste enters the stream. Due to the significant impact of this pathway in the evaluation of USG's petition, the risk posed through this pathway was reevaluated manually using the same partitioning approach which is being incorporated into the next version of the DRAS program (See the Docket Report on Evaluation of Contaminant Releases to Surface Water Resulting from American Metals' Petitioned Waste). Conservative values are used in the manual recalculation for variables likely to influence the potential for soil erosion and subsequent discharge to surface water. Rainfall erosion factor values range from 20 to 550 per year. Values greater than 300 occur in only a small proportion of the southeastern United States. A value of 300 was chosen as a conservative estimate ensuring that a reasonable worst-case scenario is provided for most possible landfill locations. Soil erodibility factors range from 0.1 to 0.69 ton per acre. A value of 0.3 was selected for the analysis, which is estimated to exceed 66% of all values assuming a normal distribution. One month's worth of waste is assumed to be left uncovered at any one time and thus would be readily transportable by surface water runoff. Other variables used by the DRAS and in the manual calculation to evaluate releases to surface waters employed conservative assumptions. Both the DRAS and the manual recalculation multiply the total annual mass of eroded material by the sediment delivery ratio to determine the mass of soil and waste delivered to surface water.

The predicted erosion capacity is gradually diluted as it mixes with nearby surface waters. DRAS selects a representative volume or flux rate of surface water based on stream order, which is a system of taxonomy for streams and rivers. A stream that has no other streams flowing into it is referred to as a first-order stream. Where two first-order streams converge, a second-order stream is created. Where two second-order streams converge, a third-order stream is created. Data indicate that second-order streams have an estimated flow rate of 3.7 cubic feet per second. The second-order stream was selected for analysis as the smallest stream capable of supporting recreational fishing. Fifth-order streams were also chosen for analysis as the smallest streams capable of serving as community water supplies. Fifth-order stream flow is estimated to be 380 cubic feet per second.

6. By What Means May an Individual Be Exposed to the Proposed Exempted Waste?

An exposure scenario is a combination of exposure pathways through which a single receptor may be exposed to a waste constituent. Receptors may be human or other animal in an ecosystem. There are many potential exposure scenarios. The DRAS evaluated the risks of the proposed waste associated with the exposure scenarios most likely to occur as a result of releases from the waste management unit. Receptors may come into contact with delisted waste constituent releases from a waste management unit via two primary exposure routes, either (1) directly via inhalation or ingestion of water or (2) indirectly via subsequent ingestion of soil and foodstuffs (such as fish) that become contaminated by waste constituents through the food chain. Receptors may also be exposed to waste constituents released from a waste management unit to surface media (via volatilization to air or via windblown particulate matter) or to groundwater (via ingestion of groundwater). The exposure scenarios assessed by DRAS are generally conservative in nature and are not intended to be entirely representative of actual scenarios at all sites. Rather, they are intended to allow standardized and reproducible evaluation of risks across most sites and land use areas. Conservatism is incorporated to ensure protection of potential receptors not directly evaluated, such as special subpopulations. The recommended exposure scenarios and associated assumptions assessed by DRAS are reasonable and conservative and they represent a scientifically sound approach that allows protection of human health and the environment.

7. What Receptors Are Assessed for Risk From Exposure to the Proposed Exempted Waste?

Adult and child residents are the two receptors evaluated in this analysis. The adult resident exposure scenario is evaluated to account for the combination of exposure pathways to which an adult receptor may be exposed in an urban or rural (nonfarm) setting. The adult resident is assumed to be exposed to waste constituents from an emission source through the following exposure pathways:

1—Direct inhalation of vapors and particles;

2—Ingestion of fish;

3—Ingestion of drinking water from surface water sources;

4—Ingestion of drinking water from groundwater sources;

5—Dermal absorption from groundwater sources via bathing;

6—Inhalation from groundwater sources via showering.

DRAS evaluates two exposure pathways for children: (1) dermal absorption while bathing with potentially contaminated groundwater and (2) the ingestion of soil containing contaminated particulates which have need emitted from the landfill and deposited on the soil. Child residents (1 to 6 years old) were not selected as receptors for the groundwater ingestion and inhalation pathways, the surface water pathways, or the direct air inhalation pathways because the adult resident receptor scenario has been found to be protective of children with regard to these pathways. There is no indication that children consume more drinking water or inhale more air per unit of body weight, factoring in the recognized exposure duration, than adults. Therefore, average daily exposure normalized to body weight would be identical for adults and children. Likewise, a child receptor was not included for the freshwater fish ingestion pathway because there is no evidence that children consume more fish relative to their body weight, factoring in exposure duration, than do adults. The dermal absorption while bathing with groundwater exposure pathway is evaluated differently for child residents than it is for adult residents because of the following considerations: (1) The ratio of exposed skin surface area to body weight is slightly higher for children than for adults, resulting in a slightly larger average daily exposure for children than for adults; and (2) the exposure duration for such children is limited to 6 years, thus lowering the lifetime average exposure to carcinogens. Typically, the adult scenario is more protective with regard to carcinogens (because of the longer exposure duration), and the child scenario is more protective with regard to noncarcinogens (because of the greater skin surface area to body weight ratio).

8. Where Does the DRAS Assume That Receptors Are Located When Performing the Risk Evaluation?

The EPACMTP, a probabilistic groundwater fate and transport model, was used to predict groundwater constituent concentrations at a hypothetical receptor well located downgradient from a waste management unit. This receptor well represents the POE. That is, the predicted waste constituent concentration at the POE is used to assess the risk of the proposed exempted waste. The distance to the well is based on the results of the 1987 nationwide survey of landfills conducted by EPA's Office of Solid Waste (OSW) which determined the distance to the nearest drinking water well downgradient from municipal landfills. The survey data are entered in the EPACMTP model as an empirical distribution: minimum = 0 m, median = 427 m, and maximum = 1,610 m (approximately 1 mile). In contrast to the 1990 Toxicity Characteristic (TC) Rule (55 FR 11798), there is no requirement that the well lie within the leachate plume.

For carcinogenic waste constituents, the exposure concentration is defined as the maximum 30 year average receptor well concentration; for noncarcinogens, the exposure concentration is taken to be the highest receptor well concentration during the modeled 10,000 year period. A 10,000 year limit was imposed on the exposure period; that is, the calculated exposure concentration is the peak or highest 30 year average concentration occurring within 10,000 years following the initial release from the waste management unit. The fate and transport simulation within the CMTP provided a probability distribution of receptor well concentrations as a function of expected leachate concentration. Using the receptor well concentrations as a function of the waste constituent concentration, the EPACMTP derived chemical-specific dilution attenuation factors (DAFs) which convert a leachate concentration in the landfill to a groundwater concentration at the receptor well.

Human exposure routes for surface water include ingestion of surface water used as drinking water and ingestion of fish from nearby surface water bodies. For the surface water ingestion exposure route, the surface water POE modeled is a fifth-order stream 100 m from the waste management unit. Fifth-order streams were chosen for analysis because EPA assumes that a fifth-order stream is the smallest stream capable of serving as a community water supply. The assumption of a 100 m distance to the nearest surface water body is a conservative assumption based on available data. An EPA survey of municipal landfill facilities showed that 3.6 percent of the surveyed facilities are located within 1 mile of a river or stream and that the average distance from these facilities to the closest river or stream is 586 m. For the fish ingestion exposure route, a second-order stream was chosen for analysis. This stream segment was determined to be the smallest stream capable of supporting fisheries. The POE in the surface water body for collection of fish is assumed to be 100 m downgradient from the disposal facility. Human exposure to emissions of windblown particulates from landfills and to emissions of volatiles from landfills and surface impoundments is assessed by the DRAS. For the air pathway, the DRAS assumes the POE is 305 m (1,000 feet) downwind of the waste management unit.

9. How Does DRAS Determine Rates of Exposure?

The calculation of constituent-specific exposure rates for each exposure pathway evaluated were based on:

1—The estimated concentration in a given medium as calculated in DRAS;

2—The contact rate;

3—Receptor body weight, and;

4—The frequency and duration of exposure.

This calculation is repeated for each constituent and for each exposure pathway included in an exposure scenario. Exposure to hazardous constituents is assumed to occur over a period of time. To calculate an average exposure per unit of time, the DRAS divides the total exposure by the time period. Exposures are intended to represent reasonable maximum exposure (RME) estimates for each applicable exposure route. The RME approach is intended to combine upper-bound and mid-range exposure factors so that the result represents an exposure scenario that is both protective and reasonable, not the worst possible case.

10. What Rate of Contact With a Contaminated Media Does the DRAS Use?

The contact rate is the amount of contaminated medium contacted per unit of time or event. Contact rates for subsistence food types (fish for the fish ingestion pathway) are assumed to be 100 percent from the hypothetical assessment area (surface water body). The following sections describe exposure pathway-specific contact rates.

11. What Are the Contact Rates at Which Individuals Are Exposed to Contaminated Media?

For groundwater and surface water ingestion, the intake rate is assumed to be 2.0 liters per day (l/day), the average amount of water that an adult ingests. This value, which is currently used to set drinking water standards, is close to the current 90th percentile value for adult drinking water ingestion (2.3l/day) reported in the EPA Exposure Factors Handbook. This value approximates the 8 glasses of water per day historically recommended by health authorities. The contact for the dermal exposure pathway is assumed to occur while bathing with contaminated groundwater. In this analysis, the DRAS assumes that the average adult resident is in contact with groundwater during bathing for 0.25 hour per event and that the average child resident is in contact with groundwater during bathing for 0.33 hour per event, with one event per day. For dermal bathing exposure to contaminated groundwater, the selected receptors are an adult and a young child (1 to 6 years old). During bathing, generally all of the skin surface is exposed to water. The total adult body surface area can vary from about 17,000 to 23,000 square centimeters (cm^2). The EPA Exposure Factors Handbook (EFH) reports a value of 20,000 cm^2 as the median value for adult skin surface area. A value of 6,900 cm^2 has been commonly used for a child receptor in EPA risk assessments; this value is approximately the average of the median values for male children aged 2 to 6. The EFH presents a range of recommended values for estimates of the skin surface area of children by age. The mean skin surface area at the median for boys and girls 5 to 6 years of age is 0.79 square meters (m^2) or 7,900 cm^2. Given that the age for children is defined as 0 to 6 years (see EFH Section 3.3.4), a skin surface area value for ages 5 to 6 years would be a conservative estimate of skin surface area for children. For calculation of dermal exposure to waste constituents, the DRAS uses a value of 7,900 cm^2 for the skin surface area of children and a value of 20,000 cm^2 for the skin surface area of adults.

For the groundwater pathway of inhalation exposure during showering, the contact with water is assumed to occur principally in the shower and in the bathroom. The DRAS analysis assumes that the average adult resident spends 11.4 minutes per day in the shower and an additional 48.6 minutes per day in the bathroom. Daily inhalation rates vary depending on activity, gender, age, and so on. Citing a need for additional research, the EFH does not recommend a reasonable upper-bound inhalation rate value. The EFH recommended value for the average inhalation rate is 15.2 cubic meters per day (m^3/day) for males and 11.3 m^3/day for females. The EPA established an upper-bound value for an individual's inhalation rate at 20 m^3/day which has been commonly used in past EPA risk assessments. This value is used by the DRAS for assessment of inhalation exposure.

The DRAS assesses the ingestion of soil contaminated with air-deposited particulates from a nearby landfill. The potential for exposure to constituents via soil ingestion is greater for children because they are more likely to ingest more soil than adults as a result of behavioral patterns present during childhood. Therefore, exposure to waste constituents through ingestion of contaminated soils is evaluated for the child in a delisting risk assessment. The mean soil ingestion values for children range from 39 to 271 milligrams per day (mg/day), with an average of 146 mg/day for soil ingestion and 191 mg/day for soil and dust ingestion (see EPA EFH). Based on the EFH statement that 200 mg/day may be used as a conservative estimate of the mean, the DRAS uses 200 mg/day as the soil ingestion rate for children.

Fish consumption rates vary greatly, depending on geographic region and social or cultural factors. The recommended value for fish consumption for all fish is 0.28 grams of fish per kilogram body weight per day for an average adult (see EPA EFH). This value equates with a fish consumption rate of 20.1 grams per day (g/day) for all fish. The DRAS estimated that an exposed individual eats 20 g of fish per day, representing one 8-ounce serving of fish approximately once every 11 days.

A consumption rate of 57.9 g/day was used in the manual reevaluation of risk posed through fish ingestion. This higher consumption rate, corresponding to a high-risk subpopulation present in Region 5 (low income minority sport fisherman) was added to the evaluation for USG's waste at the request of Regional risk assessors.

12. At What Frequency Does the DRAS Assume That Receptors Are Exposed to Contaminated Media?

An exposure frequency of 350 days per year is applied to all exposure scenarios (see EPA EFH). Until better data become available, the common assumption that residents take 2 weeks of vacation per year is used to support a value of 15 days per year spent away from home, leaving 350 days per year spent at home and susceptible to exposure.

13. For What Duration Does the DRAS Assume Receptors Are Exposed to Contaminated Media?

The exposure duration reflects the length of time that an exposed individual may be expected to reside near the constituent source. For the adult resident, this value is taken to be 30 years, and for the child resident, this value is taken to be 6 years (see EPA EFH). The adult resident is assumed to live in one house for 30 years, the approximate average of the 90th percentile residence times from two key population mobility studies. For the child resident, the exposure duration is assumed to be 6 years, the maximum age of the young child receptor. For carcinogens, exposures are combined for children (6 years) and adults (24 years). For noncarcinogenic constituents, the averaging time (AT) equals the exposure duration in years multiplied by 365 days per year. For an adult receptor, the exposure duration is 30 years, and for a child receptor, the exposure duration is 6 years. For carcinogenic constituents, the AT has typically been 25,550 days, based on a lifetime exposure of 70 years at 365 days per year. The life expectancy value in the EFH is 75 years. Given this life expectancy value, the AT for a delisting risk assessment is 27,375 days, based on a lifetime exposure of 75 years at 365 days per year.

14. What Body Weights Are Assumed for Receptors in the DRAS Evaluation?

Risk Assessment Guidance for Superfund defines the body weight of the receptor as either adult weight (70 kilograms (kg)) or child weight (1 to 6 years, 15 kg). The EFH recommended value of 71.8 kg for an adult differs from the 70-kg value commonly used in EPA risk assessments. In keeping with the latest EFH recommendation, the DRAS used a 72-kg adult weight and a 15-kg child weight for the proposed delisting determination.

B. What Risk Assessment Methods Has the Agency Used in Previous Delisting Determinations That Are Being Revised in This Proposal?

1. Introduction

The fate and transport of constituents in leachate from the bottom of the waste unit through the unsaturated zone and to a drinking water well in the saturated zone was previously estimated using the EPA Composite Model for Landfill (EPACML) (See 55 FR 11798). The EPACML accounts for:

• One-dimensional steady and uniform advective flow;
• Contaminant dispersion in the longitudinal, lateral, and vertical directions;
• Sorption.

However, advances in groundwater fate and transport have been made in recent years and the Agency proposes the use of a more advanced groundwater fate and transport model for RCRA exclusions.

2. What Fate and Transport Model Does the Agency Use in the DRAS for Evaluating the Risks to Groundwater From the Proposed Exempted Waste?

The Agency proposes to use the EPACMTP in this delisting determination. The EPACMTP considers the subsurface fate and transport of chemical constituents. The EPACMTP is capable of simulating the fate and transport of dissolved contaminants from a point of release at the base of a waste management unit, through the unsaturated zone and underlying groundwater, to a receptor well at an arbitrary downstream location in the aquifer. The model accounts for the following mechanisms affecting contaminant migration: transport by advection and dispersion, retardation resulting from reversible linear or nonlinear equilibrium adsorption onto the soil and aquifer solid phase, and biochemical degradation processes.

3. Why Is the EPACMTP Fate and Transport Model an Improvement Over the EPACML?

The modeling approach used for this proposed rulemaking includes three major categories of enhancements over the EPACML. The enhancements include:

1—Incorporation of additional fate and transport processes (*e.g.,* degradation of chemical constituents);
2—Use of enhanced flow and transport solution algorithms and techniques (*e.g.,* three-dimensional transport) and;
3—Revision of the probabilistic methodology (*e.g.,* site-based implementation of available input data)

A discussion of the key enhancements which have been implemented in the EPACMTP is presented here and the details are provided in the proposed 1995 Hazardous Waste Identification Rule (HWIR) background documents (60 FR 66344–December 21, 1995).

The EPACML was limited to conditions of uniform groundwater flow. It could not handle accurately the conditions of significant groundwater mounding and non-uniform groundwater flow due to a high rate of infiltration from the waste units. These conditions increase the transverse horizontal as well as the vertical spreading of a contaminant plume. The EPACMTP accounts for these effects directly by simulating groundwater flow in the vertical as well as horizontal directions.

The EPACMTP can simulate fate and transport of metals, taking into account geochemical influences on the mobility of metals. The EPA's MINTEQA2 metals speciation model is used to generate effective sorption isotherms for individual metals, corresponding to a range of geochemical conditions. The transport modules in EPACMTP have been enhanced to incorporate the nonlinear MINTEQ sorption isotherms. This enhancement provides the model with capability to simulate, in the unsaturated and in the saturated zones, the impact of pH, leachate organic matter, natural organic matter, iron hydroxide and the presence of other ions in the groundwater on the mobility of metals. The saturated zone module implemented in the EPACML was based on a Gaussian distribution of concentration of a chemical constituent in the saturated zone. The module also used an approximation to account for the initial mixing of the contaminant entering at the water table underneath the waste unit. The approximate nature of this mixing factor could sometimes lead to unrealistic values of contaminant concentration in the groundwater close to the waste unit, especially in cases of a high infiltration rate from the waste unit. The enhanced model incorporates a direct linkage between the unsaturated zone and saturated zone modules which overcomes these limitations of the EPACML.

To enable a greater flexibility and range of conditions that can be modeled, the analytical saturated zone transport module has been replaced with a numerical module, based on the highly efficient state-of-the-art Laplace Transform Galerkin (LTG) technique. The enhanced module can simulate the anisotropic, non-uniform groundwater flow, and transient, finite source, conditions. The latter requires the model to calculate a maximum receptor well concentration over a finite time horizon, rather than just the steady state concentration which was calculated by the EPACML. The saturated zone modules have been implemented to provide either a fully three-dimensional solution, or a highly efficient quasi-3D solution. The latter has been implemented for probabilistic applications and provides nearly the same accuracy as the fully three dimensional option, but is more computationally efficient. Both the unsaturated zone and the saturated zone transport modules can accommodate the formation and the transport of parent as well as of the transformation products.

A highly efficient semi-analytical unsaturated zone transport module has been incorporated to handle the transport of metals in the unsaturated zone and can use MINTEQA2 derived linear or nonlinear sorption isotherms. Conventional numerical solution techniques are inadequate to handle extremely nonlinear isotherms. An enhanced method-of-characteristic based solution has been implemented which overcomes these problems and thereby enables the simulation of metals transport in the probabilistic framework. Non-linearity in the metals sorption isotherms is primarily of concern at higher concentration values; for low concentrations, the isotherms are linear or close to linear. Because of the attenuation in the unsaturated zone, and the subsequent dilution in the saturated zone, concentrations in the saturated zone are usually low enough so that properly linearized isotherms are used by the model in the saturated zone without significant errors.

The internal routines in the model which determine placement of the receptor well relative to the areal extent of the contaminant plume have been revised and enhanced to eliminate bias which was present in the implementation in the EPACML. The calculation of the areal extent of the plume has been revised to take into consideration the dimensions of the waste unit. The logic for placing a receptor well inside the plume limits has been improved to eliminate a bias towards larger waste unit areas and to ensure that the placement of the well inside these limits, for a given radial distance from the unit, is truly randomly uniform. However, for this proposal, the closest drinking water well is located anywhere on the downgradient side of the waste unit.

The data sources from which parameter distributions for nationwide probabilistic assessments are obtained have been evaluated, and where appropriate, have been revised to make use of the latest data available for modeling. Leachate rates for Subtitle D waste units have been revised using the latest version of the Hydrologic Evaluation of Landfill Performance (HELP) model with the revised data inputs. Source specific input parameters (*e.g.*, waste unit area and volume) have been developed for various different types of industrial waste units besides landfills. Input values for the groundwater related parameters have been revised to utilize information from a nationwide industry survey of actual contaminated sites. The original version of the model was implemented for probabilistic assessments assuming continuous source (infinite source) conditions only. This methodology did not take into account the finite volume and/or operational life of waste units. The EPACMTP model has been implemented for probabilistic assessments of either continuous source or finite source scenarios. In the latter scenario, predicted groundwater impact is not only based on the concentrations of contaminants in the leachate, but also on the amount of constituent in the waste unit and/or the operational life of the unit.

The landfill is taken to be filled to capacity and covered when leaching begins. The time period during which the landfill is filled-up, usually assumed to be 20 years, is considered to be small relative to the time required to leach all of the constituent mass out of the landfill. The model simulation results indicate that this assumption is not unreasonable; the model calculated leaching duration is typically several hundred years. The leachate flux, or infiltration rate, is determined using the HELP model. The net infiltration rate is calculated using a water balance approach, which considers precipitation, evapo-transpiration, and surface run-off. The HELP model was used to calculate landfill infiltration rates for a representative Subtitle D landfill with 2-foot earthen cover, and no liner or leachate collection system, using climatic data from 97 climatic stations located throughout the US. These correspond to the reasonable worst case assumptions as explained in the HWIR Risk Assessment Background Document for the HWIR proposed notice (60 FR 66344–December 21, 1995). Additional details on the methodologies used by the EPACMTP to derive DAFs for waste constituents modeled for the landfill scenario are presented in the Background Documents for the proposed HWIR docket (60 FR 66344–December 21, 1995). The fraction of waste in the landfill is assigned a uniform distribution with lower and upper limits of 0.036 and 1.0, respectively, based on analysis of waste composition in Subtitle D landfills. The lower bound assures that the waste unit will always contains a minimum amount of the waste of concern. The waste density is assigned a value based on reported densities of hazardous waste, and varies between 0.7 and 2.1 grams per cubic centimeter (g/cm^3.

The area of the surface impoundment and the impoundment depth used by the EPACMTP are obtained from the OSW Subtitle D Industrial Survey and were entered into the probabilistic analyses as distributions. The sediment layer at the base of the impoundment is taken to be 2 feet thick, and have an effective equivalent saturated conductivity of 10^{-7} centimeters per second (cm/s). These values were selected in recognition of the fact that most non-hazardous waste surface impoundments do have some kind of liners in place. Additional details on the methodologies used by the EPACMTP to derive DAFs for waste constituents modeled for the surface impoundment waste management scenario are presented in the Background Documents for the 1995 proposed HWIR docket (60 FR 66344–December 21, 1995).

4. Has the EPACMTP Methodology Been Formally Reviewed?

The Science Advisory Board (SAB), a public advisory group that provides information and advice to the EPA, reviewed the EPACMTP model as part of a continuing effort to provide improvements in the development and external peer review of environmental regulatory models. Overall, the SAB commended the Agency for making significant enhancements to the EPACMTP's predecessor (EPACML) and for responding to previous SAB suggestions. The SAB also concluded that the mathematical formulation incorporating transformation or degradation products into the model appeared to be correct and that the site-based approach using hydrogeologic regions is superior to the previous approach used in EPACML. The model underwent public comment during the 1995 proposed HWIR (60 FR 66344–December 21, 1995).

5. Has the Agency Modified the EPACMTP as Utilized in the HWIR Proposal?

The EPACMTP, as developed for HWIR, determined the DAF using a probabilistic approach that selected, at random, a waste volume from a range of waste volumes identified in EPA's 1987 Subtitle D landfill survey. In delisting determinations, the waste volume of the petitioner is known. Therefore, application of EPACMTP to the delisting program has been modified to evaluate the specific waste volume. The Agency modified the DAFs determined under the HWIR proposal to account for a known waste volume. To generate waste volume-specific DAFs, EPA developed ''scaling factors'' to modify DAFs developed for HWIR (based on the entire range of disposal unit areas) to DAFs for delisting waste volumes. This was accomplished by computing a 90th percentile DAF for a conservative chemical for 10 specific waste volumes (ranging from 1,000 cu. yds. to 300,000 cu. yds.) for each waste management scenario (landfill and surface impoundment). The Agency assumed that DAFs for a specific waste volume are linearly related to DAFs developed by EPACMTP for the HWIR. DAF scaling factors were computed for the ten increment waste volumes. Using these ten scaling factor DAFs, regression equations were developed for each waste management scenario to provide a continuum of DAF scaling factors as a function of waste volume.

The regression equations are coded into the DRAS program which then automatically adjusts the DAF for the waste volume of the petitioner. The method used to verify the scaling factor approach is presented in Application of EPACMTP to Region 6 Delisting Program: Development of Volume-adjusted Dilution Attenuation Factors. For the landfill waste management scenario, the DAF scaling factors ranged from 9.5 for 10,000 cu. yard to approximately 1.0 for waste volumes greater than 200,000 cu. yards. Therefore, for solid waste volumes greater than 200,000 cu. yds., the waste volume-specific DAF is the same as the DAF computed for the proposed HWIR. The regression equation that can be used to determine the DAF scaling factor (DSF) as a function of waste volume (in cubic yards) for the landfill waste management unit is: DSF = 6152.7 * (waste volume)—0.7135. The correlation coefficient of this regression equation is 0.99, indicating a good fit of this line to the data points. DAF scaling factors for surface impoundment waste volumes ranged from 2.4 for 2,000 cu. yards to approximately 1.0 for 100,000 cu. yds. For liquid waste volumes greater than 200,000 cu. yds., the waste volume-specific DAF is the same as the DAF computed for the proposed HWIR. The regression equation for DSF as a function of waste volume for surface impoundment wastes is: DSF = 14.2 * (waste volume)—0.2288. The correlation coefficient of this regression equation is also 0.99, indicating an extremely good fit of this line to the data points.

V. Evaluation of This Petition

A. What Other Factors Did EPA Consider in Its Evaluation?

We also consider the applicability of ground-water monitoring data during the evaluation of delisting petitions where the waste in question is or has ever been placed on land. In this case, a substantial record of groundwater analysis from monitoring wells in and around the existing landfill which contains the waste was available and submitted as part of the petition. Historical data showed elevated levels of hazardous constituents in the groundwater and indicated that the landfilled waste was a possible source. Additional groundwater analysis became available utilizing a more sophisticated EPA recommended sampling technique. The new data could not establish that hazardous substances were currently leaching from the landfill sludge at levels exceeding those predicted by the EPACMTP model in the DRAS program. The evaluation was based on a statistical analysis conducted in accordance with *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities—Interim Final Guidance, EPA, April 1989 and Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities—Addendum to Interim Final Guidance,* EPA, July 1992. Leachate analysis of sludge samples generally supported the conclusion that the landfilled sludge was not currently a source of groundwater contamination above health-based levels.

Specifically, the landfilled sludge did not appear to be leaching arsenic, cadmium, lead, or nickel to groundwater at this time. Cadmium and nickel in groundwater appear to be a concern at the facility, but the cadmium and nickel contamination could not be attributed to the landfilled sludge based only on the recent data. The landfilled sludge could be contributing chromium, zinc and/or thallium to the groundwater, but currently at levels below concern. The elevated thallium was detected in upgradient wells and all detections were very close to the detection levels. Based on most recent data, the landfilled sludge does not appear to currently leach hazardous constituents to groundwater at significantly different levels than predicted by leachate analysis and subsequent modeling (See Docket Report for Statistical Analysis of Recent Groundwater Analysis).

B. What Did EPA Conclude About USG's Analysis?

The total cumulative risk posed by the waste, including the revised dioxin risk through fish ingestion is approximately 9.69×10^{-6}. EPA believes that this risk is acceptable because the value is within a generally acceptable range of 1×10^{-4} to 1×10^{-6} and a large portion of the estimated risk is associated with a single contaminant/pathway which may be evaluated in more than one way. Specifically, ingestion of carcinogenic arsenic in groundwater contributes 8.39 $\times 10^{-6}$, or 86.5% of the total risk. Total arsenic levels in the landfilled waste were not statistically different than arsenic levels in soils not associated with the landfill and recent ground-water monitoring at the facility did not detect arsenic at a detection level of 0.005 milligrams per liter (mg/L). Furthermore, if the POE target concentration was set at the Safe Drinking Water Act (SWDA) Maximum Contaminant Level (MCL), the maximum allowable waste leachate concentration would be 7.09 mg/L TCLP arsenic, over 100 times higher than the maximum observed leachate concentration in the waste. EPA's July 1996 *Soil Screening Guidance: User's Guide*, EPA/540/R–96/018, states that acceptable levels of contaminants in soils for the ground-water pathway should be derived from SWDA Maximum Contaminant Level Goals (MCLG) or MCLs. Health-based limits as used in the DRAS program can be used if MCLs are not available. Given that the difference between the MCL for arsenic and the health-based POE concentration is three orders of magnitude, we believe that some allowance can be exercised in setting the allowable level for arsenic in the leachate. EPA proposes to set the allowable arsenic leachate level at a concentration which corresponds to a total waste cancer risk of 1×10^{-4} which is still within the generally acceptable range of 1×10^{-4} to 1×10^{-6}. Delisting levels for constituents other than arsenic will still be set at concentrations corresponding to the original Region 5 target of 1×10^{-6}. By this method, the delisting level for leachable arsenic in this proposed exclusion will be set at a value which corresponds to a POE concentration of approximately one tenth of the existing MCL. The EPA has recently proposed to lower the arsenic MCL to one tenth its current value and thus, if finalized, would correspond well with the delisting level we are setting.

After reviewing USG's processes, the EPA concludes that (1) hazardous constituents of concern are present in USG's waste, but not at levels which are likely to pose a threat to human health and the environment when placed in a solid waste landfill; and (2) the petitioned waste does not exhibit any of the characteristics of ignitability, corrosivity, or reactivity. See 40 CFR 261.21, 261.22, and 261.23, respectively.

C. What is EPA's Final Evaluation of This Delisting Petition?

The descriptions of the USG hazardous waste process and analytical characterization, with the proposed verification testing requirements (as discussed later in this document, provide a reasonable basis for EPA to grant the exclusion.

We have reviewed the sampling procedures used by USG and have determined they satisfy EPA criteria for collecting representative samples of constituent concentrations in the wastewater treatment sludge.

We believe the data submitted in support of the petition show that USG's waste will not pose a threat when disposed of in a Subtitle D landfill regulated by a state. We therefore, propose to grant USG an exclusion for its WWTP sludge.

If we finalize the proposed rule, the Agency will no longer regulate the petitioned waste under 40 CFR Parts 262 through 268 and the permitting standards of Part 270.

VI. Conditions for Exclusion

A. What Are the Maximum Allowable Concentrations of Hazardous Constituents in the Waste?

The following table summarizes maximum observed total and TCLP concentrations in USG's waste, maximum allowable leachate levels for USG's waste, and the level of regulatory concern at the point of exposure for groundwater. The EPA calculated delisting levels for most constituents detected.

Maximum allowable leachate concentrations (expressed as a result of the TCLP test) were calculated for all constituents for which leachate was analyzed. Most of the allowable leachate concentrations were derived from the health-based calculation within the DRAS program. The remaining maximum allowable leachate levels were derived from MCLs, SDWA Treatment Technique (TT) action levels, or toxicity characteristic levels from 40 CFR 261.24 if they resulted in a more conservative delisting level. The singular exception is arsenic which was discussed in section V.B. The maximum allowable point of exposure groundwater concentrations correspond to the lesser of the health-based values calculated within the DRAS program or the MCLs or TT action levels. MCLs were used for maximum point of exposure groundwater concentrations for constituents which were not analyzed for in leachate extracts.

A statistical review of some of the data indicates that the maximum values used in the modeling and risk estimation correspond to a very high confidence interval (See *Docket Report on Degree of Characterization of Existing Landfilled Sludge at the American Metals Corporation Facility, Westlake, Ohio*). Assuming that the distribution of the data is adequately defined, future samples are likely to exhibit concentrations which are less than the maximum values used in this evaluation. All of the maximum waste concentrations observed are less than the corresponding delisting levels assigned. The maximum observed concentration of PCBs was close to the delisting level. However, PCBs were not detected in most samples.

Constituent	Maximum [1] observed total concentration (mg/kg)	Maximum [1] observed leachate concentration (mg/L TCLP)	Maximum allowable leachate concentration (mg/L TCLP)	Maximum allowable point of exposure concentration (mg/L in groundwater)
Inorganic Constituents				
Antimony	1.2	<0.023	[2] 1.52	[2] 0.006
Arsenic	19.0	0.058	0.691	0.005
Barium	120	0.215	[3] 100	[2] 2.0
Beryllium	0.86	0.003	[2] 3.07	[2] 0.004
Cadmium	2.8	0.013	[3] 1.0	[2] 0.005
Chromium (total)	3660	0.277	[3] 5.0	[2] 0.1
Chromium (hexavalent)	0.60	NR	NA	[2] 0.1
Cobalt	142	0.223	166	2.25
Copper	31.9	0.010	[2] 67,300	[2] 1.3
Lead	130	0.036	[3] 5	[2] 0.015
Mercury	0.23	0.012	[3] 0.2	[2] 0.002
Nickel	76.9	0.128	209	0.75
Selenium	5.1	0.053	[3] 1	[2] 0.05
Silver	0.5	<0.018	[3] 5	[2] 0.188
Thallium	1.5	<0.002	[2] 0.65	[2] 0.002
Tin	12.1	0.025	1,660	22.46
Vanadium	75.5	0.014	156	0.263
Zinc	104000	70.9	2,070	11.25
Cyanide (total)	<1.0	NR	NA	[2] 0.2
Cyanide (amenable)	NA	NR	NA	NA
Organic Constituents				
Acetone	0.16	NR	NA	NA
Benzene	0.009	<0.025	0.089	0.00067
Bis(2-ethylhexyl) phthalate	1.6	NR	NA	[2] 0.006
Fluoranthene	0.2	NR	NA	NA
Methyl ethyl ketone	0.071	<0.250	[3] 200	22.57
Methylene chloride	0.019	NR	NA	[2] 0.005
Phenanthrene	0.17	<0.010	NA	NA
Polychlorinated biphenyls	0.22	NR	NA	[2] 0.0005
Pyrene	0.29	<0.010	9.12	0.065
Tetrachlorethylene	0.034	<0.025	0.197	0.0014
Xylenes	0.051	NR	NA	[2] 10

Constituent	Maximum [1] observed total concentration (mg/kg)	Maximum [1] observed leachate concentration (mg/L TCLP)	Maximum allowable leachate concentration (mg/L TCLP)	Maximum allowable point of exposure concentration (mg/L in groundwater)
Dioxins and furans				
2,3,7,8-TCDD	0.000008	NR	NA	NA
1,2,3,7,8-PeCDD	0.0000026	NR	NA	NA
1,2,3,4,7,8-HxCDD	0.0000052	NR	NA	NA
1,2,3,6,7,8-HxCDD	0.0000074	NR	NA	NA
1,2,3,7,8,9-HxCDD	0.000011	NR	NA	NA
1,2,3,4,6,7,8-HpCDD	0.00109	NR	NA	NA
OCDD	0.159	NR	NA	NA
2,3,7,8-TCDF	0.0000017	NR	NA	NA
1,2,3,7,8-PeCDF	<0.0000082	NR	NA	NA
2,3,4,7,8-PeCDF	<0.000088	NR	NA	NA
1,2,3,4,7,8-HxCDF	<0.0000086	NR	NA	NA
1,2,3,6,7,8-HxCDF	<0.0000074	NR	NA	NA
2,3,4,6,7,8-HxCDF	<0.0000086	NR	NA	NA
1,2,3,7,8,9-HxCDF	<0.0000097	NR	NA	NA
1,2,3,4,6,7,8-HpCDF	0.0000062	NR	NA	NA
1,2,3,4,7,8,9-HpCDF	<0.000013	NR	NA	NA
OCDF	0.000052	NR	NA	NA
2,3,7,8-TCDD TEQ[4]	0.000182	NR	NA	NA

[1] These levels represent the highest constituent concentration found in any one sample, not necessarily the specific levels found in one sample.
[2] The concentration is based on the MCL or TT action level.
[3] The concentration is based on the toxicity characteristic level in 40 CFR 261.24.
[4] Concentrations of individual dioxin and furan congeners in a given sample were combined into a single concentration representing the equivalent concentration of 2,3,7,8-TCDD based on toxicity.
< The constituent was not detected at the stated concentration.
NA Not Applicable.
NR Analysis not run.

In addition to the delisting values in the table, several delisting levels based on total concentrations were also established for USG's waste. Total arsenic is limited to 9,280 mg/kg. Total mercury is limited to 94 mg/kg. Total PCBs are limited to 0.265 mg/kg. Since all of the dioxin and furan congeners exhibit a toxicity which can be related to 2,3,7,8-TCDD, delisting levels were not calculated for each congener. Since the dioxin and furan congeners also bioaccumulate at different rates than 2,3,7,8-TCDD, the cumulative risk varies among all dioxin and furan congeners. The Docket Report on Evaluation of Contaminant Releases to Surface Water Resulting from American Metal's Petitioned Waste contains congener specific factors which, when multiplied by the congener concentration in the waste, provides the individual risk posed by each congener. These risks were summed and compared to the target risk level of 1×10^{-6}. None of the samples analyzed for dioxins and furans exceeded the target level. The congener-specific factors for the combined 2,3,7,8-TCDD delisting level are as follows:

2,3,7,8-TCDD—3.8×10^{-2};
1,2,3,7,8-PeCDD—1.8×10^{-2};
1,2,3,4,7,8-HxCDD—1.2×10^{-3};
1,2,3,6,7,8-HxCDD—4.9×10^{-4};
1,2,3,7,8,9-HxCDD—5.43×10^{-4}
1,2,3,4,6,7,8-HpCDD—2.09×10^{-5};
OCDD—5×10^{-7};
2,3,7,8-TCDF—2.72×10^{-3};
1,2,3,7,8-PeCDF—4.17×10^{-4};
2,3,4,7,8-PeCDF—3.04×10^{-2};
1,2,3,4,7,8-HxCDF—2.99×10^{-4};
1,2,3,6,7,8-HxCDF—7.33×10^{-4};
2,3,4,6,7,8-HxCDF—2.46×10^{-3};
1,2,3,7,8,9-HxCDF—2.66×10^{-3};
1,2,3,4,6,7,8-HpCDF—4.38×10^{-6};
1,2,3,4,7,8,9-HpCDF—$1.55\times10-4$; and
OCDF—$6.7\times10-7$.

The sum of the products of dioxin and furan congener concentrations (mg/kg) and these factors may not exceed 1×10^{-6}.

B. What Are the Conditions of the Exclusion?

The proposed exclusion only applies to the 12,400 cubic yards of landfilled sludge described in the petition. Any amount exceeding this volume cannot be considered delisted under this exclusion. Furthermore, USG must dispose of this sludge in a Subtitle D landfill which is permitted, licensed, or registered by a state to manage industrial waste.

USG must also complete additional verification sampling in order to ensure that the landfilled sludge meets delisting requirements. The Docket Report on Degree of Characterization of Existing Landfilled Sludge at the American Metals Corporation Facility, Westlake, Ohio describes additional characterization of the landfilled sludge needed to provide a more adequate delineation of the spatial distribution of constituents of concern in the landfilled sludge. The verification sampling was evaluated based on the total number of samples taken thus far, their location, and the importance of the analytes based on risk. Composite samples comprising the vertical extent of the landfilled sludge at each individual boring location are to be collected from six different boring locations within the landfilled sludge areas. The samples are to be analyzed for TCLP metals including antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver, thallium, tin, vanadium, and zinc. Five of the borings are to be located within the larger of the two landfilled sludge deposits and placed in a manner that compliments the existing seven samples identified as WD–1 through WD–4 and LB1 through LB3. The remaining verification sample must be collected from a single boring placed within the smaller of the two landfilled sludge deposits.

If, anytime after disposal of the delisted waste, USG possesses or is otherwise made aware of any environmental or waste data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified in Section VI.A. is at a level higher than the delisting level established in Section VI.A. or is at a level in groundwater that exceeds the point of exposure concentration established in Section VI.A., then USG must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.

Based on any information provided by USG and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

C. What Happens if USG Fails To Meet the Conditions of the Exclusion?

If USG violates the terms and conditions established in the exclusion, the Agency may start procedures to withdraw the exclusion.

The EPA has the authority under RCRA and the Administrative Procedures Act, 5 U.S.C. 551 (1978) *et seq.* (APA), to reopen a delisting decision if we receive new information indicating that the conditions of this exclusion have been violated.

If the Regional Administrator determines that information reported by USG as described in Section VI.B., or information received from any other source, does require Agency action, the Regional Administrator will notify USG in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing USG with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. USG shall have 10 days from the date of the Regional Administrator's notice to present the information.

If after 10 days, USG presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.

VII. Regulatory Impact

Under Executive Order 12866, EPA must conduct an ''assessment of the potential costs and benefits'' for all ''significant'' regulatory actions.

The proposal to grant an exclusion is not significant, since its effect, if promulgated, would be to reduce the overall costs and economic impact of EPA's hazardous waste management regulations. This reduction would be achieved by excluding waste generated at a specific facility from EPA's lists of hazardous wastes, thus enabling a facility to manage its waste as nonhazardous.

Because there is no additional impact from today's proposed rule, this proposal would not be a significant regulation, and no cost/benefit assessment is required. The Office of Management and Budget (OMB) has also exempted this rule from the requirement for OMB review under Section (6) of Executive Order 12866.

VIII. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 U.S.C. 601–612, whenever an agency is required to publish a general notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis which describes the impact of the rule on small entities (that is, small businesses, small organizations, and small governmental jurisdictions). No regulatory flexibility analysis is required, however, if the Administrator or delegated representative certifies that the rule will not have any impact on small entities.

This rule, if promulgated, will not have an adverse economic impact on small entities since its effect would be to reduce the overall costs of EPA's hazardous waste regulations and would be limited to one facility. Accordingly, the Agency certifies that this proposed regulation, if promulgated, will not have a significant economic impact on a substantial number of small entities. This regulation, therefore, does not require a regulatory flexibility analysis.

IX. Paperwork Reduction Act

Information collection and record-keeping requirements associated with this proposed rule have been approved by OMB under the provisions of the Paperwork Reduction Act of 1980 (Public Law 96–511, 44 U.S.C. 3501 *et seq.*) and have been assigned OMB Control Number 2050–0053.

X. Unfunded Mandates Reform Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA), P.L. 104–4, which was signed into law on March 22, 1995, EPA generally must prepare a written statement for rules with federal mandates that may result in estimated costs to state, local, and tribal governments in the aggregate, or to the private sector, of $100 million or more in any one year.

When such a statement is required for EPA rules, under section 205 of the UMRA, EPA must identify and consider alternatives, including the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. EPA must select that alternative, unless the Administrator explains in the final rule why it was not selected or it is inconsistent with law.

Before EPA establishes regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, EPA must develop under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, giving them meaningful and timely input in the development of EPA regulatory proposals with significant federal intergovernmental mandates, and informing, educating, and advising them on compliance with the regulatory requirements.

The UMRA generally defines a federal mandate for regulatory purposes as one that imposes an enforceable duty upon state, local, or tribal governments or the private sector.

The EPA finds that today's delisting decision is deregulatory in nature and does not impose any enforceable duty on any state, local, or tribal governments or the private sector. In addition, the proposed delisting decision does not establish any regulatory requirements for small governments and so does not require a small government agency plan under UMRA section 203.

XI. Executive Order 12875

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a state, local, or tribal government, unless the federal government provides the funds necessary to pay the direct compliance costs incurred by those governments. If the mandate is unfunded, EPA must provide to OMB a description of the extent of EPA's prior consultation with representatives of affected state, local, and tribal governments; the nature of their concerns; copies of written communications from the governments; and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of state, local, and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.'' Today's rule does not create a mandate on state, local or tribal governments. The rule does not impose any enforceable duties on these entities. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

XII. Executive Order 13045

Executive Order 13045 is entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997). This order applies to any rule that EPA determines (1) is economically significant as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency. This proposed rule is not subject to Executive Order 13045 because this is not an economically significant regulatory action as defined by Executive Order 12866.

XIII. Executive Order 13084

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly affects or uniquely affects that communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments.

If the mandate is unfunded, EPA must provide to OMB, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation.

In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments ''to meaningful and timely input'' in the development of regulatory policies on matters that significantly or uniquely affect their communities of Indian tribal governments. This action does not involve or impose any requirements that affect Indian Tribes. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

XIV. National Technology Transfer and Advancement Act

Under Section 12(d) of the National Technology Transfer and Advancement Act, the Agency is directed to use voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical.

Voluntary consensus standards are technical standards (for example, materials specifications, test methods, sampling procedures, business practices, *etc.*) that are developed or adopted by voluntary consensus standard bodies. Where EPA does not use available and potentially applicable voluntary consensus standards, the Act requires that Agency to provide Congress, through the OMB, an explanation of the reasons for not using such standards.

This rule does not establish any new technical standards, and thus the Agency has no need to consider the use of voluntary consensus standards in developing this proposed rule.

List of Subjects in 40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, and Reporting and recordkeeping requirements.

Authority: Sec. 3001(f) RCRA, 42 U.S.C. 6921(f).

Dated: September 19, 2000.

Joseph M. Boyle,

Acting Director, Waste, Pesticides and Toxics Division.

For the reasons set out in the preamble, 40 CFR Part 261 is proposed to be amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

2. In Table 1 of Appendix IX of Part 261 it is proposed to add the following waste stream in alphabetical order by facility to read as follows:

Appendix IX to Part 261—Wastes Excluded Under §§ 260.20 and 260.22

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES

Facility	Address	Waste description
* * *	* * *	*
American Metals Corporation	Westlake, Ohio	Wastewater treatment plant (WWTP) sludges from the chemical conversion coating (phosphating) of aluminum (EPA Hazardous Waste No. F019) and other solid wastes previously disposed in an on-site landfill. This is a one-time exclusion for 12,400 cubic yards of landfilled WWTP sludge. This exclusion was published on (insert publication date of the final rule). 1. Delisting Levels: (A) The constituent concentrations measured in the TCLP extract may not exceed the following levels (mg/L): antimony—1.52; arsenic—0.691; barium—100; beryllium—3.07; cadmium—1; chromium—5.0; cobalt—166; copper—67,300; lead—5; mercury—0.2; nickel—209; selenium—1; silver—5; thallium—0.65; tin—1,660; vanadium—156; and zinc—2,070. (B) The total constituent concentrations in any sample may not exceed the following levels (mg/kg): arsenic—9,280; mercury—94; and polychlorinated biphenyls—0.265. (C) The sum of the products of dioxin and furan congener concentrations (mg/kg) and the factors defined in Section VI. A. of the preamble may not exceed 1×10^{-6}. 2. Verification Sampling—Composite samples comprising the vertical extent of the landfilled sludge at individual boring locations are to be collected from six different boring locations within the landfilled sludge areas. The samples are to be analyzed for TCLP metals including antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver, thallium, tin, vanadium, and zinc. Five of the borings are to be located within the larger of the two landfilled sludge deposits and placed in a manner that compliments the existing seven samples identified as WD–1 through WD–4 and LB1 through LB3. The remaining verification sample must be collected from a single boring placed within the smaller of the two landfilled sludge deposits. The results are to be compared to the delisting levels in Condition (1)(a). Sludge from which samples collected exceed delisting levels are not delisted. Additional sampling can be conducted with the approval of U.S. EPA Region 5 in order to isolate the sludge which exceeds the delisting levels from sludge that meets the delisting levels.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		3. Reopener Language— (a) If, anytime after disposal of the delisted waste, USG possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified in Condition (1) is at a level higher than the delisting level established in Condition (1), or is at a level in the groundwater at a level exceeding the point of exposure groundwater levels established in Section VI.A. of the preamble, then USG must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data. (b) Based on the information described in paragraph (a) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify USG in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing USG with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. USG shall have 10 days from the date of the Regional Administrator's notice to present the information. (d) If after 10 days USG presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise. 3. Notifications—USG must provide a one-time written notification to any State Regulatory Agency to which or through which the waste described above will be transported for disposal at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.

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[FR Doc. 00–24790 Filed 9–26–00; 8:45 am]
BILLING CODE 6560–50–U

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. 00–7794]

Federal Motor Vehicle Safety Standards (FMVSS); Small Business Impacts of School Bus Safety

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Notice of regulatory review; extension of comment period.

SUMMARY: This document grants a request to extend the comment period on an agency request for comments on the economic impact of its regulations on small entities. As required by Section 610 of the Regulatory Flexibility Act, we are attempting to identify rules that may have a significant economic impact on a substantial number of small entities. We also request comments on ways to make these regulations easier to read and understand. The focus of this notice is rules that specifically relate to school bus safety.

DATES: Extended comment closing date: Comments on the September 13, 2000 notice, 65 FR 55212, Docket No. 00–7794, must be received by the agency on or before close of business on November 13, 2000.

ADDRESSES: You should mention the docket number of this document in your comments and submit your comments in writing to: Docket Management, Room PL–401, 400 Seventh Street, SW., Washington, DC, 20590. Alternatively, you may submit your comments electronically by e-mail at http://dms.dot.gov.

You may call the Docket at 202–366–9324, and visit it from 10 a.m. to 5 p.m., Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Nita Kavalauskas, Office of Regulatory Analysis and Evaluation, Office of Plans and Policy, National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC, 20590. Telephone: (202) 366–2584. Facsimile (fax): (202) 366–2559.

SUPPLEMENTARY INFORMATION: On September 13, 2000, NHTSA published a notice announcing a review of Federal Motor Vehicle Safety Standards (FMVSS) relating to school bus safety. Section 610 of the Regulatory Flexibility Act of 1980 (Pub. L. 96–354), as amended by the Small Business Regulatory Enforcement Fairness Act of 1966 (Pub. L. 104–121), requires agencies to conduct periodic reviews of