CAPACITY ASSURANCE PLAN
FOR THE
STATE OF NEW JERSEY

Volume 3 of 4
Chapter 5 and Chapter 6

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Chapter 5

Projecting Hazardous Waste Generation and the Demand for Management Capacity

5. Projecting Hazardous Waste Generation and the Demand for Management Capacity

5.1 Introduction

States are required, by the Guidance Document, to project waste generated in their borders in 1989, 1995, and 2009. The 1995 projection presents a near-term estimate of demand for waste management capacity after most of the current hazardous waste regulations, the land disposal restrictions in particular, take effect. The federal law (SARA 104(k)(9)) requires that states assure adequate hazardous waste management capacity for 20 years, hence the projection of 2009 values.

The purpose of this chapter is to describe the projections developed by the State of New Jersey, and to discuss the projected waste streams as they pertain to projected utilization of existing commercial hazardous waste capacity. It is upon this analysis that capacity shortfalls and surpluses for the projection years will be identified.

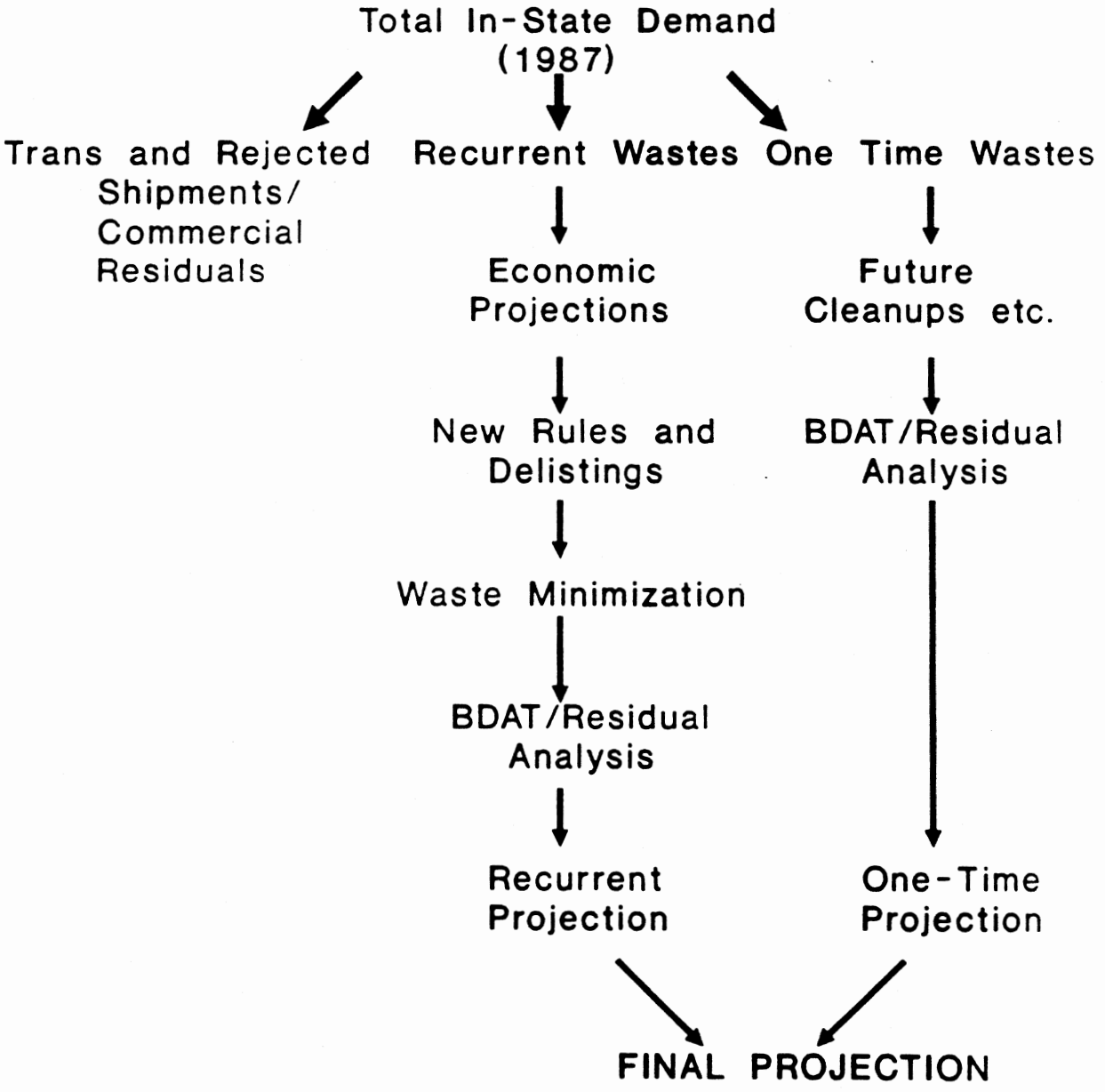
5.2 General Methodology

In order to obtain a true projection of the quantities of wastes expected to be generated, it was important to project recurrent wastes separately from one time (or clean-up) wastes. Failure to do so could result in an inaccurate estimate of future generation. This is because economic growth and decline should only impact recurrent waste generation as it is a function of industrial activity. Whereas, one time waste generation is driven by the number of active remedial sites in a state and the stage in which the remediation exists.

Transshipments, and rejected shipments have also been removed from the database prior to projections. These quantities are removed because they are double-counted. Finally, commercial residual quantities are removed because they are re-calculated at the end of the projection analysis. This is done so that any new wastes, or any projected reduction of waste that might influence waste generation and thus, residual generation is taken into account.

Once the database has been separated into two components--recurrent wastes and one-time wastes, a projection analysis is performed in accordance with Figure 5-1. Recurrent wastes are projected based upon economic analysis, new rules and delistings, waste minimization and finally, land disposal (BDAT) and residual calculations. One-time wastes are then further separated into two components--accidental spills and corrective actions carried out pursuant to RCRA, CERCLA, ECRA, UST, etc. Accidental spills are assumed to occur at a constant rate throughout the projection years. Corrective actions are projected based primarily upon New Jersey's hazardous site remediation schedules.

PROJECTION METHODOLOGY FOR NJ'S CAP
(Figure 5-1)



5.3 Generator Organization - SIC Codes

As hazardous waste generation reflects industrial activity, hazardous waste quantities are best projected according to some measure of industrial activity. Thus, it was necessary to group generators by the Standard Industrial Classification (SIC) coding system, developed by the US Office of Management and Budget in 1957 (1987 being the most recent year of major revision).

SIC codes are well suited to the purposes of the plan for three reasons: 1) it groups industries according to the composition and structure of the economy and covers the entire field of economic activity; 2) it facilitates comparison of statistics describing the various facets of the economy and 3) industrial economic analyses and forecasts available from government agencies and professional forecasting firms are typically prepared in terms of, or at least consistently cross-reference this classification system.

For each generator, a four digit SIC code was determined. Generators who accounted for approximately 50% of the New Jersey manifested waste were identified by SIC codes in NJDEP files. Additional sources for this information included Commerce Register Inc.'s New Jersey Directory of Manufacturers, 1986-1987 Edison; data from New Jersey's 1986 Waste Minimization Reports and SIC assignment information compiled by personnel of Syracuse University for NJDEP. Efforts were made to ensure that SIC codes were available for nearly all generators. In some cases this required that the consultant contact individual firms to determine the nature of their business so SIC code assignment could be made.

To present totals, generators were combined according to two-digit codes (major groups) except for the major group SIC 28 - Chemical and Allied Products - which in the past generated an amount of waste much larger than any other New Jersey industrial segment. Table 5-D.1 details the percentage of hazardous waste manifested in each major SIC group in 1981 through 1987. With the exception of the Chemical Products group (SIC 28) and the Petroleum and Coal Products groups (SIC 29), the percentages of the state's manifested wastes produced by various industrial segments changed little during the seven years for which data are available. Discussions with personnel from the New Jersey Bureau of Demographics and Economic Analysis indicate that although some decline in employment in these two industries has occurred it was not of major proportions. Analysis of the 1986 New Jersey Waste Minimization report did indicate that reductions due to minimization efforts had taken place. Table 5-D.2 details the major generating sectors in SIC 28 for these years. There is some evident change in the composition of the SIC 28 group. A slight decline in the generation of waste by the Industrial Inorganic Chemicals Industry (SIC 2819) and a more marked decline in the general group, Chemical Preparations, Not Otherwise Specified (NOS) (SIC 2899) can be seen from this table. These declines are largely offset by apparent increases in the fraction of SIC 28 wastes accounted for by the Pharmaceutical Industry and the Plastics and Resins Industry and waste produced by other, smaller SIC 28 groups.

NJ MANIFESTED WASTE BY SIC AS PERCENTAGE OF TOTAL (TABLE 5.D.1)

SIC	INDUSTRIAL GROUP	1987
15-17	Construction	0.92
20	Food Products	0.14
22	Textile Mill Products	0.09
24	Lumber and Wood Products	0.28
25	Furnture and Fixtrues	0.05
26	Paper Products	0.42
27	Printing & Publishing Ind.	0.27
28	Chemical Products	18.32
29	Petroleum and Coal Products	7.27
30	Rubber and Plastic Products	0.33
31	Leather Products	0.08
32	Stone, Clay and Glass Products	0.67
33	Primary Metal Industries	4.95
34	Metal Fabrications	6.12
35	Nonelectrical Machinery	1.95
36	Electrical & Electronic Machinery	1.65
37	Transportation Equipment	2.96
38	Instruments	0.87
39	Miscellaneous Manufacturing	0.62
40-47	Transportation Services	5.61
48	Communications	0.17
49	Electrical Gas & Sanitary Svcs	1.77
50-59	Wholesale and Retail Trade	6.92
60-69	Financial Insurance	1.23
70-72	Hotels & Personal Services	0.16
7399	Miscellaneous Business Services	9.00
75	Automotive Repair	0.21
76	Misc. Repair & Industrial Svcs	0.15
7699	Repair & Industrial	12.67
79	Entertainment	0
80	Health Services	0.06
81-83	Legal,Educational & Social Svcs	0.20
89	Miscellaneous Services	0.03

GENERATION BY INDUSTRIES IN SIC 28
(TABLE 5.D.2)

SIC	INDUSTRY	% of SIC 28 (1987)
2819	Industrial Inorganic Chemicals,NOS	18
2821	Plastic Materials & Resins	13
2834	Pharmaceutical Preparations	11
2851	Paints and Allied Products	8
2865	Cyclic Crudes and Intermediates	6
2869	Industrial Organic Chemicals, NOS	12
2879	Agricultural Chemicals, NOS	<1
2899	Chemical Preparations, NOS	4
	Other 28	28
	TOTAL:	100

SIC	INDUSTRY	% OF ALL NJ WASTE
2819	Industrial Inorganic Chemicals, NOS	3
2821	Plastic Materials & Resins	2
2834	Pharmaceutical Preparations	2
2851	Paints and Allied Products	1
2865	Cyclic Crudes and Intermediates	1
2869	Industrial Organic Chemicals, NOS	2
2879	Agricultural Chemicals, NOS	1
2899	Chemical Preparations, NOS	1
	Other 28	5
	TOTAL:	18

Two service related industries, SIC 7399 and SIC 7699, shown in Table 5-D.2 are associated with the handling of the primary wastes generated by manufacturing and service sector industries. Facilities which process waste oils were assigned to SIC 7399 and commercial Treatment, Storage, Disposal Facilities (TSDF's) were assigned to 7699. The wastes manifested by these firms are either treatment residues being sent to other facilities for final disposal or are wastes which have been consolidated or preprocessed at transfer stations prior to treatment or disposal.

5.4 Projection of Manifested Waste Quantities

The major Hazardous Waste Facilties Siting Act (NJSA 13:1E-49, et. al.) requires that the Hazardous Waste Facilities plan include projections of the manifested waste quantities for a three-year and a five-year period. In addition, the Superfund Amendments and Reauthorization Act (SARA) requires that the state demonstrate adequate treatment capacity for wastes to be generated 20 years into the future. Projection factors to be used in estimating hazardous waste quantities through 1989, 1995 and 2009 were developed to account for the influences of economic growth and decline and waste reduction and recycling on the generation of waste from ongoing sources (excluding one-time wastes and cleanups). The economic growth projections are addressed below. The influences on projected generation of changes in regulations are discussed in Section 5.6. Shifts from on-site to off-site treatment are discussed in Section 5.7. And, one-time wastes and corrective actions are discussed in Section 5.8. The projections for waste reduction factors have been discussed in Chapter 4.

5.5 Economic Projection Factors

Economic projection factors used in making the short-term projections were developed by tailoring 5 year growth projections for selected industries listed in the US Department of Commerce's US Industrial Outlook, 1988 edition, to reflect the unique industrial and economic climate in New Jersey. This was done with the assistance of personnel from the New Jersey Department of Commerce (NJDC) who used historical employment figures to calculate percent growth in the major three digit SIC group industries. The assumption was made that the observed performance of industries over the last 5 years would continue until 1995. For the twenty year, 2009, economic projection, factors developed by the New Jersey Department of Labor for use in forecasting the work force for two digit SIC group industries were applied. NJDC personnel do not anticipate the addition of any major new industry types to New Jersey's industrial base. These factors are listed Table 5-D.3.

The final economic projections were calculated by utilization of the equation:

$$(\text{baseyear quantity}) \times (\text{economic factor})^{\#\ \text{years}} = \text{projection}$$

ECONOMIC PROJECTION FACTORS
(TABLE 5-D.3)

SIC	INDUSTRY	SHORT TERM PROJECTION	LONG TERM PROJECTION
24	Lumber and Wood Products	1.009	1.009
	249 Wood Preservation	0.914	
26	Paper and Allied Products	0.976	0.995
	281 Ind Inorganic Chemicals	0.927	
	282 Plastic Materials	0.977	
	283 Drugs	1.003	
	284 Soaps, Detergents etc	0.990	
	285 Paints, Varnishes	0.989	
	286 Ind Organic Chemicals	0.976	
	287 Agricultural Chemicals	0.976	
29	Petroleum Refining et al	0.986	0.986
	291 Petroleum Refining	0.929	
32	Stone, Clay, Glass, Concrete	0.989	0.989
	322 Glass Containers	0.940	
33	Primary Metal Industries	0.985	0.985
	331 Steel Products Manufctr	0.960	
34	Fabricated Metal Products	0.985	0.985
	341 Metal Containers	0.991	
35	Machinery, Not Electrical	1.002	0.998
	353 Industrial Equipment	0.933	
	354 Metalworking Machinery	0.953	
	356 Gen Industrial Machinery	0.952	
	358 Service Ind Machinery	1.022	
36	Electrical and Electronic	0.999	0.999

ECONOMIC PROJECTION FACTORS (cont)
(TABLE 5-D.3.1)

SIC	INDUSTRY	SHORT TERM PROJECTION	LONG TERM PROJECTION
37	Transportation Equipment	1.015	0.996
38	Instr. for Measurement, Analysis	1.003	1.003
	381 Engr & Scientific Equip	1.025	
	383 Optical Instr. & Lenses	1.060	
42	Motor Freight	1.015	1.015
	421 Trucking & Storage	1.054	
	422 Warehousing & Storage	1.037	
	423 Trucking Terminal Feilties 1.056		
44	Water Transportation	1.039	0.994
50	Retail: Machinery & Equipment	1.049	1.022
51	Retail: Non-durable Goods	1.035	1.015
52-59	Retail and Wholesale	1.040	1.010
72	Personal Service	1.044	1.016
73	Misc Business Services	1.096	1.036

5.6 Miscellaneous Projection

In preparing the projections, consideration was given to other regulations which may increase or decrease the future generation of wastes. These regulations affected wastes generated from smelting, mining, the petroleum industry and wood preserving industry. Also considered were the potential effects of the effluent regulations and the recently adopted amendments to the New Jersey Environmental Cleanup Responsibility Act (ECRA). An attempt was made to quantify the potential effects of the Toxicity Characteristic Leaching Procedure (TCLP). However, it was determined that the impacts of this proposed regulation cannot be properly addressed until final promulgation.

Overall, the combination of these factors served to increase the projected demand on commercial facilities by 29,401 tons (not including residuals). A marked increase in commercial demand was not noted with the exception of land disposal. This increase of 14,514 tons is primarily due to the ECRA regulation, which will result in additional cleanup wastes.

Please note, however, that these numbers represent commercial demand before the impacts of waste minimization and the land disposal restrictions.

5.7 One-Time Events

Wastes generated from site cleanups and other one-time or infrequent events are not necessarily governed by the same determinants as are wastes from industrial activity. Thus wastes from major accidents, CERCLA remedies, and RCRA closures, ECRA cleanups, etc. were removed from the database for economic projections because they should not be included and projected along with production-generated wastes. Following projections of the production waste, those generated as a result of one-time events are readded to the database because of the real demand for commercial facilities which they represent. Elimination of quantities generated from site cleanup, major accidents and one-time events reduced the database. In addition to wastes shipped under the NJDEP identification number and wastes from sites which were identified as being solely cleanups, shipments which were more than three standard deviations greater than the mean shipment size were considered to be one time wastes. Projections of cleanup waste generation from RCRA, CERCLA, UST, ECRA, etc., were made based primarily upon the Hazardous Waste Management Plan, and discussions with NJDEP employees. Wastes generated from accidental spills were assumed to occur at a constant rate through the projection years. Tables 5-D.4 and 5-D-5 depict the quantity of cleanup waste assigned to each of the projection years.

ONE TIME PROJECTIONS (tons) for 1989

Table 5-D.4

Management Category	Contribution to 1989 Total From Cleanups	Contribution to 1989 Total From Spills
Metals Recovery	3541	129
Solvents Recovery	1239	5018
Other Recovery	4022	127
Incineration	34023	828
Energy Recovery	13288	507
Aqueous Treatment	1363	5620
Other Treatment	1443	2785
Sludge Treatment	4286	167
Stabilization	40601	4156
Land Treatment	0	0
Land Disposal	29252	11426
Deep Well Injection	0	0
Other Disposal	1595	0

ONE TIME PROJECTIONS (tons) for 1995 and 2009

Table 5-D.5

Management Category	Contribution to '95 & '09 Total From Cleanups	Contribution to '95 & '09 Total From Spills
Metals Recovery	5029	129
Solvents Recovery	2325	5018
Other Recovery	4022	127
Incineration	41622	828
Energy Recovery	13288	507
Aqueous Treatment	1363	5620
Other Treatment	1491	2785
Sludge Treatment	4286	167
Stabilization	47128	4156
Land Treatment	0	0
Land Disposal	29252	11426
Deep Well Injection	0	0
Other Disposal	1595	0

Note: These Wastes Are Added Into Both Years

5.8 Shift from On-Site to Off-Site Facilities

The Division of Hazardous Waste Management estimates that as many as 695 plants have filed RCRA Part A applications. At present, about 228 facilities are operating under interim or final RCRA status. The other facilities have either closed or were determined to fall outside of the scope of RCRA. Twenty-eight of the operating RCRA-regulated facilities are the commercial facilities described in Chapter 3. The other TSD facilities are on-site or captive. Most of the non-commercial, RCRA-regulated facilities (as many as 151) are permitted for storage only. Based on a survey of the on-site treatment facilities, conducted by the consultant, it was determined that a minimal amount of waste is generated by on-site TSD's with closure plans.

Thus, shifts from on-site to off-site management are not expected to have a great impact on future commercial demand.

Because it has generally been the policy of on-site and captive facilities in this state to manage their own wastes on-site, and because the State of New Jersey's past planning efforts (since 1985) have shown that there is little to no effect on commercial demand from on-site and captive facilities; the State of New Jersey, for its planning purposes, has assumed that on-site and captive facilities will continue to manage their own wastes on-site. That is, wastes generated on-site and at captive facilities are assumed to continue at a constant level.

Although the impacts of the land disposal restrictions and waste minimization will certainly play a role on future on-site and captive management facilities; it is the experience of this state that most of these facilities will submit permit modifications to enable them to meet new requirements or increased generation rather than to use off-site (commercial facilities). A prime example of this scenario is the incinerator proposed at DuPont which will primarily handle on-site wastes.

5.9 HSWA Land Disposal Restrictions

The Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) were enacted on November 8, 1984. HSWA requires EPA to set treatment standards for all hazardous wastes by specific dates; otherwise the land disposal of the waste is prohibited--with the exception that a petitioner demonstrated to a reasonable degree of certainty to EPA that there will be no migration of hazardous constituents from the land disposal unit for as long as the waste remains hazardous. The schedule is based on a ranking of the listed wastes that consider their hazard and volume.

Land Disposal Restrictions
Table 5-D.6

NOVEMBER 8, 1986:	**Dioxin Containing Wastes** **F020, F021, F022, F023, F026, F027, F028** Spent Solvents **F001, F002, F003, F004, F005**
JULY 8, 1987:	Specific **Wastes (California List)** Liquid hazardous wastes containing free cyanides, PCBs, corrosives or certain metals and hazardous wastes containg halogenated organic compounds
AUGUST 8, 1988:	At least one-third of all listed hazardous wastes
JUNE 8, 1989:	At least two-thirds of all listed hazardous wastes
MAY 8, 1990:	All remaining listed hazardous waste and all characteristic hazardous waste

The prohibitions for any particular waste become effective on the applicable statutory deadline (Table 5-D.4), unless there is insufficient national capacity for alternate treatment, recovery or disposal. If USEPA determines such a shortage exists, a national extension may be granted (not to exceed two years beyond the statutory deadline). USEPA may also grant extensions to the effective date on a case-by-case basis.

USEPA has met the deadlines up to promulgation of treatment standards for the "Second Third" wastes (June 8, 1989). The last third of the hazardous waste treatment standards are to be issued by May 8, 1990. However, USEPA has deferred setting treatment standards for a large portion of listed wastes. "Soft hammer" provisions apply to First and Second third wastes (disposed in landfill and surface impoundment units meeting minimum technological requirements) for which USEPA has not yet set treatment standards.

5.10 Impact of Land Disposal Restrictions

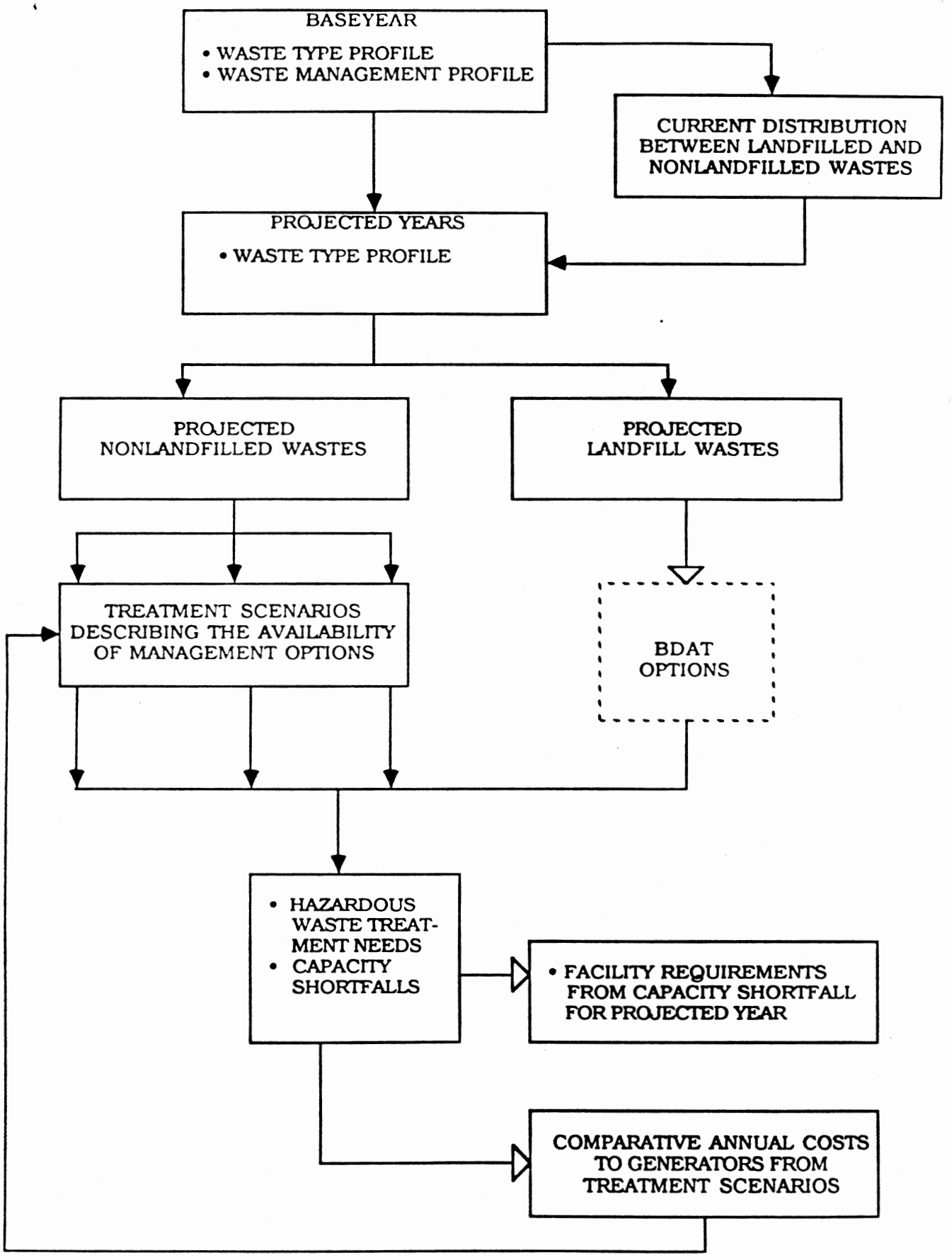
The land disposal restrictions would be expected to change the demand for hazardous waste management facilities by shifting the waste currently land disposed to alternative source reduction, recovery and treatment technologies. In performing an analysis of the land disposal restrictions, the consultant generally found this to be true.

In particular the demand on commercial metals recovery and incineration facilities is shown to increase dramatically. In conjunction with this observation, large decreases in the quantities of waste (without stabilizer) requiring land disposal was also observed. However, this decrease does not reduce the actual demand for land disposal because HSWA requires that treatment residuals be stabilized prior to land disposal. This means that if 10 tons of waste required landfill; this 10 tons would need to be stabilized. The stabilizer will add approximately 1.5 times to the original need. Thus, where 10 tons of waste must be landfilled, this will utilize 25 tons of landfill capacity. This explains why the land disposal restrictions do not dramatically decrease the demand for commercial land disposal capacity as one would expect.

5.11 Procedure for Capacity Assurance Planning

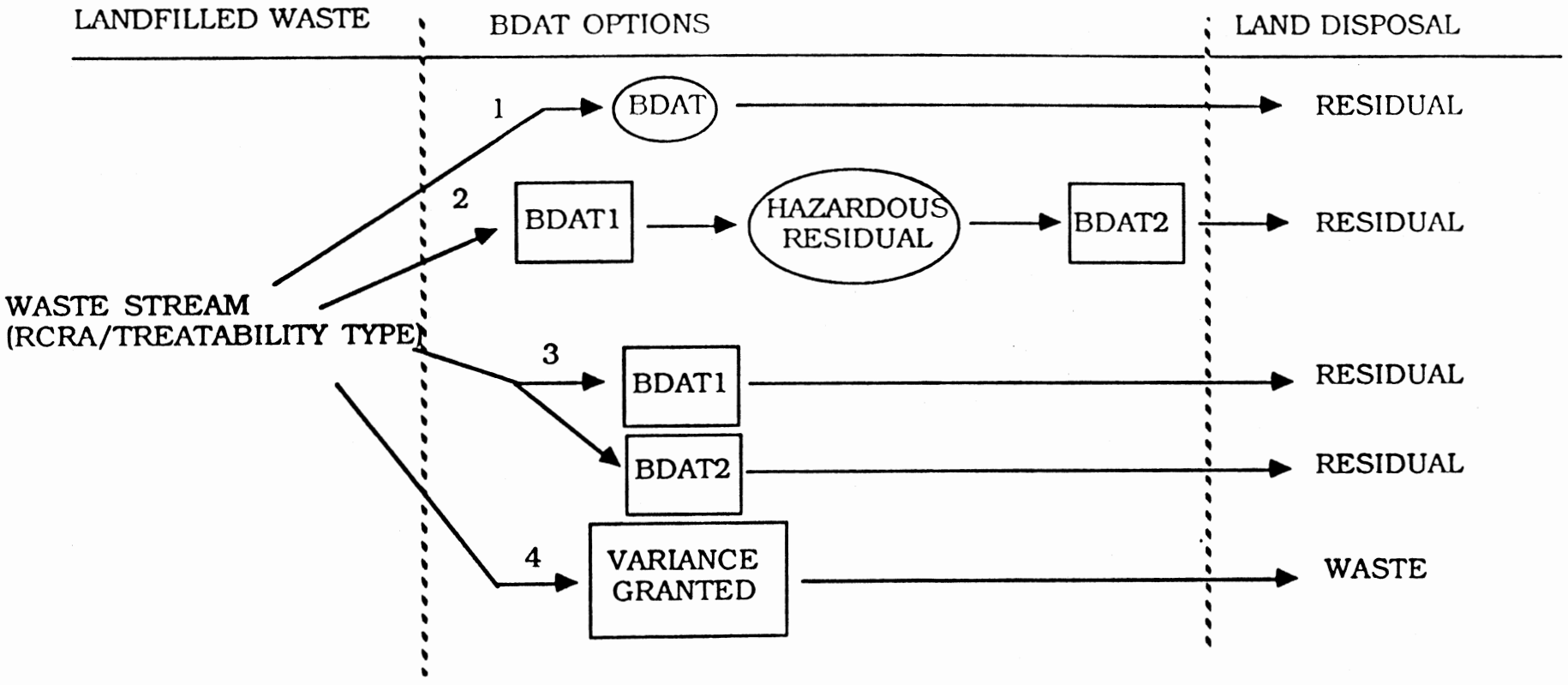
The consultant has developed a procedure for facility planning which incorporates the effects of current and future land disposal restrictions on assessment of the hazardous waste treatment needs of New Jersey. A schematic description of this procedure is shown in Figure 5.2.

The consultant's procedure is based upon profiles of hazardous waste type and management category for the baseyear and projected years. As shown in Figure 5.2, the baseyear distribution between landfilled and non-landfilled wastes is used to split projected non-landfilled



PROCEDURE FOR FACILITY PLANNING

FIG 5-2



BDAT OPTIONS FOR LANDFILLED WASTES

wastes is used to split projected waste by type. The management profiles of projected non-landfilled waste is developed in scenarios describing the availability of different management options. BDAT Options are considered for incorporating the effects of land disposal restrictions. The results of this analysis are projections of hazardous waste treatment needs and capacity shortfalls. Comparative annual costs to generators from the different treatment scenarios are then used to refine the management profiles.

5.12 BDAT Options

An appropriate BDAT or set of BDATs is selected for each landfilled waste analyzed by this model. This selection is based on the RCRA waste code, waste type and the promulgated land disposal restriction rules. Several BDAT background documents are available and were used in selecting management methods for wastes for which land disposal restrictions are not yet promulgated. It was also necessary to estimate residual quantities and waste types resulting from treatment. A schematic description of the BDAT options for landfilled wastes are shown in Figure 5.3.

5.13 Analytical Details

The following assumptions were made to complete the analysis:

- Due to lack of data on the compliance of wastes with treatment standards, BDAT options were considered for all the projected landfilled wastes.

- With increased availability of treatment alternatives and regulation of land disposal, no variances will be available in the long-term. "Soft hammer" provisions were considered in the short-term.

- The selection of a treatment technology for wastes for which no standards are promulgated (Third Third and deferred wastes) is based on the selection of BDATs for wastes of a similar type.

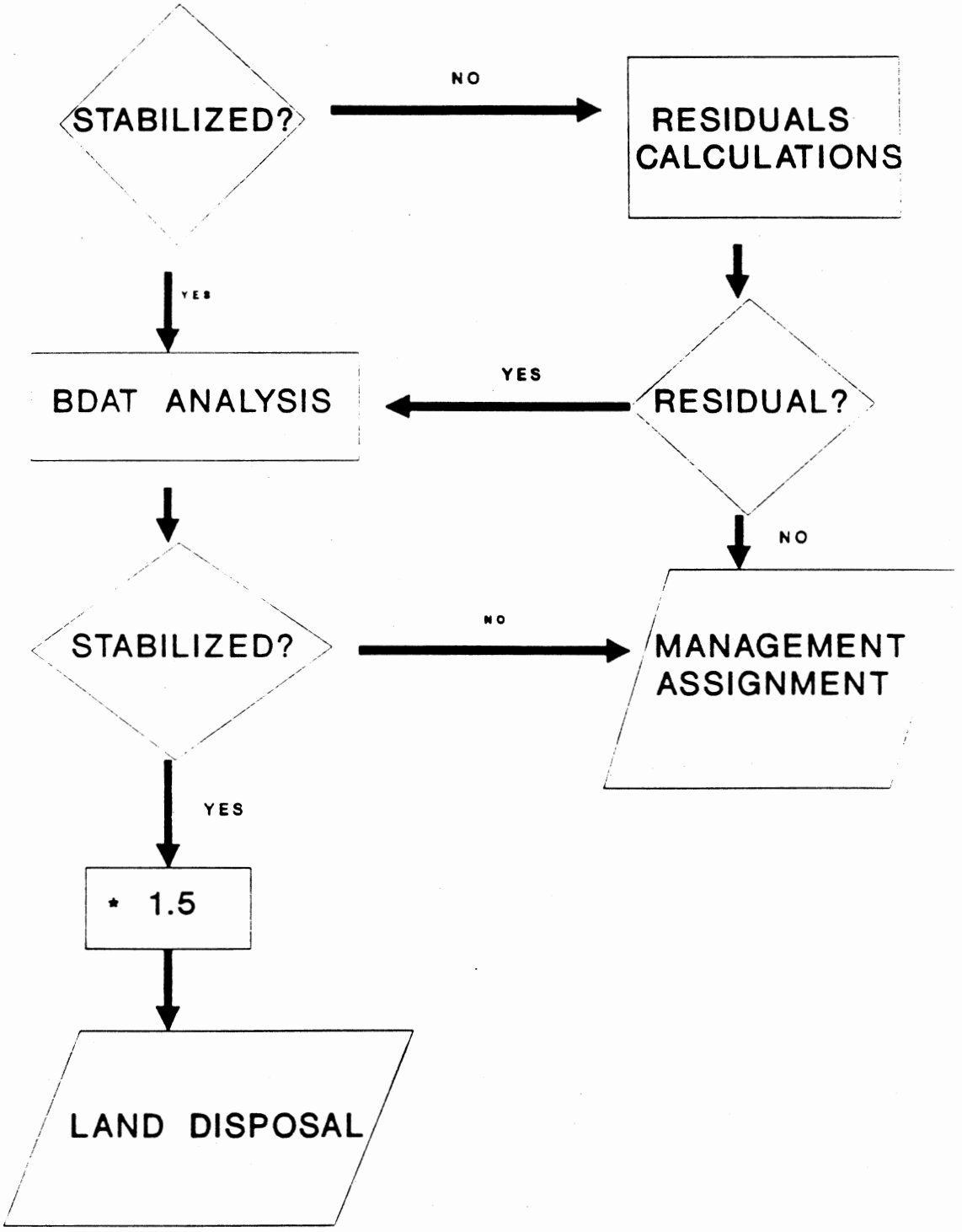
- When more than one BDAT is applicable to the same waste, the distribution reflects current selection of treatment alternatives.

Examples of BDAT options given in the promulgated land disposal restriction rules are given below:

1. Alkaline chlorination, followed by precipitation, settling, filtration and stabilization of materials (F007, F008, F010, F021, ..., P121 wastewaters).

2. Alkaline chlorination, followed by precipitation, settling, filtration and stabilization of materials (F006, F007, F008, F009, ..., non-wastewaters).

Methodology for Residual Calculations
Figure 5-4



3. Electrolytic oxidation followed by alkaline chlorination, followed by precipitation, settling and filtration (F011, F012, P074, ..., P104 non-wastewaters).

4. Electrolytic oxidation followed by alkaline chlorination, followed by precipitation, settling and filtration (P013, P021, P098, ..., P106 non-wastewaters.

5. Incineration (F010, K029, F095, P039, ..., P087, non-wastewaters).

6. Incineration of fuel substitution (K027, K113, K116, ..., non-wastewaters).

7. Carbon absorption or incineration or pretreatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration (K027, K115, P040, ..., wastewaters).

8. Biological treatment (K036, K040, P071, ..., wastewaters).

9. Steam stripping followed by biological treatment (K009, K010, ..., wastewaters).

10. Stabilization (K115 nickel).

With the selection of the appropriate BDAT, a calculation is made to determine the quantities and types of residuals which would result from this treatment. As an example of the BDAT analysis:

K023 - Distillation bottoms from the production of phthalic anhydride from napthalene.

The following factors are identified:

- Treatability Type: D1 (Organic Solids and Sludges with Non-Halogenated Organic Constituents)

- Second Third Scheduled Wastes Stream (Group II)

- This wastestream would follow the first BDAT option as shown in Figure 2.

- BDAT: Incineration

For this type of wastestream, it is estimated that a 20% residual would result from incineration, which would further be land disposed with stabilization. Therefore, 20% of the total estimate projected waste quantity (before treatment) would be incorporated into the final land disposal capacity demand.

The result of BDAT analysis for each RCRA waste code of landfilled waste is weighted by projected quantities and displayed as a distribution of selected waste management technologies by waste types. An example of this distribution is shown in Table 5).

5.14 Demand by Management Category

Table 5-A shows New Jersey's baseyear and projected demand for commercial hazardous waste facilities. These projections represent commercial demand after the following effects have been considered: economic growth/decline, waste minimization, one-time events (cleanups, etc.), new regulations and the land disposal restrictions. It is interesting to note that one or a combination of one or more of these factors usually impact projected demand differently for each management category. These demand figures also include state and federal wastes which represent a demand on commercial capacity (Table 5-B) as well as residuals from the demand. These figures do not account for any imports. This is New Jersey demand only. The following discussion will serve to describe the projection factors which most significantly affected each management category.

Management Category:	Metals Recovery
Observation:	Projections remain relatively constant
Causation:	Growth due to cleanups and regulatory development is largely offset by economic decline and waste minimization reductions.

Management Category:	Solvents Recovery
Observation:	Projections increase at 1989, then decrease substantially to 2009
Causation:	The increase from the baseyear to the 1989 projection can be attributed primarily to new regulations and the land disposal restrictions. The decrease in demand in 1995 and 2009 can be attributed to an expected increase in waste minimization.

Management Category:	Other Recovery
Observation:	Decrease in 1989, followed by a slight increase in 1995, followed by a significant decrease in 2009
Causation:	The slight decrease in 1989 results because the impacts of waste reduction are projected to be slightly more significant than the economic growth factors and additional waste attributed to cleanups. The increase in 1989 is due to a projection of great economic growth which is reduced by the effects of waste minimization. By 2009 it is expected that the effect of economic growth will decrease and the effect of waste minimization will increase.

Management Category:	Incineration
Observation:	Dramatic Increase in Demand
Causation:	This number is driven primarily by the number of cleanups in New Jersey in conjunction with the effects of the land disposal restrictions.

Management Category:	Energy Recovery
Observation:	Decrease from the baseyear through 2009
Causation:	This reduction is due in large part to a reduction in the amount of residuals attributable to Energy Recovery as well as waste minimization factors.
Management Category:	Aqueous Treatment
Observation:	Steady Decrease in demand through 2009
Causation:	This decrease is due primarily to waste minimization and economic decline.
Management Category:	Other Treatment
Observation:	Steady Decrease in demand through 2009
Causation:	This reduction is attributed almost entirely to waste minimization.
Management Category:	Sludge Treatment
Observation:	Slight increase in 1989, followed by a decrease through 2009
Causation:	The slight increase is due to a projected increase in cleanups which will require sludge treatment. The subsequent decreases are due, in large part, to economic decline.
Management Category:	Stabilization
Observation:	Dramatic Decrease from baseyear to projection years
Causation:	This reduction is due primarily to the shift away from land disposal due to the land disposal restrictions. Many cleanup wastes which would require stabilization/land disposal have been shifted to incineration in accordance with the BDATs. The same scenario applies to other management categories.
Management Category:	Land Disposal
Observation:	Slight Increase and then relatively constant demand through 1989
Causation:	The landfill demand numbers include stabilizer. Therefore, the decrease in land disposal one would expect because of the land disposal restrictions is shown in the stabilization demand. However, once the waste is stabilized this adds 1.5 times the original quantity of waste to that which must actually be land disposed. Thus, stabilization times 1.5 = land disposal demand.

5.15 Connection with the Regional Approach

The data in Tables 5-A and 5-B were entered into a pool of similar data provided by the other 12 states in the region. It is important to note that the additional incinerator capacity projected to come on line in 1995 in New Jersey is a result of previous planning analyses performed by the state of New Jersey. This additional planned capacity is not a result of the regional approach. From this data, Table 5-C was created. This tables shows the regional shortfalls and excesses of capacity for the region. Table 5-C shows that, as of this writing, the region has sufficient capacity for all management categories with the exception of a shortfall in incineration in 1989 and long-term shortfalls in landfill and sludge treatment. As was noted earlier, while New York was participating in the region, this analysis only showed a short-term shortfall in incineration capacity. Thus, with only three weeks remaining, the region needed to assure capacity for the above three management categories. In order to accomplish this, letters were sent to all regions requested that and interregional agreement be negotiated (see Appendix 5). As of this writing, the outcome of this effort is unknown. Also, the region agreed to form a regional landfill task force, as discussed in Appendix 4.

5.16 Regional Incinerator Demand

As was stared earlier, the land disposal restrictions greatly increase New Jersey's projected incinerator demand. However, it is important to note that other states in the region may not have performed this analysis. Although, this state feels that the land disposal restriction analysis is key to giving an accurate representation of future incineration demand, some states were unable to perform the analysis. New Jersey was able to perform this analysis because our past planning efforts have enabled this state to develop a detailed planning system.

5.17 Tables Required by the Guidance Document

Tables 5-1, 5-4, and 5-5 were prepared in accordance with the Guidance Document. However, Table 5-C is being used by the northeast states as a substitute for Tables 5-2 and 5-3. The northeast states are of the opinion that it is not necessary to show the interstate flow of waste since the region is planning as a single "unit". Specifically, if there is enough capacity in the region to satisfy the region's demand, it should not matter where the waste is managed for these planning document. Similarly, if there is a shortfall in the region, the region will need to make plans to develop new capacity or to enter into interregional agreements. The reader should note that Tables 5-1, 5-4 and 5-5 are similar to that of the Chapter 3 tables. However, these tables incorporate the analyses from Chapter 4 and 5 of this document. The Chapter 5 tables are different that the Chapter 3 tables to the extent that they do not include imports or exports. Chapter 5 represent New Jersey demand only.

TABLE A: DEMAND BY MANAGEMENT CATEGORY FOR NEW JERSEY

Projected Demand by SARA Management Category for 1989, 1995, 2009

SARA Management Category	Baseyear Demand	1989 Proj Demand	1995 Proj Demand	2009 Proj Demand
Metals recovery	15817	16929	15886	13668
Solvents recovery	45703	53002	48979	37437
Other recovery	16965	16164	18386	13834
Incineration	26542	78334	81809	73969
Energy recovery(inc fb)	97156	68196	71611	59457
Aqueous treatment	56950	46656	41790	37939
Other treatment	27799	23283	21573	19274
Sludge treatment	9074	9618	8045	7078
Stabilization	147813	53537	54760	49310
Land treatment	0	0	0	0
Landfill	124428	80306	82140	73966
Deepwell injection	0	0	0	0
Other disposal	181	1543	1468	1280

*includes Federal and State wastes which utilize hazardous capacity
*includes all residuals from in-state demand
*does not account for any imports

TABLE B: CAPACITY DATA BY MANAGEMENT CATEGORY FOR NEW JERSEY

Baseyear and Projected Capacity by SARA Management Category for 1987, 1989, 1995, 2009

SARA Management Category	1987 Capacity	1989 Capacity	1995 Capacity	2009 Capacity
Metals recovery	5182	5182	5182	5182
Solvents recovery	108381	108381	108381	108381
Other recovery	76126	76126	76126	76126
Incineration	40000	40000	100000	100000
Energy recovery(inc fb)	120037	120037	120037	120037
Aqueous treatment	413949	413949	413949	413949
Other treatment	237972	237972	237972	237972
Sludge treatment	23	23	23	23
Stabilization	85479	85479	85479	85479
Land treatment	0	0	0	0
Landfill	0	0	0	0
Deepwell injection	0	0	0	0
Other disposal	0	0	0	0

TABLE 5-C
NORTHEAST STATES CAPACITY ASSURANCE PLAN
13 STATE REGIONAL SUMMARY TABLE

Year	Capacity Demand	MANAGEMENT CATEGORIES									
		Metal Recovery	Solvent Recovery	Other Recovery	Incineration	Energy Recovery	Aqueous Treatment	Other Treatment	Sludge Treatment	Stabilization	Landfill
1987	Capacity	444756	197560	80100	40000	332354	1824872	280342	3923	334179	400
	Generation	98107	151634	18070	66340	185930	376002	103531	19895	202315	363139
	Net	346649	45926	62030	-26340	146424	1448870	176811	-15972	131864	-362739
1989	Capacity	448156	183590	80100	40000	336064	1824872	280342	3923	334179	0
	Generation	86145	152481	17095	116220	142011	343445	96914	19583	264191	283470
	Net	362011	31109	63005	-76220	194043	1481427	183428	-15660	69988	-283470
1995	Capacity	469170	237590	81096	302400	365918	2039846	280342	3923	334179	68000
	Generation	77351	137044	19297	123332	139772	305233	83759	16650	213687	224290
	Net	391819	100546	61799	179068	226146	1734613	196583	-12727	120492	-156290
2009	Capacity	469170	237590	81606	312400	365918	2039846	280342	3923	334179	68000
	Generation	66084	121817	14720	115045	128094	273082	74741	15531	272385	208346
	Net	403086	115773	66886	197355	237824	1766764	205601	-11608	61794	-140346

Note All units are in tons per year.

TABLE 5-1 (89)

SUMMARY OF GENERATION BY WASTE TYPE IN 1989
(Tons)

Waste types	Recurrent Generation	One-time Generation	Total Generation
1. Contaminated Soil	220	23,067	23,287
2. Halogenated Solvents	5,427	806	6,233
3. Nonhalogenated Solvents	16,376	4,374	20,750
4. Halogenated Organic Liquids	4,349	13	4,362
5. Nonhalogenated Organic Liquids	60	16	76
6. Organic Liquids, NEC	57,495	1,384	58,879
7. Mixed Organic/Inorganic Liquids	3,492	2,733	6,225
8. Inorganic Liquids with Organics	10,225	211	10,436
9. Inorganic Liquids with Metals	81,052	1,526	82,578
10. Inorganic Liquids, NEC	436,032	296	436,328
11. Halogenated Organic Sludges/Solids	94,194	2,513	96,707
12. Nonhalogenated Organic Sludges/Solids	829	571	1,400
13. Organic Sludges/Solids, NEC	19,409	35,394	54,803
14. Mixed Organic/Inorganic Sludges/Solids	510	8,820	9,330
15. Inorganic Sludges/Solids with Metals	43,960	8,656	52,616
16. Inorganic Sludges & Solids, NEC	8,266	2,627	10,893
17. Other Wastes	5,955	25,765	31,720
Total	770,527	116,498	906,623

TABLE 5-1 (95)

SUMMARY OF GENERATION BY WASTE TYPE IN 1995
(Tons)

Waste types	Recurrent Generation	One-time Generation	Total Generation
1. Contaminated Soil	249	27,296	27545
2. Halogenated Solvents	5,491	806	6297
3. Nonhalogenated Solvents	14,701	3,975	18676
4. Halogenated Organic Liquids	4,363	9	4372
5. Nonhalogenated Organic Liquids	65	20	85
6. Organic Liquids, NEC	52,977	1,202	54179
7. Mixed Organic/Inorganic Liquids	3,120	3,961	7081
8. Inorganic Liquids with Organics	8,871	196	9067
9. Inorganic Liquids with Metals	80,315	1,491	81806
10. Inorganic Liquids, NEC	435,687	295	435982
11. Halogenated Organic Sludges/Solids	92,697	2,215	94912
12. Nonhalogenated Organic Sludges/Solids	595	425	1020
13. Organic Sludges/Solids, NEC	18,722	37,662	56384
14. Mixed Organic/Inorganic Sludges/Solids	509	10,874	11383
15. Inorganic Sludges/Solids with Metals	43,626	20,058	63684
16. Inorganic Sludges & Solids, NEC	8,056	2,470	10526
17. Other Wastes	5,256	21,039	26295
Total	775,300	133,994	909,294

TABLE 5-1 (09)

SUMMARY OF GENERATION BY WASTE TYPE IN 2009
(Tons)

Waste types	Recurrent Generation	One-time Generation	Total Generation
1. Contaminated Soil	257	27,352	27609
2. Halogenated Solvents	5,090	782	5872
3. Nonhalogenated Solvents	11,181	3,141	14322
4. Halogenated Organic Liquids	4,849	10	4859
5. Nonhalogenated Organic Liquids	59	19	78
6. Organic Liquids, NEC	37,627	825	38452
7. Mixed Organic/Inorganic Liquids	2,796	3,498	6294
8. Inorganic Liquids with Organics	8,151	155	8306
9. Inorganic Liquids with Metals	79,322	1,378	80700
10. Inorganic Liquids, NEC	429,071	287	429358
11. Halogenated Organic Sludges/Solids	86,577	1,363	87940
12. Nonhalogenated Organic Sludges/Solids	317	242	559
13. Organic Sludges/Solids, NEC	21,106	41,769	62875
14. Mixed Organic/Inorganic Sludges/Solids	507	10,778	11285
15. Inorganic Sludges/Solids with Metals	34,515	19,310	53825
16. Inorganic Sludges & Solids, NEC	8,456	2,361	10817
17. Other Wastes	5,648	19,703	25351
Total	718,205	132,973	868,502

TABLE 5-4(b-9)
1989 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT ALL FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	19,572	0	0	0	0	1,454	0	2,181	0	0	23,207
2. Halogenated Solvents	0	4,695	0	650	356	75	52	0	162	0	243	0	1	6,234
3. Nonhalogenated Solvents	0	13,782	40	1,715	605	2,190	772	0	461	0	692	0	0	20,257
4. Halogenated Organic Liquids	0	317	0	3,944	0	1	0	0	0	0	0	0	0	4,262
5. Nonhalogenated Organic Liquids	0	9	0	60	0	7	2	0	0	0	0	0	0	78
6. Organic Liquids, NEC	36	24,532	0	13,729	16,150	704	2,783	372	219	0	344	0	0	58,879
7. Mixed Organic/Inorganic Liquids	0	418	0	2,308	99	1,314	387	1,374	107	0	181	0	60	6,226
8. Inorganic Liquids with Organics	0	1,089	0	0	1,736	7,481	107	23	0	0	0	0	0	10,436
9. Inorganic Liquids with Metals	600	0	0	21	136	8,798	71,813	197	485	0	728	0	0	82,578
10. Inorganic Liquids, NEC	17	0	0	0	309	5,505	395,969	1,179	288	0	432	0	32,823	436,322
11. Halogenated Organic Sludges&Solids	0	885	0	1,758	3	1,307	2,881	67	1,172	0	88,835	0	0	96,708
12. Nonhalogenated Sludges & Solids	0	6	0	332	0	0	0	12	260	0	390	0	0	1,000
13. Organic Sludges&Solids, NEC	0	20	735	17	2,711	5	398	40	20,370	12	30,555	0	1	54,864
14. Mixed Organic/Inorganic Sludges&Solids	0	19	0	9,036	0	23	1	251	0	0	0	0	0	9,330
15. Inorganic Sludges&Solids with Metals	12,983	2,427	0	2,969	81	3,779	4,325	2,823	9,155	296	13,771	0	9	52,618
16. Inorganic Sludges&Solids, NEC	3,338	3	406	1,736	181	1751	1,837	907	272	36	408	0	22	10,897
17. Other Wastes, NEC	0	1,643	1,507	6,112	253	2,387	5,404	1,300	4,993	0	7,490	0	632	31,721
TOTAL	16,974	49,845	2,688	69,957	22,620	35,327	486,331	8,545	39,408	344	146,227	0	33,348	905,814

TABLE 5-4(b)
1986 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT ALL FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABIL ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	23,159	0	0	0	0	1,742	0	2,613	0	0	27,514
2. Halogenated Solvents	0	4,764	0	657	350	62	50	0	165	0	248	0	1	6,297
3. Nonhalogenated Solvents	0	12,502	37	1,609	672	2,032	761	0	425	0	638	0	0	18,676
4. Halogenated Organic Liquids	0	326	0	3,944	0	1	0	0	0	0	0	0	0	4,271
5. Nonhalogenated Organic Liquids	0	10	0	62	0	11	2	0	0	0	0	0	0	85
6. Organic Liquids, NEC	32	21,546		12,768	16,852	222	2,167	320	181	0	272	0	0	54,160
7. Mixed Organic/Inorganic Liquids	0	581	0	3,303	88	1,077	532	1,238	85	0	128	0	60	7,090
8. Inorganic Liquids with Organics	0	1,052	0	0	1,692	6,234	70	19	0	0	0	0	0	9,067
9. Inorganic Liquids with Metals	550	0	0	17	112	29,685	49,980	42	456	0	664	0	0	81,506
10. Inorganic Liquids, NEC	14	0	0	0	371	5,220	396,933	9	141	0	212	0	32,622	435,522
11. Halogenated Organic Sludges&Solids	0	764	0	1,502	4	697	2,240	60	1,027	0	88,618	0	0	94,912
12. Nonhalogenated Sludges & Solids	0	6	0	362	0	0	0	12	256	0	384	0	0	1,020
13. Organic Sludges&Solids, NEC	0	22	690	16	2,622	344	61	31	21,033	12	31,552	0	1	56,384
14. Mixed Organic/Inorganic Sludges&Solids	0	19	0	10,990	0	23	0	251	0	0	0	0	0	11,283
15. Inorganic Sludges&Solids with Metals	11,538	3,176	0	10,389	78	5,895	1,731	2,031	10,903	296	16,528	0	9	62,664
16. Inorganic Sludges&Solids, NEC	3,798	3	405	1,605	170	1505	2,330	13	256	36	384	0	22	10,527
17. Other Wastes, NEC	0	1,333	1,439	3,705	241	3,485	4,028	1,241	4,842	0	7,263	0	631	28,206
TOTAL	15,932	46,104	2,571	74,088	23,052	56,493	460,863	5,265	41,602	344	149,520	0	33,346	909,180

TABLE 5-4 (CO)
2009 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT [illegible] FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	23,406	0	0	0	0	1,743	0	2,615	0	0	27,764
2. Halogenated Solvents	0	4,432	0	460	296	73	49	0	159	0	239	0	0	5,708
3. Nonhalogenated Solvents	0	10,078	24	5,085	583	1,334	724	0	334	0	501	0	0	18,663
4. Halogenated Organic Liquids	0	325	0	19	0	1	0	0	0	0	0	0	0	345
5. Nonhalogenated Organic Liquids	0	10	0	2,525	0	11	2	0	0	0	0	0	0	2,548
6. Organic Liquids, NEC	22	14,174	0	7,441	12,422	153	2,109	232	132	0	198	0	0	36,883
7. Mixed Organic/Inorganic Liquids	0	509	0	2,890	79	946	492	1,078	84	0	126	0	60	6,264
8. Inorganic Liquids with Organics	0	835	0	0	1,328	6,232	76	11	0	0	0	0	0	8,482
9. Inorganic Liquids with Metals	434	0	0	20	111	29,193	49,717	186	387	0	561	0	0	80,629
10. Inorganic Liquids, NEC	18	0	0	0	389	5,456	396,016	1,180	142	0	213	0	32,620	436,032
11. Halogenated Organic Sludges&Solids	0	484	0	981	3	982	1,441	47	672	0	86,085	0	0	92,675
12. Nonhalogenated Sludges & Solids	0	6	0	319	0	0	0	12	225	0	338	0	0	900
13. Organic Sludges&Solids, NEC	0	16	650	14	2,413	344	46	40	19,475	12	29,215	0	1	52,226
14. Mixed Organic/Inorganic Sludges&Solids	0	20	0	10,991	0	23	0	251	0	0	0	0	0	11,285
15. Inorganic Sludges&Solids with Metals	9,837	2,756	0	6,797	52	4,798	1,274	1,975	9,196	296	13,832	0	9	52,822
16. Inorganic Sludges&Solids, NEC	3,375	3	375	1,490	127	1450	1,552	900	234	36	351	0	22	9,915
17. Other Wastes, NEC	0	1,185	1,280	3,300	215	3,223	3,885	1,104	4,297	0	6,446	0	627	25,562
TOTAL	13,684	34,833	2,329	67,738	18,018	54,199	457,383	7,016	37,080	344	142,737	0	33,339	868,700

TABLE 5-4A(89)
BASEYEAR 1989 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT CAPTIVE FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Halogenated Solvents	0	882	0	14	0	0	0	0	0	0	0	0	0	896
3. Nonhalogenated Solvents	0	20	0	0	0	0	0	0	0	0	0	0	0	20
4. Halogenated Organic Liquids	0	0	0	10	0	0	0	0	0	0	0	0	0	10
5. Nonhalogenated Organic Liquids	0	0	0	7	0	0	0	0	0	0	0	0	0	7
6. Organic Liquids, NEC	0	0	0	72	653	12	26	0	0	0	0	0	0	763
7. Mixed Organic/Inorganic Liquids	0	0	0	0	0	2	0	0	0	0	0	0	0	2
8. Inorganic Liquids with Organics	0	0	0	0	0	2,866	0	0	0	0	0	0	0	2,866
9. Inorganic Liquids with Metals	27	0	0	0	0	8	152	0	0	0	0	0	0	187
10. Inorganic Liquids, NEC	3	0	0	0	0	57	1,165	0	0	0	0	0	0	1,225
11. Halogenated Organic Sludges&Solids	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12. Nonhalogenated Sludges & Solids	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13. Organic Sludges&Solids, NEC	0	0	0	0	0	0	9	0	0	0	0	0	0	9
14. Mixed Organic/Inorganic Sludges&Solids	0	0	0	70	0	0	0	0	0	0	0	0	0	70
15. Inorganic Sludges&Solids with Metals	19	0	0	30	0	23	3	0	0	0	0	0	0	75
16. Inorganic Sludges&Solids, NEC	3	0	0	58	0	18	892	0	0	0	0	0	0	971
17. Other Wastes, NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	52	902	0	261	653	2,986	2,248	0	0	0	0	0	0	7,102

TABLE 3.3A(cont.)
BASE YEAR 1995 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT CAPTIVE FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Halogenated Solvents	0	882	0	14	0	0	0	0	0	0	0	0	0	896
3. Nonhalogenated Solvents	0	20	0	0	0	0	0	0	0	0	0	0	0	20
4. Halogenated Organic Liquids	0	0	0	10	0	0	0	0	0	0	0	0	0	10
5. Nonhalogenated Organic Liquids	0	0	0	7	0	0	0	0	0	0	0	0	0	7
6. Organic Liquids, NEC	0	0	0	72	653	12	26	0	0	0	0	0	0	763
7. Mixed Organic/Inorganic Liquids	0	0	0	0	0	2	0	0	0	0	0	0	0	2
8. Inorganic Liquids with Organics	0	0	0	0	0	2,866	0	0	0	0	0	0	0	2,866
9. Inorganic Liquids with Metals	27	0	0	0	0	8	152	0	0	0	0	0	0	187
10. Inorganic Liquids, NEC	3	0	0	0	0	57	1,165	0	0	0	0	0	0	1,225
11. Halogenated Organic Sludges&Solids	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12. Nonhalogenated Sludges & Solids	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13. Organic Sludges&Solids, NEC	0	0	0	0	0	0	9	0	0	0	0	0	0	9
14. Mixed Organic/Inorganic Sludges&Solids	0	0	0	70	0	0	0	0	0	0	0	0	0	70
15. Inorganic Sludges&Solids with Metals	19	0	0	30	0	23	3	0	0	0	0	0	0	75
16. Inorganic Sludges&Solids, NEC	3	0	0	58	0	18	892	0	0	0	0	0	0	971
17. Other Wastes, NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	52	902	0	261	653	2,986	2,248	0	0	0	0	0	0	7,102

TABLE 5-4A(09)
BASEYEAR 2009 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT CAPTIVE FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Halogenated Solvents	0	882	0	14	0	0	0	0	0	0	0	0	0	896
3. Nonhalogenated Solvents	0	20	0	0	0	0	0	0	0	0	0	0	0	20
4. Halogenated Organic Liquids	0	0	0	10	0	0	0	0	0	0	0	0	0	10
5. Nonhalogenated Organic Liquids	0	0	0	7	0	0	0	0	0	0	0	0	0	7
6. Organic Liquids, NEC	0	0	0	72	653	12	26	0	0	0	0	0	0	763
7. Mixed Organic/Inorganic Liquids	0	0	0	0	0	2	0	0	0	0	0	0	0	2
8. Inorganic Liquids with Organics	0	0	0	0	0	2,866	0	0	0	0	0	0	0	2,866
9. Inorganic Liquids with Metals	27	0	0	0	0	8	152	0	0	0	0	0	0	187
10. Inorganic Liquids, NEC	3	0	0	0	0	57	1,165	0	0	0	0	0	0	1,225
11. Halogenated Organic Sludges&Solids	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12. Nonhalogenated Sludges & Solids	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13. Organic Sludges&Solids, NEC	0	0	0	0	0	0	9	0	0	0	0	0	0	9
14. Mixed Organic/Inorganic Sludges&Solids	0	0	0	70	0	0	0	0	0	0	0	0	0	70
15. Inorganic Sludges&Solids with Metals	19	0	0	30	0	23	3	0	0	0	0	0	0	75
16. Inorganic Sludges&Solids, NEC	3	0	0	58	0	18	892	0	0	0	0	0	0	971
17. Other Wastes, NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	52	902	0	261	653	2,986	2,248	0	0	0	0	0	0	7,102

TABLE 5-4(1)(b)
1989 WASTE MANAGED IN-STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT COMMERCIAL FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP-WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	19,572	0	0	0	0	1,454	0	2,181	0	0	23,207
2. Halogenated Solvents	0	3,808	0	360	356	75	52	0	162	0	243	0	0	5,084
3. Nonhalogenated Solvents	0	13,782	40	1,637	606	2,126	174	0	481	0	692	0	0	19,497
4. Halogenated Organic Liquids	0	317	0	4	0	1	0	0	0	0	0	0	0	322
5. Nonhalogenated Organic Liquids	0	9	0	48	0	7	2	0	0	0	0	0	0	66
6. Organic Liquids, NEC	38	34,533	0	11,186	15,497	340	1,939	348	229	0	344	0	0	54,351
7. Mixed Organic/Inorganic Liquids	0	418	0	2,308	99	1,313	367	1,374	107	0	181	0	0	6,164
8. Inorganic Liquids with Organics	0	1,089	0	0	1,736	4,615	107	23	0	0	0	0	0	7,570
9. Inorganic Liquids with Metals	573	0	0	21	136	8,790	1,108	45	485	0	728	0	0	11,886
10. Inorganic Liquids, NEC	14	0	0	0	309	5,448	6,997	14	288	0	433	0	23	13,526
11. Halogenated Organic Sludges&Solids	0	885	0	1,756	3	1,307	2,661	31	1,173	0	1,756	0	0	9,585
12. Nonhalogenated Sludges & Solids	0	6	0	332	0	0	0	0	260	0	390	0	0	994
13. Organic Sludges&Solids, NEC	0	20	736	17	2,711	5	56	0	20,370	0	30,555	0	0	54,471
14. Mixed Organic/Inorganic Sludges&Solids	0	19	0	8,873	0	23	1	0	0	0	0	0	0	8,916
15. Inorganic Sludges&Solids with Metals	12,984	2,427	0	2,930	81	3,756	1,886	1,086	9,156	0	13,733	0	0	47,908
16. Inorganic Sludges&Solids, NEC	3,335	3	406	1,678	181	1733	1,837	15	272	0	408	0	0	9,868
17. Other Wastes, NEC	0	1,643	1,507	6,112	253	2,387	1,419	1,300	4,993	0	7,490	0	31	0
TOTAL	16,923	48,838	2,694	56,875	21,967	31,825	18,818	4,233	39,406	0	59,113	0	54	300,638

TABLE 5.4(1)(b)
1986 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT COMMERCIAL FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI-ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	23,159	0	0	0	0	1,742	0	2,613	0	0	27,514
2. Halogenated Solvents	0	3,875	0	397	350	62	50	0	165	0	248	0	0	5,147
3. Nonhalogenated Solvents	0	12,462	37	1,531	608	2,032	163	0	425	0	638	0	0	17,916
4. Halogenated Organic Liquids	0	328	0	4	0	1	0	0	0	0	0	0	0	331
5. Nonhalogenated Organic Liquids	0	10	0	50	0	11	2	0	0	0	0	0	0	73
6. Organic Liquids, NEC	32	31,548		10,227	15,547	210	1,797	320	181	0	272	0	0	50,132
7. Mixed Organic/Inorganic Liquids	0	581	0	3,303	88	1,075	532	1,236	85	0	128	0	0	7,028
8. Inorganic Liquids with Organics	0	1,052	0	0	1,692	3,368	70	19	0	0	0	0	0	6,201
9. Inorganic Liquids with Metals	823	0	0	17	112	7,928	1,052	42	456	0	884	0	0	10,814
10. Inorganic Liquids, NEC	11	0	0	0	371	5,158	6,801	9	141	0	213	0	22	12,725
11. Halogenated Organic Sludges&Solids	0	784	0	1,502	4	697	2,239	25	1,027	0	1,541	0	0	7,799
12. Nonhalogenated Sludges & Solids	0	8	0	362	0	0	0	0	256	0	384	0	0	1,008
13. Organic Sludges&Solids, NEC	0	22	690	16	2,622	4	52	0	21,033	0	31,580	0	0	55,969
14. Mixed Organic/Inorganic Sludges&Solids	0	19	0	10,827	0	23	0	0	0	0	0	0	0	10,869
15. Inorganic Sludges&Solids with Metals	11,519	3,178	0	10,331	78	3,403	1,728	296	10,993	0	16,490	0	0	58,014
16. Inorganic Sludges&Solids, NEC	3,795	3	406	1,605	170	1487	1,438	13	256	0	384	0	0	9,556
17. Other Wastes, NEC	0	1,333	1,439	3,705	241	2,209	1,317	1,241	4,842	0	7,263	0	30	23,620
TOTAL	15,880	45,195	2,571	67,036	21,883	27,666	17,241	3,201	41,602	0	62,408	0	52	304,732

TABLE 5 4B(00)
2009 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT COMMERCIAL FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	23,160	0	0	0	0	1,743	0	2,615	0	0	27,518
2. Halogenated Solvents	0	3,543	0	368	296	73	49	0	159	0	239	0	0	4,727
3. Nonhalogenated Solvents	0	10,056	24	1,155	519	1,334	126	0	334	0	501	0	0	14,051
4. Halogenated Organic Liquids	0	325	0	4	0	1	0	0	0	0	0	0	0	330
5. Nonhalogenated Organic Liquids	0	10	0	49	0	11	2	0	0	0	0	0	0	72
6. Organic Liquids, NEC	23	14,174	0	7,369	11,317	141	1,265	206	132	0	198	0	0	34,824
7. Mixed Organic/Inorganic Liquids	0	509	0	2,890	79	944	492	1,078	84	0	126	0	0	6,202
8. Inorganic Liquids with Organics	0	636	0	0	1,328	3,368	76	11	0	0	0	0	0	5,616
9. Inorganic Liquids with Metals	407	0	0	20	111	7,436	981	34	387	0	861	0	0	9,937
10. Inorganic Liquids, NEC	13	0	0	0	389	5,394	7,049	15	142	0	213	0	20	13,235
11. Halogenated Organic Sludges&Solids	0	484	0	981	3	982	1,441	11	672	0	1,008	0	0	5,582
12. Nonhalogenated Sludges & Solids	0	6	0	319	0	0	0	0	225	0	336	0	0	886
13. Organic Sludges&Solids, NEC	0	16	650	14	2,413	4	46	0	19,475	0	29,213	0	0	51,831
14. Mixed Organic/Inorganic Sludges&Solids	0	20	0	10,828	0	23	0	0	0	0	0	0	0	10,871
15. Inorganic Sludges&Solids with Metals	9,816	2,756	0	8,767	52	2,306	1,274	237	9,196	0	13,794	0	0	48,200
16. Inorganic Sludges&Solids, NEC	3,372	3	375	1,432	127	1432	1,552	8	234	0	351	0	0	8,886
17. Other Wastes, NEC	0	1,186	1,280	3,300	215	1,947	1,176	1,104	4,297	0	6,446	0	26	20,976
TOTAL	13,633	33,924	2,329	60,656	16,849	26,374	15,509	2,704	37,080	0	55,620	0	46	263,723

TABLE 5-40 (89)
BASEYEAR 1989 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT CAPTIVE FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Halogenated Solvents	0	7	0	246	0	0	0	0	0	0	0	0	1	254
3. Nonhalogenated Solvents	0	0	0	78	64	0	0	0	0	0	0	0	0	142
4. Halogenated Organic Liquids	0	0	0	3,930	0	0	598	0	0	0	0	0	0	4,528
5. Nonhalogenated Organic Liquids	0	0	0	5	0	0	0	0	0	0	0	0	0	5
6. Organic Liquids, NEC	0	0	0	2,469	452	0	844	0	0	0	0	0	0	3,765
7. Mixed Organic/Inorganic Liquids	0	0	0	0	0	0	0	0	0	0	0	0	60	60
8. Inorganic Liquids with Organics	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Inorganic Liquids with Metals	0	0	0	0	0	21,749	48,756	0	0	0	0	0	0	70,505
10. Inorganic Liquids, NEC	0	0	0	0	0	5	388,967	0	0	0	0	0	32,600	421,572
11. Halogenated Organic Sludges&Solids	0	0	0	0	0	0	0	35	0	0	87,077	0	0	87,112
12. Nonhalogenated Sludges & Solids	0	0	0	0	0	0	0	12	0	0	0	0	0	12
13. Organic Sludges&Solids, NEC	0	0	0	0	0	340	0	31	0	12	2	0	1	386
14. Mixed Organic/Inorganic Sludges&Solids	0	0	0	93	0	0	0	251	0	0	0	0	0	344
15. Inorganic Sludges&Solids with Metals	0	0	0	0	0	2,469	0	1,735	0	298	38	0	9	4,547
16. Inorganic Sludges&Solids, NEC	0	0	0	0	0	0	0	0	0	36	0	0	22	58
17. Other Wastes, NEC	0	0	0	0	0	1,276	2,709	0	0	0	0	0	601	4,586
TOTAL	0	7	0	6,821	516	25,839	441,874	2,064	0	344	87,117	0	33,294	597,876

TABLE 5.40 (PG)
BASEYEAR 1995 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT CAPTIVE FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Halogenated Solvents	0	7	0	246	0	0	0	0	0	0	0	0	1	254
3. Nonhalogenated Solvents	0	0	0	78	64	0	0	0	0	0	0	0	0	142
4. Halogenated Organic Liquids	0	0	0	3,930	0	0	598	0	0	0	0	0	0	4,528
5. Nonhalogenated Organic Liquids	0	0	0	5	0	0	0	0	0	0	0	0	0	5
6. Organic Liquids, NEC	0	0	0	2,469	452	0	844	0	0	0	0	0	0	3,765
7. Mixed Organic/Inorganic Liquids	0	0	0	0	0	0	0	0	0	0	0	0	60	60
8. Inorganic Liquids with Organics	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Inorganic Liquids with Metals	0	0	0	0	0	21,749	48,756	0	0	0	0	0	0	70,505
10. Inorganic Liquids, NEC	0	0	0	0	0	5	388,967	0	0	0	0	0	32,600	421,572
11. Halogenated Organic Sludges&Solids	0	0	0	0	0	0	0	35	0	0	87,077	0	0	87,112
12. Nonhalogenated Sludges & Solids	0	0	0	0	0	0	0	12	0	0	0	0	0	12
13. Organic Sludges&Solids, NEC	0	0	0	0	0	340	0	31	0	13	2	0	1	386
14. Mixed Organic/Inorganic Sludges&Solids	0	0	0	93	0	0	0	251	0	0	0	0	0	344
15. Inorganic Sludges&Solids with Metals	0	0	0	0	0	2,469	0	1,735	0	296	36	0	9	4,547
16. Inorganic Sludges&Solids, NEC	0	0	0	0	0	0	0	0	0	36	0	0	22	58
17. Other Wastes, NEC	0	0	0	0	0	1,276	2,709	0	0	0	0	0	601	4,586
TOTAL	0	7	0	6,821	516	25,839	441,874	2,064	0	344	87,117	0	33,294	597,876

TABLE 5-4C (102)
BASE YEAR 2000 WASTE MANAGED IN STATE BY WASTE TYPE
AND SARA MANAGEMENT CATEGORIES AT CAPTIVE FACILITIES

WASTES TYPES	METALS RECOVERY	SOLVENTS RECOVERY	OTHER RECOVERY	INCINERATION	ENERGY RECOVERY	AQUEOUS TREATMENT	OTHER TREATMENT	SLUDGE TREATMENT	STABILI ZATION	LAND TREATMENT	LANDFILL	DEEP WELL INJECTION	OTHER DISPOSAL	TOTAL
1. Contaminated Soils	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Halogenated Solvents	0	7	0	246	0	0	0	0	0	0	0	0	1	254
3. Nonhalogenated Solvents	0	0	0	78	64	0	0	0	0	0	0	0	0	142
4. Halogenated Organic Liquids	0	0	0	3,930	0	0	598	0	0	0	0	0	0	4,528
5. Nonhalogenated Organic Liquids	0	0	0	5	0	0	0	0	0	0	0	0	0	5
6. Organic Liquids, NEC	0	0	0	2,469	452	0	844	0	0	0	0	0	0	3,765
7. Mixed Organic/Inorganic Liquids	0	0	0	0	0	0	0	0	0	0	0	0	60	60
8. Inorganic Liquids with Organics	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Inorganic Liquids with Metals	0	0	0	0	0	21,749	48,756	0	0	0	0	0	0	70,505
10. Inorganic Liquids, NEC	0	0	0	0	0	5	388,967	0	0	0	0	0	32,600	421,572
11. Halogenated Organic Sludges&Solids	0	0	0	0	0	0	0	35	0	0	87,077	0	0	87,112
12. Nonhalogenated Sludges & Solids	0	0	0	0	0	0	0	12	0	0	0	0	0	12
13. Organic Sludges&Solids, NEC	0	0	0	0	0	340	0	31	0	12	2	0	1	386
14. Mixed Organic/Inorganic Sludges&Solids	0	0	0	93	0	0	0	251	0	0	0	0	0	344
15. Inorganic Sludges&Solids with Metals	0	0	0	0	0	2,469	0	1,735	0	296	36	0	9	4,547
16. Inorganic Sludges&Solids, NEC	0	0	0	0	0	0	0	0	0	36	0	0	22	58
17. Other Wastes, NEC	0	0	0	0	0	1,276	2,709	0	0	0	0	0	601	4,586
TOTAL	0	7	0	6,821	516	25,839	441,874	2,084	0	344	87,117	0	33,294	597,876

TABLE 5-5 (89)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR ALL FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	1989 Maximum Capacity	1989 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	5,753	16,974	2	0	16,982	-11,229
2 . Solvents recovery	4,795,604	49,851	2,890	1,170	53,911	4,741,693
3 . Other recovery	76,180	2,688	13,504	0	16,192	59,988
4 & 5 . Incineration	78,946	63,975	15,387	6,143	85,505	-6,559
6 . Energy recovery	138,422	23,137	45,327	901	69,365	69,057
7 & 8 . Aqueous treatment	428,276	60,651	4,871	10,152	75,520	352,756
9 . Other treatment	14,247,331	462,741	6,241	2,615	471,619	13,775,712
10 . Sludge treatment	27,107,056	7,067	4,756	702	11,754	27,095,302
11 . Stabilization	91,177	39,408	15,801	4,026	59,235	31,942
12 . Land treatment	3,980	345	16	0	361	3,619
13 . Landfill	91,000	146,229	15,182	6,039	167,450	-76,450
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	39,783	33,349	1,438	3,833	38,620	1,163
Totals	47,103,508	906,415	125,415	35,581	1,066,514	46,036,994

TABLE 5-5 (95)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR ALL FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	1995 Maximum Capacity	1995 Management Demand: Federal Hazardous	1995 Management Demand: Other Hazardous	1995 Management Demand: Nonhazardous	1995 Management Demand: Total	Remaining Capacity
1 . Metals recovery	5,753	15,932	2	4	15,938	-10,185
2 . Solvents recovery	4,795,604	46,110	2,741	1,037	49,888	4,745,716
3 . Other recovery	76,180	2,571	15,843	0	18,414	57,766
4 & 5 . Incineration	138,946	74,131	10,724	4,115	88,970	49,976
6 . Energy recovery	138,422	23,053	48,850	877	72,780	65,642
7 & 8 . Aqueous treatment	428,276	56,494	4,463	9,851	70,808	357,468
9 . Other treatment	14,247,331	461,364	5,942	2,581	469,887	13,777,444
10 . Sludge treatment	27,107,033	5,264	4,307	610	10,181	27,096,852
11 . Stabilization	91,177	41,602	15,280	3,576	60,458	30,719
12 . Land treatment	3,980	345	16	0	361	3,619
13 . Landfill	91,000	149,520	14,400	5,364	169,284	-78,284
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	39,783	33,410	1,375	3,823	38,608	1,175
Totals	47,163,485	909,796	123,943	31,838	1,065,577	46,097,908

TABLE 5-5 (09)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR ALL FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	2009 Maximum Capacity	2009 Management Demand: Federal Hazardous	2009 Management Demand: Other Hazardous	2009 Management Demand: Nonhazardous	2009 Management Demand: Total	Remaining Capacity
1 . Metals recovery	5,753	13,684	2	4	13,690	-7,937
2 . Solvents recovery	4,795,604	34,838	2,549	959	38,346	4,757,258
3 . Other recovery	76,180	2,329	11,505	0	13,834	62,346
4 & 5 . Incineration	138,946	67,545	9,828	3,757	81,130	57,816
6 . Energy recovery	138,422	18,019	41,844	763	60,626	77,796
7 & 8 . Aqueous Treatment	428,276	54,200	4,035	8,722	66,957	361,319
9 . Other treatment	14,247,331	459,610	5,536	2,442	467,588	13,779,743
10 . Sludge treatment	27,107,033	4,767	3,870	577	9,214	27,097,819
11 . Stabilization	91,177	37,080	14,603	3,325	55,008	36,169
12 . Land treatment	3,980	345	16	0	361	3,619
13 . Landfill	91,000	142,737	13,385	4,988	161,110	-70,110
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	39,783	33,341	1,229	3,787	38,357	1,426
Totals	47,163,693	868,495	108,402	29,324	1,006,221	46,157,264

TABLE 5-5A (89)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR CAPTIVE FACILITIES

[Tons/Year, Landfill (Tons)]

1989 Management Demand

SARA MANAGEMENT CATEGORY	1989 Maximum Capacity	Federal Hazardous	Other Hazardous	Nonhazardous	Total	Remaining Capacity
1 . Metals recovery	601	52	0	0	52	549
2 . Solvents recovery	902	902	0	0	902	0
3 . Other recovery	29	0	28	0	28	1
4 & 5 . Incineration	305	262	2	3	267	38
6 . Energy recovery	2,075	653	0	0	653	1,422
7 & 8 . Aqueous treatment	2,673	2,986	137	2	3,125	-452
9 . Other treatment	9,175,317	2,248	29	0	2,277	9,173,040
10 . Sludge treatment	76	0	0	0	0	76
11 . Stabilization	5,698	0	5,698	0	5,698	0
12 . Land treatment	0	0	0	0	0	0
13 . Landfill	0	0	0	0	0	0
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	63	0	0	63	63	0
Totals	9,187,739	7,103	5,894	68	12,934	9,174,805

TABLE 5-5A (95)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR CAPTIVE FACILITIES

[Tons/Year, Landfill [Tons)]

SARA MANAGEMENT CATEGORY	1995 Maximum Capacity	1995 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	601	52	0	0	52	549
2 . Solvents recovery	902	902	0	0	902	0
3 . Other recovery	29	0	28	0	28	1
4 & 5 . Incineration	305	262	2	3	267	38
6 . Energy recovery	2,075	653	0	0	653	1,422
7 & 8 . Aqueous treatment	2,673	2,986	137	2	3,125	-452
9 . Other treatment	9,175,317	2,248	29	0	2,277	9,173,040
10 . Sludge treatment	76	0	0	0	0	76
11 . Stabilization	5,698	0	5,698	0	5,698	0
12 . Land treatment	0	0	0	0	0	0
13 . Landfill	0	0	0	0	0	0
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	63	0	0	63	63	0
Totals	9,187,739	7,103	5,894	68	12,934	9,174,805

TABLE 5-5A (09)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR CAPTIVE FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	2009 Maximum Capacity	2009 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	601	52	0	0	52	549
2 . Solvents recovery	902	902	0	0	902	0
3 . Other recovery	29	0	28	0	28	1
4 & 5 . Incineration	305	262	2	3	267	38
6 . Energy recovery	2,075	653	0	0	653	1,422
7 & 8 . Aqueous treatment	2,673	2,986	137	2	3,125	-452
9 . Other treatment	9,175,317	2,248	29	0	2,277	9,173,040
10 . Sludge treatment	76	0	0	0	0	76
11 . Stabilization	5,698	0	5,698	0	5,698	0
12 . Land treatment	0	0	0	0	0	0
13 . Landfill	0	0	0	0	0	0
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	63	0	0	63	63	0
Totals	9,187,739	7,103	5,894	68	12,934	9,174,805

TABLE 5-5B(89)

COMPARISION OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR COMMERCIAL FACILITIES IN1989
[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	1989 Maximum Capacity	1989 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1. Metals recovery	5,152	16,922	2	5	16,929	-11,777
2. Solvents recovery	108,381	48,942	2,890	1,170	53,002	55,379
3. Other recovery	76,126	2,688	13,476	0	16,164	59,962
4.&5. Incineration	40,000	56,891	15,314	6,139	78,344	-38,344
6. Energy recovery	120,037	21,968	45,327	901	68,196	51,841
7.&8. Aqueous treatment	413,949	31,825	4,734	10,097	46,656	367,293
9. Other treatment	237,972	18,619	3,899	765	23,283	214,689
10. Sludge treatment	23	4,233	4,754	631	9,618	-9,586
11. Stabilization	85,479	39,408	10,103	4,026	53,537	31,942
12. Land treatment	0	0	0	0	0	0
13. Landfill	0	59,112	15,155	6,039	80,306	-80,306
14. Deepwell injection	0	0	0	0	0	0
15. Other disposal	0	54	1,384	105	1,543	-1,543
Totals	1,087,119	300,662	117,038	29,878	447,578	639,541

TABLE 5-5B (95)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR COMMERCIAL FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	1995 Maximum Capacity	1995 Management Demand: Federal Hazardous	1995 Management Demand: Other Hazardous	1995 Management Demand: Nonhazardous	1995 Management Demand: Total	Remaining Capacity
1 . Metals recovery	5,152	15,880	2	4	15,886	-10,734
2 . Solvents recovery	108,381	45,201	2,741	1,037	48,979	59,402
3 . Other recovery	76,126	2,571	15,815	0	18,386	57,740
4 & 5 . Incineration	100,000	67,047	10,651	4,111	81,809	18,191
6 . Energy recovery	120,037	21,884	48,850	877	71,611	48,426
7 & 8 . Aqueous treatment	413,949	27,668	4,326	9,796	41,790	372,159
9 . Other treatment	237,974	17,242	3,600	731	21,573	216,401
10 . Sludge treatment	0	3,201	4,305	539	8,045	-8,045
11 . Stabilization	85,479	41,602	9,582	3,576	54,760	30,719
12 . Land treatment	0	0	0	0	0	0
13 . Landfill	0	62,403	14,373	5,364	82,140	-82,140
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	0	52	1,321	95	1,468	-1,468
Totals	1,147,119	304,751	115,566	26,130	446,447	700,752

TABLE 5-5 B(09)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR COMMERCIAL FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	2009 Maximum Capacity	2009 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	5,152	13,632	2	4	13,638	-8,486
2 . Solvents recovery	108,381	33,929	2,549	959	37,437	70,944
3 . Other recovery	76,126	2,329	11,505	0	13,834	62,292
4 & 5 . Incineration	100,000	60,461	9,755	3,753	73,969	26,031
6 . Energy recovery	120,037	16,850	41,844	763	59,457	60,580
7 & 8 . Aqueous Treatment	413,949	25,374	3,898	8,667	37,939	376,010
9 . Other treatment	237,972	15,488	3,194	592	19,274	218,698
10 . Sludge treatment	23	2,704	3,868	506	7,078	-7,055
11 . Stabilization	85,479	37,080	8,905	3,325	49,310	36,169
12 . Land treatment	0	0	0	0	0	0
13 . Landfill	0	55,620	13,358	4,988	73,966	-73,966
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	0	46	1,175	59	1,280	-1,280
Totals	1,147,119	263,513	100,053	23,616	387,182	759,937

TABLE 5-5C (89)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR ON-SITE FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	1989 Maximum Capacity	1989 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	0	0	0	0	0	0
2 . Solvents recovery	4,686,321	7	0	0	7	4,686,314
3 . Other recovery	25	0	0	0	0	25
4 & 5 . Incineration	38,641	6,822	71	1	6,894	31,747
6 . Energy recovery	16,310	516	0	0	516	15,794
7 & 8 . Aqueous treatment	11,654	25,840	0	53	25,893	-14,239
9 . Other treatment	4,834,042	441,874	2,313	1,850	446,037	4,388,005
10 . Sludge treatment	27,106,957	2,063	2	71	2,136	27,104,821
11 . Stabilization	0	0	0	0	0	0
12 . Land treatment	3,980	345	16	0	361	3,619
13 . Landfill	91,000	87,117	27	0	87,144	3,856
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	39,720	33,295	54	3,665	37,014	2,706
Totals	36,828,650	597,879	2,483	5,640	606,002	36,222,648

TABLE 5-5C (95)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR ON-SITE FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	1995 Maximum Capacity	1995 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	0	0	0	0	0	0
2 . Solvents recovery	4,686,321	7	0	0	7	4,686,314
3 . Other recovery	25	0	0	0	0	25
4 & 5 . Incineration	38,641	6,822	71	1	6,894	31,747
6 . Energy recovery	16,310	516	0	0	516	15,794
7 & 8 . Aqueous treatment	11,654	25,840	0	53	25,893	-14,239
9 . Other treatment	4,834,042	441,874	2,313	1,850	446,037	4,388,005
10 . Sludge treatment	27,106,957	2,063	2	71	2,136	27,104,821
11 . Stabilization	0	0	0	0	0	0
12 . Land treatment	3,980	345	16	0	361	3,619
13 . Landfill	91,000	87,117	27	0	87,144	3,856
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	39,720	33,295	54	3,665	37,014	2,706
Totals	36,828,650	597,879	2,483	5,640	606,002	36,222,648

TABLE 5-5C (09)

COMPARISON OF MAXIMUM WASTE MANAGEMENT CAPACITY WITH UTILIZED CAPACITY FOR ON-SITE FACILITIES

[Tons/Year, Landfill (Tons)]

SARA MANAGEMENT CATEGORY	2009 Maximum Capacity	2009 Management Demand				Remaining Capacity
		Federal Hazardous	Other Hazardous	Nonhazardous	Total	
1 . Metals recovery	0	0	0	0	0	0
2 . Solvents recovery	4,686,321	7	0	0	7	4,686,314
3 . Other recovery	25	0	0	0	0	25
4 & 5 . Incineration	38,641	6,822	71	1	6,894	31,747
6 . Energy recovery	16,310	516	0	0	516	15,794
7 & 8 . Aqueous treatment	11,654	25,840	0	53	25,893	-14,239
9 . Other treatment	4,834,042	441,874	2,313	1,850	446,037	4,388,005
10 . Sludge treatment	27,106,957	2,063	2	71	2,136	27,104,821
11 . Stabilization	0	0	0	0	0	0
12 . Land treatment	3,980	345	16	0	361	3,619
13 . Landfill	91,000	87,117	27	0	87,144	3,856
14 . Deepwell injection	0	0	0	0	0	0
15 . Other disposal	39,720	33,295	54	3,665	37,014	2,706
Totals	36,828,650	597,879	2,483	5,640	606,002	36,222,648