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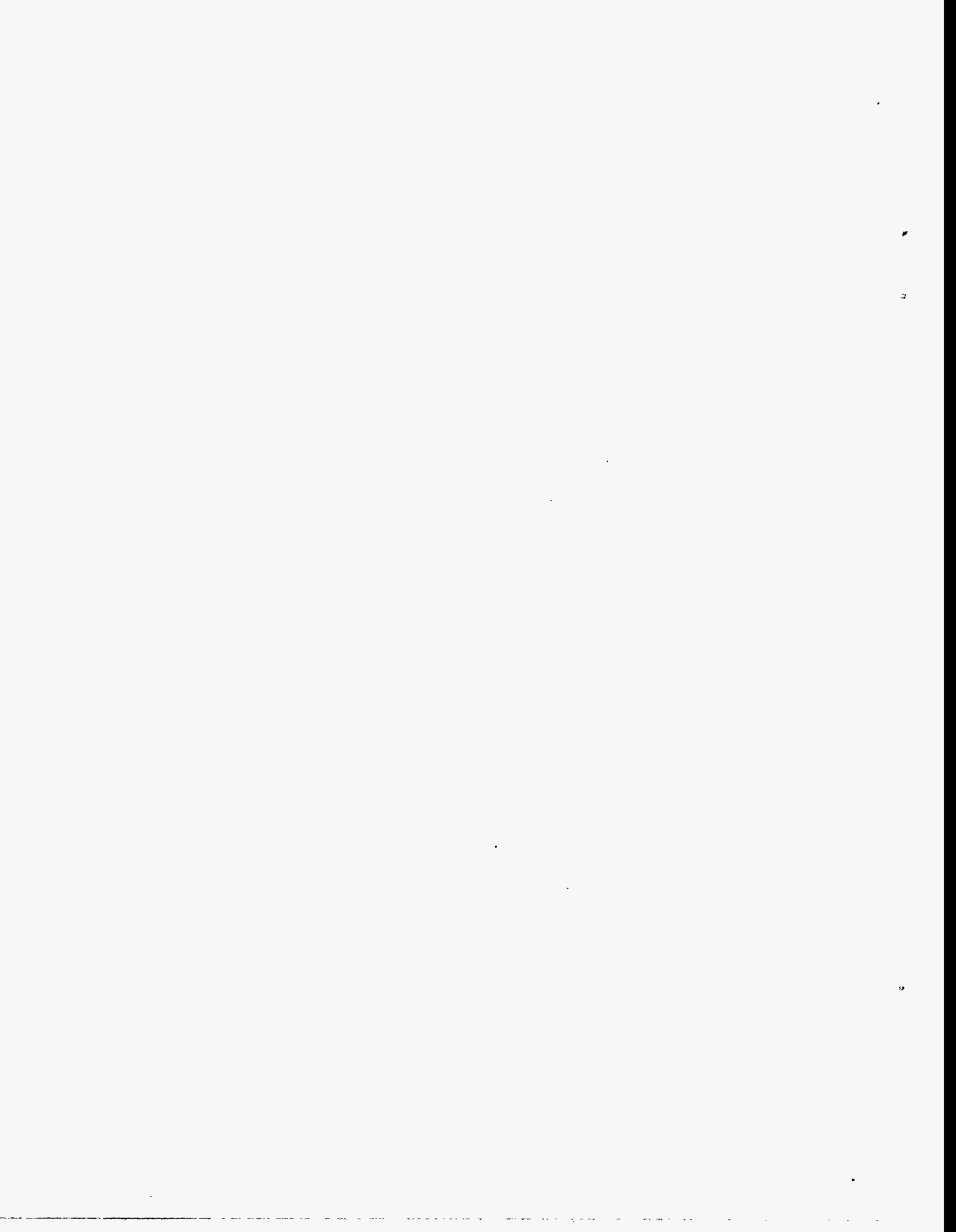
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**Summary of Treatment, Storage,
and Disposal Facility Usage Data
Collection from U.S. Department
of Energy Sites**

*Radioactive Waste
Technical Support Program*

April 1995

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DOE/LLW-222

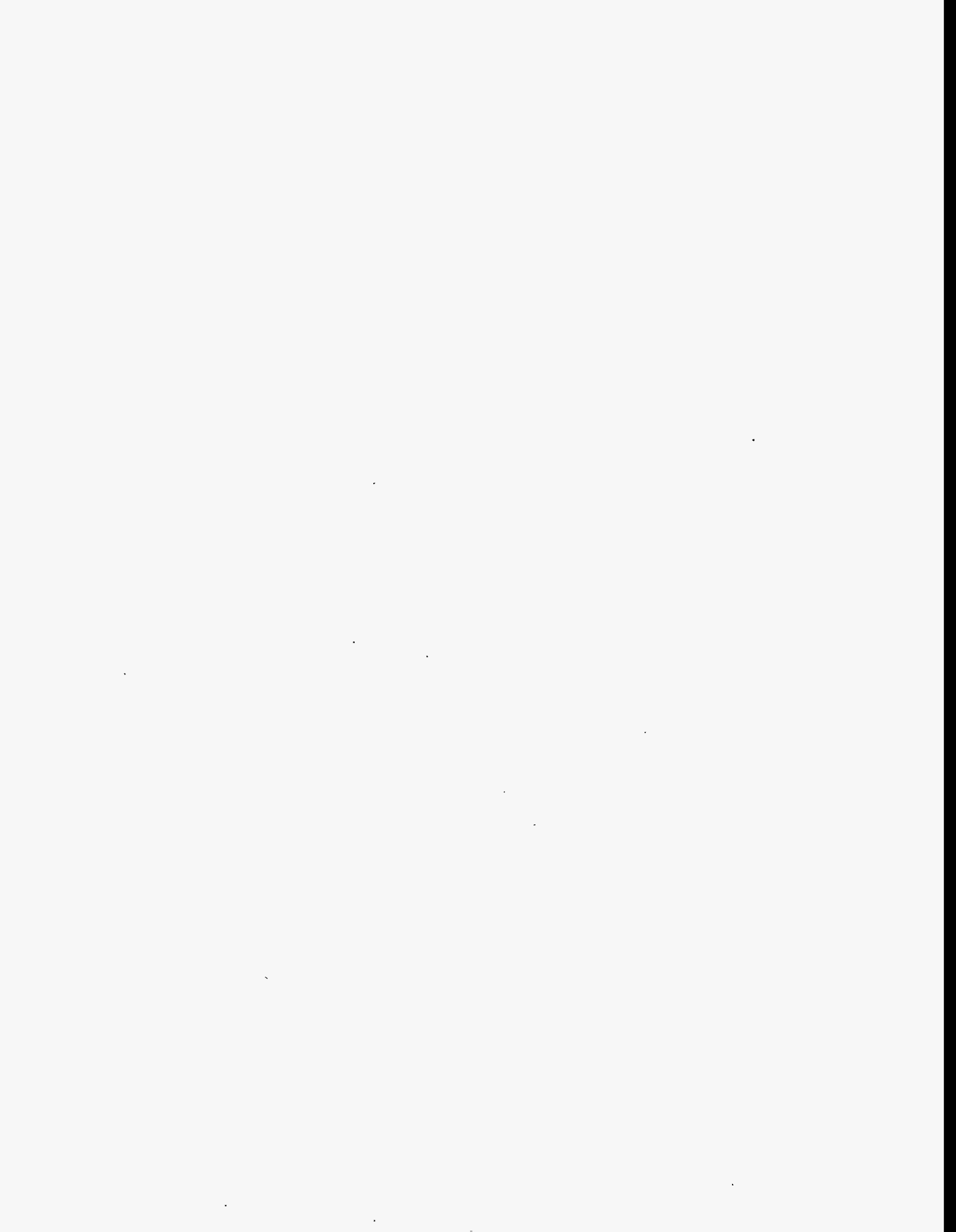
Summary of Treatment, Storage, and Disposal Facility Usage Data Collected from U.S. Department of Energy Sites

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April 1995

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ABSTRACT

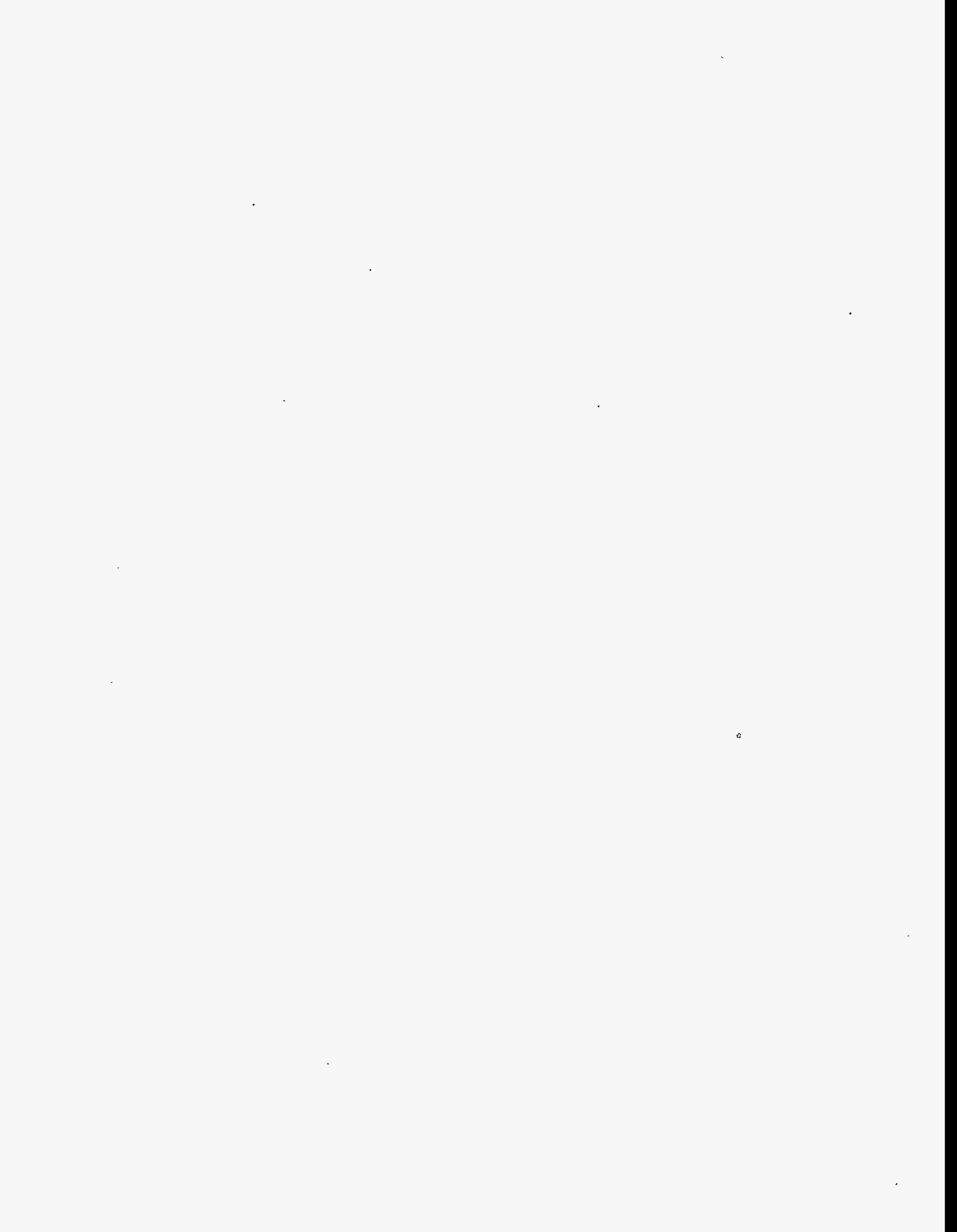
This report presents an analysis for the U.S. Department of Energy (DOE) to determine the level and extent of treatment, storage, and disposal facility (TSDF) assessment duplication. Commercial TSDFs are used as an integral part of the hazardous waste management process for those DOE sites that generate hazardous waste. Data regarding the DOE sites' usage have been extracted from three sets of data and analyzed in this report. The data are presented both qualitatively and quantitatively, as appropriate. This information provides the basis for further analysis of assessment duplication to be documented in issue papers as appropriate. Once the issues have been identified and adequately defined, corrective measures will be proposed and subsequently implemented.

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Summary of Treatment, Storage, and Disposal Facility Usage Data Collected from U.S. Department of Energy Sites

INTRODUCTION

Commercial treatment, storage, and disposal facilities (TSDFs) are used as an integral part of the hazardous waste management process for many U.S. Department of Energy (DOE) sites that generate hazardous waste. Information regarding the DOE sites' usage of these TSDFs has been organized into three data sets. This report compiles and analyzes the three data sets, which include the following:

- U.S. Department of Energy Headquarters (DOE-HQ) EM-332 data
- DOE Waste Management Operations Committee (WMOC) data
- Waste Manifest System (WMS) data.

Each data set is analyzed and presented in terms of individual TSDFs used by the sites in order to determine which TSDFs have duplicative usage. The duplication-of-use information is important because existing DOE orders and best management practices drive individual DOE sites to perform an environmental safety and health (ES&H) assessment of the TSDFs with which they subcontract.^a Because more than one DOE site may subcontract with the same TSDF, the potential for duplicating assessments exists. Therefore, data that show duplication of usage also represent the potential number of duplicated assessments performed by DOE complex wide. By analyzing and compiling the data in this manner, a cost-saving potential can be calculated based upon the elimination of the duplicated assessments. A summary of the raw data is located in Appendix A.

Two of the data sets, EM-332 and WMOC, contained cost information for performing TSDF assessments along with the site usage data. The third data set, WMS, does not include any cost information. However, the costs associated with performing these assessments reported in the data are inconsistent from site to site around the DOE complex since standard assessment criteria

a. 10 CFR 830 requires that procured items and services meet established requirements and perform as specified. Prospective suppliers must be evaluated and selected on the basis of specified criteria.

Department of Energy Acquisition Requirements (DEARS), 48 CFR 970, requires compliance with regulations promulgated by the U.S. Environmental Protection Agency (EPA), DOE, U.S. Department of Transportation (DOT), Executive Orders, etc.

DOE-HQ Order 5480.1B requires that contractors ensure that proposed subcontractors operate in compliance with ES&H regulations and requirements.

DOE-HQ Order 5482.1B requires that maintenance and operation (M&O) contractors ensure that all subcontractors operating under the M&O subcontract do so in accordance with ES&H regulations and requirements. This would include subcontractors to the prime M&O contractors.

have not been established. Therefore, baseline information on TSDF assessments was collected and used to determine an approximate cost for the WMS data duplications and future cost savings.

EM-332 DATA

The EM-332 Hazardous Waste Program Manager collected data regarding the use of TSDFs by DOE sites and the costs of conducting TSDF assessments from operations offices and provided the data to the Radioactive Waste Technical Support Program (TSP, Lockheed Idaho Technologies Company) for analysis. All DOE operations offices received a request from the DOE-HQ EM-332 Hazardous Waste Program Manager for information about TSDF usage for sites within their purview. Seven DOE operations offices responded with data from 11 sites. Approximately 33 sites could have responded.

A large amount of data received from the sites was incomplete, especially with regard to the costs associated with conducting TSDF assessments. The incomplete cost data could represent the difficulty the sites experienced in trying to estimate the costs of conducting assessments, or it could simply mean that assessments were not conducted. The reported costs of some TSDF assessments were extremely low. This raised doubts as to the adequacy of such assessments and the soundness of the acceptance criteria.

The average cost of assessments conducted by the reporting sites was \$7,558. This average considers only those values reported by the sites and does not include blank data. If the cost data were not provided by the site, it was assumed that an assessment was not conducted, for the purpose of calculating the average assessment cost. The 11 sites reported using 86 unique TSDFs via 142 separate subcontracts throughout the two-year period from the beginning of FY 1993 until the end of FY 1994. Twenty-eight of the reported contractual usages had no associated assessment costs reported. This was left blank, rather than being reported as zero.

The submitted data reveal the following information:

- A total of 86 unique TSDFs were used by the 11 reporting sites
- The total number of assessments conducted by the 11 reporting sites was 110 out of 142 TSDF subcontracts
- 58 TSDFs had only one DOE site subcontract
- 28 TSDFs had two or more DOE site subcontracts, for a total of 84 contracts
- Contractual usage duplication was 56^b

b. Total subcontracts (142) - number of unique TSDFs used (86) = 56 duplicated usages.

- Of the 28 TSDFs with multiple DOE usage, 76 assessments were conducted, 48^c of which were duplicated; out of the 84 contractual usages, 8 assessments were not conducted (i.e., no cost information was provided)
- 44%^d of TSDF assessments performed by the sites were duplicated.

The cost to perform an assessment should, at least, exceed \$1,500 when considering both travel cost and personnel time involved with performing an assessment and documenting the results. If assessments costing less than \$1,500 are considered not suitably effective in significantly reducing long-term liability, then the following conclusion may be drawn:

- The number of TSDF assessments performed by the sites at a cost of less than \$1,500 (10 assessments), and the number of TSDFs subcontracted by the sites but not assessed (32 TSDF subcontracts with no assessment) equals 42. Therefore, 30%^e of TSDFs are not suitably assessed by the sites.

An immediate cost savings of approximately \$360,000^f would result from eliminating the duplicate assessments currently being conducted by these 11 reporting sites. This savings could be expected over a two-year period, since that is the timeframe represented by the data.

The cost savings assumption can be taken one step further by projecting the duplication to those sites that did not report data. Taking this additional step is valid if data from sites that reported are representative of the whole (all sites), at least in the context of assessment cost and TSDF usage. Currently, no reason exists to draw conclusions to the contrary. Taking 33 as the total number of sites that could have reported and increasing the number of duplicate assessments proportionally yields a total of 144 duplicated assessments that would be performed by the 33 sites. The resulting potential cost savings would then be approximately \$1.09 million^g over a two-year period.

WMOC DATA

The DOE WMOC has also collected hazardous waste TSDF usage information from its member sites. Approximately 18 sites participate on the WMOC and were asked for specific data

c. Assessments (76) - TSDFs with multiple site subcontracts (28) = 48 duplicated assessments.

d. Number of duplicated assessments (48) ÷ total number of assessments (110) x 100 = 44% of TSDF assessments were duplicated.

e. Number of unsuitable assessments (42) ÷ total number of subcontracts (142) x 100 = 30% of TSDFs are not suitably assessed.

f. Number of duplicated assessments (48) x average assessment cost (\$7,558) = \$362,784 cost savings expected from elimination of duplicative assessments.

g. Number of projected duplicated assessments (144) x average assessment cost (\$7,558) = \$1.09 million cost savings expected through elimination of duplicative assessments.

relative to their hazardous waste TSDF usages. Information on TSDFs used by the member sites was collected. Fifteen of the 18 member sites responded. The information revealed the following:

- The 15 reporting WMOC sites used 153 unique TSDFs. No time period was specified relative to the reported data.
- The 15 sites reported 272 contractual usages of the 153 TSDFs.
- Duplicate use occurred in 119^h out of 272 usages by the 15 reporting WMOC sites. 44%ⁱ of potential assessments were duplicate assessments.

If the collected WMOC data are representative of 33 DOE sites, then the following projections can be made:

- The number of TSDFs projected to be used by all 33 sites is 337^j
- The number of duplicated contractual usages associated with using 337 TSDFs is 263.^k

Cost information for assessments being conducted by the WMOC sites that reported indicates that assessments budgeted and scheduled will cost \$1,141,720 for 96 contractual usages.

- This reduces to an average assessment cost of \$11,893 per assessment^l of a TSDF
- 35%^m of TSDF contractual usages receive an assessment; 65% do not.

Duplicate use becomes important when considering the potential for duplicated assessments, since each TSDF usage in this case represents the possibility that an assessment was conducted in accordance with the requirements to ensure that ES&H goals and objectives are being met by subcontractors. To perform cost calculations beyond this point, it is necessary to assume a cost

h. Total number of subcontracts (272) - total number of unique TSDFs (153) = 119 duplicated usages.

i. Number duplicated (119) + total number of subcontracts (272) x 100 = 44% of assessments were duplicated.

j. Number of TSDFs (153) + number of WMOC sites (15) = x + total number of DOE sites (33);
x = 337 TSDFs used by 33 sites.

k. The number of duplicated TSDF contractual usages out of a field of 153 is 119. The duplicated usage potential is therefore equal to $119 + 153 = 0.78$, and 337 (number of TSDFs used) x 0.78 (duplicated usage potential) = 263 duplicated usages.

l. Total cost of assessments (\$1,141,720) + number of assessments (96) = \$11,893 per assessment conducted.

m. Number of TSDFs assessed (96) + total number of TSDF subcontracts (272) x 100 = 35% of contractual usages receive an assessment.

value for performing TSDf assessments. The WMOC data indicate an average of \$11,893 to perform a TSDf assessment. If an assessment were conducted for each TSDf usage, then the additional cost to perform duplicate assessments would be calculated as equal to \$3.1 million.ⁿ Therefore, by eliminating duplicate assessments, approximately \$3.1 million could be saved. It is not known over what time period this would occur, since the usage data have no specified time boundaries.

DERIVING COST DATA FOR PERFORMING TSDf ASSESSMENTS

Deriving cost data to calculate cost savings must be performed and interpreted within the proper context. Spending on TSDf assessments varies from site to site around the DOE complex, largely as a result of the lack of specified assessment criteria. Currently, there is no way of measuring the adequacy of the assessments being performed, because there is a lack of established complex-wide assessment criteria. As sites perform assessments to differing criteria, it is expected that the associated costs will differ.

Baseline information about assessment protocols does exist. The Idaho National Engineering Laboratory (INEL) is the lead laboratory for a consortium involved with consolidated assessment/contracting for TSDf use at DOE sites with an EG&G, Inc., subsidiary as the M&O contractor. As a result of the focused purpose and clear understanding of the assessment effort, the consolidated effort performs the most comprehensive assessment approach currently used anywhere in the DOE waste management system. The cost for TSDf assessments performed by this approach is approximately \$53,000 per TSDf annual assessment. The average of \$53,000 is derived from the INEL work package document that details the steps and associated resources required to complete the assessment scope of work for the consortium. The INEL technical lead project manager assigned to the effort developed the work package. Assessment preparation time and required participant training are included as part of the TSDf assessment cost.

The cost is equally divided among the INEL-led consortium participants. If the number of participants were to increase as a result of expanding the effort to 33 DOE sites, then the cost to each site would be approximately \$1,619/site.^o This is 79% less to perform consolidated TSDf assessments when compared to the average assessment cost of \$7,558 presented in the EM-332 data section, and 86% less when compared to the WMOC average of \$11,893 per assessment.

TSDf assessment protocols were established by the INEL-led consortium for conducting the TSDf consolidated assessments in order that consolidated hazardous waste disposal subcontracts could be put into place. Consortium members conduct assessments to ensure that potential TSDf subcontractors are meeting ES&H goals and objectives before awarding a subcontract. It is therefore prudent to base costs associated with TSDf assessments upon this already established baseline.

n. Number of projected duplicated assessments (263) x average WMOC audit cost (\$11,893) = \$3.1 million to perform duplicated assessments.

o. Average consortium TSDf assessment cost (\$53,416) ÷ number of sites (33) = \$1,619/site.

Sites that did not provide assessment cost information for particular TSDFs are most likely not performing an assessment. Additionally, cost data from some sites indicated that an extremely low amount had been spent performing some assessments. This may indicate that the criteria to which the assessment were conducted were less stringent than those of the consortium. A review of assessment criteria provided by some of the reporting sites confirms this suspicion.

A reduction in the number of TSDF usages may be expected from a consolidated assessment approach for two reasons. First, the duplicate usage is eliminated along with the need to conduct multiple assessments on a single TSDF. Second, the actual number of TSDFs used by the complex will decrease. Before implementing a consolidated approach to assessments, a complex-wide TSDF needs analysis will be performed to determine the complex's hazardous waste TSDF needs. This is the approach that was taken by the INEL-led consortium. Before joint assessments/contracting occurred, it was first necessary to determine the participants' needs relative to hazardous waste treatment, storage, and disposal. The result was an overall reduction in the number of TSDFs the consolidated participants used over what they had been using individually. Reducing this difference through implementation of a consolidated approach will result in additional cost savings since the number of TSDFs requiring assessments will subsequently decrease. The exact number of TSDFs that would be required to meet the complex's needs is not known, since a needs analysis has not yet been performed. If, however, the number of TSDFs used by the DOE complex were reduced by 50, the cost savings from a reduction in the number of assessments required would be \$377,900^p; a reduction of 100 would amount to a savings of \$755,800. The timeframe during which these savings would be realized would parallel the assessment periodicity.

WMS DATA AND THE CONSOLIDATED (INEL) EFFORT

Data extracted from the WMS were also analyzed. The WMS is a subset of the data contained within the SMAC data system. Science Applications International Corporation (SAIC) maintains and operates the SMAC system for the DOE, Transportation Management Division (EM-261) under subcontract to Martin Marietta Energy Systems in Oak Ridge, Tennessee. The hazardous waste information contained in SMAC is based on the Uniform Hazardous Waste Shipping Manifests submitted to SAIC by each site. These manifests provide details regarding the date of shipment, the generator, and the specific TSDF taking custody of each individual shipment of waste. Data detailing DOE hazardous waste shipments from CY 1992 through CY 1994 were included in the analysis. From this information, a comprehensive TSDF use profile has been constructed to determine the number of unique TSDFs used by the complex per calendar year, the total number of TSDF subcontracts by each site per calendar year, and the number of duplicative contractual usages per calendar year.

Since the WMS data do not include costs for performing TSDF assessments, these costs had to be estimated. In order for sites to ensure compliance to ES&H requirements by TSDF subcontractors, it is prudent for them to conduct assessments to the level of rigor performed by the INEL-led consortium. Therefore, it is prudent to base the cost of assessments performed by

p. Reduction in number of TSDFs (50) x average EM-332 data assessment cost (\$7,558) = \$377,900 saved.

the sites, and subsequent cost savings potential, on this established baseline. Further cost savings analysis related to the WMS data employs this approach.

The roll-up of the WMS data is presented in Table 1 and reveals the following information relative to TSDF usage for three years from CY 1992 through 1994 for a total of 39 DOE sites.

Assuming that the cost of compliance with ES&H orders, policies, and guidelines will require resources of \$53,416/TSDF assessment, the WMS data lead to the following conclusions and potential savings:

- 50%^q of TSDF subcontracts are duplicated
- If the duplicate assessments are eliminated through a consolidated assessment program, the cost savings would be approximately \$7.1 million^r per calendar year
- If a consolidated TSDF subcontracting program is implemented, the total number of TSDFs required to meet the complex's needs drops considerably. If the total number of TSDFs required is 15, then the cost savings would be approximately \$6.3 million^s per calendar year
- Total cost savings expected from implementing a consolidated assessment and subcontracting program is \$13.4 million (\$7.1 million + \$6.3 million) per calendar year.

Table 1. Roll-up of WMS data.

Calendar year	TSDF subcontracts	Unique TSDFs used	Usage duplication
1992	238	128	110
1993	265	131	134
1994	261	124	137
	255 = Avg. TSDF subcontracts	128 = Avg. unique TSDFs	127 = Avg. TSDF duplication

q. Average TSDF duplication (127) ÷ average number of TSDF contracts (255) x 100 = 50% of TSDF contracts are duplicated.

r. Average TSDF duplication (127) x average consolidated assessment cost (\$53,416) = 7.1 million savings per calendar year.

s. Average consortium assessment cost (\$53,416) x [average number of unique TSDFs (128) - total number of TSDFs required (15)] = \$6.3 million savings per year.

CONCLUSION

It was the intention of those preparing this data report to present and analyze the data in an objective fashion allowing the data to speak for itself. Numerous conclusions could be reached using the data. From the start, it was the preparer's intention to focus on the duplication of TSDF usages in order to gain a perspective on the potential number of duplicative TSDF assessments being performed throughout the DOE complex. In order to place the duplication in perspective, associated assessment cost information was used, when available, to derive potential cost savings amounts for different possible scenarios.

The WMS data in this report are the best set in terms of ability to represent the TSDF duplication profile across the complex. This is because the data include all hazardous waste shipments to TSDFs by the sites broken down by calendar year. For this reason, formulation of options and recommendation relative to reducing the duplicate TSDF use should be based upon the WMS data set. Options for reducing the duplicate TSDF use will be presented in a separate issue report as appropriate.

Appendix A

Raw Data from EM-332, WMOC, and WMS (SMAC)

Appendix A

Raw Data from EM-332, WMOC, and WMS (SMAC)

SITE ACRONYM DEFINITIONS

DOE Site	Noun Name
ANL-E	Argonne National Laboratory East
BNL	Brookhaven National Laboratory
INEL	Idaho National Engineering Laboratory
KCP	Kansas City Plant
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
MOUND	Mound
ORO	Oak Ridge (Y12, X10, K25)
Pinellas	Pinellas
REECO	Reynolds Electric Engineering Company
RFETS	Rocky Flats
RLO	Richland Operations
SNLA	Sandia National Laboratory Albuquerque
SNLL	Sandia National Laboratory Livermore
SRS	Savannah River Site

EM 332 Data sort by site

DOE Site	TSDF EPA ID#	Audit Cost	
EGG-EM	ALD000622464	13900	TSP collected data sorted by site.
EGG-EM	CAD097854541	13900	
EGG-EM	CAT000646117	13900	
EGG-EM	CAT080010101	13900	
EGG-EM	COD980591184	13900	
EGG-EM	ILD098642424	13900	
EGG-EM	KSD980633259	13900	
EGG-EM	PAD002390961	13900	
EGG-EM	PAD087561015	13900	
EGG-EM	TXD055141378	13900	
INEL	ALD000622464	8462	
INEL	AZT050010685	8000	
INEL	CAD050806850	7146	
INEL	CAD097854541	7146	
INEL	CAT000646117	8577	
INEL	CAT080010101	7498	
INEL	COD980591184	7515	
INEL	ID4890008952		
INEL	ILD098642424	8462	
INEL	KSD980633259	7515	
INEL	KSD981506025		
INEL	LAD010395127	7657	
INEL	NJD053288239	7075	
INEL	NMD097970065	8000	
INEL	ORD009020231	7339	
INEL	ORD089452353	7724	
INEL	PAD002390961	7075	
INEL	PAD087561015	7513	
INEL	TXD055141378	7657	
INEL	UTD982589459		
INEL	UTD982598898	8208	
LBL	CAT000646117	2350	
LBL	CAT080014079	220	
LBL	CAT080033681	2350	
LBL	SCD044442333	5600	
LLNL	ARD069748192		
LLNL	AZD009015389		
LLNL	AZD982465866		
LLNL	CAD000613968		
LLNL	CAD000628149		
LLNL	CAD000633164		
LLNL	CAD009452657	9500	
LLNL	CAD009466392		
LLNL	CAD043260702		
LLNL	CAD050806850		
LLNL	CAD053044053		
LLNL	CAD059494310	10500	
LLNL	CAD083166728		
LLNL	CAD087210399		
LLNL	CAD097030993		

EM 332 Data sort by site

LLNL	CAD980675276		
LLNL	CAD980883177		
LLNL	CAD980887418		
LLNL	CAD982042475		
LLNL	CAD990794133		
LLNL	CAL000027741		
LLNL	CAT000613968		
LLNL	KSD981506025		
LLNL	LAD981055791		
LLNL	NCD000648451		
LLNL	NVD980895338		
LLNL	NYD048148175	12800	
LLNL	PAD087561015	12800	
LLNL	PAD981939846		
LLNL	TND000645770		
LLNL	TXD055141378	11600	
LLNL	TXD982560294		
LLNL	UTD981552177		
LLNL	UTD991301748		
ORO	ALD046481032	10500	
ORO	CEMENT KILN	9500	
ORO	KSD981506025	10500	
ORO	KY-SLP-038.19	9600	
ORO	KY-SLP-042.07	9600	
ORO	LAD010395127	10500	
ORO	Lasor Recycle	8500	
ORO	Nucycle Recycle	8500	
ORO	NVT330010000	10500	
ORO	NYD986980233	10500	
ORO	OH 05-00-06	9600	
ORO	OH 66-00-03	9600	
ORO	OHD053576294	9600	
ORO	OHD053576294	10500	
ORO	OHD981100969	9600	
ORO	OHOIP004227*AD	9600	
ORO	OKD065438376	9600	
ORO	RD&D PERMIT	10500	
ORO	AZD983473539	10500	
ORO	TND34692632	9500	
ORO	TND932157570	15500	
ORO	TND982109142	8500	
ORO	TNOSNL011030160	10500	
ORO	TXD055141378	10500	
ORO	WVD988770673	9600	
ORO	WVD988770673	9600	
REECO	CAD050806850	2754	
REECO	LAD010395127	3118	
REECO	TXD055141378	3042	
RFETS	ALD000622464	4395	
RFETS	AZT050010685	4395	
RFETS	CAD050806850	4395	

EM 332 Data sort by site

RFETS	CAD097854541	4395	
RFETS	CAT000646117	4395	
RFETS	CAT080010101	4395	
RFETS	COD980591184	4395	
RFETS	ILD098642424	4395	
RFETS	KSD980633259	4395	
RFETS	KSD981506025	20800	
RFETS	LAD010395127	4395	
RFETS	NJD053288239	4395	
RFETS	NMD097970065	4395	
RFETS	ORD009020231	4395	
RFETS	ORD089452353	4395	
RFETS	PAD002390961	4395	
RFETS	PAD087561015	4395	
RFETS	TXD055141387	4395	
RFETS	UTD982589459	4395	
RLO	MAD001020775	8300	
RLO	PAD980707087	9400	
RLO	UTD991301748	6500	
RLO	WAD092300250	4300	
RLO	WAD980978746	600	
SLAC	CAD009452657	587	
SLAC	CAD059494310	708	
SLAC	CAD063000038	1438	
SLAC	CAD097030993	1702	
SLAC	CAD980675276	1195	
SLAC	CAT000646117	1195	
SLAC	SCD044442333	4843	
SLAC	UTD981552177	1083	
SLAC	UTD982595795	1083	
SLAC	UTD991301748	1083	
SRS	ALD000622464	7702	
SRS	CWM National Lab	4752	
SRS	ILD098642424	7374	
SRS	LAD000777201	5755	
SRS	LAD010395127	7421	
SRS	NJD053288239	9352	
SRS	PAD087561015	5472	
SRS	TND982109142	6744	
SRS	TXD000838896	5755	
SRS	TXD055141378	11933	
Total = 142	AVERAGE COST =	7558	

EM 332 Data sort by EPA ID#

DOE Site	TSDF EPA ID#	Audit Cost	
EGG-EM	ALD000622464	13900	TSP collected data sorted by EPA TSDF ID number.
INEL	ALD000622464	8462	
RFETS	ALD000622464	4395	
SRS	ALD000622464	7702	
ORO	ALD046481032	10500	
LLNL	ARD069748192		
LLNL	AZD009015389		
LLNL	AZD982465866		
INEL	AZT050010685	8000	
RFETS	AZT050010685	4395	
LLNL	CAD000613968		
LLNL	CAD000628149		
LLNL	CAD000633164		
LLNL	CAD009452657	9500	
SLAC	CAD009452657	587	
LLNL	CAD009466392		
LLNL	CAD043260702		
INEL	CAD050806850	7146	
LLNL	CAD050806850		
REECO	CAD050806850	2754	
RFETS	CAD050806850	4395	
LLNL	CAD053044053		
LLNL	CAD059494310	10500	
SLAC	CAD059494310	708	
SLAC	CAD063000038	1438	
LLNL	CAD083166728		
LLNL	CAD087210399		
LLNL	CAD097030993		
SLAC	CAD097030993	1702	
EGG-EM	CAD097854541	13900	
INEL	CAD097854541	7146	
RFETS	CAD097854541	4395	
LLNL	CAD980675276		
SLAC	CAD980675276	1195	
LLNL	CAD980883177		
LLNL	CAD980887418		
LLNL	CAD982042475		
LLNL	CAD990794133		
LLNL	CAL000027741		
LLNL	CAT000613968		
EGG-EM	CAT000646117	13900	
INEL	CAT000646117	8577	
LBL	CAT000646117	2350	
RFETS	CAT000646117	4395	
SLAC	CAT000646117	1195	
EGG-EM	CAT080010101	13900	
INEL	CAT080010101	7498	
RFETS	CAT080010101	4395	
LBL	CAT080014079	220	
LBL	CAT080033681	2350	

EM 332 Data sort by EPA ID#

DOE Site	TSDF EPA ID#	Audit Cost		
ORO	CEMENT KILN	9500		
EGG-EM	COD980591184	13900		
INEL	COD980591184	7515		
RFETS	COD980591184	4395		
SRS	CWM National Lab	4752		
INEL	ID4890008952			
EGG-EM	ILD098642424	13900		
INEL	ILD098642424	8462		
RFETS	ILD098642424	4395		
SRS	ILD098642424	7374		
EGG-EM	KSD980633259	13900		
INEL	KSD980633259	7515		
RFETS	KSD980633259	4395		
INEL	KSD981506025			
LLNL	KSD981506025			
ORO	KSD981506025	10500		
RFETS	KSD981506025	20800		
ORO	KY-SLP-038.19	9600		
ORO	KY-SLP-042.07	9600		
SRS	LAD000777201	5755		
INEL	LAD010395127	7657		
REECO	LAD010395127	3118		
RFETS	LAD010395127	4395		
ORO	LAD010395127	10500		
SRS	LAD010395127	7421		
LLNL	LAD981055791			
ORO	Lasor Recycle	8500		
RLO	MAD001020775	8300		
LLNL	NCD000648451			
INEL	NJD053288239	7075		
RFETS	NJD053288239	4395		
SRS	NJD053288239	9352		
INEL	NMD097970065	8000		
RFETS	NMD097970065	4395		
ORO	Nucycle Recycle	8500		
LLNL	NVD980895338			
ORO	NVT330010000	10500		
LLNL	NYD048148175	12800		
ORO	NYD986980233	10500		
ORO	OH 05-00-06	9600		
ORO	OH 66-00-03	9600		
ORO	OHD053576294	9600		
ORO	OHD053576294	10500		
ORO	OHD981100969	9600		
ORO	OHOIP004227*AD	9600		
ORO	OKD065438376	9600		
INEL	ORD009020231	7339		
RFETS	ORD009020231	4395		
INEL	ORD089452353	7724		
RFETS	ORD089452353	4395		

EM 332 Data sort by EPA ID#

DOE Site	TSDF EPA ID#	Audit Cost		
EGG-EM	PAD002390961	13900		
INEL	PAD002390961	7075		
RFETS	PAD002390961	4395		
EGG-EM	PAD087561015	13900		
INEL	PAD087561015	7513		
LLNL	PAD087561015	12800		
RFETS	PAD087561015	4395		
SRS	PAD087561015	5472		
RLO	PAD980707087	9400		
LLNL	PAD981939846			
ORO	RD&D PERMIT	10500		
ORO	SALESCO	10500		
LBL	SCD044442333	5600		
SLAC	SCD044442333	4843		
LLNL	TND000645770			
ORO	TND34692632	9500		
ORO	TND932157570	15500		
ORO	TND982109142	8500		
SRS	TND982109142	6744		
ORO	TNOSNL011030160	10500		
SRS	TXD000838896	5755		
EGG-EM	TXD055141378	13900		
INEL	TXD055141378	7657		
LLNL	TXD055141378	11600		
REECO	TXD055141378	3042		
ORO	TXD055141378	10500		
SRS	TXD055141378	11933		
RFETS	TXD055141387	4395		
LLNL	TXD982560294			
LLNL	UTD981552177			
SLAC	UTD981552177	1083		
INEL	UTD982589459			
RFETS	UTD982589459	4395		
SLAC	UTD982595795	1083		
INEL	UTD982598898	8208		
LLNL	UTD991301748			
SLAC	UTD991301748	1083		
RLO	UTD991301748	6500		
RLO	WAD092300250	4300		
RLO	WAD980978746	600		
ORO	WVD988770673	9600		
ORO	WVD988770673	9600		
	AVERAGE COST =	7558		

WASTE MANAGEMENT OPERATIONS COMMITTEE

DISPOSAL CONTRACTORS		AlliedSignal, Inc.	Argonne National Lab	Battelle - Pantex	Brookhaven National Lab	RECO-NTS	Lockheed	EG&G Mound Applied Tech	Rocky Flats Environmental Tech Site	Lawrence Livermore National Lab	Los Alamos National Lab	Martin Marietta Energy Systems, Oak Ridge, TN	Martin Marietta Specialty Components	Sandia National Laboratories, Albuquerque, NM	Sandia National Labs, Livermore, CA	Westinghouse Electric Corp	Westinghouse Handford Co	Westinghouse Savannah River Company	Westinghouse W. Valley Nuclear Ser. Co	Totals
Academy Corp Albuquerque, NM							X													1
Advance Env Recycling Corp Allentown, PA				X																1
Allied Technology Group, Fremont, CA							X				X									1
Allied Precious Metals Tucson, AZ							X													1
APTEC Chula Vista, CA							X	X												2
Appropriate Technologies Corp						X														1
Aptus Coffeyville, KS		X					X	X			X	X			X					7
Aptus Aragonite, UT															X					1
Aptus Clive, UT									X											1
Aptus Murray, UT																				1
Aptus Inc Lakeview, MN			X																	1
Ash Grove Cement Inkom, ID							X													1
Athens-Hocking Landfill, Nelsonville, OH									X			X			X					2
B & J Landfill Vacaville, CA										X										1
B & J Landfill Hickman, KY												X								1
Battery Disposal & Tech. Clarence, NY			X																	4
BDT Inc Clarence, NY												X	X		X					7
Bethlehem Apparatus Co Inc Hellertown, PA		X					X	X	X						X					1
BFI																				1
Boliden Metech Galroy, CA		X																		1
Broco Environmental Rialto, CA										X					X					2
Burlington Environmental Inc, Washougal, WA											X						X			1
Butterfield Station Maricopa City, AZ												X			X					1
California Asbestos Monofill Cepperopolis, CA																	X			1
Chemical Processors Inc, Washougal, WA		X			X		X	X												5
Chemical Waste Management Emelle, AL				X				X	X								X			3
Chemical Waste Mgmt of the NW Arlington, OR								X	X									X		7
Chemical Waste Management Saugel, IL		X					X	X	X											3
Chemical Waste Management Henderson, CO							X													5
Chemical Waste Management Kettleman City, CA.							X	X				X								1
Chemical Waste Management Lake Charles, LA												X								1
Chemical Waste Port Arthur, TX								X	X											2

WASTE MANAGEMENT OPERATIONS COMMITTEE

DISPOSAL CONTRACTORS

	AlliedSignal, Inc.	Argonne National Lab	Battelle - Pantex	Brookhaven National Lab	REECO-NTS	Lockheed	EG&G Mound Applied Tech	Rocky Flats Environmental Tech Site	Lawrence Livermore National Lab	Los Alamos National Lab	Martin Marietta Energy Systems, Oak Ridge, TN	Martin Marietta Specialty Components	Sandia National Laboratories, Albuquerque, NM	Sandia National Labs, Livermore, CA	Westinghouse Electric Corp	Westinghouse Handford Co	Westinghouse Savannah River Company	Westinghouse W. Valley Nuclear Ser. Co	Totals
Chemwaste Modelcity, NY				X															1
Chemwaste Newark, NJ				X															1
Chestnut Ridge Landfill Holskell, TN											X								1
Container Management Service Hayward, CA													X						1
Crosby and Overton, Kent, WA															X				1
Cowboy Oil Ocatello, ID						X													1
CWM Chemical Services Chicago, IL															X				1
Custom Environmental Transport, DE													X						1
Custom Environmental Transport Deer Park, TX	X																		1
Cyanokam Detroit, MI												X							1
Dixie Barrel, Knoxville, TN											X								1
Diversified Scintific Services Kingston, TN															X				1
Draw Resources Corp													X						1
DSSI Kingston, TX						X			X	X									3
Eastern Smelting, Lynn, MA															X				1
Englehard Industries West Inc Anaheim, CA	X												X						2
ENSCO (AR) Little Rock, AR												X							1
ENSCO EL Dorado, AR	X	X		X				X				X	X				X		7
ENSCO West, INC. Wilmington, CA								X											1
ENSR, Canton, OH											X								1
ENCOTEC, Inc - Lab, Ann Arbor, MI																	X		1
EPS, Wheeling, W. VA											X								1
Envirocare of Utah Clive, UT	X					X	X												3
Environmental, Beaver Falls, PA																	X		1
Environmental Transport in Ser OK City, OK	X																		1
Essex Waste Management Kingville, MO	X																		1
Eticam, Fernley, NV										X			X						2
Envirosafe Services Grandview, ID	X																		1
Envirosafe Boise, ID													X						1
Erickson, Richmond, CA								X					X						2
Evergreen Environmental Services													X						1
Evergreen Oil Inc												X	X						2

WASTE MANAGEMENT OPERATIONS COMMITTEE

DISPOSAL CONTRACTORS		AlliedSignal, Inc.	Argonne National Lab	Battelle - Pantex	Brookhaven National Lab	REECo-NTS	Lockheed	EG&G Mound Applied Tech	Rocky Flats Environmental Tech Site	Lawrence Livermore National Lab	Los Alamos National Lab	Martin Marietta Energy Systems, Oak Ridge, TN	Martin Marietta Specialty Components	Sandia National Laboratories, Albuquerque, NM	Sandia National Labs, Livermore, CA	Westinghouse Electric Corp	Westinghouse Handford Co	Westinghouse Savannah River Company	Westinghouse W. Valley Nuclear Ser. Co	Totals
Exide Reading, PA		X																		1
Forward Inc Manteca, CA															X					1
Fulcircle Ballast, Bronx, NY												X								1
Gould National Battery (GNB) Hellertown, PA									X											2
Gibson Environmental Redwood City, CA														X	X					1
Gibson Environmental Bakersfield, CA														X						1
GNB Inc Los Angeles, CA						X	X													1
Graves County Landfill, Mayfield, KY												X								1
Hallmakr Metals, Inc, Mount Vernon, WA																X				1
Hazmat Environmental Group Inc														X						1
Highway 36 Last Chance, CO									X											1
IES Oakland, CA														X						1
ImmetCo Ellwood City, PA		X					X				X	X	X	X				X		8
INT. Metals Reclamation Co Inc Ellwood City, PA.						X					X			X						1
Kinsbursky Bros Los Angeles, CA											X			X						2
Laidlaw Environmental Burtonwillow, CA															X					1
Laidlaw Environmental Clearwater, FL													X							1
Laidlaw Environmental Bartow, FL													X							1
Laidlaw Environmental Crowley, LA			X										X							1
Laidlaw Environmental Antioch, TN													X							1
Laidlaw Environmental Greenbriar, TN										X			X							2
Laidlaw Environmental OSCO Nashville, TN													X							1
Laidlaw Environmental Pecatonica, IL			X																	1
Laidlaw Environmental Pinewood, SC			X		X								X							3
Laidlaw Environmental Roebuck, SC			X										X							2
Laidlaw Environmental Reidsville, NC										X			X							3
Laidlaw Environmental Services Clearwater, FL								X					X							2
Laidlaw Environmental Westmoreland, CA									X					X						2
Kurt J. Lesker Co Pittsburgh, PA										X				X						1
M. P. Environmental														X						1
MG Industries Morrisville, PA											X									1
Mercury Refining Corp Latham, NY														X						1

WASTE MANAGEMENT OPERATIONS COMMITTEE

DISPOSAL CONTRACTORS

	AlliedSignal, Inc.	Argonne National Lab	Battelle - Pantex	Brookhaven National Lab	REECO-NTS	Lockheed	EG&G Mound Applied Tech	Rocky Flats Environmental Tech Site	Lawrence Livermore National Lab	Los Alamos National Lab	Martin Marietta Energy Systems, Oak Ridge, TN	Martin Marietta Specialty Components	Sandia National Laboratories, Albuquerque, NM	Sandia National Labs, Livermore, CA	Westinghouse Electric Corp	Westinghouse Handford Co	Westinghouse Savannah River Company	Westinghouse W. Valley Nuclear Ser. Co	Totals
Mercury Technologies Hayward, CA													X						1
Norris Industries Inc													X						1
NSSI Recovery Services Houston, TX		X											X	X					3
Nucycle Technologies, Knoxville, TN											X								1
NW Enviroservice Inc Seattle, WA																X			1
Oil & Solvent Process Co Henderson, CO							X		X										2
OSCO Treatment Systems Nashville, TN		X					X												2
Perma Fix													X						1
Peoria Disposal Co Peoria, IL	X																		1
Pike Sanitation Waverly, OH											X								1
Pinnacle						X													1
Preferred Reduction Services						X													1
Quadrex													X						1
R&D Fabricators Colfax, LA													X						1
Recyclights Minn, MN												X							1
Rollins Bethlehem, PA				X															1
Rollins - CET						X													1
Rollins Envir Services Baton Rouge, LA	X		X	X	X	X	X	X	X		X	X	X	X			X		9
Rollins Envir Services Bridgeport, NJ	X		X	X	X	X	X										X		6
Rollins Envir Services Deer Park, TX	X		X	X	X	X	X	X	X			X	X	X	X	X	X		11
Rollins Envir Services Los Angeles, CA					X														1
Rollins OPC Los Angeles, CA	X					X	X	X	X		X		X						6
Romic Env Tech Corp East Palo Alto, CA								X					X						2
Romic Chemical Corp Chandler, AZ													X						1
Ross Incineration (OH) Grafton, OH												X							1
S. D. Meyers AZ						X							X						2
S. D. Meyers Tallmadge, OH											X		X						2
Safety-Kleen Corp Pasco, WA						X									X				2
Safety-Kleen East Chicago, IN													X						1
Safety-Kleen Oakland, CA													X						1
Safety-Kleen Corp Salida, CA													X						1
Salesco Phoenix AZ										X	X		X						3

WASTE MANAGEMENT OPERATIONS COMMITTEE

DISPOSAL CONTRACTORS	AlliedSignal, Inc.	Argonne National Lab	Battelle - Pantex	Brookhaven National Lab	REECO-NTS	Lockheed	EG&G Mound Applied Tech	Rocky Flats Environmental Tech Site	Lawrence Livermore National Lab	Los Alamos National Lab	Martin Marietta Energy Systems, Oak Ridge, TN	Martin Marietta Specialty Components	Sandia National Laboratories, Albuquerque, NM	Sandia National Labs, Livermore, CA	Westinghouse Electric Corp	Westinghouse Handford Co	Westinghouse Savannah River Company	Westinghouse W. Valley Nuclear Ser. Co	Totals
Sanders Lead Tory, AL											X								1
Sands Hill Coal Company Wellston, OH											X								1
Scientific Ecology Group Kingston, TN											X					X			2
Signal Mountain Cement, Hixson, TN											X								1
Silver Recovery Associates, Longmont, CO																X			1
Systech/Lafarge Fredonia, KS						X	X												2
Solvent Services Inc San Jose, CA									X										1
Southeast Laser Knoxville, TN											X								1
Southern California Chem Co Garland, TX	X																		1
Systech Environmental Co Fredonia, KS	X				X		X												3
Tektronics Beaverton, OR					X	X	X												3
Thermakem Rock Hill, SC													X						1
Thomas Gray															X				1
Tri-Gas Albuquerque, NM													X						1
Trojan Batteries														X					1
US Ecology											X								1
United Refining Chicago, IL												X							1
USPCI Waynoka, OK	X										X								2
USPCI Wichita, KS	X																		1
USPCI Grassy/Grayback Mtn Clive, UT	X								X				X	X		X			5
USPCI Hydrocarbon Recyclers Inc Tulsa, OK													X						1
USPCI Hydrocarbon Recyclers Inc Lone Mtn, OK													X						1
USPCI Solvent Services San Jose, CA									X					X					2
Waste Technologies Ind East Liverpool, OH		X																	1
WMI Medical Services Chandler, AZ							X			X									2
TOTALS																			272
GRAND TOTALS	24	10	X	10	15	22	6	22	14	16	23	18	17	50	X	16	9	X	272

Assumed Totals Per Most Current Updates

Eighteen sites are represented in the Waste Management Operations Committee (WMOC) subcommittee. Fifteen sites have responded with information. These 15 sites use a total of 272 Treatment, Storage and Disposal (TSD) sites for disposal of various waste forms.

Upon review of information provided by the WMOC site representative, the following breakdown is as follows:

15	Contractors use 1 TSD =	106
15	Contractors use 2 TSDs =	50
10	Contractors use 3 TSDs =	30
1	Contractor uses 4 TSDs =	4
3	Contractors use 5 TSDs =	15
3	Contractors use 6 TSDs =	18
3	Contractors use 7 TSDs =	21
1	Contractor uses 8 TSDs =	8
1	Contractor uses 9 TSDs =	9
1	Contractor uses 11 TSDs =	<u>11</u>

TOTAL AUDITS **272**

96 Audits budgeted and scheduled;
99 Audits that are scheduled but are not budgeted;
77 Audits still needing to be budgeted/scheduled.

272 Audits that can be performed.

DOE SITES ANALYZED FROM SMAC DATA*

DOE Site Name
Ames Laboratory - Iowa State
Argonne National Laboratory - East
Battelle Pacific Northwest Labs
Bettis Atomic Power Lab
Brookhaven National Laboratory
Colonie Interim Storage Site
EG&G - Los Alamos
EG&G Energy Measurements
EG&G Rocky Flats
Fermi Lab
Fernald Environmental Management
Hanford
Idaho National Engineering Laboratory
K-25 Site
Kansas City Plant
Knolls Atomic Power Lab - Kesselring Site
Knolls Atomic Power Lab - Schenectady
Knolls Atomic Power Lab - Windsor Site
Lawrence Berkeley Laboratory
Lawrence Livermore National Laboratory
Los Alamos National Laboratory
Lovelace ITRI
Mound Plant
Oak Ridge National Laboratory, X-10
Paducah Gaseous Diffusion Plant
Pantex Plant
Pinellas Plant
Portsmouth Gaseous Diffusion Plant
Princeton Plasma Physics Lab
Reynolds Electrical and Engineering Company, Inc.
Sandia National Laboratories - Alb
Sandia National Laboratories - Livermore
Savannah River
Stanford Linear Accelerator Center
Tonopah Test Range
U.S. Department of Energy
Waste Isolation Pilot Plant - Carlsbad
West Valley Demonstration Project
Y-12

* Data outlined is a summary of applicable DOE generating sites taken from the original SMAC data which contained nearly 10,000 manifested shipments.

COMMERCIAL TSDFs USED BY DOE SITES IN CY 1992

*(as contained in the SMAC system)**

TSDF EPA ID#	TSDF NAME
ALD000622464	Chemical Waste Management, Inc., Emelle Facility
ARD069748192	Environmental Systems Company (ENSCO), Inc.
AZD009015389	Romic Chemical Corporation, Southwest
AZD049318009	Recycling Resources, Inc.
AZD982441263	Westate Catbon - Arizona Inc.
AZD982465866	S.D. Myers
AZT050010180	Chemical Waste Management, Inc.
CA2890012584	Lawrence Livermore National Laboratory
CA2890090002	Lawrence Livermore National Laboratory
CAD000628149	Haz/Control
CAD000633164	Laidlaw Environmental Services
CAD004771168	H & H Ship Service Company
CAD008302903	Oil and Solvent Process Company
CAD009452657	Romic Chemical
CAD009466392	Erickson, Inc.
CAD050806850	Rollins OPC
CAD053044053	Safety-Kleen Corporation
CAD059494310	USPCI Treatment & Recovery Services
CAD070148432	Drew Resources Corp.
CAD074644659	Baron-Blakeslee
CAD083166728	Refineries Services
CAD087210399	Western Drums, Inc.
CAD088504881	Kinsbursky Brothers
CAD097030993	Norris Industries, Inc.
CAD980887418	Evergreen Oil, Inc.
CAD981424732	Quicksilver Products, Inc.
CAD982042475	B & J Sanitary Landfill
CAD982518623	GC Industries
CAL000027741	California Asbestos Monofill
CAL000048571	Alviso Independent Oil
CAT000613950	Safety-Kleen Corporation
CAT000613968	Safety-Kleen Corporation
CAT000646117	Chemical Waste Management, Inc.
CAT080014079	California AETC
CAT080022148	Broco, Inc.
CAT080031628	National Cement Co./ SYSTECH
CAT080033681	Chem Tech Systems
CAT087210399	Western Drums, Inc.
COD980591184	Chemical Waste Management
COD991300484	Highway 36 Land Development Co.
CTD072138969	Environmental Waste Resources
FLD000776708	Chemical Waste Management, Inc. Pompano Beach Fac.
FLD980711071	Quadrex Environmental Co.
FLD980729610	Laidlaw Environmental Services of Bartow, Inc.
FLD981474802	Laidlaw Environmental Services (TS) Inc.
IAT200010601	Iowa State University
ID0073114654	Envirosafe of Idaho
ID4890008952	INEL c/o EG&G Idaho
IDD991281270	Safety-Kleen Corporation
ILD000646786	Motor Oils Refining
ILD000665851	Safety-Kleen Corporation
ILD000805911	Safety-Kleen Corporation
ILD085349264	Heritage Environmental Services, Inc.- Lemont Fac.
ILD098642424	Trade Waste Incineration
ILD980502744	Laidlaw Env. Services of Illinois, Inc.
ILD984774695	Mar-Cor Industries, Inc.
IND077042034	Safety-Kleen Oil Recovery Breslube
KSD007246846	Hydrocarbon Recyclers, Inc.
KSD981506025	Aptus, Inc.
KYD053348108	Safety-Kleen Corporation
LAD000777201	Chemical Waste Management, Inc.
LAD010395127	Rollins Environmental Services (LA), Inc.
LAD981055791	Laidlaw Environmental Services Inc.
MAD001020775	Eastern Smelting & Refining Corp.
MAD053452637	Clean Harbors of Braintree, Inc.

* Data outlined is a summary of applicable DOE Generating sites extracted from the original SMAC data which contained nearly 10,000 manifested shipments.

COMMERCIAL TSDFs USED BY DOE SITES IN CY 1992

*(as contained in the SMAC system)**

MAD980523203	Clean Harbors of Natick, Inc.
MDD980534653	Clean Harbors of Baltimore, Inc.
MND980996805	Enviro-Chem, Inc.
MND981190242	Aptus
MOD981506611	Tipton Environmental Technology, Inc.
N/A	Settlers Hill Landfill
NCD000648451	Laidlaw Environmental Services (TC), Inc.
NJD045995693	Casie Ecology Oil Salvage
NJD053288239	Rollins Environmental Services (NJ), Inc.
NJD089216790	Chemical Waste Management of New Jersey
NJD980536593	Advanced Environmental Technology Corporation
NMD000804294	Safety-Kleen Corporation
NMD097138382	Southwest Radiographics, Inc.
NMD097970065	Academy Corp.
NONE	Rockford/Interstate Pollution Control, Inc
NONE2	Browning Ferris Industries
NONE3	Waste Management, Inc., Medical Services of AZ
NV3890090001	Reynolds Electrical and Engineering
NVD980895338	ETICAM
NVT330010208	Safety-Kleen Corporation
NVY330010000	U.S. Ecology
NYD000632372	BDT, Inc.
NYD048148175	Mercury Refining Company
NYD049836679	CWM Chemical Services Inc.
OHD000724153	Clean Harbors of Cleveland, Ohio
OHD045242706	Envirosafe Services of Ohio
OHD053576294	S.D. Myers
OHD980683155	Safety-Kleen Corporation
OHD981093420	Unison Transformer Services, Inc.
OHD981893420	Unison Transformer Services, Inc.
OKD000632737	Hydrocarbon Recyclers, Inc.
OKD065438376	USPCI - Lone Mountain Facility
OKD981514284	East Oaks Landfill
ORD980980775	Industrial Oil Co.
PA0002390961	Bethlehem Apparatus Company, Inc.
PAD085690592	Republic Environment Systems, (PA), Inc.
PAD087561015	INMETCO
PAD981113749	PPM, Inc.
PAD990753089	General Barrery Corporation
SCD070375985	GSX Services of South Carolina
SCD077995488	Safety-Kleen Corporation
TN0890090004	K-25 Site
TN1890090003	Oak Ridge National Laboratory, X-10
TND000645770	Laidlaw Environmental Services (TS) Inc.
TND000772186	CWM - Memphis Service Facility
TND096070396	Ross Metals, Inc.
TND982109142	Diversified Scientific Services, Inc.
TXD000747410	Safety-Kleen Corporation
TXD000747428	Safety-Kleen Corporation
TXD000838896	Chemical Waste Management, Inc.
TXD047823265	Southern California Chemical Company
TXD055141378	Rollins Environmental Services (TX), Inc.
TXD981056690	Safety-Kleen Corporation
TXD982560294	NSSI/Recovery Services, Inc.
UTD981552177	Aptus Environmental Services
UTD982598898	Envirocare of Utah, Inc.
UTD991301748	USPCI - Grassy Mountain Facility
VAD988186623	Chemical Waste Management, Inc.
WA7890008967	Westinghouse Hanford Co.
WAD092300250	Burlington Environmental, Inc.
WAD980978746	Safety-Kleen Corporation
WAS087462503	Fuels Processors, Inc.
WID000808824	Avganic Industries, Inc.

* Data outlined is a summary of applicable DOE Generating sites extracted from the original SMAC data which contained nearly 10,000 manifested shipments.

COMMERCIAL TSDFs USED BY DOE SITES IN CY 1993

*(as contained in the SMAC system)**

TSDF EPA ID#	TSDF NAME
0630600001	Community Landfill Company
ALD000622464	Chemical Waste Management, Inc., Emelle Facility
ARD069748192	Environmental Systems Company (ENSCO), Inc.
AZD049318009	Recycling Resources, Inc.
AZD982441263	Westate Catbon - Arizona Inc.
AZD982465866	S.D. Myers
AZT050010180	Chemical Waste Management, Inc.
CA2890012584	Lawrence Livermore National Laboratory
CAD000628149	Haz/Control
CAD000633164	Laidlaw Environmental Services
CAD004771168	H & H Ship Service Company
CAD008302903	Oil and Solvent Process Company
CAD008488025	Southern California Chemical
CAD009203100	PRC Patterson, Inc.
CAD009452657	Romic Chemical
CAD009466392	Erickson, Inc.
CAD043260702	Gibson Environmental
CAD050806850	Rollins OPC
CAD053044053	Safety-Kleen Corporation
CAD059494310	USPCI Treatment & Recovery Services
CAD070148432	Drew Resources Corp.
CAD087210399	Western Drums, Inc.
CAD097030993	Norris Industries, Inc.
CAD980675276	Laidlaw Environmental Services
CAD980883177	Gibson Environmental
CAD980884183	Chemical Waste Management, Inc.
CAD980887418	Evergreen Oil, Inc.
CAD980888598	W.I.T. Sales and Refining
CAD982042475	B & J Sanitary Landfill
CAD982446890	Evergreen Environmental Services
CAD990794133	Forward, Inc.
CAL000027741	California Asbestos Monofill
CAL000048571	Alviso Independent Oil
CAT000612150	Englehard Industries West, Inc.
CAT000613968	Safety-Kleen Corporation
CAT000646117	Chemical Waste Management, Inc.
CAT080014079	California AETC
CAT080022148	Broco, Inc.
CAT080031628	National Cement Co./ SYSTECH
CAT087210399	Western Drums, Inc.
COD980591184	Chemical Waste Management
COD991300484	Highway 36 Land Development Co.
CTD000604488	Clean Harbors of Connecticut, Inc.
CTD072138969	Environmental Waste Resources
FLD980711071	Quadrex Environmental Co.
FLD981474802	Laidlaw Environmental Services (TS) Inc.
ID0073114654	Envirosafe of Idaho
ID4890008952	INEL c/o EG&G Idaho
ILD000608471	Clean Harbors of Chicago, Inc.
ILD000805911	Safety-Kleen Corporation
ILD051937068	Allied Signal, Inc.
ILD085349264	Heritage Environmental Services, Inc.- Lemont Fac.
ILD098642424	Trade Waste Incineration
ILD980502744	Laidlaw Env. Services of Illinois, Inc.
ILD980613913	Safety-Kleen Corporation
ILD984774695	Mar-Cor Industries, Inc.
IN0984899740	Solar Environmental, Inc.
IND077042034	Safety-Kleen Oil Recovery Breslube
KSD007246846	Hydrocarbon Recyclers, Inc.
KSD981506025	Aptus, Inc.
KSD981506321	Aptus, Inc.
KYD0005009923	Calgon Carbon Corporation
LAD000777201	Chemical Waste Management, Inc.
LAD010395127	Rollins Environmental Services (LA), Inc.
LAD981055791	Laidlaw Environmental Services Inc.

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COMMERCIAL TSDFs USED BY DOE SITES IN CY 1993

*(as contained in the SMAC system)**

MAD001020775	Eastern Smelting & Refining Corp.
MAD053452637	Clean Harbors of Braintree, Inc.
MAD980523203	Clean Harbors of Natick, Inc.
MAD991302266	Merrimack Valley Medical Services
MID000724831	Envotech Management Services
MID048090633	Wayne Disposal
MID096963194	Chem Met Services, Inc.
MID098011992	CyanoKem
MND981190242	Aptus
MOD981506611	Tipton Environmental Technology, Inc.
NCD000648451	Laidlaw Environmental Services (TC), Inc.
NJD045995693	Casie Ecology Oil Salvage
NJD053288239	Rollins Environmental Services (NJ), Inc.
NJD089216790	Chemical Waste Management of New Jersey
NJD980536593	Advanced Environmental Technology Corporation
NMD000804294	Safety-Kleen Corporation
NMD097138382	Southwest Radiographics, Inc.
NMD097970065	Academy Corp.
NONE2	Browning Ferris Industries
NONE3	Waste Management, Inc., Medical Services of AZ
NONE4	Town & Country Waste Serviv / BFI
NONE5	Winnebago Reclamation Service
NV3890090001	Reynolds Electrical and Engineering
NVD980895338	ETICAM
NYD000632372	BDT, Inc.
NYD000708198	Safety-Kleen Corporation
NYD048148175	Mercury Refining Company
NYD049836679	CWM Chemical Services Inc.
NYD084069426	CIERO Petroleum Products, Inc.
OHD000724153	Clean Harbors of Cleveland, Ohio
OHD045242706	Envirosafe Services of Ohio
OHD053576294	S.D. Myers
OHD093945293	Chemical Waste Management, Inc.
OHD980683155	Safety-Kleen Corporation
OHD981093420	Unison Transformer Services, Inc.
OKD000632737	Hydrocarbon Recyclers, Inc.
OKD065438376	USPCI - Lone Mountain Facility
PA0002390961	Bethlehem Apparatus Company, Inc.
PAD085690592	Republic Environment Systems, (PA), Inc.
PAD087561015	INMETCO
RID040098352	Northland Environmental. Inc.
SCD044442333	ThermalKEM Inc.
SCD077995488	Safety-Kleen Corporation
TN0890090004	K-25 Site
TN1890090003	Oak Ridge National Laboratory, X-10
TN3890090001	Y-12 Plant
TND000645770	Laidlaw Environmental Services (TS) Inc.
TXD000747410	Safety-Kleen Corporation
TXD000747428	Safety-Kleen Corporation
TXD000838896	Chemical Waste Management, Inc.
TXD008117186	Encycle/Texas, Inc.
TXD047823265	Southern California Chemical Company
TXD055135388	Treatment GNE
TXD055141348	Rollins Environmental Services (TX), Inc.
TXD055141378	Rollins Environmental Services (TX), Inc.
TXD981056690	Safety-Kleen Corporation
TXD982560294	NSSI/Recovery Services, Inc.
TXD988077640	Recovery & Reclamation, Inc.
UTD980957088	Safety-Kleen Corporation
UTD981552177	Aptus Environmental Services
UTD982598898	Envirocare of Utah, Inc.
UTD991301748	USPCI - Grassy Mountain Facility
WA7890008967	Westinghouse Hanford Co.
WAD000812909	Burlington Environmental, Inc.
WAD092300250	Burlington Environmental, Inc.
WAD980978746	Safety-Kleen Corporation

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COMMERCIAL TSDFs USED BY DOE SITES IN CY 1994

*(as contained in the SMAC system)**

TSDF EPA ID#	TSDF NAME
1978170006	CDT LANDFILL CORP. - EXPANSION SITE
ALD000622464	Chemical Waste Management, Inc., Emelle Facility
ALD983167891	Trans-Cycle Industries, Inc.
ARD069748192	Environmental Systems Company (ENSCO), Inc.
AZD009015389	Romic Chemical Corporation, Southwest
AZD982465866	S.D. Myers
AZD983473539	Salesco Systems USA, Inc.
AZT050010180	Chemical Waste Management, Inc.
CA4890008986	Lawrence Berkeley Lab
CAD000633164	Laidlaw Environmental Services
CAD008302903	Oil and Solvent Process Company
CAD009452657	Romic Chemical
CAD009466392	Erickson, Inc.
CAD043260702	Gibson Environmental
CAD050806850	Rollins OPC
CAD053044053	Safety-Kleen Corporation
CAD059493310	UNITED STATES POLLUTION CONTROL/TRS
CAD059494310	USPCI Treatment & Recovery Services
CAD070148432	Drew Resources Corp.
CAD077182293	Boliden Metech, Inc.
CAD087210399	Western Drums, Inc.
CAD088504881	Kinsbursky Brothers
CAD097030993	Norris Industries, Inc.
CAD980675276	Laidlaw Environmental Services
CAD980887418	Evergreen Oil, Inc.
CAD982042475	B & J Sanitary Landfill
CAD982446890	Evergreen Environmental Services
CAL000027741	California Asbestos Monofill
CAL000048571	Alviso Independent Oil
CAT000612150	Englehard Industries West, Inc.
CAT000613968	Safety-Kleen Corporation
CAT000646117	Chemical Waste Management, Inc.
CAT080014079	California AETC
CAT080022148	Broco, Inc.
CAT087210399	Western Drums, Inc.
CO9048742175	Hazen Research Inc
COD980591184	Chemical Waste Management
CTD021816889	United Oil Recovery
FLD980711071	Quadrex Environmental Co.
FLD980729610	Laidlaw Environmental Services of Bartow, Inc.
ID0073114654	Envirosafe of Idaho
ID4890008952	INEL c/o EG&G Idaho
IDD073114654	Envirosafe Services of Idaho, Inc.
ILD000608471	Clean Harbors of Chicago, Inc.
ILD000805911	Safety-Kleen Corporation
ILD098642424	Trade Waste Incineration
ILD980502744	Laidlaw Env. Services of Illinois, Inc.
ILD980613913	Safety-Kleen Corporation
ILD984774695	Mar-Cor Industries, Inc.
IND000717959	General Battery/Exide Corp.
IND005081542	ESSROC/CPR Inc.
IND093219012	Heritage Environmental Services
KSD981506025	Aptus, Inc.
KYD053348108	Safety-Kleen Corporation
LAD010395127	Rollins Environmental Services (LA), Inc.
LAD981055791	Laidlaw Environmental Services Inc.
MAD053452637	Clean Harbors of Braintree, Inc.
MAD066588005	Murphys Waste Oil Service
MAD980523203	Clean Harbors of Natick, Inc.
MID096963194	Chem Met Services, Inc.
MND006153423	Light Cycle, Inc.
MND981190242	Aptus
MOD981506611	Tipton Environmental Technology, Inc.
N/A	Settlers Hill Landfill

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COMMERCIAL TSDFs USED BY DOE SITES IN CY 1994

(as contained in the SMAC system)*

NJD045995693	Casie Ecology Oil Salvage
NJD053288239	Rollins Environmental Services (NJ), Inc.
NJD089216790	Chemical Waste Management of New Jersey
NJD980536593	Advanced Environmental Technology Corporation
NM0890010515	Los Alamos National Laboratory
NM9570024423	Kirtland Air Force Base
NMD000804294	Safety-Kleen Corporation
NONE	Rockford/Interstate Pollution Control, Inc
NONE2	Browning Ferris Industries
NONE6	Mallard Lake Landfill (BFI)
NVD980895338	ETICAM
NYD000632372	BDT, Inc.
NYD049178296	Radiac Research Corporation
NYD049836679	CWM Chemical Services Inc.
NYD077444263	Chemical Waste Disposal Corporation
NYD986980233	FULCIRCLE BALLAST RECYCLERS
OHD053576294	S.D. Myers
OHD093945293	Chemical Waste Management, Inc.
OHD980683155	Safety-Kleen Corporation
OHD981093420	Unison Transformer Services, Inc.
OKD000632737	Hydrocarbon Recyclers, Inc.
OKD065438376	USPCI - Lone Mountain Facility
OR0089452353	CHEMICAL WASTE MANAGEMENT
PA0002390961	Bethlehem Apparatus Company, Inc.
PAD064375470	Chemical Waste Management of Pennsylvania, Inc.
PAD085690592	Republic Environment Systems, (PA), Inc.
PAD087561015	INMETCO
PAD980707087	Envirotrol, Inc.
PAD981939846	Kurt J. Lesker Company
PAD987367216	Advanced Environmental Recycling Corporation
SCD070375985	GSX Services of South Carolina
SCD077995488	Safety-Kleen Corporation
SCD987588084	Clemson Technical Center
TN0890090004	K-25 Site
TN1890090003	Oak Ridge National Laboratory, X-10
TN3890090001	Y-12 Plant
TND000645770	Laidlaw Environmental Services (TS) Inc.
TND000770479	IT Technology Development Laboratory
TND003095635	Nuclear Fuel Services, Inc.
TND981933120	IT Environmental Technology Development Laboratory
TND982109142	Diversified Scientific Services, Inc.
TXD000747428	Safety-Kleen Corporation
TXD000838896	Chemical Waste Management, Inc.
TXD055141348	Rollins Environmental Services (TX), Inc.
TXD055141378	Rollins Environmental Services (TX), Inc.
TXD077603371	Safety Kleen Corporation
TXD981056690	Safety-Kleen Corporation
TXD982290140	Laidlaw Environmental Services, Inc. (TES)
TXD982560294	NSSI/Recovery Services, Inc.
UTD980957088	Safety-Kleen Corporation
UTD981552177	Aptus Environmental Services
UTD982598898	Envirocare of Utah, Inc.
UTD991301748	USPCI - Grassy Mountain Facility
WA789000896	
WA7890008967	Westinghouse Hanford Co.
WAD009477175	Cameron Yakima, Inc.
WAD058367152	Northwest Enviroservice Inc.
WAD092300250	Burlington Environmental, Inc.
WAD980978746	Safety-Kleen Corporation
WID000808824	Avganic Industries, Inc.

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NUMBER OF CONTRACTUAL TSDF USAGES PER DOE SITE IN CY 1992
*(as reported by the SMAC system)**

SITE NAME	Number of Unique TSDFs Used
Ames Laboratory - Iowa State	2
Argonne National Laboratory - East	7
Bettis Atomic Power Lab	5
Brookhaven National Laboratory	7
Colonie Interim Storage Site	1
EG&G - Los Alamos	2
EG&G Energy Measurements	8
EG&G Rocky Flats	5
Fermi Lab	12
Fernald Environmental Management	1
Hanford	6
Idaho National Engineering Laboratory	10
K-25 Site	1
Kansas City Plant	9
Knolls Atomic Power Lab - Kesselring Site	5
Knolls Atomic Power Lab - Schenectady	5
Knolls Atomic Power Lab - Windsor Site	3
Lawrence Berkeley Laboratory	7
Lawrence Livermore National Laboratory	28
Los Alamos National Laboratory	11
Lovelace ITRI	5
Mound Plant	4
Oak Ridge National Laboratory, X-10	2
Paducah Gaseous Diffusion Plant	1
Pantex Plant	9
Pinellas Plant	6
Portsmouth Gaseous Diffusion Plant	1
Princeton Plasma Physics Lab	8
Reynolds Electrical and Engineering Company, Inc.	5
Sandia National Laboratories - Alb	13
Sandia National Laboratories - Livermore	13
Savannah River	5
Stanford Linear Accelerator Center	19
Tonopah Test Range	3
Waste Isolation Pilot Plant - Carlsbad	3
West Valley Demonstration Project	4
Y-12	2
Total Contractual Usages	238

** Data outlined is a summary of applicable DOE generating sites taken from the original SMAC data which contained nearly 10,000 manifested shipments.*

NUMBER OF CONTRACTUAL TSDF USAGES PER DOE SITE IN CY 1993

(as reported by the SMAC system)*

SITE NAME	Number of Unique TSDFs Used
Ames Laboratory - Iowa State	2
Argonne National Laboratory - East	14
Battelle Pacific Northwest Labs	1
Bettis Atomic Power Lab	8
Brookhaven National Laboratory	9
EG&G - Los Alamos	1
EG&G Energy Measurements	4
EG&G Rocky Flats	6
Fermi Lab	16
Fernald Environmental Management	6
Hanford	6
Idaho National Engineering Laboratory	11
K-25 Site	1
Kansas City Plant	11
Knolls Atomic Power Lab - Kesselring Site	6
Knolls Atomic Power Lab - Schenectady	4
Knolls Atomic Power Lab - Windsor Site	8
Lawrence Berkeley Laboratory	16
Lawrence Livermore National Laboratory	28
Los Alamos National Laboratory	10
Lovelace ITRI	6
Mound Plant	3
Oak Ridge National Laboratory, X-10	3
Paducah Gaseous Diffusion Plant	2
Pantex Plant	10
Pinellas Plant	1
Portsmouth Gaseous Diffusion Plant	1
Princeton Plasma Physics Lab	9
Reynolds Electrical and Engineering Company, Inc.	3
Sandia National Laboratories - Alb	13
Sandia National Laboratories - Livermore	15
Savannah River	3
Stanford Linear Accelerator Center	15
Waste Isolation Pilot Plant - Carlsbad	5
West Valley Demonstration Project	7
Y-12	1
TOTAL	265

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NUMBER OF CONTRACTUAL TSDF USAGES PER DOE SITE IN CY 1994

(as reported by the SMAC system)*

SITE NAME	Number of Unique TSDFs Used
Ames Laboratory - Iowa State	3
Argonne National Laboratory - East	7
Battelle Pacific Northwest Labs	2
Bettis Atomic Power Lab	2
Brookhaven National Laboratory	11
Colonie Interim Storage Site	2
EG&G Energy Measurements	5
EG&G Rocky Flats	6
Fermi Lab	14
Fernald Environmental Management	3
Hanford	6
Idaho National Engineering Laboratory	.11
K-25 Site	7
Kansas City Plant	11
Knolls Atomic Power Lab - Kesselring Site	6
Knolls Atomic Power Lab - Schenectady	7
Knolls Atomic Power Lab - Windsor Site	3
Lawrence Berkeley Laboratory	15
Lawrence Livermore National Laboratory	25
Los Alamos National Laboratory	11
Lovelace ITRI	9
Mound Plant	5
Oak Ridge National Laboratory, X-10	4
Paducah Gaseous Diffusion Plant	2
Pantex Plant	8
Portsmouth Gaseous Diffusion Plant	2
Princeton Plasma Physics Lab	8
Reynolds Electrical and Engineering Company, Inc.	7
Sandia National Laboratories - Alb	13
Sandia National Laboratories - Livermore	11
Savannah River	4
Stanford Linear Accelerator Center	15
U.S. Department of Energy	2
Waste Isolation Pilot Plant - Carlsbad	4
West Valley Demonstration Project	7
Y-12	3
TOTAL	261

* Data outlined is a summary of applicable DOE generating sites taken from the original SMAC data which contained nearly 10,000 manifested shipments.

