



# **Cost Benefit Analysis Least Burden Determination**

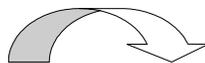
---

## **Amendments to the Dangerous Waste Regulations Chapter 173-303 WAC**

**Proposed July 2004  
Adopted December 2004**

Washington State Department of Ecology  
Hazardous Waste and Toxics Reduction Program  
November 2004

Publication Number 04-04-030



**Reduce Waste**

*printed on 100% post-consumer waste content paper*

*If you need this information in an alternate format, please call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. If you are a person with a speech or hearing impairment, call 711, or 800-833-6388 for TTY.*



# **Cost Benefit Analysis Least Burden Determination**

---

## **Amendments to the Dangerous Waste Regulations Chapter 173-303 WAC**

**Proposed July 2004  
Adopted December 2004**

Washington State Department of Ecology  
Hazardous Waste and Toxics Reduction Program  
November 2004

Publication Number 04-04-030



# Table of Contents

Introduction .....	
Background .....	
Costs and Cost Savings .....	
Human Health: Risk and Costs .....	
Environmental Costs .....	
Net Impacts .....	
Appendix A. Final Rule Change Crosswalk Matrix .....	



---

## Introduction

The proposed rule amendments to the *Dangerous Waste Regulations* have been reviewed. Ecology has determined that it is likely that the benefits are greater than the costs. Further, the set of proposed amendments taken together reduces the total cost of dangerous waste handling for businesses in the State. Thus it makes the rule less burdensome for those who are required to comply if all costs of the chapter are summed together. The determinations in this paragraph reflect the impact for the whole chapter, since different sections interact.

RCW 34.05.328 requires that rule amendments be reviewed to determine whether the probable benefits are greater than the probable costs and that it be the least burdensome for those who are required to comply.

## Background

The Dangerous Waste Rule targets a wide variety of chemicals, many of which damage the environment and human beings in the event of exposure. Reducing the potential for exposure and damage is a primary reason for the regulation itself. These amendments attempt to improve the cost effectiveness of the regulation by:

1. Reducing compliance costs if it is possible to do so without increasing the potential for damages to health and the environment. Detail on these changes is listed in Appendix A.
2. Amendments that create no impact. These are listed in Appendix A.
3. Increasing compliance requirements if it is necessary to improve the level of compliance with the rule and thus allow the rule to work to protect health and the environment. Detail on these changes is listed in Appendix A.
4. Finally, in the recent past, problems have occurred associated with closure of sites where dangerous wastes have been handled. The state has been forced to carry very sizable costs in order to avoid serious environmental and health risks. Through their actions, such under-capitalized business owners have obtained income while forcing the tax payers to bear the costs. Ecology is closing this loophole in the rule. This proposed amendment changes the financial responsibility requirements for TSDs, off-site recycling, and used oil processing/re-refining.

Background information on the rule amendments is reported in the Small Business Economic Impact Statement (SBEIS).

The business gain and cost information for this cost benefit analysis is drawn from the same surveys that provided data for the SBEIS. Each amended section of the rule has a different impact.

## Costs and Cost Savings

### Cost Savings

Many companies benefit from the Mercury and Permit by Rule amendments. There may be gains from reduced reporting for fertilizer companies<sup>1</sup>. The annual expected 20 year present value of the total savings for the companies affected from the cost reducing amendments is \$51.8 million.

Ecology does not expect that there will be any compliance problems or health impacts generated by these changes.

### Costs from Increased Requirements

Many companies will experience costs associated with the TSD, Generator, Used Oil, and Financial Responsibility amendments. The expected 20 year present value of costs to the companies affected from these amendments is \$21 million. Ecology expects that these changes will either, reduce compliance problems, reduce the potential for health impacts, or reduce the ability of companies to impose cleanup costs on society while receiving income for wastes. Some costs will repeat annually and some will be one time costs, which are estimated for the first year.

<b>Direct Business Related Impacts of the Proposed Amendments</b>			
<b>Gains</b>			
	Basis	First Year	Present Value
<b>Mercury</b>			
Average savings	\$ 826		
Number of companies	1,325		
Total		\$ 1,094,194	\$16,906,849
<b>Permit By Rule</b>			
Average savings or gain	\$ 24,322		
Number of Companies	93		
Total		\$ 2,261,934	\$34,950,108
<b>Total Present Value of Savings</b>			<b>\$51,856,956</b>
<b>Costs</b>			
	Basis	First Year	Present Value
<b>TSD</b>			
<b>CAMU</b>			
Average change	\$ -		
<b>Partial Closure</b>			
Average cost	\$ 1,081		
<b>Knowledge</b>			
% use	11.8%		
\$/customer	\$ 630		
% use	5.9%		
Average total cost	\$ 100,000		
Number of Companies	41		
Total		\$ (285,493)	\$ (925,925)
<b>Financial Responsibility</b>			
<b>Recycler Requirements</b>			
<b>Liability</b>			
Total		\$ (294,543)	
<b>Closure</b>			
Total		\$ (119,525)	\$ (6,397,937)
<b>Used Oil</b>			
Average Costs	\$ 27		
Number of Companies	18		
Total		\$ (485)	\$ (7,490)
<b>Generators</b>			
<b>Marking Containers</b>			
Average Costs	\$ 161		
<b>Document Knowledge</b>			
Average Costs	\$ 765		
Number of Companies	4301		
Total		\$ (3,982,679)	\$ (14,005,266)
<b>Total Present Value of Costs</b>			<b>\$ (21,336,617)</b>
<b>Net Business Present Value of Amendments</b>			<b>\$ 30,520,339</b>

<sup>1</sup> The survey done on this topic did not distinguish between the three proposed changes and thus Ecology is unable to separate out the gain for the remaining exclusion and reporting changes from the initial proposed changes. The initial reported value was \$19 million. It is reasonable to assume some part of this remains but it is not included here because it can't be calculated from the collected data. Given that no one reported being able to use the exclusion that Ecology has dropped it is likely that the entire \$19 million in benefits remains.

---

## **Partial Closures for TSDs**

The proposed rule would require a TSD facility to notify Ecology when they begin to close an individual unit (tank, container, or incinerator unit) rather than waiting to notify Ecology when the TSD begins closure for the entire facility. The change applies to both interim status and final status facilities.

Seventeen percent of survey respondents indicated they may have partial closures. There will be an average of one partial closure every 5 years, with costs averaging \$30,000. Averaging over all TSDs, the cost per year per TSD is \$1,100. The estimates provided to Ecology varied by an order of magnitude. It is likely that one of the companies was reporting the actual costs of partial closure, rather than notification of partial closure. This value is likely much higher than the actual average. If this company's information is taken out, then the average cost per year is only \$380 or 1/3 of the estimated cost included in the analysis.

## **Financial Responsibility Requirements: TSDs and Recyclers**

The increased financial responsibility requirements that will apply to both TSDs and Recyclers:

- Require that off-site recyclers and used oil recyclers meet the financial responsibility requirements.
- Preclude companies from using performance bonds.
- Require companies using a financial test to have \$20 million in assets.

This is expected to affect approximately 16 companies and to have a present value cost of \$6.3 million. The potential costs for an individual company will depend on the size of the facility, the amount of the waste handled, and the nature of the risk. Costs for individual companies vary by an order of magnitude.

The benefit of this part of the rule is that it will tend to maintain the more careful companies in the market. Insurers check for the risks from insuring the companies. They constitute a second set of eyes reviewing compliance and facility status. This has two impacts. It tends to reduce risk and it prevents a limited number of companies from transferring their costs to the citizens.

Additional flexibility is being allowed for financial responsibility. This may create savings during periods when bond ratings change rapidly in and out of a rating class. Likewise, some facilities may find the surety bond less expensive. Finally, the recyclers may be able to find some form of financial assurance through legislative action. This has been explicitly allowed for in the final rule amendments. The pay in period for the closure trust fund has been extended from 36 months to 60 months. The possible gain from each of these financial changes is dependent on the credit status of the companies affected and was therefore not estimated.

## **Used Oil**

The used oil section may or may not impose costs. Most companies felt it would not. The intention behind the rule is that inspectors would have the ability to require a cheaper test

---

in order to determine compliance. But some companies viewed the amendment as a potential cost. The total estimated statewide impact is a \$7,000 increase in the 20 year costs. If the amendment improves compliance it could have positive health impacts.

### **Generators**

Generators are estimated to have total first year costs of approximately \$3.9 million with a 20 year present value of \$14 million. The first year cost estimate is reduced to \$3 million if one data point that is an order of magnitude higher than the other data points is removed from the data set.

One of the costs below is for marking medium sized containers. Most companies already do this because the TSDs will generally not handle the material unless it is marked. If Ecology did not count this existing cost, then the 20 year present value would drop to \$4 million.

The breakdown of generator costs follows.

### **Knowledge**

A proposed rule clarifies the documentation necessary for using knowledge instead of testing as a mechanism for defining the contents of waste. A generator would have to give their TSD copies of existing published or documented data or analytical data from similar waste, or a combination of both when the generator has used knowledge to designate the waste.

Half of the respondents indicated that they use knowledge to designate their waste. The average estimated first year cost is \$765. However, if one large outlier is eliminated the average cost is reduced to \$345.

### **Marking of packages between 110 and 1000 gallons**

The proposed rule adds marking requirements for packages between 110 and 1000 gallons. A generator would be required to mark all packages of dangerous waste in preparation for transport. The marking requirement is being changed from packages of 110 gallons or less to 1000 gallons or less. This means that packages between 110 and 1000 gallons would now have to be marked.

Half of the respondents indicated that they have dangerous waste which would require marking, though most do it anyway. The average annual cost per generator is \$161. Ecology is including this cost in the analysis even though most companies already mark the containers.

### **Human Health: Risk and Costs**

The wastes regulated under the Dangerous Waste Rule, have the potential for significant health effects. Human health effects, when they occur, are expensive and justify the additional constraints listed in the Section, Costs from Increased Requirements, above.

---

## Health Costs

Each of the following kinds of expenses could arise from an exposure that affects human health. The health impacts would depend on the chemical and the nature of the exposure.

Cancers are expensive to treat. The EPA Cost of Illness Handbook lists pollutants that are carcinogens, many of which, when disposed, are hazardous wastes. The lifetime costs of cancers covered average \$82,000 in 1996 dollars.

Some chemicals potentially create disabilities in adults, and teratogens can generate disabilities in infants. All disabilities have high societal costs in that they may impose medical costs, costs of care, excess morbidity, and early mortality. Individuals with a disability are also likely to have a reduced lifetime income through both lower salaries and higher unemployment rates. A recent CDC study estimates the present value of the lifetime costs for the following disabilities, which may result from neural damage:

- vision impairment costs \$450,000
- hearing impairment costs \$290,000
- brain damage yielding retardation costs \$870,000

Birth defects are also costly. In the EPA Cost of Illness Handbook, the lifetime cost of cleft palate ranges from \$22,000 to \$25,000. The lifetime cost of upper limb reductions ranges from \$30,000 to \$36,000. The lifetime cost of lower limb reductions ranges from \$48,000 to \$67,000. The lifetime cost of heart defects ranges from \$113,000 to \$378,000. The lifetime cost of spina bifida ranges from \$202,000 to \$264,000.

The lifetime cost of asthma ranges from \$15,000 to \$22,000 for an average patient and from \$72,000 to \$101,000 for a patient with more severe asthma.

Minor neural damage which reduces IQ reduces the function of the individual in all areas of life. Without retardation, loss of IQ generates a loss of productivity that is valued at \$14,500 per IQ point, in 2000 dollars, with a range from \$12,700 to \$17,200. Thus, even when the difference in IQ is as small as a few IQ points, a loss is imposed on the individual.

The annual cost of renal failure extensive enough to cause a need for dialysis ranges from \$46,000 to \$117,000. Tiredness and weakness has an annual value of \$20,000. Chronic headaches are valued at \$31,000 per year.

The value of a statistical life is a large literature and is based on wages and occupational risk, market studies of risk reduction activities, and contingent valuation of willingness to pay for reductions in risk. The values shift based in part on the nature of the loss of life and dread associated with the symptoms associated with dying, the familiarity of people with the symptoms, and ability to pay or to find other occupations. The value of a statistical life for the department is \$4 million dollars for situations in which the nature of the mortality is not predicted. The values in this literature range from low values of \$300,000 to high values in excess of \$16 million. A large share of the literature has values

---

that range from \$3 to \$6 million. The EPA has chosen \$5 million as a measure of the central tendency of these values.

### **Human Health Costs vs. Cleanup Costs**

The health impacts above will not occur if areas affected by dangerous wastes are cleaned up. If the cost of cleanup is less than the cost of the health effect, then the cost of cleanup sets a cap on the value of potential losses due to loopholes in the existing WAC (chapter 173-303 WAC). Given that human health is valuable, society generally opts to clean up problems created by poor dangerous waste practices. These cleanups have cost in the tens of millions in the last 10 years.

### **Environmental Costs**

Environmental costs were not estimated for this analysis. Given that there are probable net benefits due to cleanup costs or human health effects alone, it is not necessary to review potential environmental impacts.

### **Net Impacts**

The 20 year estimated present value of net gains, without considering health effects, is approximately \$30 million.

\$51 million in savings results from permanent annual gains to mercury and permit by rule companies. It is possible that up to an additional \$19 million in savings accrue due to the fertilizer changes.

\$14 million of the costs relate to generator requirements. Closing these performance loopholes is expected to improve compliance. Ecology only expects this value to be \$4 million because most generators already mark their 110 to 1000 gallon containers.

\$6.3 million of the costs relate to financial responsibility, which prevents a transfer of cleanup costs from a company to the public and the original owners of the waste. Tens of millions have already been transferred to the tax payers and the original generators of waste, who used a TSD, by companies that walk away from cleanups after receiving payment for taking the waste. Insurers provide oversight and improve compliance. This part of the rule is likely to have significant compliance impacts and thus to affect human health.

\$1 million in costs will affect TSDs through additional documentation and partial closure costs.

Weighing the costs by themselves in comparison to the estimated value of health effects, one can calculate the number of cases required to justify the rule amendments. This 20 year cost would be offset if sufficient exposures were avoided during the period. There would be net gains if 6 lives were saved, or 30 cases of major neurological damages, or 240 cases of birth defects were avoided over the 20 year period.

---

The rule as a whole protects public health. Some of the amendments reduce requirements while retaining the health impact of the rule. Some of the amendments increase requirements to close loopholes. The market will eventually put pressure on those who have good protective performance to lower their costs by using existing loopholes. Thus the loopholes reduce the effectiveness of the rule over time.

For example, the use of knowledge rather than testing to designate a waste does not harm public health if the knowledge actually exists. Therefore a cost savings is created by allowing the use of knowledge. But without documentation, some may say they have knowledge when they don't. Thus the loophole weakens the beneficial effect of allowing the use of knowledge to designate waste.

While it is impossible to predict the health protection impact, the proposed amendments would prevent, slow increases over time, in either exposure related health effects or cleanup costs.

Finally, the rule as a whole prevents the need for cleanup costs. If society opts to clean up an affected site rather than allowing public health impacts then closing loopholes simply reduces cleanup costs. Ecology has decided that the loopholes weaken the rule sufficiently that health could be affected. Ecology cannot allow the health impacts to occur when they become likely. Thus, the rule may simply save on cleanup costs. If the amendments eliminate the need for even one major cleanup, then there will be a savings to society. Given the past 20 years as evidence, cleanups in the tens of millions have been necessary.

# Appendix A: Final Rule Change Crosswalk Matrix

**Dangerous Waste Regulations - Chapter 173-303 WAC - Amendments List for Economic Analysis**  
 Appendix A- Updated Supplement to Cost/Benefit Analysis and Small Business Economic Impact Statement- October 2004  
 This updated version reflects changes that were made to the regulations following public comment

Table 1. Codes for economic analysis

Generators or TSDs	Requirements	
	Federal	State
Federal/ State Only	FF*	SF
	FS	SS

\*Note that a federal requirement that impacts generators of federally regulated hazardous waste is exempt from economic analysis in accordance with 34.05.328 & 19.85

Table 2. Codes for Compliance Criteria

Code	Explanation
NA	Analysis Not Required
#	Numbering
E	Edit Only
K	Clarification
CS	Cost Savings
Q	Analysis Required
Z	Consistency

Table 3. Analysis of provisions being proposed for adoption

WAC 173-303- Amended Section (Proposed)	Federal Required Rule (Abbreviated Rule Name)	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
<b>FEDERAL RULES BEING ADOPTED</b>				
120(2) & (6)	Export	FF	NA	Federal Requirement- exempt
170(6)	Export	FF	NA	Federal Requirement- exempt
220(1)	Export	FF	NA	Federal Requirement- exempt - requires information on annual rather than biennial
230(1)	Export	FF	NA	Federal Requirement- exempt
240(11)	Export	FF	NA	Federal Requirement- exempt
250(1)	Export	FF	NA	Federal Requirement- exempt
290(1)	Export	FF	NA	Federal Requirement- exempt
370(4) & (5)	Export	FF	NA	Federal Requirement- exempt
370(6) & (7)	Export	FF	NA; #	Renumbered
525(1)	Export	FF	NA	Federal Requirement- exempt
573(16), (27), & (34)	Export	FF	NA	Federal Requirement- exempt
830(4)(j)	HW Combustors	FF	NA	Federal Requirement- exempt
830 Appendix I	HW Combustors	FF	NA	Federal Requirement- exempt
805(7)(b)	HW Combustors	FF	NA	Federal Requirement- exempt
40	HW Combustors	FF	NA	Federal Requirement- exempt
510	HW Combustors	FF	NA	Federal Requirement- exempt
670(1)	HW Combustors	FF	NA	Federal Requirement- exempt
680(1)	HW Combustors	FF	NA	Federal Requirement- exempt
806(4)(f)	HW Combustors	FF	NA	Federal Requirement- exempt
806(4)(n)	HW Combustors	FF	NA	Federal Requirement- exempt
807	HW Combustors	FF	NA	Federal Requirement- exempt
811	HW Combustors	FF	NA	Federal Requirement- exempt
841	HW Combustors	FF	NA	Federal Requirement- exempt

9904	LDR Phase IV	FF	NA	Federal Requirement- exempt
200(4)	180 Day Accumulation	FF	NA	Federal Requirement- exempt (cost savings)
9904 & 9905	Chlorinated Aliphatics	FF	NA	Federal Requirement - exempt
070(2)(c)	Mixture & Derived	FF	NA	Federal Requirement- exempt
081(3)	Mixture & Derived	FF	NA	Federal Requirement- exempt
082(3)	Mixture & Derived	FF	NA	Federal Requirement- exempt
070(2)(c) to 071(3)(qq)	Mixture & Derived	FF	NA; #	Moved to a different section
110	EPA Mailing Address	FF	NA	Federal Requirement- exempt
071(3)(kk) 9904	Inorganic Chemical Wastes Inorganic Chemical Wastes	FF FF	NA NA	Federal Requirement- exempt Federal Requirement- exempt
64610	CAMU	FF	NA; #	Renumbering only
64620	CAMU	FF	NA; #;E	Renumbering and editing
64630	CAMU	FF	NA; #	Renumbering only
64640	CAMU	FF	NA	Federal Requirement- exempt (new definition)
64650	CAMU	FF; FS	NA	Federal Requirement- exempt
64660	CAMU	FF; FS	NA	Federal Requirement- exempt
64670	CAMU	FF	NA; #; E	Renumbering and editing
64680	CAMU	FF	NA; #; E	Renumbering and editing
64690	CAMU	FF	NA; #	Renumbering only
646100	CAMU	FF; FS	NA; CS	Federal Requirement- could impact generators with state-only waste; if so, would be a cost savings

071(3)(pp)	Zinc Fertilizers		FF		NA; CS	Federal Requirement- exempt (cost savings)
505	Zinc Fertilizers		FF		NA; CS	Federal Requirement- exempt (cost savings)
140(2)	LDR Treatment for Batteries		FF		NA	Federal Requirement- exempt
40	Universal Waste Mercury Equipment		FF		NA	Federal Requirement- exempt (definition)
77	Universal Waste Mercury Equipment		FF		NA; CS	Federal Requirement- exempt (cost savings)
400(2)(c)	Universal Waste Mercury Equipment		FF		NA; CS	Federal Requirement- exempt (cost savings)
573	Universal Waste Mercury Equipment		FF		NA; CS	Federal Requirement- exempt (cost savings)
600(3)	Universal Waste Mercury Equipment		FF		NA; CS	Federal Requirement- exempt (cost savings)
800(7)(c)	Universal Waste Mercury Equipment		FF		NA; CS	Federal Requirement- exempt (cost savings)
380(1)(g)	Waste Minimization		FF		NA	Federal Requirement- exempt
390(2)(g)	Waste Minimization		FF		NA	Federal Requirement- exempt
810(11)(c)	Waste Minimization		FF		NA	Federal Requirement- exempt
200(5)	Performance Track		FF;FS		NA;CS	Federal Requirement-exempt

STATE INITIATED RULE AMENDMENT or CORRECTION							
10	NA		SS, SF			NA; E; K	Clarify the interchangeability of "public" and "human" health
30 and 395(1)(d), 630(8)(a), 630(8)(b)	NA					NA; Z	References to the Uniform Fire Code are being changed to International Fire Code to reflect changes in other state requirements.
40	NA		SS, SF			CS	"Designated facility" definition broadened to include federally regulated HW from off-site
40	NA		SF, SS			NA; K	"Knowledge" This definition supports addition to section 300 and can be used by generators to know what constitutes sufficient knowledge for designation.
40	NA		SF, SS			NA; E	"Partial closure" definition was corrected by referencing correct citations per federal rule
40	NA		SS			NA, K	"Registration number" definition was added for clarity
45(2)	NA		FF, FS			NA; E	Citation corrected- results in newer version of federal rules being cited wherever federal rule is incorporated by reference
60(1)	NA		SS, SF			NA; K	Clarification of what it means to issue a site ID#
60(2)	NA		SS, SF			NA; E	New form names
070(8)(d)	NA		SF, SS			NA; K; Z	Clarification based on federal interpretation contained in FR Notice and consistency with EPA.
071(3)(g)(i)	NA		SS, SF			NA; K	Clarification of arsenical treated wood exclusion
071(3)(g)(ii)	NA		SS			NA; K	Clarification of exclusion for wood treated with preservatives other than arsenic
071(3)(o)	NA		SF, SS			NA; K	SIC codes are replaced with NAIC codes
090(5)(a)(iv)	NA		FF, FS			NA; Z	Organic Peroxides reference

100(5)(b)	NA		SS	NA; K	Clarification of book designation procedure
104	NA		SS	NA; E	Amended to include state-only waste codes in one location
161(6)	NA		SS, SF	NA; K; Z	Addition of 5 year paperwork retention is consistent with other paperwork requirements
190(5)(b)	NA		SS	Q	This change corrects the marking requirement that was adopted in 2000. The marking requirement applies to 1000 gallon or less containers.
201(2)(e)	NA		SF, SS	NA; E	The citations in this sentence were clarified.
300	NA	"EPA Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes- A Guidance Manual"	SF, SS While this is a requirement based on federal guidance, EPA does not include it in their rules	Q	This change clarifies requirements for Waste Analysis Plans and places in rule the federal guidance (OSWER 9938.4-03 April 1994) on how a facility has to be able to demonstrate that a generator has sufficient knowledge about their waste for designation. See 040 definition of knowledge.
320(2)(a)	NA		SF, SS	NA; E	To make gender neutral.
400(3)(c)(ix)	NA		SF, SS	Q	Facility owners must submit a closure plan and notify Ecology when they begin partial closure. Current rule requires such notification when they begin closure.
505(1)	NA		SS, SF	CS	Fertilizer registration will not be required if there has been no change for at least two previous registrations.
515(13)	NA		SS, SF	Q	Ecology may require testing of used oil to determine if it is on or off-specification. Although this is a new testing requirement, it may result in a cost savings because Ecology can now require testing instead of declaring their waste a solid waste and require more expensive designation testing.
600(3)(g)	NA		SF, SS	NA	citation corrected
610(2)(b)	NA		SS, SF	E; Z	Change reflects the new standards in MTCAs for cleanup levels from "residential" to "unrestricted use"
610(3)(c)	NA		SS, SF	Q	Facility owners must submit a closure plan and notify Ecology when they begin partial closure. Current rule requires such notification when they begin closure.

640(4)	NA		SF, SS	E	Deletion of obsolete guidance, addition of current guidance.
640(7)	NA		SS, SF	K; Z	Spill reporting requirement in this section is changed to be consistent with the overriding regulatory requirement for spill reporting in section 145. This is a potential cost savings due to the possibility that a generator would not report their spill in accordance with 145.
802(5)	NA		SF, SS	CS	Related to the definition change for designated facility, this amendment allows on-site waste water treatment units to accept federally regulated wastes from off-site for treatment.
803(3)	NA		SF, SS	NA; E	Change from SIC to NAIC codes.
910(1)	NA		SS, SF	NA; Z	This change provides consistency with the Administrative Procedures Act for the time limit a petition must be processed.
9904	NA		SF, SS	NA; E	Change from SIC to NAIC codes.
9904, 515(5), & 071(3)(k)	NA		SS	NA; E; Z	Waste code is changed from W001 to WPCB so as not to conflict with an EPA form code.
070(8)(b)	NA		SS, SF	NA; E; Z	Citation changed to reflect new solid waste regulations 173-350
600(3)(e)	NA		SS, SF	NA; E; Z	Citation changed to reflect new solid waste regulations 173-350
Hazardous Waste Facilities Initiative	NA	120(3), 120(4) & (4)(c), 120(7), 515(9), 610(1)(a), 610(12), 620(1)(e), 620(4), 620(8), and 960	SS, SF	Q	Closure standards and financial assurance requirements are expanded to used oil and recycling facilities 040 definition for resource reclamation unit

---

## Bibliography

- Export =Imports and Exports of Hazardous Waste: Implementation of OECD Council Decision C(92)39 Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations - 61 FR 16290-16316 - April 12, 1996
- HW Combustors= Hazardous Waste Combustors; Revised Standards; Final Rule-Part 1: RCRA Comparable Fuel Exclusion;
- Permit Modifications for Hazardous Waste Combustion Units; Notification of Intent to Comply; Waste Minimization and Pollution Prevention Criteria for Compliance Extensions - 63 FR 33782 – 33829 - June 19, 1998
- NESHAPS: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors; Final Rule - 64 FR 52828-53077; 64 FR 63209-63213 - September 30, 1999; November 19, 1999
- NESHAPS: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors; Technical Corrections - 65 FR 42292-42302; 66 FR 24270-24272; 66 FR 35087-35107 - July 10, 2000; May 14, 2001; July 3, 2001
- NESHAP: Interim Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Interim Standards Rule) - 67 FR 6792-6818 - February 13, 2002
- NESHAP: Standards for Hazardous Air Pollutants for Hazardous Waste Combustors; Final Rule - 67 FR 6968-6996 - February 14, 2002
- LDR Phase IV= Land Disposal Restrictions Phase IV: Final Rule Promulgating Treatment Standards for Metal Wastes and Mineral Processing Wastes; Mineral Processing Secondary Materials and Bevill Exclusion Issues; Treatment Standards for Hazardous Soils, and Exclusion of Recycled Wood Preserving Wastewaters 64 FR 56469-56472 - October 20, 1999
- 180 Day Accumulation= 180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal Finishing Industry; Final Rule - 65 FR 12378-12398 - March 8, 2000
- Chlorinated Aliphatics= Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Chlorinated Aliphatics Production Wastes; Land Disposal Restrictions for Newly Identified Wastes; and CERCLA Hazardous Substance Designation and Reportable Quantities - 65 FR 67068-67133 - November 8, 2000

---

Mixture and Derived= Hazardous Waste Identification Rule (HWIR): Revisions to the Mixture and Derived-From Rules - 66 FR 27266-27297 - May 16, 2001

EPA Mailing Address= Change of Official EPA Mailing Address; Additional Technical Amendments and Corrections - 66 FR 34374-34376 - June 28, 2001

Inorganic Chemical Wastes= Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Inorganic Chemical Manufacturing Wastes; Land Disposal Restrictions for Newly Identified Wastes; and CERCLA Hazardous Substance Designation and Reportable Quantities  
66 FR 58258-58300; 67 FR 17119-17120 - November 20, 2001; April 9, 2002

CAMU= Amendments to the Corrective Action Management Unit Rule - 67 FR 2962-3029 - January 22, 2002

Zinc Fertilizers= Zinc Fertilizers Made From Recycled Hazardous Secondary Materials & From HW - July 24, 2002 67 FR 48393-48415

LDR Batteries= Land Disposal Restrictions: National Treatment Variance To Designate New Treatment Subcategories for Radioactively Contaminated Cadmium-, Mercury-, and Silver- Containing Batteries - October 7, 2002 - 67 FR 62617-62625

Universal Waste Mercury Equipment= Universal Waste Rule for mercury containing equipment  
To be finalized by EPA May 2004

Waste Minimization= Waste Minimization HSWA Codification Rule 50 FR 28702-28755 - July 15, 1985 and Biennial Report Correction - 51 FR 28556 - August 8, 1986

Performance Track= National Environmental Performance Track Program 69 FR 21737-21754, April 22, 2004