DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG–209640–93]

RIN 1545–AR69

TeleFile Voice Signature Test

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Withdrawal of cross-referencing notice of proposed rulemaking.

SUMMARY: This document withdraws the notice of proposed rulemaking relating to the Telefile Voice Signature test that was published in the **Federal Register** on December 27, 1993. The notice of proposed rulemaking cross-referenced temporary regulations published on the same day that provided that an individual federal income tax return completed as part of the Telefile Voice Signature test would be treated as a return that is signed, authenticated, verified and filed by the taxpayer as required by the Internal Revenue Code.

EFFECTIVE DATE: These regulations are effective July 18, 2000.

FOR FURTHER INFORMATION CONTACT: Beverly A. Baughman (202) 622–4940 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Background

On December 27, 1993, the IRS issued proposed regulations (REG–209640–93) in the **Federal Register** (58 FR 68335) under sections 6012, 6061, and 6065 relating to the TeleFile Voice Signature test. The notice of proposed rulemaking cross-referenced temporary regulations published in the **Federal Register** for the same day (58 FR 68295). Although written comments and requests for a public hearing were solicited, no written or oral comments were received and no public hearing was requested or held. Because the applicable temporary regulations apply only to 1992 and 1993 calendar year returns, the IRS has decided not to finalize those regulations and, thus, is withdrawing the proposed regulations.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Withdrawal of Notice of Proposed Rulemaking

Accordingly, under the authority of 26 U.S.C. 7805, the notice of proposed rulemaking that was published in the **Federal Register** on December 27, 1993, (58 FR 68335) is withdrawn.

Robert E. Wenzel,

Deputy Commissioner of Internal Revenue.

[FR Doc. 00–18118 Filed 7–17–00; 8:45 am]

BILLING CODE 4830–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[FRN–6838–1]

RIN 2050–AE07

Hazardous Waste Identification Rule (HWIR): Identification and Listing of Hazardous of Hazardous Wastes; Notice of Data Availability and Request for Comments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of data availability and request for comment; extension of the public comment period.

SUMMARY: The Environmental Protection Agency (EPA) is making available for public comment human health and ecological risk data and information relating to an exemption from hazardous waste management that we discussed in a **Federal Register** notice published on November 19, 1999 (64 FR 63382).

That exemption, also known as the Hazardous Waste Identification Rule (HWIR) exemption, would exempt listed hazardous wastes that meet chemical-specific exemption levels from hazardous waste management requirements. We plan to develop these exemption levels based on results from the Multimedia, Multipathway and Multireceptor Risk Assessment (3MRA) Model. The model evaluates simultaneous chemical exposures across several environmental media and multiple exposure pathways to human and ecological receptors in order to estimate the health and ecological effects in the vicinity of waste disposal units that may receive exempt listed hazardous waste.

We presented the underlying methodology and assumptions for the 3MRA Model in the **Federal Register** (64 FR 63382, November 19, 1999). However, because of technical difficulties, we were unable to propose exemption levels in that notice. Since then, we have made numerous revisions to correct and improve the model. On April 12, 2000, we provided an updated version of the 3MRA Model (beta Version 0.98) and results for five chemicals in Docket number F–99–WH2P–FFFFF. On April 19, 2000 (65 FR 20934), we also extended the original deadline of May 17, 2000 for public comment on the modeling methodology to August 15, 2000 to allow additional time for review and comment.

Today's notice makes available the results for 36 chemicals, including the five already in the docket, using an updated version of the model (Version0.98r). In addition, today's notice again extends the comment period for the November 19, 1999 HWIR exemption discussion until October 16, 2000, to coincide with the comment period for today's notice.

Before using a revised risk assessment to support a final regulatory action, we would propose the HWIR exemption. Comments on the 1999 HWIR discussion and on today's notice will be helpful to us in developing such a proposal.

Please note that today's notice does *not* re-open the comment period on the revisions to the mixture and derived-from rules that were proposed in the November 19, 1999 **Federal Register** notice (64 FR 63382, Sections I–IV, Sections XXI–XVI (as applicable) of the preamble and the proposed regulatory language amending 40 CFR Part 261).

DATES: We will accept comments through October 16, 2000 on: (1) The concentration-based HWIR exemption discussed in the November 19, 1999 **Federal Register** notice; (2) the possible revisions to the Land Disposal Restriction (LDR) treatment standard which were also discussed in the November 19, 1999 **Federal Register** notice; and (3) the additional data presented today. The discussions of the HWIR exemption and possible LDR treatment standard revisions are in Sections V–XX and Sections XXI–VVCI (as applicable) of the preamble, 64 FR 63382 (November 19, 1999).

ADDRESSES: Commenters must send an original and two copies of their comments referencing docket number F–2000–WH2A–FFFFF to: (1) If using regular U.S. Postal Service mail: RCRA Docket Information Center, Office of Solid Waste (5305G), U.S. Environmental Protection Agency Headquarters (EPA, HQ), 1200 Pennsylvania Avenue, NW, Washington, DC 20460–0002, or (2) if using special delivery, such as overnight express service: RCRA Docket Information Center (RIC), Crystal Gateway One, 1235 Jefferson Davis Highway, First Floor, Arlington, VA 22202. Comments may also be submitted electronically through the Internet to: rcra-docket@epa.gov. Comments in electronic format should also be identified by the docket number

F–2000–WH2A–FFFFF and must be submitted as an ASCII file avoiding the use of special characters and any form of encryption and should include commenter's mailing address and phone number. If comments are not submitted electronically, we are asking prospective commenters to voluntarily submit one additional copy of their comments on labeled personal computer diskettes in ASCII (TEXT) format or a word processing format that can be converted to ASCII (TEXT). It is essential to specify on the disk label the word processing software and version/edition as well as the commenter's name and address. This will allow EPA to convert the comments into one of the word processing formats utilized by the Agency. Please use mailing envelopes designed to physically protect the submitted diskettes. We emphasize that the submission of comments on diskettes is not mandatory, nor will it result in any advantage or disadvantage to any commenter.

Commenters should not submit electronically any confidential business information (CBI). An original and two copies of CBI must be submitted under separate cover to: RCRA CBI Document Control Officer, Office of Solid Waste (5305W), U.S. EPA, 1200 Pennsylvania Ave., N.W., Washington, DC 20460–0002.

Public comments and supporting materials are available for viewing in the RCRA Information Center (RIC), located at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, VA. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, excluding federal holidays. To review docket materials, it is recommended that the public make an appointment by calling 703–603–9230. The public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost $0.15/page. The notice and other material associated with this action can be electronically accessed on the Internet at http://www.epa.gov/epaoswer/hazwaste/id/hwirwste/index.htm.

The official record will be kept in paper form. Accordingly, EPA will transfer all comments received electronically into paper form and place them in the official record, which will also include all comments submitted directly in writing. The official record is the record maintained at the address in **ADDRESSES** at the beginning of this document. The comments and other documents associated with the November 19, 1999 HWIR notice (64 FR 63382) are kept in docket Number F–99–WH2P–FFFFF.

We will respond to submitted comments, whether written or electronic, in a notice in the **Federal Register** or in a response to comments document placed in the official record. We will not immediately reply to electronically submitted comments other than to seek clarification of comments that may be garbled in transmission or during conversion to paper form, as discussed above.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at 800–424–9346 or TDD 800–553–7672 (hearing impaired). In the Washington, DC, metropolitan area, call 703–412–9810 or TDD 703–412–3323.

For specific information on the risk modeling, contact David Cozzie, (703) 308–0479, *cozzie.david@epa.gov*, Stephen Kroner, (703) 308–0468, *kroner.stephen@epa.gov*, or Zubair Saleem, (703) 308–0467, *saleem.zubair@epa.gov*, all at: Office of Solid Waste, U.S. Environmental Protection Agency (5307W), 1200 Pennsylvania Avenue, NW, Washington, DC 20460–0002.

SUPPLEMENTARY INFORMATION:

Outline

I. How does today's notice relate to the November 19, 1999 notice?
II. How has EPA revised the 3MRA Model since the November 19, 1999 notice?
III What are the results from the revised 3MRA Model?
IV. What are possible next steps for the HWIR exemption development?

I. How Does Today's Notice Relate to the November 19, 1999 Notice?

The November 19, 1999 **Federal Register** notice includes (among other things) a discussion of a concentration-based exemption (the ''HWIR exemption'') from the definition of hazardous waste (64 FR 63382 and docket number F–99–WH2P–FFFFF; see also the web site at: *http://www.epa.gov/epaoswer/hazwaste/id/hwirwste/index.htm* for accessing the background documents electronically). Included in this discussion is an extensive explanation of the risk assessment methodology that would support this exemption. The version of the 3MRA Model that we discussed was beta Version 0.93. However, because of unresolved technical issues, we did not have results from the risk assessment modeling, other than for acrylonitrile, to include in the **Federal Register** notice.

Since then, we have addressed many technical issues and have revised the 3MRA Model. Today's notice and materials placed in the docket explain the revisions to the 3MRA Model and present results for 36 chemicals using beta Version 0.98r of the revised model.

II. How Has EPA Revised the 3MRA Model Since the November 19, 1999 Notice?

The details of all the improvements and corrections made to beta Version 0.93 of the model and incorporated in beta Version 0.98r of the model are presented in the RCRA docket number F–2000–WH2A–FFFFF. Selected examples of changes we made are listed below.

(1) We changed the aerated tank and surface impoundment modules so that exceedance of constituent solubility in either the leachate or the waste management unit (WMU) causes an error that terminates the model instead of issuing a warning that allows the model to continue. We changed this because solubility exceedance indicates that the modules were not operating within the intended range of simulation; that is, the modules were not intended to model concentrations that lead to the formation of non-aqueous phase liquids.

(2) We changed the national data table in the aquifer module so that it simulates the effects of fractures and heterogeneities on the transport of chemical constituents. We did this to better reflect the nature of the subsurface environment in the vicinity of the WMUs.

(3) We corrected an error in the data transfer between the ecological risk module and the exit-level processor (ELP–I). Previously the ELP–I misread the ecological receptor group descriptors. In beta version 0.98r, the ecological module outputs the ecological receptor groups directly to the ELP–I; and

(4) We changed the exit-level processor (ELP–II) to correct the exposure pathway tables to include only those pathways relevant to the chemical. The ELP–II now refers to flags in the human health benchmarks database to identify appropriate exposure pathways for each chemical. This specific change has occurred since Version 0.98.

III. What Are the Results From the Revised 3MRA Model?

We are presenting the draft chemical-specific results estimated for the three waste forms (liquids, solids, and semi-solids) and one WMU type (landfill) for the four Protection Groups. The Protection Groups are based on five different types of protection criteria: (1) Cancer risk level, (2) human health hazard quotient (HQ) for non-cancer risks, (3) ecological hazard quotient, (4) population percentile, and (5)

probability of protection. We summarize below these five risk protection criteria, which are explained more fully in the November 19, 1999 **Federal Register** notice (see 64 FR 63440–41).

1. Cancer Risk Level. The cancer risk level refers to an individual's increased chance of developing cancer over a lifetime due to potential exposure to a specific chemical. A risk of 1×10^{-6} translates as an increased chance of one in a million of developing cancer during a lifetime. EPA generally sets regulations at risk levels between 10^{-6} and 10^{-4} (in other words, from one in a million to one in ten thousand increased chance of developing cancer during a lifetime). In the RCRA hazardous waste listing program, a 10^{-6} risk is usually the presumptive ''no list'' level, while 10^{-5} is often used to determine which wastes are considered initial candidates for listing (see, for example the petroleum listing at 63 FR 42117). We present the exemption levels that result from both the 10^{-6} and 10^{-5} risk levels.

2. Human Health Hazard Quotient (HQ). The HQ refers to the likelihood that exposure to a specific chemical would result in a non-cancer health problem (for example, neurological effects). The hazard quotient is developed by dividing the estimated exposure to a chemical by the reference dose (RfD) for oral ingestion pathways or reference concentration (RfC) for inhalation pathways. The RfD and RfC are estimates of the highest dose or concentration that might be considered safe. An HQ of one or lower indicates that the given exposure is unlikely to result in adverse health effects. We present the exemption levels that result from both an HQ of 0.1 and an HQ of one.

3. Ecological Hazard Quotient. The ecological hazard quotient is analogous to the human health HQ, except that the estimated exposure is compared with an ecological toxicity value rather than the human health RfD or RfC. For this analysis, we developed two types of toxicity values: (1) An ecological benchmark that is calculated as a dose (mg/kg-day); and (2) a chemical stressor concentration limit (CSCL) that is calculated as a concentration in media (for example, mg/l). The ecological hazard quotient protects ecological health at the population or community level, and, therefore, focuses on reproductive and developmental effects, rather than the mortality of individual organisms. In developing ecological toxicity values for this risk assessment, we used the geometric mean between a No Observed Effects Level (NOEL) and a Lowest Observed Effects Level (LOEL). (Human health reference doses are based on NOELs.) We present the exemption levels that result from an ecological hazard quotient of one and ten.

4. Population Percentile. The population percentile is the percentage of the population protected at the specified risk level and hazard quotient for a single environmental setting. A setting is a specific WMU at a specific site, and is defined by combining site-based information (such as unit size, and unit placement) with variable environmental information (such as rainfall and exposure rates) from regional and national databases. We present the exemption levels that result from population protection percentiles of 99% and 95%.

5. Probability of Protection. The probability of protection is defined as the percentage of WMU settings that meet the population percentile criteria. We present the exemption levels that result from probability of protection levels of 95% and 90%.

Four Protection Groups are defined below in Table 1. These four groups serve to indicate the potential range of risk decision measures, from most conservative (Group 1) to least conservative (Group 4), that we could use to determine the final HWIR regulatory exemption levels. These groups are not an exhaustive look at all possible combinations of potential risk protection criteria; we could choose a different combination altogether. An example of how these protection groups are interpreted is provided below with respect to the Group 2 criteria for cancer and hazard effects, respectively:

—99% of the population are subject to cancer risks of less than 10–6 across 90% of the environmental settings;

—99% of the population experience exposure levels below an HQ of 1 across 90% of the environmental settings.

TABLE 1.—PROTECTION GROUPS EVALUATED

	Protection group 1	Protection group 2	Protection group 3	Protection group 4
Risk Level	10^{-6}	10^{-6}	10^{-5}	10^{-5}
Human Health HQ	0.1	1	1	1
Ecological HQ	1	1	1	10
Population Percentile	99	99	99	95
Probability of Protection	95	90	90	90

In addition to the five risk criteria set forth in the November 19, 1999 notice and summarized above, we present a sixth risk criterion: the distance to human and ecological receptors from the WMU. We developed draft chemical-specific waste concentrations for each of the 36 chemicals that are presented in Tables 2 through 13. These tables present results using 3MRA Model beta Version 0.98r for the four Protection Groups based on the above five protection criteria and for various distances to human receptors corresponding to 500, 1000, 2000 meters and for a fixed distance of 2000 meters for ecological receptors.

We also are presenting in the RCRA Docket (Docket Number F–2000–WH2A–FFFFF) the following results for the same 36 chemicals:

1. *Protection Group Results.* Draft chemical-specific waste concentrations identified for the additional four waste management unit types (waste piles, aerated tanks, surface impoundments, and land application units);

2. *Sub-Population Results.* Risk or hazard quotient estimates for each sub-population (residents, gardeners, beef/dairy farmers, and fishers) for each Protection Group and the three waste forms and the five waste management unit types;

3. *Cohort Results.* Risk or hazard quotient estimates for each cohort (infants, children 1–12, and adults 13 and older) for each Protection Group and the three waste forms and the five waste management unit types; and

4. *Exposure Pathway Results.* Risk or hazard quotient estimates for each exposure pathway (air inhalation, soil ingestion, water ingestion, crop ingestion, beef ingestion, milk ingestion, fish ingestion, shower inhalation, breast milk, all inhalation, all ingestion, all

ingestion and inhalation, and groundwater total) for each Protection Group for the three waste forms and for the five waste management unit types.

Copies of beta Version 0.98r of the 3MRA Model are in the RCRA docket on a CD. Beta Version 0.98r of the 3MRA model can also be accessed at: http://www.epa.gov/ceampubl/hwir.htm.

IV. What Are Possible Next Steps for the HWIR Exemption Development?

Since the results of the HWIR risk assessment model presented in today's notice are intrinsically related to the discussion of the HWIR risk assessment found in the November 19, 1999 **Federal Register** notice, we have harmonized the comment periods for both to end on October 16, 2000. However, please note that nothing in today's notice changes or supersedes the information in the November 19, 1999 **Federal Register** notice. The information available by today's notice specifically supplements the information in Sections XV–XIX in the preamble to the November 19, 1999 discussion. Please note that today's notice does *not* re-open the comment period on the revisions to the mixture and derived-from rules that were proposed in the same November 19, 1999 **Federal Register** notice. That comment period ended February 17, 2000.

We will review the public comments and decide if further revisions to the HWIR risk assessment (3MRA) model or other aspects, *e.g.,* implementation, of the HWIR exemption are necessary. We also are continuing independent testing and external peer review of the HWIR risk assessment model. Before we go final with an HWIR exemption, we will publish a proposal to allow public comment on a unified package. The exact timing of this proposal will depend on the extent of the public and peer review comments.

BILLING CODE 6560–50–P

Table 2. Chemical-specific Waste Concentrations for Solids Category (mg/kg)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	5	note 1	5	90	note 1	90	90	note 1	90	200	note 1	200
Acrylonitrile	107-13-1	0.003	note 1	0.003	0.006	note 1	0.006	0.07	note 1	0.07	0.09	note 1	0.09
Aniline	62-53-3	0.7	100*	0.7	2	100*	2	40	100*	40	60	100*	60
Arsenic	7440-38-2	10	20	10	20	40	20	100	40	40	100	5000	100
Barium	7440-39-3	2000	600	600	30000	2000	2000	30000	2000	2000	50000	60000	50000
Benzene	71-43-2	30	1000*	30	60	1000*	60	600	1000*	600	800	1000*	800
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	60	60	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	100	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	20	10	10	200	50	50	200	50	50	700	90	90
Chlorobenzene	108-90-7	30	100*	30	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	200	700	200	500	3000	500	7000	3000	3000	10000*	10000*	10000*
Dibenz[a,h]anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	5	note 1	5	50	note 1	50	50	note 1	50	60	note 1	60
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.005	note 1	0.005	0.009	note 1	0.009	0.4	note 1	0.4	0.6	note 1	0.6
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	6	1000*	6	200	1000*	200	200	1000*	200	600	1000*	600
Methyl methacrylate	80-62-6	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	3	6000	3	5	10000*	5	400	10000*	400	400	10000*	400
Nickel [+2]	7440-02-0	700	600	600	6000	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	40	1000*	40	700	1000*	700	700	1000*	700	1000*	1000*	1000*
Pentachlorophenol	87-86-5	3	1	1	5	70	5	300	70	70	400	800	400
Phenol	108-95-2	6000	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	0.3	1000*	0.3	6	1000*	6	6	1000*	6	7	1000*	7
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.002	0.0006	0.0006	0.004	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	300	5000*	300	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.03	5	0.03	0.4	8	0.4	0.4	8	0.4	0.6	100*	0.6
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	2000	2000	5000*	4000	4000	5000*	4000	4000	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	800	6000	800	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	300	200	200	600	300	300	9000	300	300	10000*	2000	2000
Vinyl chloride	75-01-4	0.2	5	0.2	0.4	9	0.4	4	9	4	7	200	7
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 3. Chemical-specific Waste Concentrations for Liquids Category (mg/l)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	30	note 1	30	800	note 1	800	800	note 1	800	1000	note 1	1000
Acrylonitrile	107-13-1	0.005	note 1	0.005	0.01	note 1	0.01	0.7	note 1	0.7	1	note 1	1
Aniline	62-53-3	0.4	1000*	0.4	0.8	1000*	0.8	8	1000*	8	8	1000*	8
Arsenic	7440-38-2	0.003	0.3	0.003	0.006	0.6	0.006	0.3	0.6	0.3	0.4	10	0.4
Barium	7440-39-3	4	700	4	80	1000*	80	80	1000*	80	200	1000*	200
Benzene	71-43-2	0.07	20	0.07	0.4	40	0.4	30	40	30	40	100*	40
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.03	10*	0.03	0.5	10*	0.5	0.5	10*	0.5	0.7	10*	0.7
Carbon disulfide	75-15-0	5	10	5	100*	30	30	100*	30	30	100*	100*	100*
Chlorobenzene	108-90-7	0.7	100*	0.7	40	100*	40	40	100*	40	40	100*	40
Chloroform	67-66-3	0.3	3	0.3	0.7	8	0.7	8	8	8	9	300	9
Dibenz[a,h]anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.3	note 1	0.3	6	note 1	6	6	note 1	6	8	note 1	8
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0002	note 1	0.0002	0.0005	note 1	0.0005	0.02	note 1	0.02	0.07	note 1	0.07
Lead	7439-92-1	note 2	2	2	note 2	3	3	note 2	3	3	note 2	40	40
Methyl ethyl ketone	78-93-3	80	2000	80	7000	6000	6000	7000	6000	6000	10000*	10000*	10000*
Methyl methacrylate	80-62-6	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	0.5	1000*	0.5	1	1000*	1	100	1000*	100	200	1000*	200
Nickel [+2]	7440-02-0	0.6	1000*	0.6	40	1000*	40	40	1000*	40	50	1000*	50
Nitrobenzene	98-95-3	0.04	100*	0.04	0.9	100*	0.9	0.9	100*	0.9	1	100*	1
Pentachlorophenol	87-86-5	0.3	1*	0.3	0.6	1*	0.6	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	400	4000	400	8000	10000*	8000	8000	10000*	8000	10000*	10000*	10000*
Pyridine	110-86-1	0.05	10*	0.05	0.9	10*	0.9	0.9	10*	0.9	3	10*	3
Silver	7440-22-4	note 4	4000	note 4	6	10000*	6	6	10000*	6	8	10000*	8
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000005	0.00001*	0.000005	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.06	100*	0.06	0.1	100*	0.1	6	100*	6	10	100*	10
Thallium [+1]	7446-18-6	0.003	1	0.003	0.05	1	0.05	0.05	1	0.05	0.05	1	0.05
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	10	6	6	700	20	20	700	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	note 4	20	note 4	70	60	60	70	60	60	100	900	100
Trichloroethylene	79-01-6	0.5	0.3	0.3	1	0.6	0.6	60	0.6	0.6	70	20	20
Vinyl chloride	75-01-4	0.004	0.2	0.004	0.008	0.4	0.008	0.5	0.4	0.4	0.6	10	0.6
Zinc	7440-66-6	30	2000	30	600	3000	600	600	3000	600	700	10000*	700

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 4. Chemical-specific Waste Concentrations for Semi-solids Category (mg/kg)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	CASRN	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	75-05-8	10	note 1	10	400	note 1	400	400	note 1	400	600	note 1	600
Acrylonitrile	107-13-1	0.003	note 1	0.003	0.005	note 1	0.005	0.07	note 1	0.07	0.09	note 1	0.09
Aniline	62-53-3	0.3	100*	0.3	0.5	100*	0.5	5	100*	5	8	100*	8
Arsenic	7440-38-2	0.003	0.04	0.003	0.006	0.08	0.006	0.3	0.08	0.08	0.4	10	0.4
Barium	7440-39-3	4	20	4	80	60	60	80	60	60	200	900	200
Benzene	71-43-2	0.07	20	0.07	0.4	40	0.4	30	40	30	40	100*	40
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.03	0.3	0.03	0.5	0.7	0.5	0.5	0.7	0.5	0.7	10*	0.7
Carbon disulfide	75-15-0	5	0.6	0.6	100*	10	10	100*	10	10	100*	80	80
Chlorobenzene	108-90-7	0.7	30	0.7	40	100*	40	40	100*	40	40	100*	40
Chloroform	67-66-3	0.2	3	0.2	0.3	8	0.3	2	8	2	4	300	4
Dibenz[a,h]anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.3	note 1	0.3	6	note 1	6	6	note 1	6	8	note 1	8
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	note 4	note 1	note 4	0.0005	note 1	0.0005	0.004	note 1	0.004	0.005	note 1	0.005
Lead	7439-92-1	note 2	note 4	note 4	note 2	0.6	0.6	note 2	0.6	0.6	note 2	30	30
Methyl ethyl ketone	78-93-3	80	1000*	80	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	30	note 1	30	600	note 1	600	600	note 1	600	800	note 1	800
Methylene chloride	75-09-2	0.5	600	0.5	1	1000*	1	100	1000*	100	200	1000*	200
Nickel [+2]	7440-02-0	0.6	5	0.6	40	9	9	40	9	9	50	900	50
Nitrobenzene	98-95-3	0.04	100*	0.04	0.4	100*	0.4	0.4	100*	0.4	0.4	100*	0.4
Pentachlorophenol	87-86-5	0.03	1*	0.03	0.06	1*	0.06	0.9	1*	0.9	1*	1*	1*
Phenol	108-95-2	400	4000	400	8000	10000*	8000	8000	10000*	8000	10000*	10000*	10000*
Pyridine	110-86-1	0.05	10*	0.05	0.5	10*	0.5	0.5	10*	0.5	0.5	10*	0.5
Silver	7440-22-4	note 4	0.7	note 4	6	3	3	6	3	3	8	10*	8
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000005	0.00001*	0.000005	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.06	100*	0.06	0.1	100*	0.1	6	100*	6	10	100*	10
Thallium [+1]	7446-18-6	note 4	0.2	note 4	0.05	0.8	0.05	0.05	0.8	0.05	0.05	1*	0.05
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	10	6	6	700	20	20	700	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	note 4	20	note 4	70	60	60	70	60	60	100	900	100
Trichloroethylene	79-01-6	0.5	0.3	0.3	1	0.6	0.6	60	0.6	0.6	70	20	20
Vinyl chloride	75-01-4	0.004	0.2	0.004	0.008	0.4	0.008	0.4	0.4	0.4	0.5	9	0.5
Zinc	7440-66-6	30	5	5	600	8	8	600	8	8	700	800	700

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 5. Chemical-specific Waste Concentrations for Landfills Category (mg/kg)
(Human Receptors - 500 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	60	note 1	60	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.01	note 1	0.01	0.04	note 1	0.04	0.7	note 1	0.7	0.7	note 1	0.7
Aniline	62-53-3	0.7	100*	0.7	2	100*	2	60	100*	60	70	100*	70
Arsenic	7440-38-2	10	20	10	20	40	20	100	40	40	100	5000	100
Barium	7440-39-3	2000	800	800	30000	3000	3000	30000	3000	3000	50000	60000	50000
Benzene	71-43-2	50	1000*	50	100	1000*	100	1000*	1000*	1000*	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	200	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	60	10	10	1000*	50	50	1000*	50	50	1000*	90	90
Chlorobenzene	108-90-7	30	100*	30	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	200	2000	200	500	4000	500	7000	4000	4000	10000*	10000*	10000*
Dibenz[a,h]anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	5	note 1	5	50	note 1	50	50	note 1	50	60	note 1	60
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.005	note 1	0.005	0.01	note 1	0.01	0.4	note 1	0.4	0.8	note 1	0.8
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	50	1000*	50	800	1000*	800	800	1000*	800	1000*	1000*	1000*
Methyl methacrylate	80-62-6	600	note 1	600	1000*	note 1	1000*	1000	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	100	10000*	100	300	10000*	300	2000	10000*	2000	4000	10000*	4000
Nickel [+2]	7440-02-0	1000	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	70	1000*	70	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Pentachlorophenol	87-86-5	3	1	1	5	70	5	300	70	70	400	800	400
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	3	1000*	3	50	1000*	50	50	1000*	50	70	1000*	70
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.005	0.0006	0.0006	0.01*	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	400	5000*	400	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.03	5	0.03	0.4	8	0.4	0.4	8	0.4	0.6	100*	0.6
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	3000	3000	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	1000	10000*	1000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	400	200	200	800	300	300	10000*	300	300	10000*	4000	4000
Vinyl chloride	75-01-4	0.4	8	0.4	0.7	30	0.7	20	30	20	30	300	30
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 6. Chemical-specific Waste Concentrations for Solids Category (mg/kg)
(Human Receptors - 1000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	CASRN	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	75-05-8	6	note 1	6	200	note 1	200	200	note 1	200	600	note 1	600
Acrylonitrile	107-13-1	0.005	note 1	0.005	0.009	note 1	0.009	0.09	note 1	0.09	0.3	note 1	0.3
Aniline	62-53-3	0.9	100*	0.9	3	100*	3	60	100*	60	70	100*	70
Arsenic	7440-38-2	10	20	10	20	40	20	1000	40	40	3000	5000	3000
Barium	7440-39-3	2000	600	600	30000	2000	2000	30000	2000	2000	70000	60000	60000
Benzene	71-43-2	30	1000*	30	50	1000*	50	700	1000*	700	700	1000*	700
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	60	60	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	200	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	40	10	10	700	50	50	700	50	50	1000*	90	90
Chlorobenzene	108-90-7	40	100*	40	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	300	700	300	600	3000	600	10000*	3000	3000	10000*	10000*	10000*
Dibenz[a,h]anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	8	note 1	8	60	note 1	60	60	note 1	60	90	note 1	90
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.006	note 1	0.006	0.06	note 1	0.06	0.6	note 1	0.6	0.8	note 1	0.8
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	20	1000*	20	600	1000*	600	600	1000*	600	900	1000*	900
Methyl methacrylate	80-62-6	80	note 1	80	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	4	6000	4	8	10000*	8	400	10000*	400	600	10000*	600
Nickel [+2]	7440-02-0	800	600	600	9000	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	50	1000*	50	900	1000*	900	900	1000*	900	1000*	1000*	1000*
Pentachlorophenol	87-86-5	1	1	1	4	70	4	300	70	70	500	800	500
Phenol	108-95-2	8000	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	0.4	1000*	0.4	7	1000*	7	7	1000*	7	20	1000*	20
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.002	0.0006	0.0006	0.004	0.003	0.003	0.01	0.003	0.003	0.01	0.01	0.01
Tetrachloroethylene	127-18-4	500	5000*	500	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.03	5	0.03	0.6	8	0.6	0.6	8	0.6	0.9	100	0.9
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	2000	2000	5000*	4000	4000	5000*	4000	4000	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	2000	6000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	400	200	200	700	300	300	9000	300	300	10000*	2000	2000
Vinyl chloride	75-01-4	0.2	5	0.2	0.4	9	0.4	6	9	6	9	200	9
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 7. Chemical-specific Waste Concentrations for Liquids Category (mg/l)
(Human Receptors - 1000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	20	note 2	20	500	note 2	500	500	note 2	500	2000	note 2	2000
Acrylonitrile	107-13-1	0.005	note 2	0.005	0.01	note 2	0.01	0.7	note 2	0.7	5	note 2	5
Aniline	62-53-3	0.4	1000*	0.4	0.9	1000*	0.9	7	1000*	7	10	1000*	10
Arsenic	7440-38-2	0.004	0.3	0.004	0.007	0.6	0.007	0.4	0.6	0.4	0.6	10	0.6
Barium	7440-39-3	4	700	4	90	1000*	90	90	1000*	90	600	1000*	600
Benzene	71-43-2	0.07	20	0.07	0.4	40	0.4	30	40	30	70	100*	70
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.04	10*	0.04	0.6	10*	0.6	0.6	10*	0.6	1	10*	1
Carbon disulfide	75-15-0	6	10	6	100*	30	30	100*	30	30	100*	100*	100*
Chlorobenzene	108-90-7	0.5	100*	0.5	20	100*	20	20	100*	20	70	100*	70
Chloroform	67-66-3	0.3	3	0.3	0.6	8	0.6	6	8	6	100	300	100
Dibenz[a,h]anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.3	note 2	0.3	6	note 2	6	6	note 2	6	40	note 2	40
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0002	note 2	0.0002	0.0004	note 2	0.0004	0.02	note 2	0.02	0.2	note 2	0.2
Lead	7439-92-1	note 1	2	2	note 1	3	3	note 1	3	3	note 1	40	40
Methyl ethyl ketone	78-93-3	80	2000	80	6000	6000	6000	6000	6000	6000	10000*	10000*	10000*
Methyl methacrylate	80-62-6	60	note 2	60	1000*	note 2	1000*	1000*	note 2	1000*	1000*	note 2	1000*
Methylene chloride	75-09-2	0.4	1000*	0.4	0.8	1000*	0.8	100	1000*	100	500	1000*	500
Nickel [+2]	7440-02-0	1	1000*	1	50	1000*	50	50	1000*	50	200	1000*	200
Nitrobenzene	98-95-3	0.03	100*	0.03	0.6	100*	0.6	0.6	100*	0.6	20	100*	20
Pentachlorophenol	87-86-5	0.4	1*	0.4	0.8	1*	0.8	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	500	4000	500	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	110-86-1	0.04	10*	0.04	1	10*	1	1	10*	1	6	10*	6
Silver	7440-22-4	note 3	4000	note 3	7	10000*	7	7	10000*	7	30	10000*	30
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	2E-006	0.00001*	2E-006	6E-006	0.00001*	6E-006	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001
Tetrachloroethylene	127-18-4	0.06	100*	0.06	0.3	100*	0.3	7	100*	7	50	100*	50
Thallium [+1]	7446-18-6	0.003	1*	0.003	0.05	1*	0.05	0.05	1*	0.05	0.09	1*	0.09
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	20	6	6	800	20	20	800	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	note 3	20	note 3	60	60	60	60	60	60	600	900	600
Trichloroethylene	79-01-6	0.4	0.3	0.3	0.8	0.6	0.6	60	0.6	0.6	100*	20	20
Vinyl chloride	75-01-4	0.003	0.2	0.003	0.007	0.4	0.007	0.4	0.4	0.4	0.9	10	0.9
Zinc	7440-66-6	40	2000	40	700	3000	700	700	3000	700	3000	10000*	3000

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 8. Chemical-specific Waste Concentrations for Semi-solids Category (mg/kg)
(Human Receptors - 1000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	20	note 1	20	500	note 1	500	500	note 1	500	600	note 1	600
Acrylonitrile	107-13-1	0.003	note 1	0.003	0.006	note 1	0.006	0.09	note 1	0.09	0.3	note 1	0.3
Aniline	62-53-3	0.3	100*	0.3	0.6	100*	0.6	7	100*	7	10	100*	10
Arsenic	7440-38-2	0.004	0.04	0.004	0.007	0.08	0.007	0.4	0.08	0.08	0.6	10	0.6
Barium	7440-39-3	4	20	4	90	60	60	90	60	60	600	900	600
Benzene	71-43-2	0.07	20	0.07	0.4	40	0.4	30	40	30	70	100	70
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.04	0.3	0.04	0.6	0.7	0.6	0.6	0.7	0.6	1	10*	1
Carbon disulfide	75-15-0	6	0.6	0.6	100*	10	10	100*	10	10	100*	80	80
Chlorobenzene	108-90-7	0.5	30	0.5	20	100*	20	20	100*	20	70	100*	70
Chloroform	67-66-3	0.2	3	0.2	0.4	8	0.4	4	8	4	4	300	4
Dibenz[a,h]anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.3	note 1	0.3	6	note 1	6	6	note 1	6	30	note 1	30
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0002	note 1	0.0002	0.0004	note 1	0.0004	0.005	note 1	0.005	0.005	note 1	0.005
Lead	7439-92-1	note 2	note 3	note 3	note 2	0.6	0.6	note 2	0.6	0.6	note 2	30	30
Methyl ethyl ketone	78-93-3	80	1000*	80	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	40	note 1	40	700	note 1	700	700	note 1	700	1000*	note 1	1000*
Methylene chloride	75-09-2	0.4	600	0.4	0.8	1000*	0.8	100	1000*	100	400	1000*	400
Nickel [+2]	7440-02-0	1	5	1	50	9	9	50	9	9	200	900	200
Nitrobenzene	98-95-3	0.03	100*	0.03	0.4	100*	0.4	0.4	100*	0.4	0.6	100*	0.6
Pentachlorophenol	87-86-5	0.04	1*	0.04	0.07	1*	0.07	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	500	4000	500	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	110-86-1	0.04	10*	0.04	0.5	10*	0.5	0.5	10*	0.5	0.8	10*	0.8
Silver	7440-22-4	note 3	0.7	note 3	7	3	3	7	3	3	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000006	0.00001*	0.000006	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.06	100*	0.06	0.3	100*	0.3	7	100*	7	50	100*	50
Thallium [+1]	7446-18-6	note 3	0.2	note 3	0.05	0.8	0.05	0.05	0.8	0.05	0.09	1*	0.09
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	20	6	6	800	20	20	800	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	note 3	20	note 3	60	60	60	60	60	60	600	900	600
Trichloroethylene	79-01-6	0.4	0.3	0.3	0.8	0.6	0.6	60	0.6	0.6	100*	20	20
Vinyl chloride	75-01-4	0.003	0.2	0.003	0.007	0.4	0.007	0.4	0.4	0.4	0.5	9	0.5
Zinc	7440-66-6	40	5	5	700	8	8	700	8	8	3000	800	800

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 9. Chemical-specific Waste Concentrations for Landfills Category (mg/kg)
(Human Receptors - 1000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.008	note 1	0.008	0.03	note 1	0.03	0.7	note 1	0.7	3	note 1	3
Aniline	62-53-3	0.9	100*	0.9	3	100*	3	70	100*	70	100*	100*	100*
Arsenic	7440-38-2	10	20	10	20	40	20	1000	40	40	3000	5000	3000
Barium	7440-39-3	2000	800	800	30000	3000	3000	30000	3000	3000	70000	60000	60000
Benzene	71-43-2	80	1000*	80	300	1000*	300	1000*	1000*	1000*	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	200	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	60	10	10	1000*	50	50	1000*	50	50	1000*	90	90
Chlorobenzene	108-90-7	40	100*	40	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	300	2000	300	600	4000	600	10000*	4000	4000	10000*	10000*	10000*
Dibenz[a,h]anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	8	note 1	8	60	note 1	60	60	note 1	60	200	note 1	200
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.008	note 1	0.008	0.1	note 1	0.1	0.6	note 1	0.6	7	note 1	7
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	50	1000*	50	800	1000*	800	800	1000*	800	1000*	1000*	1000*
Methyl methacrylate	80-62-6	500	note 1	500	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	200	10000*	200	300	10000*	300	3000	10000*	3000	6000	10000*	6000
Nickel [+2]	7440-02-0	800	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	80	1000*	80	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Pentachlorophenol	87-86-5	1	1	1	4	70	4	300	70	70	500	800	500
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	3	1000*	3	60	1000*	60	60	1000*	60	200	1000*	200
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.008	0.0006	0.0006	0.01*	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	500	5000*	500	1000	5000*	1000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.03	5	0.03	0.6	8	0.6	0.6	8	0.6	1	100*	1
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	3000	3000	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	3000	10000*	3000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	500	200	200	1000	300	300	10000*	300	300	10000*	4000	4000
Vinyl chloride	75-01-4	0.4	8	0.4	0.8	30	0.8	20	30	20	50	300	50
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 10. Chemical-specific Waste Concentrations for Solids Category (mg/kg)
(Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	CASRN	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+	HH#	Eco	Lowest+
Acetonitrile	75-05-8	6	note 1	6	200	note 1	200	200	note 1	200	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.005	note 1	0.005	0.01	note 1	0.01	0.1	note 1	0.1	10*	note 1	10*
Aniline	62-53-3	0.7	100*	0.7	4	100*	4	60	100*	60	100*	100*	100*
Arsenic	7440-38-2	20	20	20	40	40	40	2000	40	40	8000	5000	5000
Barium	7440-39-3	3000	600	600	50000	2000	2000	50000	2000	2000	100000*	60000	60000
Benzene	71-43-2	20	1000*	20	50	1000*	50	800	1000*	800	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	60	60	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	400	30	30	1000*	50	50	1000*	50	50	1000*	1000*	1000*
Carbon disulfide	75-15-0	50	10	10	900	50	50	900	50	50	1000*	90	90
Chlorobenzene	108-90-7	60	100*	60	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	400	700	400	700	3000	700	10000*	3000	3000	10000*	10000*	10000*
Dibenz[a,h]anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1
Dichlorophenoxyacetic acid, 2,4-	94-75-7	10	note 1	10	90	note 1	90	90	note 1	90	800	note 1	800
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.01	note 1	0.01	0.2	note 1	0.2	0.7	note 1	0.7	40	note 1	40
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	20	1000*	20	600	1000*	600	600	1000*	600	1000*	1000*	1000*
Methyl methacrylate	80-62-6	100	note 1	100	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	5	6000	5	10	10000*	10	400	10000*	400	10000*	10000*	10000*
Nickel [+2]	7440-02-0	3000	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	60	1000*	60	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000
Pentachlorophenol	87-86-5	3	1	1	7	70	7	400	70	70	1000*	800	800
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	0.5	1000*	0.5	10	1000*	10	10	1000*	10	1000*	1000*	1000*
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.003	0.0006	0.0006	0.007	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	900	5000*	900	2000	5000*	2000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.05	5	0.05	0.9	8	0.9	0.9	8	0.9	7	100*	7
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	2000	2000	5000*	4000	4000	5000*	4000	4000	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	2000	6000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	500	200	200	900	300	300	10000	300	300	10000*	2000	2000
Vinyl chloride	75-01-4	0.3	5	0.3	0.5	9	0.5	8	9	8	700	200	200
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 11. Chemical-specific Waste Concentrations for Liquids Category (mg/l)
(Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	30	note 2	30	2000	note 2	2000	2000	note 2	2000	9000	note 2	9000
Acrylonitrile	107-13-1	0.05	note 2	0.05	0.3	note 2	0.3	1	note 2	1	50	note 2	50
Aniline	62-53-3	0.5	1000*	0.5	6	1000*	6	9	1000*	9	600	1000*	600
Arsenic	7440-38-2	0.007	0.3	0.007	0.2	0.6	0.2	0.7	0.6	0.6	40	10	10
Barium	7440-39-3	7	700	7	600	1000*	600	600	1000*	600	1000*	1000*	1000*
Benzene	71-43-2	0.4	20	0.4	1	40	1	60	40	40	100*	100*	100*
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.07	10*	0.07	2	10*	2	2	10*	2	10*	10*	10*
Carbon disulfide	75-15-0	20	10	10	100*	30	30	100*	30	30	100*	100*	100*
Chlorobenzene	108-90-7	0.9	100*	0.9	70	100*	70	70	100*	70	100*	100*	100*
Chloroform	67-66-3	0.4	3	0.4	0.8	8	0.8	100	8	8	700	300	300
Dibenz[a,h]anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.8	note 2	0.8	40	note 2	40	40	note 2	40	100*	note 2	100*
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0004	note 2	0.0004	0.0008	note 2	0.0008	0.2	note 2	0.2	0.5	note 2	0.5
Lead	7439-92-1	note 1	2	2	note 1	3	3	note 1	3	3	note 1	40	40
Methyl ethyl ketone	78-93-3	500	2000	500	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Methyl methacrylate	80-62-6	100	note 2	100	1000*	note 2	1000*	1000*	note 2	1000*	1000*	note 2	1000*
Methylene chloride	75-09-2	3	1000*	3	8	1000*	8	300	1000*	300	1000*	1000*	1000*
Nickel [+2]	7440-02-0	3	1000*	3	200	1000*	200	200	1000*	200	1000*	1000*	1000*
Nitrobenzene	98-95-3	0.07	100*	0.07	10	100*	10	10	100*	10	80	100*	80
Pentachlorophenol	87-86-5	0.7	1*	0.7	1*	1*	1*	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	2000	4000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	110-86-1	0.2	10*	0.2	6	10*	6	6	10*	6	10*	10*	10*
Silver	7440-22-4	note 4	4000	note 4	30	10000*	30	30	10000*	30	2000	10000*	2000
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000008	0.00001*	0.000008	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.4	100*	0.4	1	100*	1	20	100*	20	100*	100*	100*
Thallium [+1]	7446-18-6	0.005	1*	0.005	0.1	1*	0.1	0.1	1*	0.1	1*	1*	1*
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	60	6	6	1000*	20	20	1000*	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	4	20	4	100	60	60	100	60	60	1000*	900	900
Trichloroethylene	79-01-6	0.8	0.3	0.3	20	0.6	0.6	80	0.6	0.6	100*	20	20
Vinyl chloride	75-01-4	0.006	0.2	0.006	0.08	0.4	0.08	0.7	0.4	0.4	30	10	10
Zinc	7440-66-6	80	2000	80	2000	3000	2000	2000	3000	2000	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 12. Chemical-specific Waste Concentrations for Semi-solids Category (mg/kg)
(Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	30	note 1	30	700	note 1	700	700	note 1	700	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.004	note 1	0.004	0.008	note 1	0.008	0.2	note 1	0.2	0.7	note 1	0.7
Aniline	62-53-3	0.4	100*	0.4	0.7	100*	0.7	9	100*	9	50	100*	50
Arsenic	7440-38-2	0.007	0.04	0.007	0.2	0.08	0.08	0.7	0.08	0.08	40	10	10
Barium	7440-39-3	7	20	7	600	60	60	600	60	60	1000*	900	900
Benzene	71-43-2	0.4	20	0.4	1	40	1	60	40	40	100*	100*	100*
Benzo(a)pyrene	50-32-8	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Beryllium	7440-41-7	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Bis-(2-ethylhexyl) phthalate	117-81-7	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Cadmium	7440-43-9	0.07	0.3	0.07	2	0.7	0.7	2	0.7	0.7	10*	10*	10*
Carbon disulfide	75-15-0	20	0.6	0.6	100*	10	10	100*	10	10	100*	80	80
Chlorobenzene	108-90-7	0.9	30	0.9	70	100*	70	70	100*	70	100*	100*	100*
Chloroform	67-66-3	0.2	3	0.2	0.5	8	0.5	6	8	6	300	300	300
Dibenz[a,h]anthracene	53-70-3	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*	0.0001*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	0.4	note 1	0.4	40	note 1	40	40	note 1	40	60	note 1	60
Divalent Mercury	7439-97-6	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Ethylene dibromide	106-93-4	0.0004	note 1	0.0004	0.0008	note 1	0.0008	0.007	note 1	0.007	0.5	note 1	0.5
Lead	7439-92-1	note 2	note 3	note 2	note 2	0.6	0.6	note 2	0.6	0.6	note 2	30	30
Methyl ethyl ketone	78-93-3	500	1000*	500	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	70	note 1	70	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	3	600	3	8	1000*	8	300	1000*	300	900	1000*	900
Nickel [+2]	7440-02-0	3	5	3	200	9	9	200	9	9	1000	900	900
Nitrobenzene	98-95-3	0.07	100*	0.07	0.7	100*	0.7	0.7	100*	0.7	10	100*	10
Pentachlorophenol	87-86-5	0.07	1*	0.07	0.2	1*	0.2	1*	1*	1*	1*	1*	1*
Phenol	108-95-2	2000	4000	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Pyridine	110-86-1	0.2	10*	0.2	0.7	10*	0.7	0.7	10*	0.7	4	10*	4
Silver	7440-22-4	note 3	0.7	note 3	10*	3	3	10*	3	3	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.000002	0.00001*	0.000002	0.000008	0.00001*	0.000008	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*	0.00001*
Tetrachloroethylene	127-18-4	0.4	100*	0.4	1	100*	1	20	100*	20	100*	100*	100*
Thallium [+1]	7446-18-6	note 3	0.2	note 3	0.09	0.8	0.09	0.09	0.8	0.09	0.4	1*	0.4
Thiram	137-26-8	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Toluene	108-88-3	60	6	6	1000*	20	20	1000*	20	20	1000*	400	400
Trichloroethane, 1,1,1-	71-55-6	4	20	4	100	60	60	100	60	60	1000*	900	900
Trichloroethylene	79-01-6	0.8	0.3	0.3	9	0.6	0.6	80	0.6	0.6	100*	20	20
Vinyl chloride	75-01-4	0.006	0.2	0.006	0.08	0.4	0.08	0.6	0.4	0.4	5	9	5
Zinc	7440-66-6	80	5	5	2000	8	8	2000	8	8	10000*	800	800

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

* Values in the highlighted cells are the same as the highest waste concentration evaluated.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Table 13. Chemical-specific Waste Concentrations for Landfills Category mg/kg)
(Human Receptors - 2000 meters; Ecological Receptors - 2000 meters)

		Protection Group 1			Protection Group 2			Protection Group 3			Protection Group 4		
Chemical Name	**CASRN**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**	**HH#**	**Eco**	**Lowest+**
Acetonitrile	75-05-8	200	note 1	200	1000*	note 1	1000	1000*	note 1	1000*	1000*	note 1	1000*
Acrylonitrile	107-13-1	0.04	note 1	0.04	0.07	note 1	0.07	2	note 1	2	10	note 1	10
Aniline	62-53-3	3	100*	3	6	100*	6	100*	100*	100*	100*	100*	100*
Arsenic	7440-38-2	20	20	20	40	40	40	2000	40	40	8000	5000	5000
Barium	7440-39-3	3000	800	800	50000	3000	3000	50000	3000	3000	100000*	60000	60000
Benzene	71-43-2	300	1000*	300	600	1000*	600	1000*	1000*	1000*	1000*	1000*	1000*
Benzo(a)pyrene	50-32-8	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Beryllium	7440-41-7	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*	1*
Bis-(2-ethylhexyl) phthalate	117-81-7	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Cadmium	7440-43-9	400	30	30	1000*	50	50	1000*		50	1000*	1000*	1000*
Carbon disulfide	75-15-0	200	10	10	1000*	50	50	1000*	50	50	1000*	90	90
Chlorobenzene	108-90-7	80	100*	80	100*	100*	100*	100*	100*	100*	100*	100*	100*
Chloroform	67-66-3	400	2000	400	800	4000	800	10000	4000	4000	10000*	10000*	10000*
Dibenz[a,h]anthracene	53-70-3	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*	0.1*
Dichlorophenoxyacetic acid, 2,4-	94-75-7	10	note 1	10	90	note 1	90	90	note 1	90	800	note 1	800
Divalent Mercury	7439-97-6	10*	3	3	10*	5	5	10*	5	5	10*	10*	10*
Ethylene dibromide	106-93-4	0.04	note 1	0.04	0.2	note 1	0.2	0.9	note 1	0.9	40	note 1	40
Lead	7439-92-1	note 2	5	5	note 2	8	8	note 2	8	8	note 2	500	500
Methyl ethyl ketone	78-93-3	100	1000*	100	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Methyl methacrylate	80-62-6	800	note 1	800	1000*	note 1	1000*	1000*	note 1	1000*	1000*	note 1	1000*
Methylene chloride	75-09-2	200	10000*	200	400	10000*	400	5000	10000*	5000	10000*	10000*	10000*
Nickel [+2]	7440-02-0	3000	600	600	10000*	1000	1000	10000*	1000	1000	10000*	10000*	10000*
Nitrobenzene	98-95-3	200	1000*	200	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*	1000*
Pentachlorophenol	87-86-5	3	1	1	7	70	7	400	70	70	1000*	800	800
Phenol	108-95-2	10000*	4000	4000	10000*	6000	6000	10000*	6000	6000	10000*	10000*	10000*
Pyridine	110-86-1	4	1000*	4	80	1000*	80	80	1000*	80	1000*	1000*	1000*
Silver	7440-22-4	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	1746-01-6	0.008	0.0006	0.0006	0.01*	0.003	0.003	0.01*	0.003	0.003	0.01*	0.01*	0.01*
Tetrachloroethylene	127-18-4	900	5000*	900	2000	5000*	2000	5000*	5000*	5000*	5000*	5000*	5000*
Thallium [+1]	7446-18-6	0.06	5	0.06	1	8	1	1	8	1	7	100	7
Thiram	137-26-8	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*	100*
Toluene	108-88-3	5000*	3000	3000	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*	5000*
Trichloroethane, 1,1,1-	71-55-6	2000	10000*	2000	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*	10000*
Trichloroethylene	79-01-6	500	200	200	900	300	300	10000*	300	300	10000*	4000	4000
Vinyl chloride	75-01-4	0.6	8	0.6	2	30	2	40	30	30	700	300	300
Zinc	7440-66-6	10000*	300	300	10000*	600	600	10000*	600	600	10000*	10000*	10000*

Represents the lower concentration between carcinogenic risk and hazard quotient for a chemical when both types of effects are evaluated.

+ Represents the lower concentration between human health effects and ecological impacts.

note 1: Ecological impacts were not evaluated due to the lack of chronic ecological toxicity values.

note 2: Human impacts were not evaluated due to the lack of human health toxicity values.

note 3: The lowest waste concentration run does not meet the protection criteria for this scenario.

NA: Not Applicable

Dated: July 7, 2000.

Elizabeth A. Cotsworth,

Director, Office of Solid Waste.

[FR Doc. 00–18103 Filed 7–17–00; 8:45 am]

BILLING CODE 6560–50–C