

disapprove a permit program submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a permit program submission, to use VCS in place of a program submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*)

List of Subjects in 40 CFR Part 70

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Operating permits, Reporting and recordkeeping requirements.

Dated: March 6, 2002.

Robert W. Varney,

Regional Administrator, EPA—New England.

[FR Doc. 02-6273 Filed 3-14-02; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[FRL-7153-7]

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

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule and request for comment.

SUMMARY: The Environmental Protection Agency (EPA or Agency) today is proposing to grant a petition submitted by the United States Department of Energy Savannah River Operations Office (DOE-SR) to exclude (or "delist") certain hazardous wastes from the lists of hazardous wastes under the Resource Conservation and Recovery Act (RCRA).

DOE-SR generated the petitioned waste by treating wastes from various activities at the Savannah River Site (SRS). The petitioned waste meets the definitions of listed RCRA hazardous wastes F006 and F028. DOE-SR petitioned EPA to grant a one-time, generator-specific delisting for its F006 and F028 waste, because DOE-SR believes that its waste does not meet the criteria for which these types of wastes were listed. The waste is a radioactive mixed waste (RMW) because it is both a RCRA hazardous waste and a radioactive waste. EPA reviewed all of the waste-specific information provided by DOE-SR, performed calculations, and determined that the waste, which has a low level of radioactivity, could be disposed in a landfill for low-level radioactive waste without harming human health and the environment. The petition is for a one-time delisting, because the petitioned waste has been generated, will be completely disposed of at one time, and will not be generated again. Today's proposed rule proposes to grant DOE-SR's petition to delist its F006 and F028 waste, and requests public comment on the proposed decision. If the proposed delisting becomes a final delisting, DOE-SR's petitioned waste will no longer be classified as F006 and F028, and will not be subject to regulation as a hazardous waste under Subtitle C of RCRA. The waste will still be subject to the Atomic Energy Act and local, State, and Federal regulations for low-level radioactive solid wastes that are not RCRA hazardous wastes.

DATES: EPA is requesting public comments on this proposed decision. Comments will be accepted until April 29, 2002. Comments postmarked after the close of the comment period will be stamped "late." These "late" comments may not be considered in formulating a final decision.

Any person may request a hearing on this proposed decision by filing a request with Richard D. Green, Director of the Waste Management Division, EPA, Region 4, whose address appears below, by April 1, 2002. The request must contain the information prescribed in 40 CFR 260.20(d).

ADDRESSES: Send two copies of your comments to Jewell Grubbs, Chief, RCRA Enforcement and Compliance Branch, U.S. Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, Atlanta, Georgia 30303. Send one copy to Myra C. Reece, Director, South Carolina Department of Health and Environmental Control, Lower Savannah District Environmental

Quality Control, 218 Beaufort Street, N.E., Aiken, South Carolina 29801, and one copy to Shelly Sherritt, Bureau of Land and Waste Management, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201. Identify your comments at the top with this regulatory docket number: R4-01-02-DOESRSP. Comments may also be submitted by e-mail to sophianopoulos.judy@epa.gov. If files are attached, please identify the format.

Requests for a hearing should be addressed to Richard D. Green, Director, Waste Management Division, U.S. Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, Georgia 30303.

The RCRA regulatory docket for this proposed rule is located at the EPA Library, U.S. Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, Atlanta, Georgia 30303, and is available for viewing from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding Federal holidays. The docket contains the petition, all information submitted by the petitioner, and all information used by EPA to evaluate the petition.

The public may copy material from any regulatory docket at no cost for the first 100 pages, and at a cost of \$0.15 per page for additional copies.

Copies of the petition are available during normal business hours at the following addresses for inspection and copying: U.S. EPA, Region 4, Library, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, S.W., Atlanta, Georgia 30303, (404) 562-8190; South Carolina Department of Health and Environmental Control, Lower Savannah District Environmental Quality Control, 218 Beaufort Street, N.E., Aiken, South Carolina 29801, Myra C. Reece, Director, Phone: (803) 641-7670; and DOE Public Reading Room, Gregg-Graniteville Library, University of South Carolina at Aiken, 171 University Parkway, Aiken, South Carolina 29801, Phone: (803) 641-3465.

The EPA, Region 4, Library is located near the Five Points MARTA station in Atlanta. The Lower Savannah District Environmental Quality Control Office of the South Carolina Department of Health and Environmental Control is located a block north of U.S. Highway 78 on Beaufort Street (State Road 118) which is near the eastern boundary of Aiken. The University of South Carolina at Aiken is located on University Parkway (also State Road 118), on northwest boundary of Aiken, between Interstate Highway 20 and U.S. Highway

78 and about a half-mile west of State Road 19.

FOR FURTHER INFORMATION CONTACT: For general and technical information about this proposed rule, contact Judy Sophianopoulos, South Enforcement and Compliance Section, (Mail Code 4WD-RCRA), RCRA Enforcement and Compliance Branch, U.S. Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, S.W., Atlanta, Georgia 30303, (404) 562-8604, or call, toll free, (800) 241-1754, and leave a message, with your name and phone number, for Ms. Sophianopoulos to return your call.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

I. Background

- A. What Laws and Regulations Give EPA the Authority to Delist Wastes?
- B. How did EPA Evaluate this Petition?
 1. What is the EPACML model that EPA used in the past for determining delisting levels?
 2. What is the DRAS that uses the newer EPACMTP model to calculate not only delisting levels, but also to evaluate the effects of the waste on human health and the environment?
 3. Why is the EPACMTP an improvement over the EPACML?
 4. Where can technical details on the EPACMTP be found?
 5. What methods is EPA proposing to use to determine delisting levels for this petitioned waste?

II. Disposition of Delisting Petition

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- B. What Delisting Levels Did EPA Obtain with DRAS and EPACMTP?
- C. How Did EPA Use the Multiple Extraction Procedure (MEP) to Evaluate This Delisting Petition?
- D. Conclusion

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- A. Executive Order 12866
- B. Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 USC 601 *et. seq.*
- C. Unfunded Mandates Reform Act
- D. Federalism—Applicability of Executive Order 13132
- E. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
- F. Executive Order 13045: Protection of Children from Environmental Risks and Safety Risks
- G. National Technology Transfer Advancement Act of 1995

H. Executive Order 12898

I. Executive Order 13211 (Energy Effects)

J. Paperwork Reduction Act

I. Background

A. What Laws and Regulations Give EPA the Authority To Delist Wastes?

On January 16, 1981, as part of its final and interim final regulations implementing section 3001 of RCRA, EPA published an amended list of hazardous wastes from non-specific and specific sources. This list has been amended several times, and is published in 40 CFR 261.31 and 261.32. These wastes are listed as hazardous because they exhibit one or more of the characteristics of hazardous wastes identified in subpart C of part 261 (i.e., ignitability, corrosivity, reactivity, and toxicity) or meet the criteria for listing contained in Sec. 261.11 (a)(2) or (a)(3).

Individual waste streams may vary, however, depending on raw materials, industrial processes, and other factors. Thus, while a waste that is described in these regulations generally is hazardous, a specific waste from an individual facility meeting the listing description may not be. For this reason, sections 260.20 and 260.22 provide an exclusion procedure, allowing persons to demonstrate that a specific waste from a particular generating facility¹ should not be regulated as a hazardous waste.

To have their wastes excluded, petitioners must show, first, that wastes generated at their facilities do not meet any of the criteria for which the wastes were listed. *See* section 260.22(a) and the background documents for the listed wastes. Second, the Administrator must determine, where he/she has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. Accordingly, a petitioner also must demonstrate that the waste does not exhibit any of the hazardous waste characteristics (i.e., ignitability, reactivity, corrosivity, and toxicity), and must present sufficient information for the EPA to determine whether the waste contains any other toxicants at hazardous levels. *See*

¹ Although no one produces hazardous waste intentionally, many industrial processes result in the production of hazardous waste, as well as useful products and services. A "generating facility" is a facility in which hazardous waste is produced, and a "generator" is a person who produces hazardous waste or causes hazardous waste to be produced at a particular place. Please see 40 CFR 260.10 for regulatory definitions of "generator," "facility," "person," and other terms related to hazardous waste, and 40 CFR part 262 for regulatory requirements for generators.

section 260.22(a), 42 U.S.C. 6921(f), and the background documents for the listed wastes. Although wastes which are "delisted" (i.e., excluded) have been evaluated to determine whether or not they exhibit any of the characteristics of hazardous waste, generators remain obligated under RCRA to determine whether or not their wastes continue to be nonhazardous based on the hazardous waste characteristics (i.e., characteristics which may be promulgated subsequent to a delisting decision.)

In addition, residues from the treatment, storage, or disposal of listed hazardous wastes and mixtures containing listed hazardous wastes are also considered hazardous wastes. *See* Section 261.3(a)(2)(iv) and (c)(2)(i), referred to as the "mixture" and "derived-from" rules, respectively. Such wastes are also eligible for exclusion and remain hazardous wastes until excluded. On December 6, 1991, the U.S. Court of Appeals for the District of Columbia vacated the "mixture/derived-from" rules and remanded them to the EPA on procedural grounds. *Shell Oil Co. v. EPA*, 950 F.2d 741 (D.C. Cir. 1991). On March 3, 1992, EPA reinstated the mixture and derived-from rules, and solicited comments on other ways to regulate waste mixtures and residues (57 FR 7628). These rules became final on October 30, 1992 (57 FR 49278), and should be consulted for more information regarding waste mixtures and solid wastes derived from treatment, storage, or disposal of a hazardous waste. On May 16, 2001, EPA amended the mixture and derived-from rules for certain types of wastes (66 FR 27218 and 66 FR 27266). The mixture and derived-from rules are codified in 40 CFR 261.3, paragraphs (a)(2)(iv) and (c)(2)(i). EPA plans to address all waste mixtures and residues when the final portion of the Hazardous Waste Identification Rule (HWIR) is promulgated.

On October 10, 1995, the Administrator delegated to the Regional Administrators the authority to evaluate and approve or deny petitions submitted in accordance with sections 260.20 and 260.22, by generators within their Regions (National Delegation of Authority 8-19), in States not yet authorized to administer a delisting program in lieu of the Federal program. On March 11, 1996, the Regional Administrator of EPA, Region 4, redelegated delisting authority to the Director of the Waste Management Division (Regional Delegation of Authority 8-19).

B. How Did EPA Evaluate This Petition?

This petition requests a delisting for a hazardous waste listed as F006 and F028. In making the initial delisting determination, EPA evaluated the petitioned waste against the listing criteria and factors cited in Section 261.11 (a)(2) and (a)(3). Based on this review, the EPA agrees with the petitioner that the waste is nonhazardous with respect to the original listing criteria. (If EPA had found, based on this review, that the waste remained hazardous based on the factors for which the waste was originally listed, EPA would have proposed to deny the petition.) EPA then evaluated the waste with respect to other factors or criteria to assess whether there is a reasonable basis to believe that such additional factors could cause the waste to be hazardous. See section 260.22(a) and (d). The EPA considered whether the waste is acutely toxic, and considered the toxicity of the constituents, the concentration of the constituents in the waste, their tendency to migrate and to bioaccumulate, their persistence in the environment once released from the waste, plausible and specific types of management of the petitioned waste, the quantities of waste generated, and waste variability.

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

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

MCL to be exceeded in groundwater underneath a landfill where the waste is disposed. This method of calculating delisting levels resulted in conservative levels that were protective of groundwater, because the model did not assume that the landfill had the controls required of Subtitle D landfills. A Subtitle D landfill is a landfill subject to RCRA Subtitle D nonhazardous waste regulations, and to State and local nonhazardous waste regulations.

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

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

Today's proposal provides background information on the mechanics of the DRAS, and the use of the DRAS in delisting decision-making. Please see the EPA, Region 6, *RCRA Delisting Technical Support Document* (RDTSD) for a complete discussion of the DRAS calculation methods. The RDTSD, and **Federal Register**, 65 FR

75637–75651, December 4, 2000, and 65 FR 58015–58031, September 27, 2000, are the sources of the DRAS information presented in today's preamble, and are included in the RCRA regulatory docket for this proposed rule.

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

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

DRAS uses the EPACMTP model to simulate the fate and transport of dissolved contaminants from a point of release at the base of a landfill, through the unsaturated zone and underlying groundwater, to a receptor well at an arbitrary downstream location in the aquifer (the rock formation in which the groundwater is located). DRAS evaluates, with the EPACMTP model, the groundwater exposure concentrations at the receptor well that result from the chemical release and transport from the landfill (*Application of EPACMTP to Region 6 Delisting Program: Development of Waste Volume-Specific Dilution Attenuation Factors*, U. S. EPA, August 1996). For the purpose of delisting determinations, receptor well concentrations for both carcinogens and non-carcinogens from finite-source degraders and non-degraders are determined with this model. Delisted waste is a finite source, because in a finite period of time, the waste's constituents will leach and move out of the landfill. If EPA makes a final decision to delist DOE–SR's F006 and F028 waste, DOE–SR must meet the delisting levels and dispose of the waste

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

1. Delisting Guidance Manual http://www.epa.gov/earth1r6/6pd/rcra_c/pd-o/dlistpdf.htm

2. Delisting Risk Assessment Software (DRAS) http://www.epa.gov/earth1r6/6pd/rcra_c/pd-o/dras.htm

3. DRAS Technical Support Document (DTSD) http://www.epa.gov/earth1r6/6pd/rcra_c/pd-o/dtsd.htm

4. DRAS Users Guide http://www.epa.gov/earth1r6/6pd/rcra_c/pd-o/uguide.pdf

Region 6 has made them available to the public, free of charge.

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

in a Subtitle D landfill, because EPA determined the delisting levels based on a landfill model. Because of its radioactivity, DOE-SR's waste when delisted must be disposed in a low-level radioactive landfill in accordance with the Atomic Energy Act.

3. Why Is the EPACMTP an Improvement Over the EPACML?

The EPACMTP includes three major categories of improvements over the EPACML. The improvements include:

- 1—Incorporation of additional fate and transport processes (e.g., degradation of chemical constituents; fate and transport of metals);
- 2—Use of enhanced flow and transport equations (e.g., for calculating transport in three dimensions); and
- 3—Revision of the Monte Carlo methodology (e.g., to allow use of site-specific, waste-specific data) (*EPACMTP Background Document and User's Guide*, Office of Solid Waste, U. S. EPA, Washington, D.C., September 1996).

A summary of the key enhancements which have been implemented in the EPACMTP is presented here and the details are provided in the background documents to the proposed 1995 Hazardous Waste Identification Rule (HWIR) (60 FR 66344, December 21, 1995). The background documents are available through the RCRA HWIR **Federal Register** proposal docket (60 FR 66344, December 21, 1995). For more information, please contact Judy Sophianopoulos, South Enforcement and Compliance Section, (Mail Code 4WD-RCRA), RCRA Enforcement and Compliance Branch, U.S. Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, Georgia 30303, (404) 562-8604, or call, toll free, (800) 241-1754, and leave a message, with your name and phone number, for Ms. Sophianopoulos to return your call. You may also contact her by e-mail: sophianopoulos.judy@epa.gov.

The EPACML accounts for: one-dimensional steady and uniform advective flow; contaminant dispersion in the longitudinal, lateral, and vertical directions; and sorption. However, advances in groundwater fate and transport have been made in recent years and EPA proposes and requests public comment on the use of the EPACMTP, which is a more advanced groundwater fate and transport model, for this RCRA delisting.

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 disposal units. These conditions increase the transverse horizontal, as well as the vertical, spreading of a contaminant plume.

The EPACMTP model overcomes the deficiencies of the EPACML in the following way: The subsurface as modeled with the EPACMTP consists of an unsaturated zone beneath a landfill and a saturated zone, the underlying water table aquifer. Contaminants move vertically downward through the unsaturated zone to the water table. The EPACMTP simulates one-dimensional, vertically downward flow and transport of contaminants in the unsaturated zone, as well as two-dimensional or three-dimensional groundwater flow and contaminant transport in the underlying saturated zone. The EPACML used a saturated zone module that was based on a Gaussian distribution of the 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 (saturated zone) underneath the waste unit. The module accounting for initial mixing in the EPACML could lead to unrealistic groundwater concentrations.

The enhanced EPACMTP model incorporates a direct linkage between the unsaturated zone and saturated zone modules which overcomes these limitations of the EPACML. The following mechanisms affecting contaminant migration are accounted for in the EPACMTP model: transport by advection and dispersion, retardation resulting from reversible linear or nonlinear equilibrium sorption on the soil and aquifer solid phase, and biochemical degradation processes. The EPACML did not account for biochemical degradation, and did not account for sorption as accurately as the EPACMTP.

The EPACMTP consists of four major components:

- 1—A module that performs one-dimensional analytical and numerical solutions for water flow and contaminant transport in the unsaturated zone beneath a waste management unit;
- 2—A numerical module for steady-state groundwater flow subject to recharge from the unsaturated zone;
- 3—A module of analytical and numerical solutions for contaminant transport in the saturated zone; and
- 4—A Monte Carlo module for assessing the effect of the uncertainty resulting

from variations in model parameters on predicted receptor well concentrations.

4. Where Can Technical Details on the EPACMTP Be Found?

For more information on DRAS and EPACMTP, please see 65 FR 75637-75651, December 4, 2000; 65 FR 58015-58031, September 27, 2000; and 66 FR 9781-9798, February 12, 2001. The December 4, 2000 **Federal Register** discusses the key enhancements of the EPACMTP and the details are provided in the background documents to the proposed 1995 Hazardous Waste Identification Rule (HWIR) (60 FR 66344, December 21, 1995). The background documents are available through the RCRA HWIR FR proposal docket (60 FR 66344, December 21, 1995). A summary of DRAS is presented in 66 FR 9781-9798, February 12, 2001. Footnote 2 in Preamble Section I.B.2. above lists the URL addresses for Region 6 guidance on DRAS.

5. What Methods Is EPA Proposing To Use To Determine Delisting Levels for This Petitioned Waste?

DOE-SR submitted to the EPA analytical data from its Savannah River Site (SRS) in Aiken, South Carolina. The petitioned waste consists of treated F006 and F027 waste from the M-Area of SRS, where nuclear reactor components were produced. The M-Area waste was treated by vitrification and DOE-SR petitioned EPA to delist the vitrified waste treatment residue, classified as F006 and F028, because it was derived from the treatment of F006 and F027 waste. DOE-SR's petitioned waste also included a small volume of non-vitrified waste treatment residue consisting of cementitious treatability samples (EPA Hazardous Waste No. F006). DOE-SR's delisting petition is based on analytical results for untreated waste, laboratory scale treatability studies, pilot scale testing, and testing of the vitrified waste from the full-scale vitrification unit. A summary of analytical data is presented in Table 2 of section II below, with analytical details in the Table footnotes.

After reviewing the analytical data and information on processes and vitrification feed materials that DOE-SR submitted in the delisting petition, EPA developed a list of constituents of concern and calculated delisting levels and risks using DRAS and EPACMTP DAFs as described above. EPA requests public comment on this proposed method of calculating delisting levels and risks for DOE-SR's petitioned waste.

EPA also requests comment on three additional methods of evaluating DOE-SR's delisting petition and determining delisting levels: (1) Use of the Multiple Extraction Procedure (MEP), SW-846 Method 1320,⁴ to evaluate the long-term resistance of the waste to leaching in a landfill; (2) comparing total concentrations of constituents in the waste to the results obtained by DRAS for total concentrations; and (3) comparing concentrations of constituents in the waste and waste leachate to the Land Disposal Restrictions (LDR) Universal Treatment Standards (UTS) levels in 40 CFR 268.48. The UTS levels for DOE-SR's constituents of concern are the following:

Arsenic: 5.0 mg/l TCLP; *Barium*: 21 mg/l TCLP; *Beryllium*: 1.22 mg/l TCLP;

Cadmium: 0.11 mg/l TCLP; *Chromium*: 0.60 mg/l TCLP; *Lead*: 0.75 mg/l TCLP;

Nickel: 11 mg/l TCLP; *Silver*: 0.14 mg/l TCLP; and *Acetonitrile*: 38 mg/kg.

The EPA provides notice and an opportunity for comment before granting or denying a final exclusion. Thus, a final decision will not be made until all timely public comments (including those at public hearings, if any) on today's proposal are addressed.

II. Disposition of Delisting Petition

A. Summary of Delisting Petition Submitted by the United States Department of Energy Savannah River Operations Office (DOE-SR), Aiken, South Carolina

DOE-SR is seeking a delisting for vitrified radioactive mixed waste (RMW) generated at the Savannah River Site (SRS) in Aiken, South Carolina. The petitioned waste meets the listing definitions of F006 and F028 in Section 261.31⁵ and was generated by vitrification treatment of F006 and F027⁶ waste from the SRS M-Area

where nuclear reactor components were produced. The petitioned waste also includes a small volume of non-vitrified waste which consists of cementitious treatability samples (EPA Hazardous Waste No. F006).

DOE-SR petitioned EPA, Region 4, in September 1996 and submitted revised petitions in September 1998 and September 2000, to exclude this F006 and F028 waste, on a one-time, generator-specific basis, from the lists of hazardous wastes in 40 CFR part 261, subpart D.

The hazardous constituents of concern⁷ for which F006 was listed are cadmium, hexavalent chromium, nickel, and cyanide (complexed). F028 was listed for tetra-, penta-, and hexachlorodibenzo-*p*-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts. DOE-SR petitioned the EPA to exclude its F028 waste (generated from thermal treatment of F027 waste) and F006 waste because DOE-SR believes that the petitioned waste does not meet the criteria for which the waste was listed. DOE-SR claims that its F006 and F028 waste will not be hazardous because the constituents of concern for which F006 and F028 are listed are either not present or present only at such low concentrations that the waste does not meet the criteria in Section 261.11(a)(3) for listing a waste as hazardous. DOE-SR also believes that this waste will not be hazardous for any other reason (i.e., there will be no additional constituents or factors that could cause the waste to be hazardous⁸). Review of this petition included consideration of the original listing criteria, as well as the additional factors required by the Hazardous and Solid Waste Amendments (HSWA) of 1984. See section 222 of HSWA, 42 U.S.C. 6921(f), and 40 CFR 260.22(d)(2)-(4). Today's proposal to grant this petition for delisting is the result of the EPA's evaluation of DOE-SR's petition.

In support of its petition, DOE-SR submitted: (1) Descriptions⁹ of the waste streams that contributed to the

petitioned waste, the areas where the contributing waste streams were generated, and the vitrification treatment process that generated the petitioned waste; (2) Material Safety Data Sheets (MSDSs) for all chemicals used in processes that generated the waste streams from which the petitioned waste was derived and the vitrification process that generated the petitioned waste; (3) the total volume of petitioned waste generated; (4) results of analysis of untreated waste and the petitioned waste for all constituents in Appendix VIII of 40 CFR part 261 or Appendix IX of part 264; (5) results of the analysis of leachate obtained by means of the Toxicity Characteristic Leaching Procedure (TCLP), SW-846 Method 1311), from the petitioned waste and historical results obtained by the Extraction Procedure Toxicity leaching method (EPTox), SW-846 Method 1310); (6) results of the determinations for the hazardous characteristics of ignitability, corrosivity, and reactivity, in these wastes; and (7) results of the MEP analysis of the petitioned waste.

The SRS vitrification unit treated all of the M-Area waste streams from October 1996 through March 22, 1999, pursuant to the Land Disposal Restrictions—Federal Facility Compliance Agreement (LDR-FFCA) of March 13, 1991, between EPA and DOE. Forty-four batches, a total of 2,960 metric tons, of M-Area waste streams were treated.¹⁰ The LDR-FFCA required that the treatment residue meet LDR treatment standards. The petitioned waste is this treatment residue and, except for a small volume of cementitious treatability samples is the glass that formed after cooling and shaping molten glass made from the M-Area waste streams and glass-making additives. The vitrification unit, called the Vendor Treatment Facility (VTF) Melter, was an electric joule-heated glass melter, with a capacity of 5 to 6 tons per day, which maintained the molten glass at 1150°C for an average of 4 to 5 days. The total amount of vitrified waste generated was 538 cubic yards, classified as F006 and F028 because it was derived from F006 and F027 M-Area waste streams. Table 1 presents a summary of the M-Area waste streams and their generation dates.

In addition to the vitrified waste, the DOE-SR requested the delisting of a small volume of cementitious treatability samples (EPA Hazardous

⁴ "SW-846" means EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." Methods in this publication are referred to in today's proposed rule as "SW-846," followed by the appropriate method number.

⁵ F006: "Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum."

⁶ F028: "Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F023, F026, and F027."

⁷ F027: "Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or

discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-tri-chlorophenol as the sole component.)"

⁸ The hazardous constituents of concern for every listed waste are in *Appendix VII to Part 261—Basis for Listing Hazardous Waste*.

⁹ Note that the waste remains subject to the Atomic Energy Act because of its radioactivity.

¹⁰ Detailed descriptions may be found in the DOE-SR's Approved Site Treatment Plan (1996), developed pursuant to the Federal Facility Compliance Act of 1992.

¹⁰ The RCRA Docket, R4-01-02-DOESRSP, for today's proposed rule contains the letter, dated June 15, 1999, to David E. Wilson from J. V. Odum, which documents the treatment of the petitioned waste to LDR treatment standards.

Waste No. F006). These samples were generated during treatability studies on stabilization conducted by the Savannah River Technology Center (between 1988–1991), and amounted to a total of 24 gallons (approximately 0.12 cubic yards). Analytical data were presented in the delisting petition which indicated that concentrations of hazardous

constituents in these cementitious treatability samples were well below levels of concern. DOE–SR reported that these treatability samples might have been size reduced and vitrified in the VTF melter, but VTF operations personnel were concerned that the size reduced samples might not dissolve in the molten glass, and might plug the

discharge ports. Therefore, the 0.12 cubic yard of cementitious treatability samples was not vitrified, but was included in the delisting petition (Section 2.1.5.2) as a separate waste stream in addition to the 538 cubic yards of vitrified M-Area wastes.

TABLE 1.—M-AREA WASTE STREAMS OF SAVANNAH RIVER SITE, AIKEN, SOUTH CAROLINA

Stream name	Stream designation in site treatment plan	EPA hazardous waste number (waste code) for listed waste	Dates generated
Plating Line Sludge from Supernate Treatment.	W-004	F006	June 1990–Apr. 1995.
Mark 15 Filter Cake	W-005	F006	Apr. 1983–July 1983.
Sludge Treatability Samples (glass and cementitious).	W-029	F006	1988–1994.
Uranium/Chromium Solution	W-031	Not listed, but hazardous by characteristic ...	1990–1992.
High Nickel Plating Line Sludge	W-037	F006	June 1985–Sept. 1988.
Plating Line Sump Material	W-038	Not listed, but hazardous by characteristic ...	Oct. 1988.
Nickel Plating Line	W-039	Not listed, but hazardous by characteristic ...	Feb. 1992.
Soils from Spill Remediation and Sampling Programs.	W-048	Not listed, but hazardous by characteristic ...	1983–1985.
Uranium/Lead Solution	W-054	Not listed, but hazardous by characteristic ...	1986–1988.
Soils from Chemicals, Metals, and Pesticides Pits Excavation.	W-082	F027	1984.
Dilute Effluent Treatment Facility (DETF) Filtercake from VTF off-gas condensate.	Not Applicable	F006	1996–1999.

Table 1B below summarizes the hazardous constituents and their concentrations in DOE–SR's petitioned waste.

TABLE 1B.—SAVANNAH RIVER SITE, AIKEN, SOUTH CAROLINA: PROFILE OF VITRIFIED M-AREA WASTE

Parameters ¹	1 2	2 10	3 15	4 21	5 26	6 33	7 39	8 44	Max- imum ³	Mean	Standard deviation	Coeffi- cient of variation (%)
Metals												
Arsenic ² (mg/kg)	2.37	4.84	2.01	2.42	2.54	2.09	1.81	1.52	4.84	2.45	1.02	41.8
Arsenic—TCLP	0.045U	0.045U	0.045U	0.045U	0.045U	0.045U	0.045U	0.045U	0.045U	NA	NA	NA
Barium (mg/kg)	79.6	116	101	127	104	83.3	85.3	101	127	99.6	16.5	16.6
Barium—TCLP	0.018J	0.010J	0.013J	0.011J	0.009J	0.010J	0.0083J	0.0082J	0.018J	0.011	0.0032	30
Beryllium (mg/kg)	0.52	0.73	0.67	0.82	0.65	0.52	0.56	1.0	1.0	0.68	0.16	24
Beryllium—TCLP	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.0005U	0.0008J	0.0008J	NA	NA	NA
Cadmium (mg/kg)	1.3	2.0	1.0	1.2	2.1	1.8	2.4	1.1	2.4	1.6	0.53	33
Cadmium—TCLP	0.004U	0.004U	0.004U	0.004U	0.004U	0.004U	0.004U	0.004U	0.0008J	NA	NA	NA
Chromi-um (mg/kg) ..	293	401	131	163	224	218	443	449	449	290	126	43.6
Chromi-um—TCLP ...	0.18J	0.007J	0.007J	0.006U	0.006J	0.010J	0.010J	0.015J	0.18J	0.030	0.061	200
Lead (mg/kg)	53.5	74.9	59.2	99.2	94.0	61.5	76.0	33.6	99.2	69.0	21.6	31.3
Lead—TCLP	0.016U	0.016U	0.016U	0.016U	0.016U	0.016U	0.016U	0.016U	NA	NA	NA	NA
Nickel (mg/kg)	4,450	6,270	3,990	6,130	9,800	6,420	8,680	1,540	9,800	5,910	2,620	44.4
Nickel—TCLP	0.32	0.19	0.41	0.37	0.35	0.34	0.46	0.072	0.46	0.31	0.12	40
Silver (mg/kg)	7.4	11.5	5.3	6.0	10.2	10.2	8.3	1.5	11.5	7.55	3.26	43.2
Silver—TCLP	0.010J	0.011J	0.014J	0.012J	0.015J	0.013J	0.016J	0.017J	0.017J	0.014	0.0024	18
Organics												
Aceto-nitrile (µg/kg) ..	8.8J	3.70J	9.60J	5.70J	8.54J	9.85J	9.4J	6.2J	9.85J	7.7	2.2	29
Aceto-nitrile-TCLP									NA	NA	NA	NA
Non-Metal Inorganics												
Fluoride	0.20U	0.24U	0.23U	0.45J	0.19U	0.270J	0.20U	0.23J	0.45J	0.25	0.084	35

Notes to Table 1B:

¹ Parameters are the chemicals or properties analyzed.

² The first set of results for each chemical shows the concentrations determined by total analysis of the samples in milligrams of chemical per kilogram of waste (mg/kg) for metals and micrograms per kilogram (µg/kg) for organics. "Total analysis" means analysis of unextracted waste. The second set of results for each chemical shows the concentrations determined by analysis of the TCLP extracts of the samples in milligrams of chemical per liter of TCLP extract of the waste (mg/L). The TCLP results are in the row where the name of the chemical is followed by "—TCLP." U = Not detected above the method detection limit, which is the value preceding the U. J = Detected at a concentration greater than the detection limit but less than the reporting limit. — = not analyzed. The metals, antimony, mercury, selenium, and thallium were not detected by total analysis of samples and are not included in the table in order to save space. Acetonitrile was the only organic compound detected and is the only organic compound included in the table. Acetonitrile was not detected above the laboratory reporting limit. Columns 2 through 9 in the table heading contain sample identification numbers. The samples were composite samples for total analysis and grab samples for TCLP from one or more of the VTF batches associated with the composite sample. The top numbers in Columns 2 through 9 are composite sample numbers and the bottom numbers are TCLP grab sample numbers that identify a VTF batch number that was grab-sampled for TCLP. Sampling and analysis details are in Sections 4 and 5 of the petition.

³ The last four columns contain a statistical analysis of the analytical results. Max. = maximum concentration found; Mean. = mean or average concentration found = sum of concentrations divided by the number of samples; S.D. = standard deviation = the square root of [(sum of squares of the differences between each measured concentration and the mean) divided by (the number of samples minus 1)]; C.V. = coefficient of variation, expressed as a percent = 100 times the standard deviation divided by the mean concentration. Statistical analyses were performed only if the parameter was detected in more than one sample. If a chemical was not detected in any of the samples, NA (not applicable) was written in the last three columns. Detection limits reported by the laboratory were used in the statistical calculations when chemicals were not detected (U) in some of the samples. This is a conservative assumption, which is likely to result in overestimation of the mean concentration.

EPA concluded after reviewing DOE-SR's waste management and waste history information that no other hazardous constituents, other than those tested for, are likely to be present in DOE-SR's petitioned waste. In addition, on the basis of test results and other information provided by DOE-SR, pursuant to section 260.22, EPA concluded that the petitioned waste will not exhibit any of the characteristics of ignitability, corrosivity, or reactivity. See Sections 261.21, 261.22, and 261.23, respectively.

During its evaluation of DOE-SR's petition, EPA also considered the potential impact of the petitioned waste on media other than groundwater. With regard to airborne dispersal of waste, EPA evaluated the potential hazards resulting from airborne exposure to waste contaminants from the petitioned waste using an air dispersion model for releases from a landfill. The results of this evaluation indicated that there is no substantial present or potential hazard to human health from airborne exposure to constituents from DOE-SR's petitioned waste. (A description of EPA's assessment of the potential impact of airborne dispersal of DOE-SR's petitioned waste is presented in the RCRA public docket for today's proposed rule.)

EPA evaluated the potential impact of the petitioned waste on surface water resulting from storm water runoff from a landfill containing the petitioned

waste, and found that the waste would not present a threat to human health or the environment. (See the docket for today's proposed rule for a description of this analysis). In addition, EPA believes that containment structures at low-level radioactive waste landfills can effectively control runoff. DOE-SR plans to dispose the petitioned waste at the bottom of a 30 foot deep burial trench, so it does not anticipate that runoff from rainwater will directly contact the disposed waste. EPA also believes that, in general, leachate derived from the waste will not directly enter a surface water body without first traveling through the saturated subsurface where dilution of hazardous constituents may occur. Transported contaminants would be further diluted in the receiving water body. Compliance with Atomic Energy Act requirements would minimize significant releases to surface water from erosion of undissolved particulates in runoff.

B. What Delisting Levels Did EPA Obtain With DRAS and EPACMTP?

Delisting levels and risk levels calculated by DRAS, using the EPACMTP model, are presented in Table 2 below. DRAS found that the major pathway for human exposure to this waste is groundwater ingestion, and calculated delisting and risk levels based on that pathway. The input values required by DRAS were the chemical constituents in DOE-SR's petitioned

waste; their maximum reported concentrations in the TCLP extract of the waste and in the unextracted waste (Values in Table 1B, Preamble Section II.A.); the maximum one-time volume to be land-disposed (538 cubic yards); the desired risk level, which was chosen to be no worse than 10^{-6} for carcinogens; and a hazard quotient of no greater than 1 for non-carcinogens. The carcinogenic constituents in the waste are arsenic, beryllium, and cadmium. Beryllium and cadmium also have non-carcinogenic toxic effects. Allowable concentrations in the TCLP leachate of the waste, as calculated by DRAS, are higher than the Toxicity Characteristic (TC) levels for all TC constituents except arsenic. Therefore, the delisting levels for all TC constituents except arsenic are capped at the TC regulatory level. The maximum TCLP concentrations found by DOE-SRS for the petitioned waste are all well below the TC levels and are also below the Universal Treatment Standards (UTS) of the Land Disposal Restrictions (LDR). All total concentrations reported for the unextracted petitioned waste are also many orders of magnitude below the DRAS-calculated total levels. The maximum reported total concentrations for DOE-SR's petitioned waste were all below the following levels (mg/kg): Arsenic-10; Barium-200; Beryllium-10; Cadmium-10; Chromium-500; Lead-200; Nickel-10,000; Silver-20; Acetonitrile-1.0, and Fluoride-1.0.

TABLE 2:—DELISTING AND RISK LEVELS CALCULATED BY DRAS WITH EPACMTP MODEL FOR SRS PETITIONED WASTE

Constituent	Delisting level (mg/l TCLP)	DAF	DRAS-calculated risk for maximum concentration of carcinogen in waste	DRAS-calculated Hazard quotient for maximum concentration of non-carcinogen in waste
Arsenic	0.0649	1,330	3.47×10^{-7}	566×10^{-6} .
Barium	5,070*; 3,860 Based on MCL ...	1,930 .....	.....
Beryllium (Carcinogenic Effect)	Not Enough Information: Effect Based on Inhalation 28.8 Based on MCL.	7.21×10^3	2.13×10^{-11}	
Beryllium (Non-Carcinogenic Effect).	541 28.8 Based on MCL	7.21×10^3 .....	.....	2.16×10^{-6} .
Cadmium (Carcinogenic Effect)	Not Enough Information: Effect Based on Inhalation; 10.4 Based on MCL.	2,080	4.17×10^{-15}	1.15×10^{-4} .
Cadmium (Non-Carcinogenic Effect).	39* 10.4 Based on MCL	2,080 .....	.....
Chromium (Hexavalent; Carcinogenic Effect).	Not Enough Information: Effect Based on Inhalation; 107 Based on MCL.	1,070	5.30×10^{-12}	
Chromium (Not Hexavalent; Non-Carcinogenic Effect).	1.50×10^7 *, 2.67×10^4 Based on MCL.	2.67×10^5 .....	.....	5.48×10^{-7} .

TABLE 2.—DELISTING AND RISK LEVELS CALCULATED BY DRAS WITH EPACMTP MODEL FOR SRS PETITIONED WASTE—Continued

Constituent	Delisting level (mg/l TCLP)	DAF	DRAS-calculated risk for maximum concentration of carcinogen in waste	DRAS-calculated Hazard quotient for maximum concentration of non-carcinogen in waste
Lead	5,200*	3.46×10^5 .....	.....	Not Enough Information: There is No Reference Dose for Lead.
Nickel	1.960	2,610 .....	.....	5.64×10^{-4} .
Silver	266*	1420 .....	.....	3.71×10^{-5} .
Fluoride	Not Enough Information; 4,990 Based on MCL.	1,250 .....	.....	Not Enough Information.
Acetonitrile	847	1,320 .....	.....	6.00×10^{-7} .
total Hazard Quotient for All Waste Constituents.	.....	.....	.....	1.09×10^{-3} .
Total Carcinogenic Risk for the Waste (due to Arsenic, Beryllium, Cadmium, and Hexavalent Chromium)).	.....	.....	3.48×10^{-7}	

*These levels are all greater than the Toxicity Characteristic (TC) regulatory level in 40 CFR 261.24. A waste cannot be delisted if it exhibits a hazardous characteristic; therefore, the delisting level for each of these constituents could not be greater than the TC level of 100 for Barium; 1.0 for Cadmium; 5.0 for Chromium; 5.0 for Lead; and 5.0 for Silver. MCL = Maximum Contaminant Level of National Primary Drinking Water Standards.

C. How Did EPA Use the Multiple Extraction Procedure (MEP) To Evaluate This Delisting Petition?

EPA developed the MEP test (SW-846 Method 1320) to help predict the long-term resistance to leaching of stabilized wastes, which are wastes that have been treated to reduce the leachability of hazardous constituents. The MEP consists of a TCLP extraction of a sample followed by nine sequential extractions of the same sample, using a synthetic acid rain extraction fluid (prepared by adding a 60/40 weight mixture of sulfuric acid and nitric acid to distilled deionized water until the pH is 3.0 ± 0.2). The synthetic acid rain extraction fluid was developed to determine the effect of "natural" acid rain on a hazardous waste inappropriately disposed, i.e., directly exposed to rainfall. The standard TCLP extraction fluid was developed to simulate the leaching of a hazardous waste disposed in a landfill, with the simulated extractant having a pH of 4.93. During the MEP test, the original sample which is subjected to the nine sequential extractions consists of the solid phase remaining after, and separated from, the initial TCLP extract. EPA designed the MEP to simulate multiple washings of percolating rainfall in the field, and estimates that these synthetic acid rain extractions would simulate approximately 1,000 years of rainfall. (See 47 FR 52687, Nov. 22, 1982.) DOE-SR modified the MEP procedure for the petitioned waste by using the TCLP extraction fluid with pH = 4.93 for all the extractions, instead of using the synthetic acid rain for the

nine extractions following the initial TCLP extraction. DOE-SR believed that the TCLP would represent more accurately the long term leaching from the SRS low-level radioactive waste landfill in which the waste would not be exposed to direct rainfall leaching. Table 3 below presents the results of analysis of modified MEP extracts.

The modified MEP data in Table 3 indicate that the petitioned waste would be expected to leach metals at low and decreasing concentrations for a period of at least 100 years, and much less than 10 per cent of the total amount of metal in the waste would leach during this time period.¹¹ The average life of a landfill is approximately 20 years. (See 56 FR 32993, July 18, 1991; and 56 FR 67197, Dec. 30, 1991.)

TABLE 3.—MULTIPLE EXTRACTION PROCEDURE (MODIFIED SW-846 METHOD 1320) RESULTS FOR DOE-SR'S PETITIONED WASTE

Extract No.	Nickel (Ni) concentration (mg/l TCLP)
1 (Initial TCLP)	0.46
2 (First TCLP extraction of the modified MEP)	0.33
3	0.34
4	0.29

¹¹ This estimate is based on the following calculation for nickel: % nickel leached out over more than 100 years = $100 \times (\text{total number of milligrams of nickel in all of the 2-liter sample MEP extracts}) \div (\text{the number of milligrams of nickel in the 100-gram sample that was extracted by the MEP})$: $100 \times 2 \times (0.46 + 0.33 + 0.34 + 0.29 + 0.32 + 0.30 + 0.31 + 0.31 + 0.33 + 0.33) \div 954 = 100 \times 6.64 \div 954 = 0.70\%$.

TABLE 3.—MULTIPLE EXTRACTION PROCEDURE (MODIFIED SW-846 METHOD 1320) RESULTS FOR DOE-SR'S PETITIONED WASTE—Continued

Extract No.	Nickel (Ni) concentration (mg/l TCLP)
5	0.32
6	0.30
7	0.31
8	0.31
9	0.33
10 (Ninth TCLP extraction of the modified MEP)	0.33

D. Conclusion

After reviewing DOE-SR's processes, the EPA concludes that (1) no hazardous constituents of concern are likely to be present in DOE-SR's waste at levels that would harm human health and the environment; 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.

EPA believes that DOE-SR's petitioned waste will not harm human health and the environment when disposed in a low-level radioactive waste landfill.

EPA proposes to exclude DOE-SR's petitioned waste from being listed as F006 and F028, based on descriptions of waste management and waste history, evaluation of the results of waste sample analysis, and on the requirement that DOE-SR's petitioned waste must be disposed in accordance with the Atomic Energy Act. If the proposed rule

becomes effective, the exclusion will be valid if the petitioner disposes of the waste in a low-level radioactive waste landfill in accordance with the Atomic Energy Act, as required by the amended Table 1 of Appendix IX of 40 CFR part 261. If the proposed rule becomes final and EPA approves the disposal method, the petitioned waste would not be subject to regulation under 40 CFR parts 262 through 268 and the permitting standards of 40 CFR part 270. Although management of the waste covered by this petition would, upon final promulgation, be relieved from Subtitle C jurisdiction, the waste would remain a solid waste under RCRA and a low-level radioactive waste under the Atomic Energy Act. As such, the waste must be handled in accordance with all applicable Federal, State, and local solid waste management and low-level radioactive waste regulations. Pursuant to RCRA section 3007, EPA may also sample and analyze the waste to verify reported analytical data.

III. Limited Effect of Federal Exclusion

Will This Rule Apply in All States?

This proposed rule, if promulgated, would be issued under the Federal (RCRA) delisting program. States, however, are allowed to impose their own, non-RCRA regulatory requirements that are more stringent than EPA's, pursuant to section 3009 of RCRA. These more stringent requirements may include a provision which prohibits a Federally issued exclusion from taking effect in the States. Because a petitioner's waste may be regulated under a dual system (i.e., both Federal and State programs), petitioners are urged to contact State regulatory authorities to determine the current status of their wastes under the State laws. Furthermore, some States are authorized to administer a delisting program in lieu of the Federal program, i.e., to make their own delisting decisions. Therefore, this proposed exclusion, if promulgated, would not apply in those authorized States. If the petitioned waste will be transported to any State with delisting authorization, SRS must obtain delisting authorization from that State before the waste may be managed as nonhazardous in that State.

IV. State Authorization

A. Statutory Authority

Under section 3006 of RCRA, EPA may authorize qualified States to administer the RCRA hazardous waste program within the State. See 40 CFR part 271 for the overall standards and requirements for authorization. Following authorization, the State

requirements authorized by EPA apply in lieu of equivalent Federal requirements and become Federally enforceable as requirements of RCRA. EPA maintains independent authority to bring enforcement actions under RCRA sections 3007, 3008, 3013, and 7003. Authorized States also have independent authority to bring enforcement actions under State law. A State may receive authorization by following the approval process described under 40 CFR 271.

After a State receives initial authorization, new Federal requirements promulgated under RCRA authority existing prior to the 1984 Hazardous and Solid Waste Amendments (HSWA) do not apply in that State until the State adopts and receives authorization for equivalent State requirements. The State must adopt such requirements to maintain authorization.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), new Federal requirements and prohibitions imposed pursuant to HSWA provisions take effect in authorized States at the same time that they take effect in unauthorized States. Although authorized States are still required to update their hazardous waste programs to remain equivalent to the Federal program, EPA carries out HSWA requirements and prohibitions in authorized States, including the issuance of new permits implementing those requirements, until EPA authorizes the State to do so. Authorized States are required to modify their programs only when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements. RCRA section 3009 allows the States to impose standards more stringent than those in the Federal program. See also 40 CFR 271.1(i). Therefore, authorized States are not required to adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent.

B. Effect on State Authorization

Today's proposal would be promulgated pursuant to HSWA authority, and contains provisions that are less stringent than the current Federal program. The proposed exclusion for DOE-SR's petitioned waste would be less stringent. Consequently, States would not be required to adopt the proposed exclusion, if it becomes final, as a condition of authorization of their hazardous waste programs.

V. Effective Date

This rule, if made final, will become effective immediately upon final publication. The Hazardous and Solid Waste Amendments of 1984 amended section 3010 of RCRA to allow rules to become effective in less than six months when the regulated community does not need the six-month period to come into compliance. That is the case here, because this rule, if finalized, would reduce the existing requirements for the petitioner. In light of the unnecessary hardship and expense that would be imposed on this petitioner by an effective date six months after publication and the fact that a six-month deadline is not necessary to achieve the purpose of section 3010, EPA believes that this exclusion should be effective immediately upon final publication. These reasons also provide a basis for making this rule effective immediately, upon final publication, under the Administrative Procedure Act, pursuant to 5 U.S.C. 553(d).

VI. Administrative Assessments

A. Executive Order 12866

Under Executive Order 12866, (58 FR 51735 (October 4, 1993)) the Agency must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect, in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

OMB has exempted this proposed rule from the requirement for OMB review under section (6) of Executive Order 12866. This proposed rule is not a "significant regulatory action," because it applies to a single facility.

B. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 USC 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant *adverse* economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities." 5 U.S.C. Sections 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. This proposed rule is de-regulatory in nature, and, if promulgated, will not have an adverse economic impact on any 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, I hereby certify 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. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome

comments on issues related to such impacts.

C. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal Agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA must prepare a written analysis, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. If a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives. Under section 205, EPA must adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule, unless the Administrator publishes with the final rule an explanation why that alternative was not adopted. The provisions of section 205 do not apply when they are inconsistent with applicable law.

Today's proposed rule contains no Federal mandates (under the regulatory provisions of Title II of UMRA) for State, local, or tribal governments or the private sector. This is because today's proposed rule is de-regulatory and imposes no enforceable duty on any State, local or tribal governments or the private sector. Thus, today's rule is not subject to the requirements of sections 202, 204 and 205 of UMRA.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements. EPA has determined that this rule will not significantly or uniquely affect small governments. This is because today's proposed rule is de-regulatory and imposes no enforceable duty on any State, local or tribal governments or the private sector. Today's rule is not, therefore, subject to the requirements of section 203 of UMRA.

D. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et. seq. There are no information collection requirements for this proposed rule that require an ICR. Furthermore, only one facility is affected by this proposal. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

Information collection and record-keeping requirements associated with this proposed rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act and have been assigned OMB Control Number 2050-0053.

E. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

This proposed rule does not have tribal implications. It will not have

substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, as specified in Executive Order 13175. This is because today's proposed rule is de-regulatory and imposes no enforceable duty on any State, local or tribal governments or the private sector. Thus, Executive Order 13175 does not apply to this rule.

In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, EPA specifically solicits additional comment on this proposed rule from tribal officials.

F. Executive Order 13045: Protection of Children From Environmental Risks and Safety Risks

The Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) 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. This proposed rule is not subject to the Executive Order because it is not economically significant as defined in E.O. 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The public is invited to submit or identify peer-reviewed studies and data, of which the agency may not be aware.

G. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides

not to use available and applicable voluntary consensus standards.

This proposed rulemaking involves environmental monitoring or measurement. Consistent with the Agency's Performance Based measurement System ("PBMS"), EPA proposes not to require the use of specific, prescribed analytical methods, except when required by regulation in 40 CFR parts 260 through 270. Rather the Agency plans to allow the use of any method that meets the prescribed performance criteria. The PBMS approach is intended to be more flexible and cost-effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. EPA is not precluding the use of any method, whether it constitutes a voluntary consensus standard or not, as long as it meets the performance criteria specified.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

H. Executive Order 12898

EPA is committed to addressing environmental justice concerns and is assuming a leadership role in environmental justice initiatives to enhance environmental quality for all populations in the United States. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, or income bears disproportionately high and adverse human health or environmental impacts as a result of EPA's policies, programs, and activities, and that all people live in safe and healthful environments. In response to Executive Order 12898 and to concerns voiced by many groups outside the Agency, EPA's Office of Solid Waste and Emergency Response formed an Environmental Justice Task Force to analyze the array of environmental justice issues specific to waste programs and to develop an overall strategy to identify and address these issues (OSWER Directive No. 9200.3-17).

Today's proposed rule pertains to treated waste at a single facility. EPA does not believe this petitioned waste would pose a risk to any community, whether minority, low-income, middle-income, non-minority, or affluent. The petitioned waste, if excluded from regulation as a hazardous waste under RCRA, must comply with the Atomic Energy Act and all federal, state, and local solid waste regulations. Therefore,

this proposed rule is not expected to cause any disproportionately high and adverse impacts to minority or low-income communities versus non-minority or affluent communities.

We encourage all stakeholders including members of the environmental justice community and members of the regulated community to provide comments or further information related to potential environmental justice concerns or impacts, including information and data on facilities that have evaluated potential ecological and human health impacts (taking into account subsistence patterns and sensitive populations) to minority or low-income communities.

I. Executive Order 13211 (Energy Effects)

This proposal is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 Fed. Reg. 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. We have concluded that this proposal will not have any adverse energy effects. It is a de-regulatory proposal that will affect a single facility.

J. Federalism—Applicability of Executive Order 13132

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Today's proposed rule is de-regulatory and imposes no enforceable duty on any State, local or tribal governments or the private sector.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

This action does not have federalism implication. It will not have a substantial direct effect on States, on the relationship between the national government and the States, or on the

distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it affects only one facility.

List of Subjects in 40 CFR Part 261

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

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

Dated: February 27, 2002.
Jewell Harper,
Acting Director, Waste Management 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, part 261 add the following wastestream in alphabetical order by facility to read as follows:

Appendix IX—Wastes Excluded Under Secs. 260.20 and 260.22.

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES

Facility	Address	Waste description
* * *	* * *	* * *
Savannah River Site (SRS)	Aiken, South Carolina	<p>Vitrified waste (EPA Hazardous Waste Nos. F006 South and F028) that the United States Department of Energy Savannah River Operations Office (DOE-SR) generated by treating the following waste streams from the M-Area of the Savannah River Site (SRS) in Aiken, South Carolina, as designated in the SRS Site Treatment Plan:</p> <p>W-004, Plating Line Sludge from Supernate Treatment; W-995, Mark 15 Filter Cake; W-029, Sludge Treatability Samples (glass and cementitious); W-031, Uranium/Chromium Solution; W-037, High Nickel Plating Line Sludge; W-038, Plating Line Sump Material; W-039, Nickel Plating Line Solution; W-048, Soils from Spill Remediation and Sampling Programs; W-054, Uranium/Lead Solution; W-082, Soils from Chemicals, Metals, and Pesticides Pits Excavation; and Dilute Effluent Treatment Facility (DETF) Filtercake (no Site Treatment Plan code). This is a one-time exclusion for 538 cubic yards of waste (hereinafter referred to as "DOE-SR Vitrified Waste") that was generated from 1996 through 1999 and 0.12 cubic yard of cementitious treatability samples (hereinafter referred to as "CTS") generated from 1988 through 1991 (EPA Hazardous Waste No. F006). The one-time exclusion for these wastes is contingent on their being disposed in a low-level radioactive waste landfill, in accordance with the Atomic Energy Act, after [insert date of final rule.] DOE-SR has demonstrated that concentrations of toxic constituents in the DOE-SR Vitrified Waste and CTS do not exceed the following levels.</p> <p>(1) <i>TCLP Concentrations:</i> All leachable concentrations for these metals did not exceed the Land Disposal Restrictions (LDR) Universal Treatment Standards (UTS): (mg/l TCLP): Arsenic-5.0; Barium-21; Beryllium-1.22; Cadmium-0.11; Chromium-0.60; Lead-0.75; Nickel-11; and Silver-0.14. In addition, none of the metals in the DOE-SR Vitrified Waste exceeded the allowable delisting levels of the EPA, Region 6 Delisting Risk Assessment Software (DRAS): (mg/l TCLP): Arsenic-0.0649; Barium-100.0; Beryllium-0.40; Cadmium-1.0; Chromium-5.0; Lead-5.0; Nickel-10.0; and Silver-5.0. These metal concentrations were measured in the waste leachate obtained by the method specified in 40 CFR 261.24.</p> <p><i>Total Concentrations in Unextracted Waste:</i> The total concentrations in the DOE-SR Vitrified Waste, not the waste leachate, did not exceed the following levels (mg/kg): Arsenic-10; Barium-200; Beryllium-10; Cadmium-10; Chromium-500; Lead-200; Nickel-10,000; Silver-20; Acetonitrile-1.0, which is below the LDR UTS of 38 mg/kg; and Fluoride-1.0</p>

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

Facility	Address	Waste description
		<p>(2) <i>Data Records:</i> Records of analytical data for the petitioned waste must be maintained by DOE–SR for a minimum of three years, and must be furnished upon request by EPA or the State of South Carolina, and made available for inspection. Failure to maintain the required records for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be maintained with a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>(3) <i>Reopener Language:</i> (A) If, at any time after disposal of the delisted waste, DOE–SR possesses or is otherwise made aware of any environmental 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 is identified at a level higher than the delisting level allowed by EPA in granting the petition, DOE–SR must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (3)(A) and any other information received from any source, EPA will make a preliminary determination as to whether the reported information requires that EPA take 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 EPA determines that the reported information does require Agency action, EPA will notify the facility. The notice shall include a statement of the proposed action and a statement providing DOE–SR with an opportunity to present information as to why the proposed action is not necessary. DOE–SR shall have 10 days from the date of EPA's notice to present such information. (E) Following the receipt of information from DOE–SR, as described in paragraph (3)(D), or if no such information is received within 10 days, EPA will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment, given the information received in accordance with paragraphs (3)(A) or (3)(B). Any required action described in EPA's determination shall become effective immediately, unless EPA provides otherwise.</p> <p>(4) <i>Notification Requirements:</i> DOE–SR must provide a one-time written notification to any State Regulatory Agency in a State to which or through which the delisted waste described above will be transported, 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 conditions and a possible revocation of the decision to delist.</p>