Hazardous Waste Management Facilities in Washington State - Problems & Options

Report to the Legislature

Washington State
Department of Ecology
September 2002
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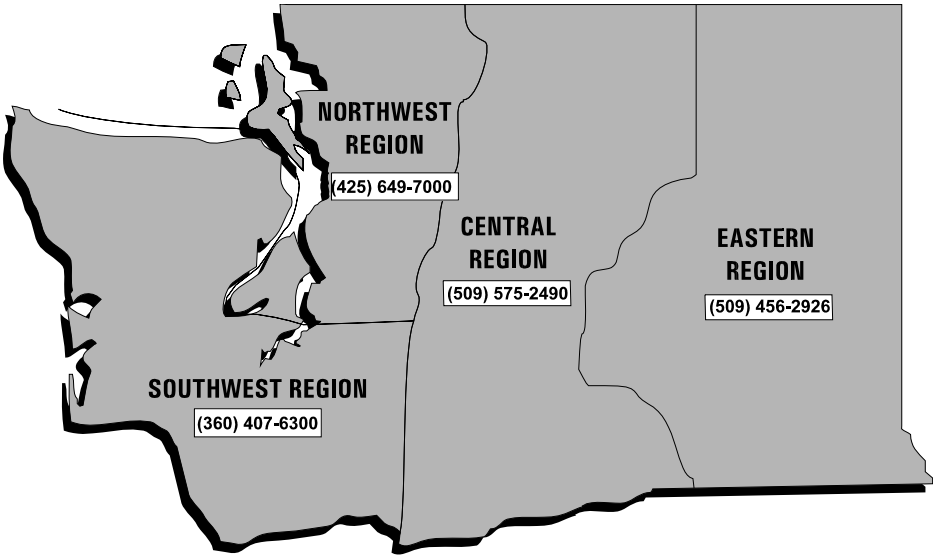

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WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

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Table of Contents

Executive Summary **1**
Background 1
Major Problems 2
An Adequate Program 6
Funding Options 6
Choices and Next Steps 7

Chapter 1: Introduction **9**
Goals and Objectives 10
Steps Taken to Identify Problems, Options, and Recommendations 10

Chapter 2: Background **13**
Hazardous Waste Generation 13
Used Oil 14
History of Problems with Waste Management Facilities 14
Ecology's Hazardous Waste Management Program 18

Chapter 3: Problems Identified **23**

Chapter 4: Options Considered **35**
Discussion of Options Considered 36

Chapter 5: An Adequate Program **41**

Chapter 6: Fee Options **45**
Additional Considerations 46

Chapter 7: Stakeholder Process and Concerns **47**

Chapter 8: Choices and Next Steps **49**

Appendices 51

1. Recent Stakeholder Letters 53
2. Inventory of Hazardous Waste Management Facilities, Recyclers and Used Oil Processors 69
3. Summary of Regulations and Permit Requirements 73
4. Financial Assurance Options and Recommendations 75

Tables

1. Active Hazardous Waste Management Facilities and Used Oil Processors in Washington State 12
2. Summary of Costs 18
3. Summary of Problems Identified 23
4. Hazardous Waste Financial Assurance Mechanisms 27
5. Ecology's Current Program 31
6. Summary of Options for Addressing Problems 35
7. Description of the Current and Proposed Adequate Programs 42
8. Fee Options Considered 45

Figures

1. Hazardous Waste Generation and Management in Washington 14
2. Hazardous Waste Management Facilities by Type 15
3. Cleanup Status of Facilities with Cleanup Obligation 16
4. Recent Hazardous Waste Facility Closures 17
5. Estimated Number of Full Time Positions Invested by Ecology 19
6. CleanCare, Tacoma Site Map 24
7. Household Hazardous Waste Drum Storage Building 25
8. Estimated Costs for Ecology's Current Activities (Calendar Year 2001) 32

Executive Summary

The 2001 Legislature directed the Department of Ecology (Ecology) to conduct an assessment of state and federal requirements that apply to hazardous waste management facilities[1]. This action was taken in response to recent closures of facilities that left substantial economic liabilities for public agencies, former customers and property owners.

This report provides details of Ecology's assessment, with a focus on financial responsibility requirements. Ecology believes there are significant problems and risks with the current system in place to oversee this industry. Options are identified and recommendations are made for how to resolve those problems, reduce long-term liability and move toward a more stable and healthy hazardous waste management system.

Efforts to improve safeguards to the environment and public, and minimize long term liability of waste management should not require sweeping changes to existing regulatory and permitting programs. These tools need to be expanded and used more effectively. More resources need to be obtained and invested in Ecology's assistance, permitting and compliance programs.

Background

There are approximately 33 facilities in Washington that are active hazardous waste treatment, storage, disposal, and recycling facilities, or used oil processors (see Table 1, page 12). These facilities are owned and operated by private companies for commercial purposes, by private companies to handle their own wastes (non-commercial), or by government agencies like the military. Ecology has identified 105 of these facilities that have operated in the state since the adoption of hazardous waste laws in 1980.

Owners and operators of TSDs are subject to hazardous waste permits and regulations[2]. Hazardous waste permits are not required for recycling hazardous wastes or processing used oil, however, these activities are subject to minimum operating standards administered by Ecology.

The industry is not stable. Numerous mergers, sales, bankruptcies, closures and startups of hazardous waste management companies have occurred with Washington State and across the country in the last few years. Factors contributing to this instability are: it is highly competitive; volatile market prices for recovered materials

[1] Chapter 7, Laws of 2001, section 302(2), effective July 1, 2001.
[2] Washington Dangerous Waste Regulations (Chapter 173-303 WAC) and Federal Hazardous Waste (RCRA) Regulations (40 CFR Parts 260 – 279).

(e.g., waste-derived fuels) significantly influence revenues; changes in business objectives within the industry and individual companies; new technology; changes in regulations; and, reduced waste volumes as a result of successful waste reduction programs waste generators.

This industry is also not very clean. Facilities are often sited in industrial areas with historic soil and groundwater contamination. Their operations often add to the contamination because of leaks, spills or accidents due to lack of attention to housekeeping and maintenance. Owners and operators of 80 of 105 (76%) TSDs, recyclers and used oil processors that have operated in Washington in the past twenty years have some level of obligation to investigate and cleanup contamination at their sites. Costs for cleanup may range from tens of thousands to millions of dollars.

Significant compliance problems have also been discovered in the industry in the past few years. For example, since 1997, Ecology has assessed penalties to 14 facilities amounting to more than $900,000.

Not every hazardous waste management facility or used oil processor site in Washington is contaminated, or has resulted in taxpayers paying for cleanup. Some are well operated and diligent about following environmental regulations and permits.

Major Problems

Ecology has identified five core problems associated with hazardous waste management facilities. These problems are:

1. **Major waste streams and activities at waste management facilities are not subject to financial responsibility requirements.** Financial requirements for hazardous waste facilities include coverage for third party damages (pollution liability) and funds for facility closure/post closure. These requirements are applied through hazardous waste permits. Hazardous waste permits do not, however, cover the whole facility, all types of wastes received, or waste handling processes employed. Substantial volumes of hazardous wastes or used oil may be accumulated and managed in units that are exempt from financial responsibility requirements. The funds set aside by facility owners and operators fall short of paying for the full cost of closing a waste management facility.
2. **Regulations and mechanisms addressing financial responsibility for TSDs are inadequate and/or out-of-date.** The main purpose of financial responsibility requirements is to assure that funds will be available to pay for the safe and orderly closure of facilities. This includes, for example, removing and properly disposing wastes in tanks or containers, or decontaminating structures and equipment used to hold hazardous wastes. Ecology believes

that gaps, confusion and loopholes in existing regulations result in situations where such funds will be available only if the facility owner and operator is present and cooperative. Owners and operators are often absent, assets may be tied up in bankruptcy, or financial mechanisms are so complex that it is doubtful is claims may be successfully filed and collected.

3. **Limited ability to address potential environmental threats at recycling facilities and used oil processors.** Recyclers and used oil processors have broad latitude to change owners, operators, expand capacity, add waste streams or change processes. No notification or review procedures are required to assure that adequate environmental safeguards will be followed. Also, the State has no mechanism, short of a court order, to halt the continued shipment of wastes to a recycling facility or used oil processor that has long-standing, substantial compliance problems.
4. **Potential customers and interested citizens have difficulty in obtaining information about facility permits, compliance, enforcement, closure and cleanup.** The public information that is maintained by Ecology is specialized and typically available only through appointments in person.
5. **Resources levels are inadequate for current demands on Ecology's permitting and compliance programs** for treatment, storage and disposal facilities, recyclers and used oil processors.

Examples of privately-owned waste management companies that have shut down and left wastes for agencies (taxpayers), property owners or former customers to cleanup include:

- ❑ CleanCare, Tacoma. Abandoned in 1999. Costs to date are $4.3 million.
- ❑ Reflex Recycling (Micro Oil), Tacoma. Shut down in 2000. Costs to date are $150,000.
- ❑ Cameron Yakima, Yakima. Bankrupt in 1990. Costs to date are $4.5 million.
- ❑ Amour Fiber Core, Sultan. Abandoned in 2001. Costs to date are $250,000
- ❑ SafeCo Environmental, SeaTac. Shutdown in 1992. Costs to date are $500,000 to $750,000.

Numerous newspaper and television articles and editorials have appeared in the last eighteen months calling for the Legislature and Ecology to take action to address these situations. Support has been expressed for taking steps to assure that facilities do not walk away from their operations and leave taxpayers and customers with substantial cleanup costs and environmental messes.

Summary of Options for Addressing Problems

Problem	Option
Major activities & waste streams at waste management facilities are not subject to liability and closure funding requirements.	+ Require closure plans and financial responsibility for recycling and used oil processing. + Require ground water monitoring & best management practices (ISO 14000 Environmental Management Systems, for example) for recycling and used oil processing operations. + Do nothing. Maintain current exemptions for recycling and used oil processing.
Regulations and mechanisms for financial responsibility for TSDs are inadequate and/or out-of-date.	+ Revise rules and guidelines to address inadequacies & improve assurances that funds will actually be available upon closure or abandonment of facilities. + Do nothing. Maintain current rules & guidelines.
Limited ability to address potential environmental threats at recycling facilities and used oil processors.	+ Establish an operating certificate program for recyclers and used oil processors. Increase assistance and compliance presence by Ecology. + Require that recyclers and used oil processors apply for and receive final status (Part B) HW permits. + Do nothing. Maintain current exemptions and rules.
Potential customers and interested citizens have difficulty in obtaining information about facility permits, compliance, enforcement, closure and cleanup.	+ Create an internet site to display information maintained by Ecology & EPA. Include guidance on minimizing liability and selecting contractors. + Create a certification program for in-state and out-of-state HW facilities, recyclers and used oil processors. + Do nothing. Maintain current system of public record reviews under Ch. 42.17 RCW.
Resource levels are inadequate for current demands on Ecology's permitting and compliance programs for TSDs, recyclers and used oil processors.	+ Shift resources within existing programs. + Seek additional resources. + Do nothing. Maintain current levels of funding.

Stakeholder Process & Concerns

Throughout its assessment of problems with hazardous waste management facilities, Ecology has worked with representatives of the following stakeholder groups:

- hazardous waste management industry
- hazardous waste recyclers
- used oil processors
- large and small business organizations
- local government agencies
- environmental groups

The stakeholder process has involved individual and group meetings and correspondence. An open and clear exchange of ideas, concerns and suggestions has occurred. The list shown below provides a summary of areas of apparent consensus and issues where concerns have been expressed. See Appendix 1 for recent letters.

Hazardous waste facilities owners and operators acknowledge that there are problems, but oppose fees aimed solely at facilities since it leads to higher short-term costs on their operations. Fees that are aimed at waste generators would likely receive more support from waste management companies. Cost and performance information was requested for Ecology's current and adequate programs.

Smaller waste management companies are concerned about increases to their costs, plus the availability and affordability of financial assurance products like insurance. Suggestions were made on how Ecology may try different enforcement approaches with waste management companies. Owners and operators have also said that Ecology needs to have better trained inspectors that are knowledgeable about specific waste management processes. Facility operators expect timely permitting reviews and decisions from Ecology. They also expect that requirements will apply consistently to TSDs, recyclers and used oil processors (level playing field).

Businesses choose waste management companies based upon consideration of liability, service and cost. Large and small businesses are concerned about having to pay significantly more for waste management. Small businesses are also concerned about the possible loss of services in more rural areas. Representatives from both large and small business have said that if fees are to be adopted, it is appropriate for them to be assessed to facilities. Cost and performance information was also requested for Ecology's current and adequate programs.

Local governments support changes that provide for good oversight and safer hazardous waste facilities in their communities.

Environmentalists support changes for the same reasons as local government. However, we need stricter regulatory changes to move toward higher pollution prevention efforts.

EPA is supportive of changes that provide safer hazardous waste facilities.

Ecology responded to concerns in a number of ways. Responses included: providing requested cost and performance information for the current and proposed adequate programs; clarifying and quantifying specific options, investigating additional options (e.g., pooled insurance); and, committing to working with stakeholders in the development of rules and the creation of a new web site. The "Choices and Next Steps" section also reflects the strategic and policy concerns of stakeholders.

An Adequate Program

As part of the process of evaluating options and working with stakeholders, Ecology developed an approach that addressed all five problem areas. This was characterized as the "Adequate Program" that focused on:

- expanded closure and financial requirements for TSDs, recyclers and used oil processors;
- upgraded financial responsibility regulations that provide a higher level of a assurance that funds will be available for closure;
- timely review and decisions in response to permit applications, modification or renewals;
- expanded financial assurance reviews;
- technical and compliance assistance to facility owners and operators;
- enhanced compliance inspections and problem identification;
- revised performance and efficiency measures within Ecology (e.g., reorganization of staff & resources to better focus on hazardous waste management facilities, expanded and improved training, skills and knowledge for inspectors and permit writers).
- creation of a web site to provide permitting, financial assurance, and compliance information on facilities in Washington as well as guidance on selection of waste management contractors.

Ecology believes the "Adequate Program" will result in a safer, more stable hazardous waste management system in Washington. Financial resources for third party damages and closure of facilities would be expanded. Confidence in the performance of Washington facilities would be increased. Ecology would provide more timely and responsive permitting, assistance and regulatory services. Enforcement and penalties against waste facilities would be reduced because problems and violations would be identified and addressed early. Information on waste management companies in Washington would be more readily available to consider when selecting waste contractors.

Funding Options

Three options were identified to fund the Adequate Program. These include:

1. Shift existing resources and seek additional efficiencies within Ecology's Hazardous Waste & Toxics Reduction Program to focus on permitting and compliance functions for hazardous waste management facilities.
2. Seek new resources – several choices exist including; request increased State appropriation, seek an increase in the federal RCRA grant, and adopt new fees.

Several fee options were identified. Fees focused on facilities may be based on the cost of services provided by Ecology (fee for service), fixed fees, or variable fees based on the volumes of wastes management. Fees aimed at waste generators were also identified. These could be based upon the volume or types of wastes shipped, or fixed fee for each shipment of waste to a waste management facility.

3. Do nothing – maintain current levels of effort with no new regulatory or statutory initiatives.

Choices and Next Steps

Stakeholders generally agree that there are serious problems with hazardous waste management facilities and that steps need to be taken to address them. There also appears to be substantial agreement that financial assurance needs to be addressed and improving access to public information through a web site is a good idea. There is no agreement, however, on what specific priorities or services Ecology should provide to address the problems identified (i.e., an Adequate Program). In particular, there is no agreement on how and who should pay for the additional costs associated with the solutions.

Since there is a lack of overall consensus at this time from all stakeholders, Ecology has identified three possible approaches for the Legislature to consider. These include:

A. Authorize Ecology to expeditiously move ahead with a rule development process, in consultation with stakeholders, to define the scope of services needed to address the problems identified in this assessment. This process would result in defining the Adequate Program and the resources needed to implement it. Under this option Ecology would also be authorized to adopt fees to pay for the package of services.

   This option addresses the problems identified in the quickest manner. It allows Ecology and stakeholders to build upon the momentum gathered to address the problems identified through this assessment. It relies upon good faith efforts by stakeholders and Ecology to continue the development of information and exchange of ideas to resolve concerns in the rule development process. Implementation is expected by 2005.

B. Direct Ecology to continue working with stakeholders to develop consensus on the scope of services and funding approach prior to authorizing rule development.

   This option delays action on addressing problems until concerns are worked out with stakeholders. Problems identified in this report are not addressed until the

next supplemental session at the earliest. Implementation would not occur until after 2006.

C. Ecology already has existing authority under the Hazardous Waste Management Act to address many of the problems identified in this assessment. Under this option, the Legislature would direct Ecology to undertake rule development to resolve immediate problems with financial assurance and address environmental threats at recyclers and used oil processors with no clear funding sources identified.

   This option may provide a legal basis for addressing some significant problems, but with no new fund sources, practical implementation will not occur.

Of the approaches identified, Ecology feels that it is most appropriate to establish authority to move ahead with developing the service package and methods to fund it (A, above). This option provides the means to expeditiously address the serious problems identified. Other options postpone the ability for Ecology to implement results and delay any advantages gained through the process invested in by stakeholders to date.

Chapter 1

Introduction

Approximately 33 facilities located in Washington are actively accepting hazardous waste for treatment, storage, disposal (TSD), and recycling or used oil for processing into fuels (Table 1). These facilities are owned and operated by private companies for commercial purposes, by private companies to handle their own wastes (non-commercial), or by government agencies like the military. Owners and operators of TSDs are subject to hazardous waste permits and regulations. Hazardous waste permits are not required for recycling or used oil processing. However, these activities are subject to state and federal hazardous waste regulations.

The 2001 Legislature directed the Department of Ecology (Ecology) to conduct an assessment of state and federal requirements that apply to hazardous waste management facilities[3]. This action was taken in response to recent closures of facilities that left substantial economic liabilities for public agencies, former customers and property owners.

By September 30, 2002, Ecology was directed to provide to the governor and appropriate committees of the legislature a report that: a) evaluates current statutes and regulations governing hazardous waste management facilities; b) analyzes and makes recommendations for improving financial assurance regulatory control; and c) makes recommendations for funding financial assurance regulatory control of hazardous waste management facilities.

This report presents the results of Ecology's assessment. Goals and objectives, and steps taken to carry out this assessment are described in the next sections. A background section is presented to help the reader understand the complex nature of hazardous waste and used oil management, regulation and oversight. This followed by discussions of problems, options, and stakeholder comments and concerns. The final section, "Choices and Next Steps" presents what Ecology believes are the main choices that the Legislature should consider to address the problems characterized in this assessment.

Detailed tables and referenced materials are presented as attachments in the Appendices.

[3] Chapter 7, Laws of 2001, section 302(2), effective July 1, 2001.

Goals and Objectives

Goals - Goals of this initiative are to:

- Identify and address gaps in the current permitting and regulatory programs for hazardous waste management and used oil processing facilities.
- Seek input from stakeholders.
- Develop and implement a course of action that assures that services and facilities for the management of hazardous wastes in Washington are safe and minimize long term economic and environmental liability.

Objectives are to:

- Assure that facility owners and operators provide financial resources for the closure of their facilities.
- Strengthen environmental protection by closing gaps in regulatory coverage.
- Provide better access to information to businesses and the public on waste management facilities.
- Identify and provide the means for adequate funding for permit processing and compliance oversight.
- Involve stakeholders in solving problems

Steps Taken to Identify Problems, Options and Recommendations

Ecology's Hazardous Waste and Toxics Reduction Program (HWTR) approached the assessment of hazardous waste management facilities by employing the following strategy:

- ❑ *Use of an Ecology Core Team* with extensive training and experience in hazardous waste permitting, financial assurance and conducting compliance and enforcement efforts for hazardous waste TSDs, recyclers and used oil processors.
- ❑ *Use of consultants* for additional expertise and resources. *Environmental Assets, LLC*, Seattle was hired to conduct an evaluation of adequacy and performance of financial responsibility mechanisms. *Ross & Associates, Inc.* also from Seattle, prepared an inventory of past and current facilities that have operated in Washington, evaluated costs associated with the cleanup of hazardous waste management and used oil processing sites, conducted studies of eight selected cases, and facilitated two types of stakeholder meetings.

- *Stakeholder involvement.* Stakeholders in this issue include representatives from the waste management industry, businesses that generate hazardous waste and used oil, local government and environmental groups. Ecology held one-on-one meetings with about 20 representatives from affected groups. During June, 2002 we distributed draft proposals and held a series of meetings with stakeholder groups to explain the problems and proposed solutions and receive stakeholders' ideas and input. In response to requests from stakeholders, a summary of their comments, estimates of program costs, and options for revising financial responsibility regulations were prepared and distributed in August, 2002. A second stakeholder meeting was held on August 22, 2002 to exchange information and for Ecology receive additional input.

Following the second stakeholder meeting, Ecology re-evaluated the identified problems, options and proposed solutions. The broad policy and funding options are reflected in this report and are being brought forward to the Legislature (see *Choices and Next Steps)*.

Table 1. Active Hazardous Waste Management Facilities and Used Oil Processors in Washington

Facility	Location	Comment/Status
Commercial TSD		
Applied Process Engineering Lab (APEL)	Richland	Research & development, Part B, Compliance
Applied Technology Group (ATG) Richland, Inc	Richland	Mixed waste, Part B, Compliance, Chapter 11 bankruptcy
Bay Zinc	Moxee City	Part B, Compliance, Enforcement, Corrective action
Emerald Services	Tacoma	Multi-purpose, Part B, Permit mod, Compliance, Enforcement, Corrective Action
Philip - Georgetown	Seattle	Multi-purpose, Part B, Compliance, Enforcement, Corrective action
Philip - Kent	Kent	Multi-purpose, Part B, Permit mod, Compliance, Enforcement, Corrective Action
Philip - Tacoma	Tacoma	Multi-purpose, Part B, Permit mod, Compliance, Enforcement, Corrective action
Vopak USA, Inc.	Kent	Storage, Part B, Renewal, Compliance
Federal TSD		
BPA Ross	Vancouver	Storage, Part B, Compliance, Corrective action
NUWC-Keyport	Keyport	Storage, Part A, Compliance
US Army Ft. Lewis	Tacoma	Storage, Part A, Compliance, Corrective action
US DOE Hanford Facility	Hanford	Multi-purpose, Mixed waste, Part B, Permit mod, Compliance, Enforcement, Corrective Action
Private Non-Commercial TSD		
Boeing Auburn	Auburn	Storage, Part B (expired), Compliance
Goldendale Aluminum Co	Goldendale	Storage, Part A, Compliance
Intalco Aluminum Corp	Ferndale	Storage, Part A, Compliance
Noveon Kalama, Inc.	Kalama	Burner & Industrial Furnace, Part B, Compliance, Corrective Action, EPA lead on Part B permit
Reichold Chemical	Tacoma	Storage, Part B (expired), Compliance, Corrective action
Recyclers & Used Oil Processors		
Basin Oil	Seattle	Used oil, Compliance
Ecolights Northwest	Seattle	Fluorescent tube recycler, Compliance
Ecco Incorp	Kennewick	Spent antifreeze recycler, Compliance
Emerald Pet. Svcs	Seattle	Used oil, Compliance, Enforcement, Corrective action
Emerald Pet. Svcs	Vancouver.	Used oil, Compliance
First Recovery	Anacortes	Used oil, Compliance
Fuel Processors	Woodland.	Used oil, Compliance, Corrective action
Hallmark Refining Corp.	Mt. Vernon	Precious metal recycling, Compliance
Marine Vacuum Service	Seattle	Used oil, Compliance
McClary Columbia	Tacoma	Spent solvent recycling, Compliance, Enforcement
Northwest Recycling Svc	Spokane	Spent antifreeze recycler, Compliance, Enforcement
Petroleum Rclm Svcs	Tacoma	Used oil, Compliance, Corrective action
Phoenix Environmental	Tacoma	Used oil, Compliance
Spencer Environmental	Sumner	Used oil, Compliance
SQG Specialists	Tacoma	Spent solvent recycling, Compliance
Total Reclaim	Seattle	Spent refrigerant oil recycling, Compliance
total # active facilities = 33		

Background

Hazardous Waste Generation

Businesses, industries and households in Washington generate thousands of tons of hazardous waste each year. These wastes are hazardous because they represent significant threats to human health and the environment if mismanaged. They are flammable, corrosive, reactive or toxic. Since the late 1970's, the collection, storage, transportation, recycling or disposal of these wastes has been regulated at the Federal and State level. In Washington, the *Dangerous Waste Regulations* (Chapter 173-303 WAC) establish who is subject to regulation and how such wastes must be managed.

Washington businesses and citizens produced about 256,000 tons (512 million pounds) of hazardous waste in 2000. Just over 50 percent of wastes were managed on-site by the businesses who generated them. The remainder, about 128,000 tons, was sent to off-site facilities that are able to accept and manage these hazardous wastes. This included 97,000 tons exported to facilities located outside Washington State. About 31,000 tons were shipped to facilities located within Washington. Another 12,100 tons were imported to facilities in Washington from Pacific Rim counties, Alaska and Canada. None of these numbers include used oil.

> Hazardous wastes include discarded materials that are (examples shown in parentheses):
> - Flammable (spent solvents)
> - Corrosive (sulfuric acid)
> - Reactive (flares)
> - Toxic, or (lead)
> - Persistent (PCBs)
>
> Used oil may be flammable and/ or toxic.

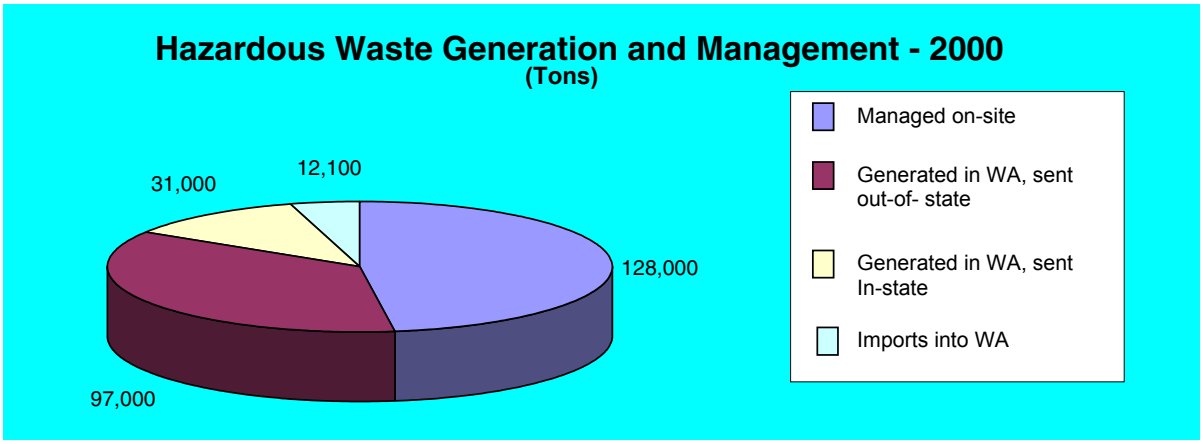

Figure 1. Hazardous Waste Generation and Management in Washington, based on annual dangerous waste reports. Does not include used oil.

Used Oil

As oil is used it becomes contaminated with other, undesirable materials. These undesirable materials may be toxic heavy metals (like lead or chromium), flammable fuels or solvents, water, sludge, dirt and grit. Used oil can be easily collected and recycled into new lubricants, coolants, or (most often) alternative fuels for ships and industrial boilers. Used oil often exhibits some of the characteristics of hazardous waste such as flammability (ignites at less than 140 degrees Fahrenheit) and toxicity (dissolved heavy metals), but is not subject to the full requirements of hazardous waste. Used oil is, instead, regulated at both the Federal (40 CFR Part 279) and State (WAC 173-303-515) level as a separate type of waste. This is due primarily to the presumption that used oil is going to be recycled.

To date, there are no reports on the total volume of used oil collected and processed in Washington. According to the American Petroleum Institute (API), about 13.6 million gallons of motor oil were sold in the state in 1997.[4] API also reports that motor oil typically is about one-half of the lubricating oil sold. The rest is used by industry as machine lubricants. Therefore, a rough estimate of the amount of used oil that may be generated on an annual basis in Washington is 25-30 million gallons.

There are eleven used oil processors in Washington. They are included in the scope of this Initiative because of the hazardous characteristics of used oil, the large volumes of oil, contaminated water and sludge that are accumulated at processor sites, and because a number of used oil processors have been or are contaminated sites.

History of Problems with Waste Management Facilities

The commercial waste management industry in Washington, as well as, the U.S. has experienced numerous economic, technological and regulatory pressures in the last ten years. It has also experienced frequent changes from sales, mergers, startups, closures and bankruptcies. Markets have changed based upon treatment and disposal options and technologies. Fluctuating prices for virgin fuels greatly affect revenues of the waste management industry. Low prices for virgin fuels usually translate into lower demand and revenues for waste derived fuels. Regulations have changed to make it easier to conduct on-site waste treatment or recycling. Waste reduction programs have successfully reduced total waste volumes. All of these factors lead to a conclusion that the industry is not stable.

Over the past 15-20 years a significant number of waste management facilities in Washington have been contaminated with hazardous waste or used oil. Under contract to Ecology, Ross & Associates was tasked with compiling an inventory of facilities that have intentionally managed hazardous waste or processed used oil since

[4] American Petroleum Institute; Washington Used Motor Oil Collection Information

1980[5]. Ross & Associates was able to identify 105 sites in their inventory (see Appendix 2). The majority of these were TSDs.

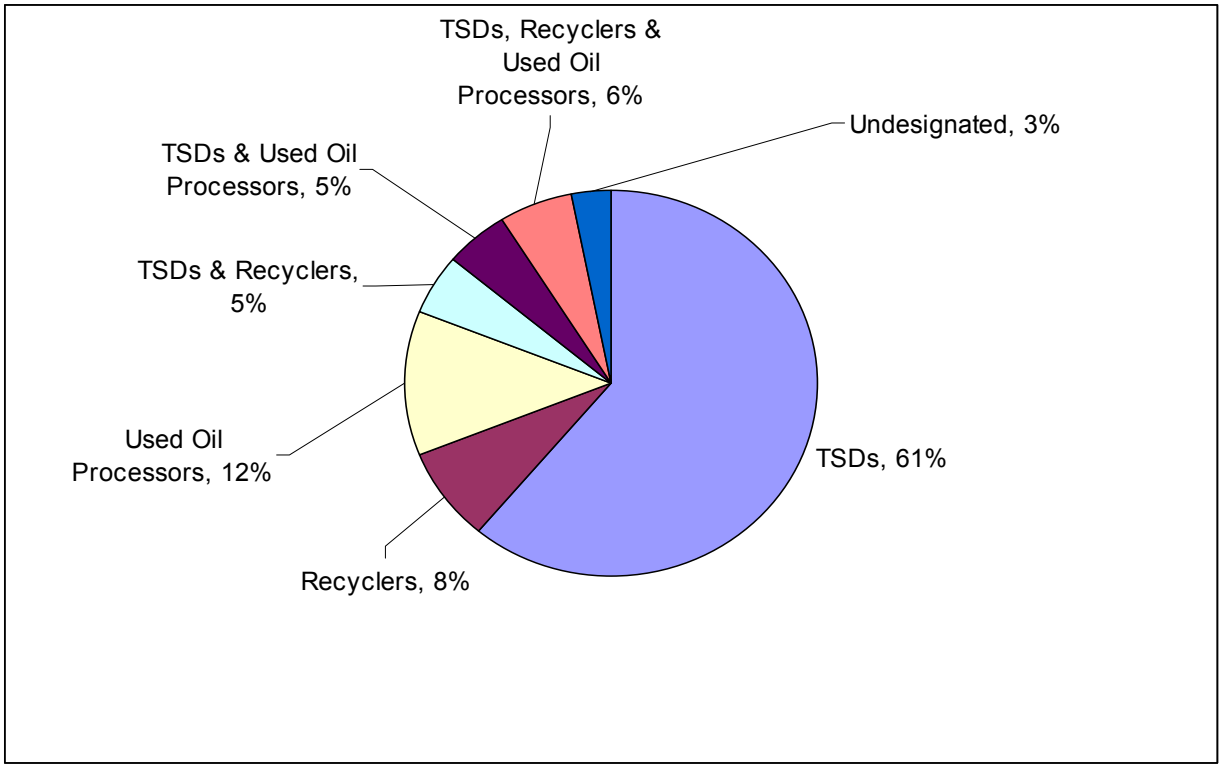

Figure 2. Hazardous Waste Management Facilities by Type; from Ross & Associates, July 23, 2002, page 4.

This industry is also not very clean. Facilities are often sited in industrial areas with historic soil and ground water contamination. Their operations often add to the contamination because of leaks, spills or accidents due to lack of attention to housekeeping and maintenance. Of the 105 sites that have existed in Washington, Ross & Associates identified 80 (76%) that have some degree of cleanup obligation because of known or suspected contamination of soils and groundwater. These include 69 sites that have had cleanup priority ranking assigned. Of those 69, 32 are ranked as high priority for cleanup, 21 were considered medium priority and 16 were considered low priority. Cleanup is ongoing at 27 of the high priority sites, has been completed at 2 high priority sites and appears not to have been started at another 3 sites.

[5] "Hazardous Waste Management Facility Initiative Support – Final Report", Ross & Associates Environmental Consulting, Ltd., July 23, 2002 (draft).

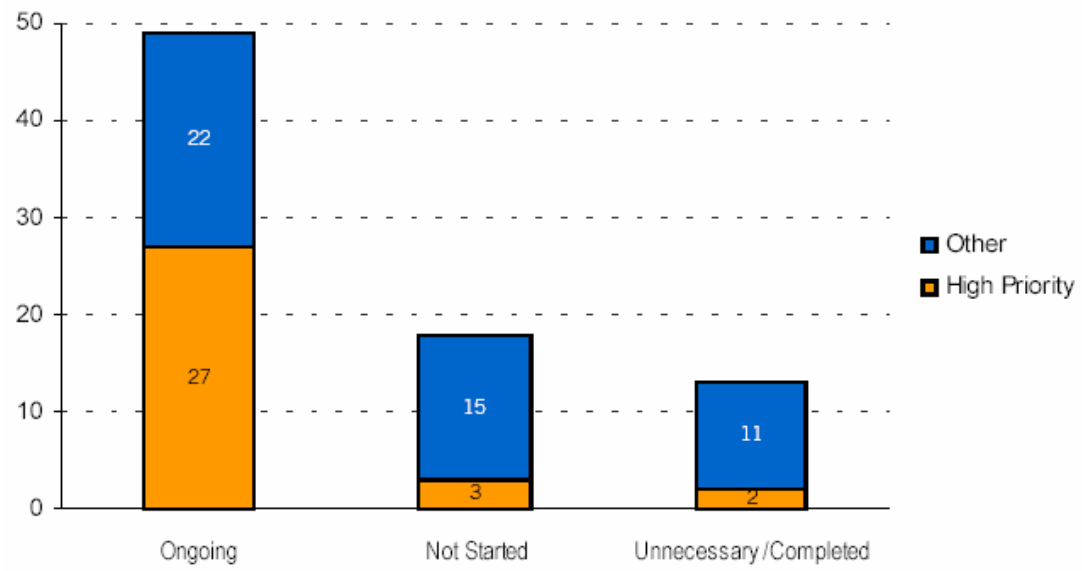

Figure 3. Cleanup Status of Facilities with Cleanup Obligation (80 total; 69 have been assigned a cleanup priority ranking.) From Ross & Associates, July 23, 2002, page 6.

Not every hazardous waste management facility or used oil processor site is contaminated, or has resulted in taxpayers paying for cleanup. Some are well operated and are diligent about following environmental regulations and permits. However, the problems outlined in this paper are not the result of just of a couple recent business failures.

Paying for waste removal and cleanup of facilities that shut down or go bankrupt creates financial burdens for several parties (see Figure 4 for recent examples). The waste management company may voluntarily pay for such removal and cleanup costs if assets remain in the company. Public agencies like Ecology, EPA, or port authorities may pay for contractors to remove and dispose of wastes. Customers with wastes remaining on the site may have to pay a second time to move their waste to another facility. Current and prior property owners and customers may be held liable for cleanup costs if it is determined that their wastes contributed to contamination of soil and groundwater.

CleanCare, Tacoma

This was a used oil processor, recycler of solvents and antifreeze, waste water treatment, and hazardous waste storage facility. It closed in 1999 for financial reasons. Removal of the waste left on-site cost taxpayers more that $4.3 million. Some 3,000 customers, including local governments and school districts, are potentially liable for those costs.

Cameron Yakima

This Yakima company reclaimed carbon filters contaminated with organic chemicals. In 1997 it shut down. 225 customers have contributed $2.5 million to date into a trust account for cleaning the site and other remediation activities. They may liable for as much as $22 million before all the groundwater monitoring and cleanup work is completed.

Amour Fiber Core

A fiberglass resin recycling operation in Sultan that closed in 2000. To date about $50,000 has been spent by EPA to remove drums of extremely hazardous waste from the site. Another $50,000 is expected to be spent by EPA to remove remaining drums of dangerous waste.

Waste Disposal, Inc.

This was a used oil collection and processing operation located in Tacoma and Aberdeen. In 1997, the operator was found guilty of criminal charges involving illegal storage and disposal of hazardous waste. Over 200,000 gallons on contaminated oil had to be removed from tanks in both locations. Total cost was over $100,000. About $60,000 was paid by the public port authority that owned tanks where wastes were stored and $40,000 was paid by the facility owner.

Reflex Recycling, Tacoma

A solvent recycling and storage company that expanded into used oil processing in 1999. Enforcement actions by Ecology were unsuccessful in getting the operator to properly manage & dispose of wastes. In 2001, Ecology spent $150,000 to remove and dispose of hazardous wastes at the site.

Figure 4. Recent Hazardous Waste Facility Closures

Cost data for site cleanups or agency oversight is not maintained in a consistent format. In their report to Ecology, Ross & Associates were able to identify ranges of costs and average costs for removal of remaining wastes, site investigations, remedy selection, interim action and final cleanup. These cost estimates were based upon review of databases and files maintained by Ecology and US EPA, review of available literature including a study the Resources for the Future and economic studies by EPA as part of federal rule development, interviews with Ecology and EPA site managers, and case studies of eight selected sites. Costs may range from tens of thousands to millions of dollars (Table 2). The average cleanup cost derived from various sources appears to be approximately $5 million.

Table 2. Summary of Costs for cleanup of eight selected case study sites. Cleanup costs include removal of remaining wastes, site investigations, remedy selection, interim action and final cleanup of contaminated soils and groundwater. From Ross & Associates, July 23, 2002, page 12.

Summary of Cost Information for Case Studies

Facility Name	Cleanup Costs to date			Estimated Costs to Complete Cleanup	Total Cleanup Costs (Low Estimates)	Ecology's Oversight Costs to Date	Total Costs
	Owner	EPA	Ecology				
Amour	~$125,000	$73,000		$20,000 – $300,000	$218,000	$23,000	$241,000
BEI- Georgetown	$5.9 million	$60,000		$5.6 million (owner) $25,000 (EPA)	$12 million	$47,000	$12 million
Cameron Yakima	$2.7 million		$6.4 million	$2 million	$11 million	$226,000	$11 million
Clean Care	$23,000	$4.3 million	$130,000	Unknown	$4.5 million	$111,000	$4.6 million
Anonymous Site A	$2 million			$6-14 million	$8.0 million	$240,000	$8.2 million
Micro Oil (Reflex)			$150,000	Unknown	$150,000	$256,000	$406,000
SAFCO Environmental	$500,000 – 750,000			No further cleanup required	$500,000 – 750,000	Not Available	$500,000 – 750,000
Western Processing	$118 million				$118 million	$444,000	$118 million

These sites also represent a significant financial liability because of the amount of oversight invested by Ecology and other local, state and federal agencies. For Ecology, the costs relate to one or more episodes of permitting, compliance and enforcement actions, and/or waste removal actions. These costs are typically not tracked, by site, by Ecology.

Costs are tracked for many sites for oversight of cleanup actions at hazardous waste management facilities (i.e., corrective action). Data provided by Ecology to Ross & Associates for 45 sites showed the average cost incurred for salaries, benefits and overhead was about $125,000[6].

Ecology's Hazardous Waste Management Program

As lead agency for administering hazardous waste management programs in Washington, Ecology performs a number of major functions through a headquarters office, four regional offices (Spokane, Yakima, Bellevue, and Olympia) and three field offices (Kennewick, Bellingham, and Vancouver). These functions include:

- Pollution prevention planning and assistance;
- Assistance, inspections, compliance and enforcement efforts for HW generators, transporters, recyclers, TSDs, used oil handlers and processors;

[6] Ross & Associates, ibid, page 12.

- Hazardous waste permit review and development;
- Site cleanup (Corrective Action) at hazardous waste TSDs; and,
- Planning, management, rule development and publications.
- Information management (including Community Right-to-Know, RCRA/State identification numbers, Annual Dangerous Waste Reporting)

Current Permitting and Compliance Program

Focusing just on the activities involved with the 33 hazardous waste management facilities and used oil processors, Ecology is currently spending the equivalent of about 8 positions to conduct permitting, inspection, compliance and enforcement actions. A total of about $765,000 was spent on these activities in calendar year 2001. Funding for these positions came from two sources: a) federal grants; and, b) the State Toxics Control Account.

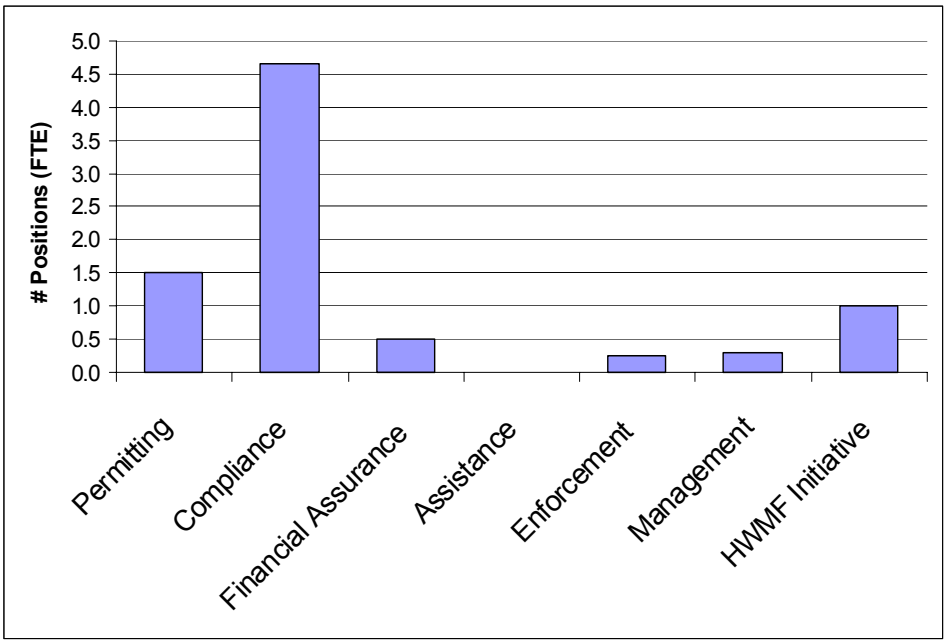

Figure 5. Estimated number of full time positions invested by Ecology in 2001 in oversight of hazardous waste management and used oil processing facilities.

Regulations versus Permits

An understanding of the differences between waste management activities that are governed only through regulations versus those that are subject to hazardous waste permits will help clarify the problems described in this report. In Washington, the *Dangerous Waste Regulations* establish requirements for identifying, tracking, handling, transporting, and disposing of hazardous wastes. This is often referred to as 'cradle to

grave' management. Regulations provide the basic framework and minimum standards for a broad range of waste management practices.

Permits are written to address design, construction, operations, closure, and financial assurance for particular sites and waste management activities. Once issued, a permit is in force at that facility for up to 10 years and becomes the basis for compliance inspections. Appendix 3 provides a summary of the primary differences between operations covered by permits and by regulations only.

Hazardous Waste TSD (treatment, storage and disposal) Facilities

A number of different hazardous waste management activities are required to obtain a hazardous waste permit in order to legally operate. Examples include storage in containers, tanks, lagoons or containment buildings; treatment in tanks or containers; fuel blending; incineration; and, land disposal. Hazardous waste permits are developed for specific structures or buildings (units) where the storage, treatment, or disposal of hazardous wastes is occurring. In this way, you will find hazardous waste permits required for a concrete pad holding drums of dirty solvents, or tank systems where acids or bases are neutralized and treated to meet waste water discharge limits.

To file for, and receive, a final hazardous waste permit, a facility owner/operator must provide detailed analysis and documentation a number of factors. These include site characteristics and the design, construction, operation, and closure of specific units, as well as, administrative requirements such as waste analysis, employee training and record keeping. Review and development of hazardous waste permits by Ecology requires intensive work along with specialized knowledge, training and experience. The end result is a permit that is issued to a facility owner or operator that covers only certain structures and activities. Other activities on-site may not be subject to the hazardous waste permit.

Recycling Facilities

Recycling is defined as "using, reusing, or reclaiming" a material. Recycling often involves physical processes such as heat separation, vacuum distillation, or electroplating. As long as the recycling activity occurs without prior storage of hazardous waste it is generally exempt from the requirement to obtain a hazardous waste permit[7]. Recycling may occur as the sole activity at a facility, or as another activity at a multi-purpose facility which may have other storage or treatment units that are subject to HW permitting.

Used Oil Processors

Used oil processors accept and manage a variety of petroleum-based materials that can be treated and recycled into fuels or lubricating stocks. The processing typically involves phase filtering, separation through settling (phase separation), or heat. Processing may also involve the mixing of acids or bases and flocculants, or the use of a centrifuge to further separate oils from water or other contaminants.

[7] In general, a permit is required only for the storage of wastes prior to recycling. Except for air emission controls, the tanks, equipment and structures used just for recycling remain exempt from hazardous waste permits (see Chapter 173-303-120 WAC).

Used oil processing may be found as a stand alone operation, or as part of other waste management activities at a multi-purpose facility.

Used oil processors are subject to a set of used oil management standards that may be thought of as a separate subdivision of Federal and State hazardous waste regulations. Ecology inspects used oil processors for compliance with Federal and State regulations. Permits are not required for used oil processors. Processors are required to clean structures and equipment prior to closing, but are not required to prepare closure plans, provide environmental liability coverage, or set aside funds to pay for closure.

Problems Identified

Ecology has identified five significant problems that need to be addressed with the permitting and regulatory programs for hazardous waste management facilities (Table 3). These problems have been identified based upon Ecology's experiences with administering the hazardous waste program over the past 25 years, analysis of recent events with specific facilities, and assistance from consultants to the department. They are also based upon input from facility owners and operators and concerns expressed by customers and local agencies.

Table 3. Summary of Problems Identified

#	Problem	Result
1	Major waste streams and activities at waste management facilities are not subject to financial responsibility requirements.	Owners and operators not responsible for the full cost of closure. Tanks, structures and equipment used for recycling hazardous wastes, managing household hazardous wastes, or processing used oil are part of closure planning or funding requirements. Facilities have shut down leaving wastes behind resulting in serious environmental threats and substantial costs for waste removal.
2	Regulations & mechanisms addressing financial responsibility for TSDs are inadequate or out-of-date.	Lack of certainty that funds will be available when needed to pay for closure and waste removal.
3	Limited ability to address potential environmental threats at recycling facilities and used oil processors.	Significant threats to the environment & public health. Lack of notice & approval of changes. Owners/operators may continue bringing wastes to sites because there is authorization or license to suspend or revoke in the face of serious compliance, financial or environmental threats.
4	Potential customers and interested citizens have difficulty in obtaining information about facility permits, inspections, enforcement, closure and cleanup.	Incomplete or out-of-date information is used by waste generators to evaluate and compare waste contractors. Concerns expressed by businesses and local governments because they are not informed of facilities in financial trouble or about to receive enforcement actions.
5	Resource levels are inadequate for current demands on Ecology's permitting and compliance programs.	Lack of full compliance oversight and delays in permit actions leading to potential threats &/or use of public funds for problems caused by facility owners & operators. More enforcement actions and penalties because problems are not addressed early on through prevention and assistance.

1. **Major waste streams and activities at waste management facilities are not subject to financial responsibility requirements.**

Under the current regulatory and permitting program, facility owners and operators only have to prepare closure plans, provide pollution liability coverage, and set aside funds for closure if they are required to get a hazardous waste permit. In practice, hazardous waste permits do not cover facilities from fence line to fence line. At a facility where multiple waste management activities are occurring, only a small portion may actually be covered by a hazardous waste permit (Figure 6, below). Both State and Federal programs have created exemptions from the requirement to obtain hazardous waste permits to conduct specific types of activities.

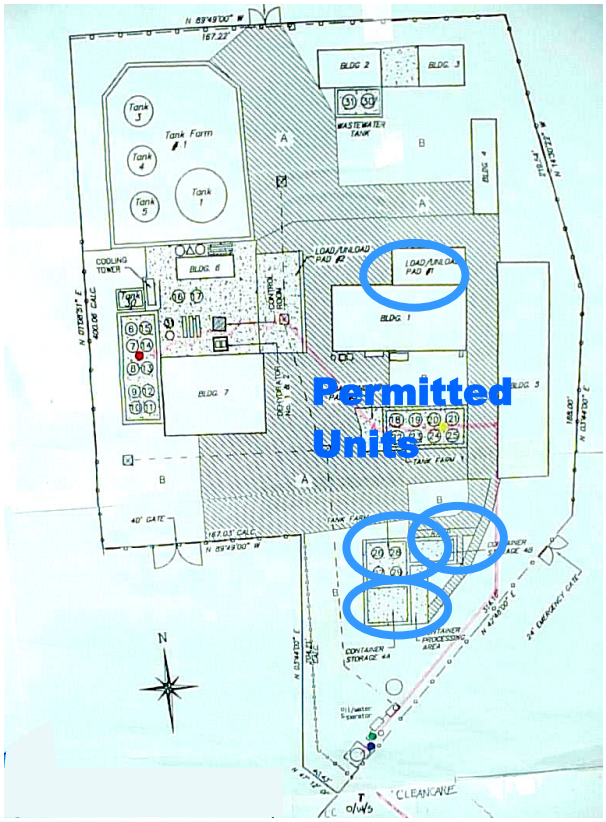

Figure 6. CleanCare, Tacoma site map. Those portions of the facility subject to a hazardous waste permit are outlined. Remaining portions were exempt from the hazardous waste permit because they involved solvent recycling, used oil processing or solid waste management.

Figure 7. Household hazardous waste drum storage building. In late 1999, CleanCare Corporation stopped operations and abandoned its plant site in Tacoma. The 2000 drums of household hazardous waste in this building right, and over a million gallons of used oil, contaminated water and sludge located throughout the site were exempt from requirements that would have funded an orderly shut down of this site. Over $4 million of public funds were spent to remove wastes and control immediate threats to the environment and public health. Soils and groundwater at the site are still contaminated.

This situation has resulted in several cases where facility owners and operators are not required to plan for the full cost of closure and inadequate funds are set aside to pay for closure. The examples shown in Figure 4, page 17, illustrate this situation. At CleanCare in Tacoma, waste removal, decontamination and site stabilization costs were $4.3 million. The company had $30,000 in a closure trust fund. At Amore Fiber Core in Sultan, no closure plan or funding was required. Waste removal and site controls for closure are expected to cost $100,000. Waste removal costs at Cameron Yakima have equaled $4.3 million. The company had $35,000 in a closure fund. Used oil processing by Waste Disposal, Inc. and Reflex Recycling, both in Tacoma, ended up costing $100,000 and $150,000 respectively to remove hazardous wastes and control threats to public health and the environment. None of these costs included the administrative costs to Ecology or EPA for investigations, oversight, enforcement and waste removal.

A typical set of circumstances for waste management companies that are experiencing financial difficulties is to accept as much waste as possible – often the "exempt wastes" because fewer restrictions apply to them – to increase revenues. One of the results is that by the time the owners go bankrupt, close or abandon the facility, the total volume of wastes accumulated on-site are at a maximum. Often several months may pass between the time of initial difficulty and bankruptcy, closure or abandonment. Ecology monitors these situations while attempting to prevent threats to the environment and assure compliance with permits and applicable regulations. The facilities, however, may continue to accept wastes and receive revenues while increasing the liability for taxpayers, customers and property owners, as well as, threats to public health and the environment.

2. Regulations and mechanisms addressing financial responsibility for TSDs are inadequate or out-of-date.

TSDs that are subject to hazardous waste permitting must provide two types of financial backing, including: 1) pollution liability coverage; and, 2) closure funding. Pollution liability coverage is traditional coverage that would pay financial claims made against the facility for bodily harm or property damage related to the management of hazardous waste at the facility. The minimum dollar value of liability coverage required for the storage and treatment facilities in Washington is $1 million per incident or $2 million total. Facility owners and operators may select a method of providing liability coverage from the mechanisms shown in Table 4, page 27, although most choose traditional insurance coverage.

> "Financial responsibility" for hazardous waste facilities includes:
>
> a) 3rd party liability coverage for pollution resulting from accidents or releases;
> b) financial assurance for facility closure/ post-closure

TSDs subject to hazardous waste permitting must also provide assurance of funds to pay for closure of permitted units. The amount of funds is based upon a detailed plan and cost estimates to close the facility at the end of its useful life, or sooner due to sale, bankruptcy or some other unexpected event. These closure plans are focused only on the permitted units and not the whole facility. The closure plans must be based upon the maximum inventory of wastes that could be held in the permitted units and must estimate waste removal, and decontamination of structures and equipment by a contractor (not facility staff). These "closure cost estimates" become the basis for the amount of funds that facility owners and operators must assure are available to a third party (e.g., trust) for closing the permitted units. Facility owners and operators may choose among several financial mechanisms to provide the assurance of closure funds. These options are listed in Table 4 along with observations of advantages and disadvantages. Facilities owned or operated by a State or Federal agency (e.g., U.S. Department of Energy) are exempt from the requirement to provide financial assurance for closure.

Ecology has hired a consultant in 2002 to evaluate the ability of each of the mechanisms to provide assurance that money will be available to pay for third-party liability claims and in the event of facility closure or abandonment. The conclusion of the consultant is that most of the financial mechanisms allowed through Federal and State regulations – particularly insurance and the financial test/corporate guarantee used by most facilities in Washington – are inadequate.[8] The contractor's recommendation is that Ecology needs to develop more stringent regulations to govern financial assurance mechanisms.

[8] Martin, David; Environmental Assets.. "An Analysis of Financial Assurance Mechanisms and Other Financial Responsibility Issues for Regulated Hazardous Waste TSD Facilities. March 2002

Table 4. Hazardous Waste Financial Assurance Mechanisms

Financial Assurance Mechanism	Advantages	Disadvantages
Pollution Liability (3rd Party)	Provides money for bodily injury and property damage resulting from accidental releases at a facility.	Limitations & exclusions in policies may make them worthless. No guidance available from EPA to judge adequacy.
Trust Fund	Conventional instrument Pay-as-you-go	10 year pay in period allowed. Facility shutdown or closure before end of pay-in period means facility doesn't pay full costs for waste removal & cleanup.
Surety Bond (Payment)	Protection available immediately. Semi-conventional instrument	Complex (two financial instruments) Expensive. Likely not available in current market.
Surety Bond (Performance)	Same as payment surety bond Flexibility for bond holder	Same as for payment surety bond. Expensive. Likely not available in current market.
Letter of Credit	Conventional instrument Protection available immediately	Complexity (standby trust fund). Expensive. Likely not available in current market.
Closure Insurance	Familiar; can bundle liability into one policy	Instability of the insurance industry; excess line coverage. Limitations & exclusions in policies may make them worthless. No guidance available from EPA to judge adequacy.
Financial Test	Cheaper Easier to understand	Credibility of financial reports and audits; confidence of financial reports to calculate company worth.

Based upon the analysis of financial assurance mechanisms[9] and Ecology's experience in administering these mechanisms, there are a number of ways in which they are inadequate or obsolete. These include:

- the dollar value required for pollution liability coverage has not been adjusted for inflation;
- partially funded trust funds (pay as you go) remain an option;
- the financial test/corporate guarantee is based upon unreliable financial reports;
- there is no required rating or method of evaluating the solvency of insurance companies providing coverage to TSDs;
- the lack of guidance and rules for insurance for closure funding results in low confidence that claims by the State could be successfully collected in the event that the policy holder was insolvent or gone; and,

[9] Martin, David; Environmental Assets, op cit.

- there is currently no authority for Ecology to direct the type of financial mechanism so that the strongest assurance of payment at closure is possible.

Some examples may help illustrate the difficulties listed on the previous page (page 27).

Because of inflation, the purchasing power of a $1 million insurance policy taken out in 1981 would be about $543,000 in 2002.[10]

The partially funded trust fund allowance resulted in a situation with CleanCare where they had $30,000 paid in to a total closure cost of $85,000 when the company shut down.

Recent bankruptcies like Enron and Global Crossings reveal the lack of confidence that may be placed in accounting and financial reports. These reports are the basis for determining whether or not a company qualifies for the financial test/corporate guarantee mechanism.

At least one insurance company (Reliance[11] Insurance Company) that provided closure insurance to major waste management companies has gone bankrupt in the past two years. This results in a period of uncertainty that funds will be available if needed to pay for closure. Also, we are lacking a system for judging the solvency of insurance companies providing this closure insurance such as the AAA, AA, etc. ratings for bonding companies.

Cost recovery by the State under current closure insurance policies may not be possible because of the lack of clear rules stipulating the conditions of beneficiaries, claims, discovery or claims payments.

Facility owners and operators may choose the financial mechanism they wish to use. As long as the regulatory requirements that apply their chosen mechanism are met, Ecology cannot direct that another mechanism be used. So, for example, if concerns arise about the stability of an insurance company or financial institution providing financial assurance, Ecology cannot direct that another mechanism be used. The risk of paying for closure is shifted from the TSD and insurance company or financial institution to the public.

[10] May 7, 2002; personal conversation, Bill Bafus, Economist, Washington Department of Ecology; based upon calculations from Implicit Price Deflator for Personal Consumption reported in *Washington Economic and Revenue Forecast*, February 2002.

[11] Pennsylvania Insurance Department; web site announcement; Order of Liquidation dated October 3, 2001

3. **Limited ability to address potential environmental threats at recycling facilities and used oil processors.**

HW recyclers and used oil processors are required to notify Ecology of their location and type of activity. Under most circumstances, they are not required to obtain a permit, license or authorization to operate from Ecology (see Attachment 2). No permit means Ecology is not notified of changes in ownership or operation. It also means that there is no review or approval prior to expanding, adding or changing operations. There is no mechanism for controlling operations in the event that significant environmental threats exist or in the face of continued non-compliance. Traditional enforcement actions, including administrative orders and penalties may not be effective when the operator simply refuses to cooperate.

In a recent case in Tacoma, the facility owner changed the operation from solvent recycling to processing used oil. Significant volumes of hazardous waste (strong acids and bases) were generated from chemical treatment of used oil and the owner refused to follow compliance directions from Ecology. The safety of workers was threatened by the generation of poisonous hydrogen sulfide gas.

In this case, the lack of a permit meant that the owner was not required to notify of changes resulting in unsafe operations. It also meant that there was no closure plan, financial assurance or means for Ecology to revoke or suspend operations short of gaining a court-ordered injunction. Ecology ended up spending $150,000 of public funds for removal of hazardous waste from the facility after the operations shut down and the owner refused to pay for closure.

4. **Potential customers and interested citizens have difficulty in obtaining information about facility permits, inspections, enforcement, closure and cleanup.**

One of the indirect, but important problems that Ecology has identified through this Initiative is the difficulty that waste generating businesses have in obtaining information about waste management companies they may want to use for storing, treating, recycling or disposing of their waste. Service, liability and price are important considerations for customers in choosing a contractor for managing wastes. In order to judge a waste management company's service performance and liability, waste generating businesses often want to know about a facilities compliance record, enforcement actions, incidence of spills and discharges, and whether they have soils and groundwater contamination problems.

Such information is available by contacting Ecology to speak with a hazardous waste inspector and through Ecology's public records. Hazardous waste inspectors will discuss factual information about the status of permits, inspections, enforcement actions and investigations of soil and ground water contamination. In order to review files, however, it is necessary to schedule an appointment at the nearest Ecology office to physically read the files. Files on these facilities are often voluminous, complex and filled with specialized terminology.

This system can be cumbersome and frustrating. Ecology needs to prepare guidance to help potential customers and the public understand the status of facilities and identify key indicators of how well or poorly a facility is complying with waste management regulations and permits.

5. **Resource levels are inadequate for current demands on Ecology's permitting and compliance programs.**

Ecology's current program to permit, inspect, and direct compliance and enforcement programs at hazardous waste management and used oil processing facilities may be characterized as a minimum program. Resources are stretched to the limit to address significant environmental and permitting priorities.

Under normal circumstances, Ecology is able to meet the minimum federal requirements for permitting and inspections at commercial and federally owned facilities (see Table 5 below). Other TSDs, recyclers and used oil processors may not receive inspections for two or more years. Some permits and requests for permit modifications are delayed. There are at least two active facilities that are operating with expired permits because Ecology has not had the staff to renew the permits prior to their expiration. The facilities do not meet the new hazardous waste standards that have become effective since their original permits were issued.

Since the department cannot inspect facilities frequently, when we do conduct inspections, the violations identified may significant and must be addressed through workload intensive efforts including additional site visits, sampling events, correspondence, meetings and administrative orders or penalties. Since 1997, for example, Ecology has assessed fourteen penalties against TSDs, recyclers and used oil processors for a total of over $900,000. These penalties were issued for significant violations ranging from failure to follow required waste analysis plans, failure to maintain concrete containment for waste tanks and containers, not implementing a contingency plan following a release of hazardous wastes into the environment, to failure to have a permit for storage of hazardous waste.

Table 5. Ecology's Current Program for permitting, compliance, enforcement, management and support functions.

Factor	Current Program
Technical & compliance assistance	Limited ability to respond to questions/requests from facilities
	No training, workshops or communication targeted for facility owners/operators
Compliance inspections	1/year at commercial TSDs (typically 1 or 2 day long)
	1 every two years at federal and captive TSDs
	1 every two or more years at recyclers and used oil processors
	Inspections focus on structures, capacity, manifesting and labeling.
New permits	2-4 year average to complete Final Status permit application for TSD, review, development, approval/denial.
	Not applicable for recycling or used oil processing.
Permit Modifications	1 or more per year, Class I
	Not adequately planned for; limited resources to review or process Class I, II or III modifications. Some are simply filed and not reviewed.
Permit Renewals	Permits have expired.
Closure Plans	Required only for units subject to Final Status permit.
Pollution Liability	Required only for facilities subject to Final Status permitting.
Financial Assurance	1 review/year at permitted facilities.
	Required only for units subject to Final Status permits.
	Inherent problems with adequacy and timeliness of insurance and financial test/corporate guarantee.
Enforcement	Significant penalties and orders taken in reaction to significant environmental threats or long standing/repeat violations.
	Significant resources required to build and document cases.
Ecology staff	Training severely limited for permit writers and inspectors.
	No incentives for developing and retaining experienced, knowledgeable inspectors or permit writers.
	Ability to focus staff solely on TSDs, recyclers or used oil processing facilities is limited.

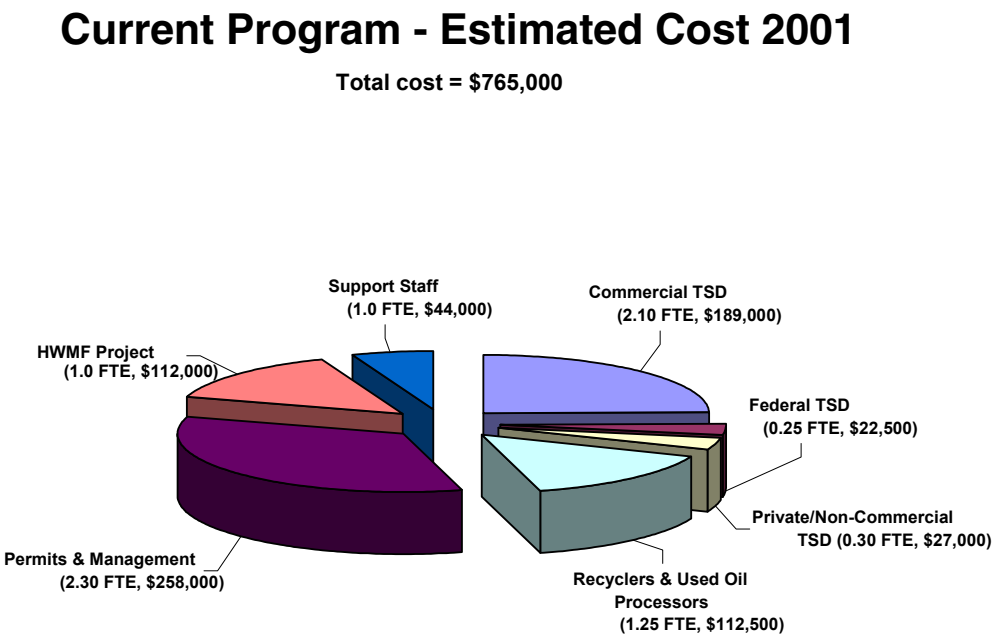

Figure 8. Estimated Costs for Ecology's Current (calendar year 2001) Activities associated with active hazardous waste management facilities, recyclers and used oil processors. *Activities include permitting, compliance, and enforcement. They do not include compliance or enforcement activities at closed, abandoned or inactive facilities. They also do not include cleanup (corrective action) activities.*

We estimated that $765,000 was spent on Ecology's current program based on time spent on active TSDs, recyclers and used oil processors in calendar year 2001. In reviewing the estimated costs for the current program, please note that:

- Current program cost estimates include time of lead inspector, lead permit writer, and some time for support staff, supervisors and managers. Estimates do not include "full cost" (e.g., other inspectors, lab, attorneys, and agency indirect).
- Current program estimates include enforcement.
- Current program costs <u>do not</u> include time spent on abandoned or bankrupt facilities in 2001 (e.g., CleanCare, Reflex Recycling, Amour Fiber Core) because these facilities were not active. They also do not include costs associated with oversight of cleanup activities (corrective action). Corrective action oversight costs by Ecology are eligible for cost-reimbursement through procedures adopted under the Model Toxics Control Act.
- 2001 was not an "average" year. Ecology was actually spending more resources on TSDs than normal due to significant enforcement actions. Resources focused

on used oil processors were also higher than an average year because we were evaluating compliance with used oil management standards adopted by Ecology in 2000. As a result, fewer resources were devoted to generator inspections, education and assistance.

Ecology's current program for permitting and compliance of hazardous waste facilities and used oil processors is the equivalent of about 8.2 full-time positions (does not include Ecology position assigned to permitting and compliance for the Hanford Nuclear Reservation). These positions are actually bits and pieces of numerous staff across the state with multiple responsibilities in addition to oversight of hazardous waste management and used oil processors. Funding for these positions and associated expenses are comes from a combination of Federal grant dollars ($450,000 RCRA grant) and State Toxics Account Funds ($315,000).

Options Considered

During the period from September, 2001 through May, 2002, Ecology held individual meetings with about twenty waste management companies, businesses, local agencies and environmental groups. The purpose of these meetings was to introduce the problems and receive initial feedback on proposed solutions. As a result of these meetings, Ecology considered several options for each problem set. These options (see Table, below) were presented during three stakeholder meetings in June, 2002 along with Ecology's revised proposals for solutions. There were a variety of questions, opinions and ideas offered by stakeholders, but no significantly new options were raised.

Table 6. Summary of Options for Addressing Problems

Problem	Option
Major activities & waste streams at off-site waste management facilities are not subject to liability and closure funding requirements.	+ Require closure plans and financial responsibility for recycling and used oil processing. + Require ground water monitoring & best management practices (ISO 14000 Environmental Management Systems, for example) for recycling and used oil processing operations. + Do nothing. Maintain current exemptions for recycling and used oil processing.
Regulations and mechanisms for financial responsibility for TSDs are inadequate and/or out-of-date.	+ Revise rules and guidelines to address inadequacies & improve assurances that funds will actually be available upon closure or abandonment of facilities. + Do nothing. Maintain current rules & guidelines.
Limited ability to address potential environmental threats at off-site recycling facilities and used oil processors.	+ Establish an operating certificate program for recyclers and used oil processors. Increase assistance and compliance presence by Ecology. + Require that recyclers and used oil processors apply for and receive final status (Part B) HW permits. + Do nothing. Maintain current exemptions and rules.

Potential customers and interested citizens have difficulty in obtaining information about facility permits, compliance, enforcement, closure and cleanup.	+ Create an internet site to display information maintained by Ecology & EPA. Include guidance on minimizing liability and selecting contractors. + Create a certification program for in-state and out-of-state HW facilities, recyclers and used oil processors. + Do nothing. Maintain current system of public record reviews under Ch. 42.17 RCW.
Resource levels are inadequate for current demands on Ecology's permitting and compliance programs for TSDs, recyclers and used oil processors.	+ Shift resources within existing programs. + Seek additional resources. + Do nothing. Maintain current levels of funding.

Discussion of Options Considered

1. Major activities & waste streams at off-site waste management facilities are not subject to liability and closure funding requirements.

The set of options available to address this problem can be simplified into three basic concepts:

a) apply hazardous waste facility requirements for closure, pollution liability and financial assurance to waste management activities and waste streams that are currently exempt.

Current requirements result in site specific closure plans, cost estimates and financial assurance mechanisms. The same site-specific approach could be applied to recycling and/or used oil processing. Another alternative would be to establish a minimum levels of closure funds that must be assured various sizes or types of recycling and used oil processing facilities.

b) develop best management practices that would be assure that waste recycling and/or used oil processing is not resulting in contamination.

Ground water and soil sampling and reporting were suggested as methods to assure that such operations are conducted with minimal liability. It was suggested that this monitoring, coupled with recognizable, self implementing standards for operation (e.g., ISO 14000 standards, compliance with industry Environmental Management Standards) would assure clean and safe operations.

c) do nothing. Maintain current exemptions from closure planning, pollution liability and financial assurance for closure/post-closure for recycling and used oil processing.

2. **Regulations and mechanisms for financial responsibility for TSDs are inadequate and/or out-of-date.**

   Two clear choices are available to address the inadequacies of current requirements; revise rules to update, clarify and strengthen financial responsibility requirements; or, maintain current requirements.

   Discussion of specific problems, gaps and difficulties with current financial requirements is a complex undertaking. Appendix 4 presents a summary of findings and recommendations based upon the assessment of *Environmental Assets, LLC* and evaluation by Ecology. The overall recommendation of Ecology is that the rules governing financial responsibility be revised. The rule development process will afford the opportunity to fully explore the issues and gain stakeholder involvement in crafting solutions.

   Ecology believes that many of the issues associated with current regulations being inadequate and/or out-of-date have implications on a national level. Ecology is pursuing these issues with the US Environmental Protection Agency and a national organization of state environmental agencies.

3. **Limited ability to address potential environmental threats at off-site recycling facilities and used oil processors.**

   Options identified to address this problem include: adopt a new simplified notification and authorization process which relies on existing standards for facility operations; create a new major permitting requirement for recyclers and used oil processors; or, keep the existing exemptions as they are.

   In concept, the first option is a simple notification requirement and authorization to operate a recycling or used oil processing facility. It would be intended to provide essential information to Ecology about who owns and operates a facility, where it is located, what types and volumes of wastes will be managed, and a certification statement that the facility owner and operator is aware of and is in compliance with applicable design, construction and operating standards. Existing regulations for recyclers (WAC 173-303-120) and used oil processors (WAC 173-303-515) would remain the operating standards. Significant changes at the facility would require an updated notification. To address problems associated with long-standing and/or significant violations of operating standards, Ecology would create the authority to revoke the operating authorization.

The second option would apply current hazardous waste permitting requirements (final status, Part B) to recycling and used oil processing facilities.

The third option is to retain existing exemptions for recycling and used oil processing facilities.

4. **Potential customers and interested citizens have difficulty in obtaining information about facility permits, compliance, enforcement, closure and cleanup.**

   The first option identified involves the dissemination of information on hazardous waste management facilities and used oil processors an internet web site. A primary feature of this approach is that information only information is provided. Ecology would provide no ranking of desirable or undesirable waste contractors. The web site also provides an opportunity for Ecology to provide guidance on auditing and selecting reliable waste contractors. Another feature is that it is easy to provide links to web sites for waste management companies and environmental agencies in counties or other states.

   The first option could be implemented within Ecology's existing authority. Also, since most of the information that would be provided already exists as public information in electronic databases, it should not require significant new resources to develop and maintain the web site. Once the web site content was decided upon, maintenance of the web site could be contracted out to a private consultant.

   The second option would result in development and implementation of a ranking or certification system for waste management facilities. This would likely be the most useful for waste generators and the public, but would also require substantial new resources and authority in order for Ecology to develop and maintain the system.

   The "do nothing" option simply relies on existing procedures for waste generators and contractors to gain access to public information on waste management facilities located in Washington.

5. **Resource levels are inadequate for current demands on Ecology's permitting and compliance programs for TSDs, recyclers and used oil processors.**

   The problem discussion on pages 30 to 33 present the reasons justifying the conclusion that Ecology resources are inadequate to meet current demands. As

part of this assessment, Ecology attempted to identify the amount of resources that would be necessary to address all five problem areas. This was presented to stakeholders as the "Adequate Program" described in the next section of this report (pages 41-44).

Options presented to address this lack of resources problem included:

a) shift existing resources within Ecology's Hazardous Waste and Toxics Reduction Program.

The Hazardous Waste & Toxics Reduction Program has faced significant cutbacks in the last ten years as the result of loss of State General Fund resources and reduction of State Toxics Account revenues and appropriations. The program has cut about 29% of its positions since 1995. The remaining resources and positions are focused on high priority functions mandated through federal and state laws. Shifting resources from one of these areas to cover additional needs associated with hazardous waste management facilities would result in substantial delays or cuts in assistance and compliance oversight of waste generators, waste reduction and planning efforts, information management and education outreach, and/or corrective action programs.

b) seek additional resources. There is no realistic opportunity to increase the Federal RCRA grant to Ecology. These funds are provided to States by appropriation from Congress based upon national funding equations.

   Projections are for revenues to the State Toxics Control Account to remain at or below current levels. Competition for these resources has increased among state resource agencies and within Ecology.

   Fees are an option. Unlike about 35 other states, Washington has no hazardous waste permit fee or annual operating fee to help support the cost of administering permitting and compliance programs. Fee options are discussed in more detail on pages 45 and 46.

c) Do nothing. Maintain current funding levels and the current minimum program. Acknowledge the risks and liabilities associated with current system will continue and the problems identified in this report will go unabated.

Chapter 5

An Adequate Program

As part of the process of evaluating options and working with stakeholders, Ecology developed an approach that addressed all five problem areas. This was characterized as the "Adequate Program" that focused on:

- expanded closure and financial requirements for TSDs, recyclers and used oil processors;
- upgraded financial responsibility regulations that provide a higher level of a assurance that funds will be available for closure;
- timely review and decisions in response to permit applications, modification or renewals;
- expanded financial assurance reviews;
- technical and compliance assistance to facility owners and operators;
- enhanced compliance inspections and problem identification;
- revised performance and efficiency measures within Ecology (e.g., reorganization of staff & resources to better focus on hazardous waste management facilities, expanded and improved training, skills and knowledge for inspectors and permit writers).
- creation of a web site to provide permitting, financial assurance, and compliance information on facilities in Washington as well as guidance on selection of waste management contractors.

Ecology believes the "Adequate Program" will result in a safer, more stable hazardous waste management system in Washington. Financial resources for third party damages and closure of facilities would be expanded. Confidence in the performance of Washington facilities would be increased. Ecology would provide more timely and responsive permitting, assistance and regulatory services. Enforcement and penalties against waste facilities would be reduced because problems and violations would be identified and addressed early. Information on waste management companies in Washington would be more readily available for businesses to consider when selecting waste contractors.

Table 7 shows the functions and activities to would be carried out under the Adequate Program. This table is intended to reflect average conditions and workload. Ecology adjusts the "average condition", for example the number of inspections per year, as priorities change because of conditions or workload demands at specific facilities or within categories of facilities.

Table 7. Description of the Current and Proposed Adequate Programs for the Oversight of Hazardous Waste Management Facilities (Average Conditions)

Factor	Current Program	Proposed Adequate Program
Technical & compliance assistance	Limited ability to respond to questions/requests from facilities	Enhanced ability to provide timely responses and assistance to facilities.
	No training, workshops or communication targeted for facility owners/operators	Develop education, training, and communication capabilities with owners/operators.
Compliance inspections	1/year at commercial TSDs (typically 1 or 2 day long)	2/year at commercial TSDs (may involve several short, focused inspections per year)
	1 every two years at federal and captive TSDs	1/year at federal and captive TSDs
	1 every two years at recyclers and used oil processors	1/year at recyclers and used oil processors
	Inspections focus on structures, capacity, manifesting and labeling.	Same as current + in depth evaluation of waste analysis, training, contingency/emergency plans, treatment processes, etc.
New permits	2-4 year average to complete Final Status permit application for TSD, review, development, approval/denial.	1-3 year average to complete Final Status permit application for TSD, review, development, approval/denial.
	Not applicable for recycling or used oil processing.	Streamlined permits developed for recyclers and used oil processors.
Permit Modifications	1 or more per year, Class I	All Class I's reviewed. One Class II per year.
	Not adequately planned for; limited resources to review or process Class I, II or III modifications. Some are simply filed and not reviewed.	Adequately planned for; resources are available to review and process Class I, II or III modifications in a timely manner.
Permit Renewals	Permits have expired.	Renewals processed in timely manner. Completed prior to permit expiration.
Closure Plans	Required only for units subject to Final Status permit.	Required for all Final Status permitted facilities, recyclers and used oil processors.
Pollution Liability	Required only for facilities subject	Required for Final Status permitted

	to Final Status permitting.	facilities, recyclers and used oil processors.
Financial Assurance	1 review/year at permitted facilities.	1/year for all facilities.
	Required only for units subject to Final Status permits.	Same + recyclers and used oil processors.
	Inherent problems with adequacy and timeliness of insurance and financial test/corporate guarantee.	Clarifications and new requirements in place through rule development process.
Enforcement	Significant penalties and orders taken in reaction to significant environmental threats or long standing/repeat violations.	Anticipate smaller actions taken earlier in process.
	Significant resources required to build and document cases.	Streamlined processes adopted to respond in a timelier manner to environmental threats or violations.
Ecology staff	Training severely limited for permit writers and inspectors.	Adequate resources for developing and delivering training programs.
	No incentives for developing and retaining experienced, knowledgeable inspectors or permit writers.	Adequate resources to apply to position levels or other incentives.
	Ability to focus staff solely on TSDs, recyclers or used oil processing facilities is limited.	Create a core team of permit writers and compliance staff assigned solely to work on HW management facilities. Consider an organizational unit to provide technical and compliance audits.

A detailed analysis of workload was prepared by Ecology to help us understand the full amount of resources that would be required to implement the Adequate Program. The following steps were followed to develop the workload analysis:

- Identification of functions and activities through extensive input from knowledgeable experienced staff in regional and headquarters offices.
- Exclude all oversight costs for Corrective Action except time required to negotiate cost recovery agreements and general Corrective Action conditions. Most oversight costs for Corrective Action may be paid for by facilities under cost-reimbursement agreements with Ecology under the authority of Model Toxics Control Act regulations.

- The workload analysis accounts for the following types factors:
  - Type of facility or waste management processes (storage, treatment and storage, disposal, incinerator, recycling, research and development, moderate risk waste, and used oil processing);
  - Type of permit action (new permits, permit modifications by class, or renewals).
  - Compliance, including planning, on-site visit, reporting, follow-up, and tracking.
  - Type of Ecology staff position(s) required.

- Develop quantitative and qualitative assumptions for the "Adequate" Program. For example, double the number of planned inspections at facilities, create and provide technical and compliance assistance for facility owners/operators, process permit applications, modifications and renewals in a timely manner, develop and issue streamlined permits for recyclers and used oil processors, conduct financial assurance reviews for additional facilities.

- Develop workload estimates (hours) for each type of permit, compliance or enforcement action.

- Adopt pricing factors already used by Ecology for cost reimbursement under the Model Toxics Control Act (salaries, benefits, goods and services, agency indirect rates).

We are prepared to present and discuss the services and priorities reflected in the proposed Adequate Program, as well as the workload analysis, with stakeholders at any time to help decide on the best course of action to address the financial assurance, permitting and compliance programs identified in this assessment.

Fee Options

One of the funding options considered was to seek the authority to assess fees to create additional revenues to fund the Adequate Program. This information was presented to stakeholders in preparation for the August, 2002 meeting. These options are presented in Table 8, below, along with features, advantages and disadvantages.

Table 8. Fee Options Considered

Option	Features	Benefits or Pros/Cons
Fee for Service	Paid by facilities Permit activities & Operating fee Cost recovery for time spent by Ecology.	+ Aligns actual cost with resources + Will encourage as complete & timely permit applications as possible + Similar to current system for Corrective Action - Increases costs for waste recycling, treatment or disposal - Administrative costs are high
Fixed Fees	Paid by facilities Permit activities & operating fee Fee based on type of facility	+ Costs are fixed for permit actions; o/o can plan for costs up front. + Administrative costs are moderate - Increases costs for waste recycling, reatment or disposal - Would need to amend annually to factor in inflation, etc. - Actual costs not aligned with fee revenues
Volume/ Quantity Fee	Paid by facilities Fees based solely on volumes or quantities of wastes received.	+ Fee paid by facilities; may provide basis for direct pass through to generators + Perceived as penalty for waste disposal; may also be incentive for waste reduction. + May expand to transporters & brokers (levels field for in/out of state) - High overhead/admin cost; requires accounting system at TSDs.

Generator Fee	Paid by generators Fee based on volume or quantity of wastes shipped off site	+/- Already generator fee for HW Assistance Account + Levels playing field for in/out state facilities + Broadens number of fee payers - Does not provide economic incentive for o/o to submit timely or complete permit applications - Difficulty in gaining support from generators - Is not consistent with "polluter pays" value - High overhead/admin cost.
Transaction Fee	Paid by facilities, transporters or brokers. Fee based on waste shipments (not volume).	+ More direct influence on product/waste decisions. + Broadens number of fee payers. - Disincentive for shipping wastes off-site; more accumulation or TBG by generators. - High overhead/admin cost.

Additional Considerations

- Fees are proposed to supplement, not replace, current funding from Federal RCRA grant & State Toxics Account. The Federal RCRA grant has not increased in past several years and there are no realistic expectations it will in future. State Toxics funds have been reduced significantly in past four years. Cuts have already made by Ecology, Hazardous Waste & Toxics Reduction Program (HWTR) to adjust to reduced funding levels. Other funding used by HWTR are dedicated funds that cannot be used for permitting, compliance or enforcement.
- Enforcement is not included in the fee proposal. We did not want to create a perception that Ecology would take enforcement actions in order to build higher fees at individual facilities.
- At least 35 other states have fees for hazardous waste permit applications, processing permits and/or compliance fees. This includes all states in the Pacific Northwest except Washington and Alaska.

Chapter 7

Stakeholder Process & Concerns

Throughout its assessment of problems with hazardous waste management facilities, Ecology has worked with representatives of the following stakeholder groups:

- hazardous waste management industry
- hazardous waste recyclers
- used oil processors
- large and small business organizations
- local government agencies
- environmental groups

The stakeholder process has involved individual and group meetings and correspondence. An open and clear exchange of ideas, concerns and suggestions has occurred. The list shown below provides a summary of areas of apparent consensus and issues where concerns have been expressed. See Appendix I for more specific stakeholder comments and letters.

> **Hazardous waste facilities owners and operators** acknowledge that there are problems, but oppose fees aimed solely at facilities since it leads to higher short-term costs on their operations. Fees that are aimed at waste generators would likely receive more support from waste management companies. Cost and performance information was requested for Ecology's current and adequate programs.
>
> Smaller waste management companies are concerned about increases to their costs, plus the availability and affordability of financial assurance products like insurance. Suggestions were made on how Ecology may try different enforcement approaches with waste management companies. Owners and operators have also said that Ecology needs to have better trained inspectors that are knowledgeable about specific waste management processes. Facility operators expect timely permitting reviews and decisions from Ecology. They also expect that requirements will apply consistently to TSDs, recyclers and used oil processors (level playing field).

Businesses representatives stated that they choose waste management companies based upon consideration of liability, service and cost. Large and small businesses are concerned about having to pay significantly more for waste management. Small businesses are also concerned about the possible loss of services in more rural areas. Representatives from both large and small business have said that if fees are to be adopted, it is appropriate for them to be assessed to facilities. Cost and performance information was also requested for Ecology's current and adequate programs.

Local governments support changes that provide for good oversight and safer hazardous waste facilities in their communities.

Environmentalists support changes for the same reasons as local government. However, stricter regulatory changes are advocated to move toward higher pollution prevention efforts.

EPA is supportive of changes that provide safer hazardous waste facilities.

Ecology responded to concerns in a number of ways. Responses included: providing requested cost and performance information for the current and proposed adequate programs; clarifying and quantifying specific options, investigating additional options (e.g., pooled insurance); and, committing to working with stakeholders in the development of rules and the creation of a new web site. The "Choices and Next Steps" section also reflects the strategic and policy concerns of stakeholders.

Chapter 8

Choices and Next Steps

Stakeholders generally agree that there are serious problems with hazardous waste management facilities and that steps need to be taken to address them. There also appears to be substantial agreement that financial assurance needs to be addressed and improving access to public information through a web site is a good idea. There is no agreement, however, on what specific priorities or services Ecology should provide to address the problems identified (i.e., an Adequate Program). In particular, there is no agreement on how and who should pay for the additional costs associated with the solutions.

Since there is a lack of overall consensus at this time from all stakeholders, Ecology has identified three possible approaches for the Legislature to consider. These include:

1. Authorize Ecology to expeditiously move ahead with a rule development process, in consultation with stakeholders, to define the scope of services needed to address the problems identified in this assessment. This process would result in defining the Adequate Program and the resources needed to implement it. Under this option Ecology would also be authorized to adopt fees to pay for the package of services.

   This option addresses the problems identified in the quickest manner. It allows Ecology and stakeholders to build upon the momentum gathered to address the problems identified through this assessment. It relies upon good faith efforts by stakeholders and Ecology to continue the development of information and exchange of ideas to resolve concerns in the rule development process. Implementation is expected by 2005.

2. Direct Ecology to continue working with stakeholders to develop consensus on the scope of services and funding approach prior to authorizing rule development.

   This option delays action on addressing problems until concerns are worked out with stakeholders. Problems identified in this report are not addressed until the next supplemental session at the earliest. Implementation would not occur until after 2006.

3. Ecology already has existing authority under the Hazardous Waste Management Act to address many of the problems identified in this assessment. Under this option, the Legislature would direct Ecology to undertake rule development to resolve immediate problems with financial assurance and address environmental threats at recyclers and used oil processors with no clear funding sources identified.

   This option may provide a legal basis for addressing some significant problems, but with no new fund sources, practical implementation will not occur.

Of the approaches identified, Ecology feels that it is most appropriate to establish authority to move ahead with developing the service package and methods to fund it (A, above). This option provides the means to expeditiously address the serious problems identified. Other options postpone the ability for Ecology to implement results and delay any advantages gained through the process invested in by stakeholders to date.

Appendices

Appendix 1

Recent Stakeholder Letters

Emerald Services
Emerald Services Construction
Emerald Portable Storage
Emerald Recycling

www.emeraldnw.com

September 5, 2002

Washington State Department of Ecology
Attn: Greg Sorlie
P.O. Box 47600
Olympia, WA 98504-7600

Dear Mr. Sorlie:

Emerald Services Inc would like to thank the Department of Ecology for the opportunity to participate in the Hazardous Waste Facilities Initiative. We feel that we have a unique and well-rounded perspective on the issues being discussed. Emerald has two oil processing facilities in the state and one hazardous waste facility. We are also a large quantity generator of hazardous waste due to the by-products of our processing.

Through out the last decade many changes have occurred in the hazardous waste and waste oil processing industry, with consolidation of players and new companies operating in the industry. We are sensitive to the viewpoint that increased regulation and cost will in some respect cause waste material to have a tendency to move out of the state toward states with lesser regulations. We however believe WDOE must focus on what is best for this state and help with educating the generator population about decisions they make with their waste material. In the end, generators need to understand that moving waste out of state does not guarantee them of having less liability -- in fact, their liability is reduced when their waste is managed in a state with more stringent regulations and financial assurances. In the end it really does not matter whether you as a generator get a letter from EPA or a State regulatory agency for a clean-up site in Tacoma or Portland, the liability is the same.

Emerald believes this is a great opportunity for WDOE and industry to work together and educate the generators that their waste material is better handled in state rather than shipping outside. It is for this reason we are supportive of the following proposals.

1. Closure planning, closure funding and pollution liability insurance should be required of exempt recycling and used oil processing facilities. These facilities have left some of the biggest environment problems in the industry.

9010 E. Marginal Way South, Suite 200 Seattle, Washington 98108 (206) 832-3000 Fax: (206) 832-3030

2. Financial assurance mechanism should be updated to meet the current requirements. Financial mechanisms that are not available when a facility closes voluntarily or un-voluntarily are worthless.
3. Exempt recyclers and oil processor should have some type of permit. No one wants a full Part-B process, but an informational and easily submitted Part-A is not a burden to industry and allows regulators to quickly know that a facility exists and exactly what they intend to do at a certain location. Businesses who do not want the regulatory agencies to know what they are up to pose an unacceptable threat to public health and the environment, and should not be allowed to operate in this state.
4. Obtaining information about facility permits and inspection results is important for generators to make a good business decision. The current system does not allow easy access to information. Information needs to be balanced however, and Ecology has some work to do in the area of equal enforcement and inspections before this information will be valuable in this regard. With currently available information, a generator could look up a facility that has been inspected frequently, see wrtite-ups, and conclude that the facility is a greater risk than a facility that has not been inspected, and has no compliance issues identified. In fact, the opposite is likely to be true. Equal inspection and enforcement is needed before this information can be easily comparable.
5. Resource levels are inadequate for current demands. A contributive factor with the before-mentioned items is that Ecology needs new sources of funding to provide the information and equal inspections. Fee for service and permit fees are very good sources of revenue and we support these methods of obtaining more financial resources.
6. Improving the existing regulatory approach. This aspect really affects many of the other issues. By changing the approach, Ecology can be more effective with the resources it currently has and be more focused on the problem areas. The strategy of compliance needs to be focused on changing behavior or education, rather than large penalties that end up in litigation for years. Penalties should be quicker and maybe smaller or not at all if companies are changing behavior. Clearly there are situations when penalties are the only way to get a company's attention but many times these penalties do not solve the problem and cause stalemates or bankruptcies due to penalty amounts. In these cases no one wins.

Emerald appreciates the opportunity to work on this project and will support changes in the current regulations and fee structures to get these changes implemented. We believe time is of the essence and Ecology should move forward rapidly. Please contact me at 206-832-3005 if further clarifications are needed.

Sincerely,

Jerry Bartlett
V.P. Environmental Affairs

9010 E. Marginal Way South, Suite 200 Seattle, Washington 98108 (206) 832-3000 Fax: (206) 832-3030

INDEPENDENT BUSINESS ASSOCIATION

"Washington's only exclusive representative of small businesses'

August 6, 2002

Greg Sorlie
Manager
Hazardous Waste and Toxics Reduction Program
WA Department of Ecology
PO Box 47900
Olympia, WA 98504

Dear Greg:

Thank you for meeting with me in lieu of the cancelled June 26th meeting with hazardous waste generators regarding the issue of hazardous waste management and used oil processing facilities. We have reviewed the materials prepared by the Department that discusses the reason the Department is concerned about this issue and the various solution options the Department is considering at this time. Per our discussion, here are some comments we have on behalf of small generators of used oil and hazardous wastes.

1. Small generators are looking for solutions to minimize their future potential liability as a PRP while at the same time minimizing their costs.

2. We support a set of actions that assure a cost-effective way to assure proper waste management as well as a level playing field for competitors in the business of collecting, transporting, and recycling or disposing of the materials; but that do not impose such hardships as to eliminate small firms from entering in and competing in this industry.

3. We are concerned that the Department has not yet presented cost estimates on the various options presented as possible solutions. Cost is a critical component in this entire discussion. If it becomes uneconomic to operate a recycling/waste-handling facility in Washington State, generators of waste all across the state will be put in a very precarious position. Cost cannot be an after thought, they must be one of the primary and up-front considerations. There is not the elasticity in the marketplace to either absorb or pass-along significant cost increases. Thus, costs must be minimized to the greatest extent possible.

4. We see the Department considering two major elements in a proposed solution. They are:

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Funding an on-going program to register/permit facilities and conduct regular inspections of those facilities, and

Impose a significant up-front clean-up cost reserve for the facility to assure there are resources available to clean up the facility if the facility should cease operations.

2. We believe the up-front clean-up reserve will be the most challenging to address. Imposing large financial reserve requirements on recycling/waste-handling firms will very likely force many small firms now in operation to close and discourage new small firms from starting in the business. This will have numerous harmful impacts such as:

   It is often the small recycling/waste-handling firms who serve the small-remote accounts. Thus if the small recycling/waste-handling firms are reduced or eliminated the small and remote generators of waste will be very hard pressed to dispose of their wastes as needed.

   Competition in the recycling/waste-handling industry will be reduced which often means prices changed for the industry's services will increase. This will again harm generators who must find cost effective ways to dispose of their wastes.

   Thus, the Department must be extremely realistic on the reserve amounts required, and must be extremely flexible in how those reserve requirements are met. The Department must be very open to private market solutions such as insurance, letters of credit, etc. in meeting this requirement.

3. Any funding mechanism to implement on-going regulatory oversight of these facilities must be proportional. For example, costs should be allocated on the amount of waste disposed of by a specific generator, not a flat fee per generator. A flat fee will impose disproportionately greater cost impacts on small generators.

   Consider a level fee per unit of waste collected and charged by the waste collector at the time of collection that is set uniformly for all collectors so that the operating costs of each collector remains competitive in the marketplace. A fee based on the amount of waste (and possibly type of waste) disposed of will provide added incentives to generators to reduce waste generation - a key Department goal.

4. The Department must clearly consider the unique challenges of small generators of wastes. The challenges faced by small generators are significantly different than those faced by large generators. Some unique challenges faced by small generators are:

   They often generate small volumes of waste to minimize the amount of regulation they must comply with. But, by generating a small amount of waste for pick-up, their revenues to a recycling/waste-handling facility are relatively low, making them a less attractive customer. Yet, they must have a cost-effective means of disposing of their wastes in an appropriate and legal way.

   The waste generation of many small generators is sporadic and inconsistent. Yet they may need relatively prompt service at certain times to remain a "conditionally exempt generator" while at other times they may have little to no waste for a recycling/waste-handling facility to pick up.

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There are many small waste generators located in very remote parts of the state. This too increases the costs for recycler/waste-handlers to service those small-remote generators. Yet, these facilities need a reliable way to dispose of their wastes.

2. The Department should serve as a facilitator to facilitate discussions between generators and recycling/waste-handling facilities to assist them in developing a solution to the maximum extent possible. Be sure to provide adequate time and attention to small generators and small recycling/waste-handling facilities. This would be an outstanding opportunity to assist the private stakeholders in developing a solution that works for them. For now, focus on the "what" should be done and postpone discussions about the "how" it should be done (regulation, legislation, permit, certification, fees, etc.) until the basic framework of "what" is developed.

On behalf of the small waste generators participating in Independent Business Association, we thank you for your consideration of these comments and are eager to assist the Department in any way to find the most effective solution possible to this important issue.

Sincerely,

Gary Smith
Executive Director

16541 Redmond Way #336C Redmond, Washington 98052 (425) 453-8621 Email ibagisomedia.com

Oil Re-Refining Company

Petroleum Recycling Since 1979

4150 N. Suttle Rd. Portland, OR 97217,
503-286-8352, 1-800-367-8894, Fax 503-386-5027

August 20, 2002

State of Washington D.O.E.
Mr. Jim Sachet
Fax 1-360-407-6715

Dear Interested Parties:

I am unable to be at the August 22, 2002 meeting as I already have a meeting with Oregon DEQ along with The National Recycling Association counsel on that date.

Please, include my thoughts in that meeting, as after more than twenty-five years in the needed oil recycling business, it is clear that DOE's current proposal is moving in the wrong direction for maximum protection of the environment.

I would be happy to be a part of any further study group, etc.

Yours Truly,

W.E. Biggs
President
Oil Re-Refining Company, Inc.

CC: Association Washington Business
National Oil Recycling Association
Ross & Associates
Washington Recycling Association

Comments to State of Washington DOE

Hazardous Waste Management and Used Oil Processing Facilities

of August 5, 2002 Letter

This present proposal will, in fact, make used oil, used oil collections, recyclers, and generators, hazardous waste operations, even though EPA. has shown that such requirements discourages used oil recycling, increased used oil dumping, disposal, etc. and increases the cost to recycle or dispose of used oil. It is counter productive to the needed environmental protection.

There is a much simpler method, much of which is now in place and could work without major or perhaps any new rule making!

Here is how it might work; using either or both of the Petroleum Tax #54 or Hazardous Substance #55, under the current #IV "Other Taxes" in Washington's current excise tax system, sales of all oil, not just gasoline, diesel fuels, etc to be included and taxed. The purpose for these taxes was to provide funds for clean up, etc. This would also help to obtain funds for cleaning up for oils that never get into the recycling system, but seems to disappear into our environment. These oils have always caused problems in storm water and sewer systems, mystery spills and are not currently paying their share for environmental protection as those generators whose oil gets into the recycling system. The latest numbers we are aware of is over 30% of the new oils sold do not turn up in the recycling system. It makes one wonder where they are in our environment!

Based on our knowledge of oil sales in Washington State, each month a $.05 per gallon fee collected on all oils, not fuels, would bring in the range of $125,000 per month. This would provide funds to clean up an orphan site caused by used oils, etc. Since recyclers still would need to meet all of the current used oil regulations, no further increases in governmental programs, cost, or rules are needed.

DOE present proposal simply increases the size and cost of government and does not provide for as good of a result, as would our suggested plan.

Before any proposal is given to the Washington legislators, it would be best to study our proposal, which offers the best protection of Washington's environment. The present DOE proposal falls short of this worthwhile goal. It will drive up the cost of recycling, causing those who are doing the right thing by recycling cost to increase, while allowing those who do not recycle, but dump it to continue their poor environmental damaging habits without paying anything. It clearly rewards the polluters!

DOE's present proposal is clearly not the best for environment protection of human heath and the environment!

Yours Truly,

Bill Briggs

W.L. Briggs
President
Oil Re-Refining Company, Inc.

cc: Association Washington Business
National Oil Recycling Association
Ross & Associates
Washington Recycling Association

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

September 4, 2002

Reply To
Attn of: WCM-127

Greg Sorlie, Program Manager
Hazardous Waste and Toxic Reduction Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear ~~Mr Sorlie~~ Greg:

This letter is to thank you for the opportunity to participate in the development of the Washington Hazardous Waste Facilities Initiative. We understand that the Legislature is anticipating a report which evaluates problems with requirements for hazardous waste management facilities, giving special attention to financial resources that should be in place to pay for closures. While your current authorized Dangerous Waste program meets the minimum federal requirements we support your efforts to obtain your stated Initiative goal: *"to set a course of action to assure safe facilities, minimize environmental and economic liability"*.

We also applaud your efforts to include stakeholders in the development of defining the problems and developing recommendations to ensure long-term safe waste management in the State of Washington. Ecology's extensive research has given stakeholders valuable information which resulted in meaningful discussions and additional recommendations for Ecology to consider. (e.g., Discussion Paper-Defining problems and options to consider; Summary of Stakeholder Comments; Financial Assurance Options and Recommendations; and the Fee Structure Supporting Documentation, Proposals, Options.)

Again, we appreciate the opportunity to participate in the Washington Hazardous Waste Facilities Initiative and look forward to continuing to work with you and your staff on any regulatory and/or policy changes that may result from this Initiative.

Sincerely,

Rick

Richard Albright, Director
Office of Waste and Chemicals Management

cc: Jim Sachet, Ecology

Sachet, Jim

From: Laurie Valeriano [lvaleriano@watoxics.org]

Sent: Thursday, August 29, 2002 5:12 PM

To: Sachet, Jim; Sorlie, Greg

Subject: comments on haz waste recyclers

August 29, 2002

Dear Mr. Sachet:

Please accept these comments on behalf of the Washington Toxics Coalition (Toxics Coalition) regarding the Department of Ecology's (Ecology) Hazardous Waste Facilities Initiative. The Toxics-Coalition supports Ecology's efforts to adopt rules, establish fees, and improve enforcement to reduce the threat to human health and the environment posed by hazardous waste recycling facilities.

The collection of hazardous waste by government agencies and others for recycling is a critical step towards preventing toxic contamination in solid waste landfills, waterbodies and communities. There must be assurances that facilities managing these wastes are doing it properly and that there are enough resources to close the operations when the time comes. This is not currently happening in Washington.

The problems with hazardous waste recycling facilities in Washington are numerous and disturbing. Inadequate government oversight, corporate irresponsibility and inadequate financial assurances has resulted in many cases of environmental contamination and the cleanup bill being paid by the taxpayers. In fact, over the past two decades, at least 18 waste handlers, recyclers and oil processors across the state have either gone broke or have disappeared. Some specific examples include:

* The CleanCare Facility in Tacoma received hazardous waste from numerous government agencies, businesses and others. It was improperly shut down leaving customers holding the liability for cleanup of wastes that were improperly managed. So far, it has cost the Environmental Protection Agency $4.3 million to remove wastes from the site with the bill for cleaning up soil and groundwater still to come.

* Over 200 companies that sent their waste to Cameron-Yakima Inc., which recycled activated carbon used to filter air and water, have paid about $4 million to clean up a waste facility in Yakima after the business went bankrupt in 1998.

The Toxics Coalition supports early intervention, permits, fees, oversight and increased financial assurances to ensure that these problems do not continue. More specifically, we support:

1. Requiring hazardous waste permits for hazardous waste recyclers and used oil processors. In order for the cradle-to-grave system to truly work, hazardous waste recyclers and used oil processors should go through a rigorous permitting process, receive more government oversight and be more accountable to the public. We believe the best way to achieve this is by requiring recycling facilities and used oil recyclers handling hazardous waste to have an enforceable hazardous waste permit.

2. Establishing a fee for adequate funding of the program. Ecology needs adequate resources for enforcement, permitting and technical assistance so we don't have to face more situations like CleanCare. The Toxics Coalition supports Ecology's proposal to pursue legislation that will establish fees to fund the program. We strongly urge Ecology to consider the option that requires manufacturers of the hazardous products that wind up at the hazardous waste recycling facilities to pay a fee. This will not only create revenue for Ecology's program it will create an incentive for the production of less toxic products. We also support a fee paid by hazardous waste recyclers and used oil processors.

3. Providing information on hazardous waste recycling facilities and used oil processors on Ecology's web site. Along with permits, providing information to the public on these facilities will increase accountability. People who live near these facilities, watchdog organizations and others have a right-to-know about the activities of these facilities and what the government is doing to protect human health and the environment. We support Ecology providing information about hazardous waste recycling facilities and used oil processors on the web.

4. Improving financial assurance mechanisms. As shown by the above examples it is critical that Ecology dramatically improve the current financial assurance mechanisms to ensure that taxpayers are not strapped with cleanup costs for these facilities. This should be accomplished by revising the dangerous waste regulations to: increase the closure fund amounts to include recycling and used oil facilities as units that must be included in the closure plan and cost estimates; no longer allow insurance or corporate guarantee for closure or post closure; allow only trust funds, bonds or letters or credit for pollution liability and closure/post closure; increase required levels of liability coverage treatment and storage facilities to account for inflation since 1980; create the authority for Ecology to deny the choice of financial mechanisms; require facilities to have fully funded closure/post closure plans prior to permit issuance; require a financial assurance to "bridge" the time between closure and corrective action.

Thank you for considering our comments. We look forward to working with Ecology on this critical issue.

Sincerely,

Laurie Valeriano
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Senator Debbie Regala
27th Legislative District

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May 29, 2002

Greg Sorlie, Manager
Hazardous Waste and Toxics Reduction
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Mr. Sorlie:

I represent the 27th Legislative District, an area in Pierce County that includes a number of industrial and hazardous waste facilities. I have been very concerned about recent problems with facilities that have shut down and left hazardous materials and contamination, without adequate financial resources to clean up the sites. It is my understanding that your program is studying these problems, and I look forward to seeing your recommendations for improving the financial accountability of facilities that handle hazardous materials.

I am aware the Department of Ecology's website includes a Directory of Hazardous Waste Service Providers. It is quite surprising to see such a large number of companies listed that provide hazardous waste services. I hope that your study will consider all of these service providers as potential sources of hazardous waste release. It is important that all of the facilities that pose a risk of contamination, or leaving quantities of hazardous materials behind, are required to provide financial assurance.

I think this directory could be a valuable tool in helping people to understand the safety and security of any facilities they may select to manage their wastes. However, in its present form, it only gives a listing of companies and the services they provide - nothing about their track record of compliance, results of inspections, or financial stability. Also, the directory does not identify the physical location of many of these facilities. It should be possible to clearly identify their location on the website, and to include more information about their compliance record and financial assurance. This information should be in such a form that the public and waste generators can verify a location, and get information about the compliance history and financial resources in place to respond to any problems.

While I believe that this could be an important tool, I have recently become aware of a discrepancy that creates some real concerns. I understand that some of these facilities are inspected frequently, and others not at all. Any facility that manages hazardous materials poses a potential threat to human health and the environment.

Committees: Environment, Energy & Water, Vice Chair - Ways & Means - Education - Labor, Commerce & Financial Institutions
Joint Legislative Audit & Review Committee (ILARC)

Every hazardous waste treatment facility or recycler should be inspected on a regular basis. A citizen or business could look at the compliance record, and get a false sense of security if the facility does not have a record of violations. If it has not been inspected regularly, it could be operating in an unsafe condition, but the public would have no way of knowing these risks. An even playing field, where all facilities are inspected regularly, provides the best protection to citizens of the state.

I hope that you can take these issues into account in developing your recommendations for improving financial assurance and accountability of all of these facilities. Please keep me advised of your progress on this study.

Sincerely,

Debbie Regala

Debbie Regala, Vice Chair
Environment, Energy and Water

Appendix 2

Inventory of Hazardous Waste Management Facilities, Recyclers and TSDs that have existed since 1980

	Current Name/Owner	RCRA/State ID#	Type	Commercial	Location
1	Applied Process Engineering Lab	WAH000004507	TSD	Yes	Richland
2	Bay Zinc	WAD027530526	TSD	Yes	Yakima
3	Cameron Yakima Inc.	WAD009477175	TSD	Yes	Yakima
4	ECCO Inc.	WAH000005025	Recycler	Yes	Kennewick
5	Energy Northwest Columbia Generating	WAD980738488	TSD	No	Richland
6	US Army Yakima Training Center	WA8214053995	TSD	No	Yakima
7	US Ecology	WAD060048360	TSD	Yes	Richland
8	USDA Pesticide Laboratory	WAD120513957	TSD	No	Yakima
9	Western Farm Service Inc Toppenish E St	WAD000643486	TSD	Yes	Yakima
10	Crown Cork and Seal Co Inc Walla Walla	WAD009024589	TSD	Yes	Walla Walla
11	Frontier Machinery CL	WAD081482457	TSD	Yes	Walla Walla
12	Hewlett Packard Co Liberty Lake	WAD095723425	TSD	No	Liberty Lake
13	Honeywell Electronic Materials Inc.	WAD000064642	Recycler & TSD	No	Spokane
14	Key Tronic Corp Spokane Industrial Park	WAD048440424	TSD	Yes	Spokane
15	L Bar Site Northwest Alloys	WAD097824577	Ecy add	No	Chewelah
16	Lehigh Portland Cement Co	WAR000004598	TSD	Yes	Metaline Falls
17	Northwest Recycling Svc Inc.	WAD988512026	Ecy add	Yes	Veradale
18	Pasco NPL Site	WAD991281874	Ecy add	Yes	Pasco
19	Safety Kleen (Spokane)	WAD000712034	TSD	Yes	Spokane
20	Safety Kleen Systems Inc Pasco 118302	WAD980978746	TSD	Yes	Pasco
21	USAF Fairchild AFB	WA9571924647	TSD	No	Spokane
22	Van Waters and Rogers Inc. Spokane	WAD009236811	TSD	Yes	Spokane
23	WA WSU Pullman Camp	WAD041485301	TSD	No	Pullman
24	Washington Chemical Inc.	WAD037991528	TSD	Yes	Spokane
25	Western Farm Service Inc Anatone	WAD000618066	TSD	No	Anatone
26	Western Farm Service Inc Coulee City	WAD027294669	TSD	No	Coulee City
27	British Petroleum (Arco Petroleum Cherry Point)	WAD069548154	TSD	No	Ferndale
28	Goldendale Aluminum Company	WAD990828642	TSD	No	Glendale
29	Intalco Aluminum Corp	WAD009488131	TSD	No	Ferndale
30	Kaiser - Trentwood	WAD009067281	TSD	No	Spokane
31	Kaiser Aluminum Mead Works	WAD00065508	TSD	No	Mead
32	Puget Sound Refining	WAD009276197	TSD	No	Anacortes
33	Tesoro Northwest Co.	WAD009275082	TSD	No	Anacortes
34	Tosco Refining Co. Ferndale Refinery	WAD009250366	TSD	No	Ferndale

	Current Name/Owner	RCRA/State ID#	Type	Commercial	Location
35	ATG Richland Inc.	WAR000010355	TSD	Yes	Richland
36	Energy Northwest HGP	WAD988475885	TSD	No	Richland
37	Framatome ANP Richland Inc.	WAD990828402	TSD	No	Richland
38	US Dept. Energy	WA7890008967	TSD	No	Richland
39	Amour Fiber Core	WAH000011767	Recycler	Yes	Sultan
40	Basin Oil Co Inc	WAD988477501	Used Oil	Yes	Seattle
41	BEI - Georgetown	WAD000812909	TSD	Yes	Seattle
42	BEI - Kent	WAD991281767	TSD	Yes	Kent
43	BEI - Pier 91	WAD000812917	TSD	Yes	Seattle
44	Boeing (Auburn)	WAD041337130	TSD	No	Auburn
45	Boeing (Everett)	WAD041585464	Recycler & TSD	No	Everett
46	Boeing (Kent)	WAD061670766	TSD	No	Kent
47	Boeing (Renton)	WAD009262171	TSD	No	Renton
48	Boeing A&M Developmental Center	WAD093639946	TSD	No	Tukwilla
49	Boeing D & SG MFC Site	WAD988475943	TSD	No	Seattle
50	Boeing Plant 2	WAD009256819	TSD	No	Seatlle
51	BSB Diversified	WAD076655182	TSD	No	Kent
52	Ecolights Northwest	WAD988499349	Recycler	Yes	Seattle
53	Emerald Petroleum Services (Seattle)	WAD058367152	Used Oil & TSD	Yes	Seattle
54	ESPRI Inc	WAD980639983	TSD	Yes	Auburn
55	Fibrex Corporation	WAD070054309	TSD	Yes	Burlington
56	First Recovery Anacortes	WAD980987622	Used Oil	Yes	Anacortes
57	Hallmark Precious Metals Inc.	WAD980976906	Recycler	Yes	Mount Vernon
58	LIDCO	WAD010195725	TSD	Yes	Kent
59	Marine Vacuum Service	WAD980974521	Used Oil	Yes	Seattle
60	Rhodia Inc	WAD009282302	TSD	No	Seattle
61	Safco Environmental	WAD981766884	Recycler	No	Seatac
62	Safety Kleen (Auburn)	WAD000712059	TSD	Yes	Auburn
63	Safety Kleen (Lynnwood)	WAD000712042	TSD	Yes	Lynnwood
64	Tecnal Corp	WAD009624347	TSD	No	Anacortes
65	Total Reclaim	WAH000003582	Recycler	Yes	Seattle
66	ToxGon	WAD061669644	TSD	Yes	Seattle
67	US Navy (Keyport)	WA1170023419	TSD	No	Keyport
68	US Navy (PSNS Bremerton)	WA2170023418	TSD	No	Bremerton
69	US Navy Bangor Submarine Base	WA5170027291	Used Oil, Recycler & TSD	No	Silverdale
70	US Navy Camp Wesley Harris Reservation	WAR000008771	Used Oil	No	Bremerton
71	Vopak USA Inc.	WAD067548966	TSD	Yes	Kent
72	Western Processing	WAD980724520	Recycler	Yes	Kent
73	Airo Services	WAD027528728	TSD	Yes	Tacoma
74	Arcom Oil	WAD988515334	Used oil	Yes	Tacoma
75	BEI - Tacoma	WAD020257945	TSD	Yes	Tacoma
76	BEI - Washougal	WAD092300250	TSD	Yes	Washougal
77	Clean Care	WAD980738512	TSD	Yes	Tacoma
78	Disclaimer Trust of John J. O'Connell	WAR000002980	Used oil	Yes	Olympia
79	Emerald Petroleum Services	WAD068794387	Recycler &	Yes	Vancouver

	Current Name/Owner	RCRA/State ID#	Type	Commercial	Location
	(Vancouver)		TSD		
80	Emerald Services (Tacoma)	WAD981769110	Recycler & TSD	Yes	Tacoma
81	Fuel Processors	WAD087462503	TSD	Yes	Woodland
82	Georgia Pacific Corp Olympia Container	WAD050175918	TSD		Olympia
83	Waste Disposal Inc.	WAD988521704	Used oil	Yes	Tacoma
84	Lilyblad Petroleum Inc.	WAD027543032	TSD	Yes	Tacoma
85	McClary Columbia Corp Tacoma	WAH000003111	Recycler	No	Tacoma
86	Micro Oil (Reflex)	WAD980978142	Recycler & TSD	Yes	Tacoma
87	Noveon Kalama Inc.	WAD092899574	TSD	No	Kalama
88	Orting Industrial Lubricants	WAD981766785	Used oil	Yes	Orting
89	Pendleton Woolen Mills	WAD009035502	TSD	No	Washougal
90	Petroleum Reclaiming Service (PRSI)	WAD980511729	TSD	Yes	Tacoma
91	Phoenix Environmental Svcs. Inc.	WAR000010785	Used oil	Yes	Tacoma
92	Pioneer Americas	WAD009242314	TSD	No	Tacoma
93	Port of Gray's Harbor	WAD982655227	Used oil	Yes	Aberdeen
94	Reichhold Chemical	WAD009252891	TSD	No	Tacoma
95	Ross Electric	WAD980726061	TSD	No	Chehalis
96	Ross Electric Logan Hill	WAD980835268	TSD	No	Chehalis
97	Spencer Environmental Inc.	WAD988475323	Used oil	Yes	Sumner
98	SQG Specialists Inc.	WAH000007013	Recycler	Yes	Tacoma
99	US Army Ft. Lewis	WA9214053465	Recycler & TSD	No	Ft. Lewis
100	US DOE BPA Ross Complex	WA1891406349	TSD	No	Vancouver
101	US Navy (Indian Island)	WA4170090001	TSD	No	Port Hadlock
102	USAF McChord	WA8570024200	TSD	No	Tacoma
103	USN Marine & Reserve Center	WA2170090037	Used oil	No	Tacoma
104	UW Tacoma Branch	WAD980664718	TSD	No	Tacoma
105	Waste Disposal Inc.	WAR000003574	Used oil	Yes	Tacoma

Regulation and Permitting of Hazardous Waste Management and Used Oil Processing Facilities

Feature or Element	Treatment, Storage, Disposal	Recycling without Storage	Used Oil Processing
GENERAL REQUIREMENTS (WAC 173-303-060 to -270)			
Notification & ID#'s	Yes	Yes	Yes
Designation	Yes	Yes	Yes
TSD REQUIREMENTS (WAC 173-303-280 to -395)			
Notice of Intent	Yes	Exempt	Exempt
Siting Criteria	Yes	Exempt	Exempt
Performance Standards	Yes	Yes	Exempt
General waste analysis	Yes	Lesser stnds	Lesser stnds
Security	Yes	Yes	Lesser stnds
Inspection	Yes	Yes	Lesser stnds
Training	Yes	Yes	Lesser stnds
Preparedness	Yes	Yes	Lesser stnds
Contingency Plan	Yes	Yes	Lesser stnds
Emergencies	Yes	Yes	Lesser stnds
HW Manifest	Yes	Yes	
Record Keeping	Yes	Yes	Lesser stnds
RECYCLING REQUIREMENTS (WAC 173-303-120 & -500 to -525)			
Recycled, reclaimed, recovered Wastes	Not applicable	Yes	Exempt
State-only dangerous waste	Not applicable	Yes	Not applicable
Spent CFC	Not applicable	Yes	Not applicable
Burned for Energy Recovery	Not applicable	Yes	Not applicable
Management of Used Oil	Not applicable	Not applicable	Yes
Spent lead acid batteries	Not applicable	Yes	Not applicable
Spent antifreeze	Not applicable	Yes	Not applicable
Precious metal recovery	Not applicable	Yes	Not applicable
INTERIM STATUS STANDARDS (WAC 173-303-400)			
Interim status standards	Yes	Exempt	Exempt
FINAL STATUS STANDARDS (WAC 173-303-600 to -691)			
Closure/Post Closure	Yes	Lesser stnds	Lesser stnds
Financial Assurance	Yes	Exempt	Exempt
Containers	Yes	Yes	Lesser stnds
Tank Systems	Yes	Lesser stnds	Lesser stnds
Releases	Yes	Not applicable	Not applicable
Corrective Action	Yes	Not applicable	Not applicable
Surface Impoundments	Yes	Not applicable	Not applicable
Land treatment	Yes	Not applicable	Not applicable
Waste piles	Yes	Not applicable	Not applicable
	Treatment,	Recycling	

Feature or Element	Storage, Disposal	without Storage	Used Oil Processing
Landfills	Yes	Not applicable	Not applicable
Incinerators	Yes	Not applicable	Not applicable
Drip pads	Yes	Not applicable	Not applicable
Miscellaneous units	Yes	Not applicable	Not applicable
Containment buildings	Yes	Not applicable	Not applicable
PERMIT REQUIREMENTS (WAC 173-303-800 to -840)			
Types of permits	Yes	Exempt	Exempt
Permits by rule	Yes	Exempt	Exempt
Permit applications	Yes	Exempt	Exempt
Interim Status Permits	Yes	Exempt	Exempt
Final Facility Permits	Yes	Exempt	Exempt
General permit conditions	Yes	Exempt	Exempt
Permit changes	Yes	Exempt	Exempt
Decision making	Yes	Exempt	Exempt
PUBLIC INVOLVEMENT (WAC 173-303-900 to -910)			
Public involvement & Participation	Yes	Exempt	Exempt
PERMIT OR OPERATING FEES – Currently there are no hazardous waste fees for TSDs, Recyclers or Used Oil Processors			
Permit Application or Processing Fee	Not applicable	Not applicable	Not applicable
Operating or Compliance Fee	Not applicable	Not applicable	Not applicable

Yes = Full requirements of Dangerous Waste Regulations apply

Lesser standards = Regulatory standards apply but are less that fully regulated dangerous waste requirements.

Exempt = Requirements of Dangerous Waste Regulations do not apply because of specific exemptions.

Not applicable = Requirements of Dangerous Waste Regulations do not apply.

Appendix 4

Financial Assurance Options and Recommendations

Findings and Recommendations for Hazardous Waste Financial Responsibility

Options for Next Steps

Jim Sachet *Draft* July 16, 2001

Introduction

In this paper, I will identify and assess options for addressing financial responsibility requirements for hazardous waste management facilities. These options are based upon:

- findings and recommendations of a consultant hired by Ecology to evaluate the adequacy of financial responsibility requirements and their implementation in Washington[12];
- evaluation of EPA rules and guidance; and,
- discussion with HW Management Facilities Initiative Core Team members[13].

This paper will be presented to the HWTR Program Management Team for decisions on what, how, when and who needs to be involved in pursuing improvements to the financial responsibility program. Technical and regulatory language would be developed in consultation with waste management companies, the insurance and financial industry, the Office of the Insurance Commissioner, EPA and other interested or affected parties.

[12] Martin, David M., Environmental Assets, LLC; "An Analysis of Financial Assurance Mechanisms and Other Financial Responsibility Issues for Regulated Hazardous Waste TSD Facilities", March 2002.
[13] Core Team members include Tom Cook, Kerry Graber, Jim Knudson, Dan Kruger, Galen Tritt, and Martin Werner.

In preparing this paper, I assume the reader is familiar with state and federal financial responsibility requirements. I also assume that the reader is familiar with the reports prepared by David Martin. Copies of the reports are available by contacting Jim Sachet, 360/407-6126.

Options

The following options are identified:

1. **Most Restrictive** - maximize effort to narrow financial assurance choices, and bring certainty to financial responsibility.
2. **Ramp Up** - revise current rules and improve implementation to make reasonable and prudent improvements to current financial responsibility requirements.
3. **Use Existing Authority, Enhance Implementation** – the current rules governing financial responsibility would not be changed. Enhancements would be gained through improved priority, procedures, communication and training within Ecology.
4. **No New Resources** – this option recognizes the regulatory and resource limitation of the current financial responsibility program. It actually cuts back on currently allowed financial mechanisms for closure/post-closure to those that provide a higher level of financial assurance to the public and focuses training, enforcement and collections resources on the remaining mechanisms.

In the *Analysis* section that appears below, each of these options is described in more detail. Factors associated with schedule, lead agency responsibility, costs and expected results are also presented.

Analysis

1. Most Restrictive. This option for financial responsibility is framed by the desire for the public to be protected to the highest degree possible from having to pay for the costs of operating and closuring hazardous waste management facilities.

What

a. Revise Dangerous Waste rules to:

- Increase the closure fund amounts by including recycling and used oil processing as units that must be included in the closure plan and cost estimate.
- Allow only trust funds, bonds, letters of credit or insurance for pollution liability
- Allow only trust funds, bonds, or letters of credit for closure/post-closure
- No longer allow the use of insurance or financial test/corporate guarantee for closure/post-closure
- Increase required levels of liability coverage treatment and storage facilities to account for inflation since 1980 (e.g., increase from current $1/2 million to $2/4 million)
- Create authority for Ecology to deny the choice of financial mechanisms.
- Require that new facilities must have fully funded closure/post-closure funds upon issuance of permits.
- Require that existing facilities have fully funded closure/post-closure funds upon the effective date of regulations[14].
- Require a new type of financial assurance to provide a "bridge" between closure and corrective action. This will assure that funds are available to pay for at least a portion of cleanup costs from the time of closure to the time of selection of cleanup remedies under the MTCA process.

b. Improve implementation by Ecology
    - Provide training to financial assurance reviewers and facility inspectors
    - Make review of financial responsibility a priority for compliance inspections
    - Assure that review of financial assurance documents is timely and accurate
    - Assure that closure plans are timely and accurate
    - Assure the closure cost estimates are accurate and up-to-date
    - Develop and implement a strategy for taking enforcement actions when financial responsibility requirements are violated.
    - Develop the capability for Ecology to identify indicators of financial stability of HWMF. Routinely monitor such indicators for individual

[14] Note: The viability of this requirement needs to be considered in view of possible "takings" challenges by existing facilities to which it would apply.

facilities and take actions appropriate to protect the financial interests of the public regarding pollution liability and closure/post-closure coverage.

- Increase Ecology staff assigned to review and maintain financial assurance documents.
- Develop a procedure for filing claims and collections procedures in the event of facility bankruptcy or abandonment
- Institute better controls and communication between Ecology programs, and Ecology/EPA when sites transition from one program or agency to another.

When
It is estimated that rule revisions under the Iron Clad option would occur over the next 2-4 years because of rule development and adoption procedures.

Who
The development and implementation of the Iron Clad option would be completed primarily by Ecology staff. It is estimated that at least 2 new positions would be required to manage the rule development process and to design implementation strategies. Existing Ecology staff, managers and AGs would need to contribute to the process.

How Much
This option will require new resources for Ecology to develop and implement. Costs for a position for rule and program development are estimated at approximately $90,000 per year (salaries, benefits, goods & services, agency indirect). Total estimated cost for two positions for two years is, therefore, $360,000. It is anticipated that these two positions would transition to program implementation or that significant elements of this function could be managed through financial services contractors.

Expected Results
Costs for operating a HWMF in Washington would increase commensurate with the costs for complying with new requirements.

Increased costs would be expected to result in the closure of all but the largest commercial HWMF. This is especially true because of the requirement for existing facilities to have fully funded closure/post-closure funds upon the effective date of regulation.

Closure of facilities would at least temporarily disrupt the availability of waste management services to Washington waste generators.
Facilities remaining in operation would be in compliance with new financial requirements and would have resources needed to operate and closure their facilities.

Ecology would be in an enhanced position to eliminate or minimize costs to tax payers for bankrupt or abandoned facilities.

2. Ramp up - Improve scope, authority and implementation

What

a. Revise Dangerous Waste rules to:
    - Increase the closure fund amounts by including recycling and used oil processing as units that must be included in the closure plan and cost estimate.
    - Allow only trust funds, bonds, letters of credit or insurance for pollution liability and closure/post-closure
    - Revise rules governing the form and conditions that apply to insurance, trust funds, letters of credit and bonds. Create standard forms. Clarify Ecology status to file claims in the absence of facility owners/operators.
    - Specify the creation of a standby trust for insurance (similar to bond or trust fund mechanisms). When activated, the standby trust would receive insurance claims payments and manage site closure and cleanup (as directed by Ecology).
    - Suspend the use of financial test/corporate guarantee for closure/post-closure for at least two years
    - Consider increasing required levels of liability coverage treatment and storage facilities to account for inflation since 1980 (e.g., increase from current $1/2 million to $1.5/3 million)
    - Create authority for Ecology to deny the submittal of financial mechanisms.
    - Require that new facilities must have fully funded closure/post-closure funds upon issuance of permits.
    - Establish a two to three year transition period for existing facilities to establish fully funded closure/post-closure funds
    - Require that closure plans and closure cost estimates be adjusted to reflect discovery of soil and/or ground water contamination at the site.

b. Improve implementation by Ecology
    - Provide training to financial assurance reviewers and facility inspectors
    - Make review of financial responsibility a priority for compliance inspections
    - Assure that review of financial assurance documents is timely and accurate
    - Assure that closure plans are timely and accurate
    - Assure the closure cost estimates are accurate and up-to-date
    - Develop and implement a strategy for taking enforcement actions when financial responsibility requirements are violated.
    - Increase Ecology staff assigned to review and maintain financial assurance documents.
    - Develop a procedure for filing claims and collections procedures in the event of facility bankruptcy or abandonment
    - Institute better controls and communication between Ecology programs, and Ecology/EPA when sites transition from one program or agency to another.

When

It is estimated that rule revisions under the Ramp Up option would occur over the next 2-4 years because of rule development and adoption procedures.

Who

The development and implementation of the Ramp Up option would be completed primarily by Ecology staff. It is estimated that at least 2 new positions would be required to manage the rule development process and to design implementation strategies. Existing Ecology staff, managers and AGs would need to contribute to the process.

How Much

The estimated costs for this option the same as Option 1, about $360,000 for two positions the first two years of rule and program development. These positions would then transition to program implementation and become permanent. As an alternative, this function could be managed through financial services contractors.

Expected Results
Costs for operating a HWMF in Washington would increase commensurate with the costs for complying with new requirements.

Increased costs would be expected to result in the closure of some of the smaller HWMF in the state.

Facilities remaining in operation would be in compliance with new financial requirements and would have resources needed to operate and closure their facilities.

Ecology would be in an enhanced position to eliminate or minimize costs to tax payers for bankrupt or abandoned facilities.

3. Use Existing Authority, Enhance Implementation

What

a. Adopt no new rules or clarifications addressing financial responsibility
b. Improve implementation by Ecology
    a. Provide training to financial assurance reviewers and facility inspectors
    b. Make review of financial responsibility a priority for compliance inspections
    c. Assure that review of financial assurance documents is timely and accurate
    d. Assure that closure plans are timely and accurate
    e. Assure the closure cost estimates are accurate and up-to-date
    f. Develop and implement a strategy for taking enforcement actions when financial responsibility requirements are violated.
    g. Increase Ecology staff assigned to review and maintain financial assurance documents.
    h. Develop a procedure for filing claims and collections procedures in the event of facility bankruptcy or abandonment
    i. Institute better controls and communication between Ecology programs, and Ecology/EPA when sites transition from one program or agency to another.

When
This option is resource dependent. As soon as resources are identified to allow shifting of more time and attention to financial responsibility requirements, this option may be initiated. It would make sense to develop enforcement strategies, communication procedures, and clarifications to procedures for reviewing pollution liability and closure/post-closure mechanisms prior to conducting training of staff.

Who
Again, most of the responsibility for conducting this option would be carried out by Ecology.

How Much
Option 3 would require resources in addition to current levels. It is estimated that approximately one FTE would be required as follows:

Supplement current FTE level by ½ FTE for Financial Assurance review and compliance.

½ FTE to develop and provide training, develop and implement claims and collection strategies, develop and improve communication within Ecology and with EPA.

Expected Results
This option would not address the problems identified through the Hazardous Waste Facilities Initiative. Namely, it leaves the public in the position of having to pay for bankrupt or abandoned facilities.

It would likely receive the greatest degree of support from the waste management industry and business because it places all of the responsibility and cost back on to Ecology.

4. **No New Resources - this option assumes that no new resources are made available to Ecology through the HW Facilities Initiative (i.e., fees or Toxic Account). Ecology is directed to make compliance with financial responsibility requirements a priority, but must address problems through shifts in existing resources.**

What

a. Revise financial responsibility rules to:
    - Eliminate insurance and financial test/corporate guarantee as mechanisms for closure/post-closure

b. Improve implementation
    - Develop and implement an enforcement strategy
    - Make sure that financial assurance is included in inspections at least once every year, or as dictated by minimum federal inspection requirements
    - Develop claims and collections procedures
    - Provide minimum training to financial review staff and compliance inspectors

When
This option also has a rule revision component, so the schedule is dependent upon the rule development and adoption process. However, because the rule changes are straightforward (but still controversial), it could be accomplished within one year to eighteen months.

Who
Ecology

How Much
Costs for rule development are estimated at ½ FTE. This would be off-set in the long run by savings from staff time not spent on reviewing complex insurance documents.

Expected Results
This option goes directly to the bottom line and has limited, but potentially positive results.

Financial assurance would remain limited to only those areas (units) addressed through hazardous waste permits. Recycling and used oil processing facilities would remain exempt from closure and financial responsibility requirements.

Financial responsibility requirements for TSDs would, however, be simpler and more straightforward for Ecology to oversee. Administrative costs would, therefore, be expected to be lower. Developing and implementing strategies and procedures for enforcement and claims/collections would also result in more effective responses to when facilities experience financial difficulties. The expected result would be improved environmental protection and reduced long term economic liability to tax payers and customers.

Costs to waste management facilities would increase as a result of this option because closure/post-closure mechanisms commonly used by medium and large facilities (insurance and financial test/corporate guarantee) would no longer be allowed.

Comparison of Options

In evaluating the options presented, it is useful to consider the **resources**, **certainty** and **flexibility** reflected by each. *Resources* include the Ecology resources needed to develop and implement the options as well as for facilities to comply with the requirements described for a particular option. *Certainty* is consideration of the option to result in resources being in place to pay for pollution liability and closure/post-closure throughout the life of a facility. *Flexibility* is reflects the level of choice and control that facility owners/operators have to select financial assurance mechanisms. These factors are used to compare each of the options in the table below.

Option	Resources	Certainty	Flexibility
1. Most Restrictive	High	High	Low
2. Ramp Up	High	Moderate	Moderate
3. Existing Authority	Moderate	Low	High
4. No New Resources	Low	Moderate	Low

Recommended Option

Option 2, **Ramp Up** is recommended as the the most prudent response to the problems identified. It results in improved assurance that finances will be made available by facilities, maintains a degree of choice and flexibility for facility owners/operators, and enhances Ecology's ability to evaluate compliance with new requirements.

Option 4, **No New** Resources is recommended if, indeed, no new resources are made available to address the problems identified with financial responsibility requirements for hazardous waste management facilities.

Availability and Affordability of Financial Responsibility Mechanisms

During Stakeholder Meetings in June, 2002, several facility owners and operators (especially for smaller operations) said they were concerned that liability insurance or other financial mechanisms were either not available for the size of their operations or too expensive for them to purchase while remaining a viable business. They asked for Ecology to consider actions by the State to make financial products, particularly insurance, available and affordable. The pollution liability insurance developed for underground storage tank owners and home heating oil tanks administered through the Washington Pollution Liability Insurance Agency (PLIA) was given as an example.

We have conducted an initial evaluation of the PLIA example and concluded that it is not feasible at this time for the following reasons:

- Several thousand tanks owners exist in Washington that provide the foundation (risk pool and rate payers) for the PLIA program.
- Fewer than 50 waste management companies currently exist in Washington.
- Risks posed by waste management facilities are different and likely higher than USTs or home heating oil tanks. Because of risk factors, waste management companies may be less desirable customers for insurance companies and often must pay higher premiums for the same level of coverage offered to other customers with lower risk factors.
- Resources for the PLIA program are based upon a trust fund that was supported through a tax on petroleum and home heating oil. A tax base currently exists but no support is anticipated for raising the existing hazardous substance tax to build a fund to help insure waste management companies.

We will continue to explore options for establishing affordable financial mechanisms for waste management companies. If sufficient demand exists, there may be opportunities to create funding mechanisms and develop a 'PLIA-like' program for waste management companies. There may also be opportunities at a multi-state or national level that can be explored under the leadership of EPA or organizations like the Association of State and Territorial Solid Waste Management Organization (ASTSWMO).