

EPA's 33/50 Program Second Progress Report

Reducing Risks Through Voluntary Action



SUMMARY

EPA's 33/50 Program is a year old, and one year closer to its goals of reducing toxic chemical pollution through voluntary, direct action by industry. Company participation in the 33/50 Program has increased more than three-fold since the issuance of the Program's first Progress Report in July of 1991. As of February 1992, 734 companies had written to EPA expressing commitments to reduce voluntarily their releases and transfers of toxic chemicals, up from 236 company commitments in July. The actual reductions pledged by these companies also has risen significantly during the past six months, from 201 million pounds in July to 304 million pounds in February.

The 33/50 Program seeks to reduce the generation of high-priority industrial toxic wastes by 50% by 1995, with an interim goal of a 33% reduction by 1992. Marking its first anniversary, this report examines progress in achieving the Program's ambitious goals and reviews the activities conducted over the past year to bring about this progress. In addition, the report provides an overview of the universe of toxic chemical releases and transfers addressed by the 33/50 Program. And finally, anniversaries also offer a time for looking forward, to assess the challenges — and potential pitfalls — ahead in forging a voluntary pollution prevention partnership among governments at all levels, communities, and industries.

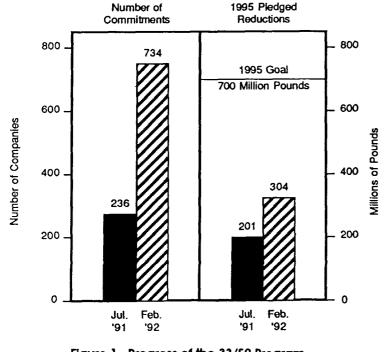


Figure 1. Progress of the 33/50 Program.

17 CHEMICALS OF THE 33/50 PROGRAM

BENZENE **CADMIUM & COMPOUNDS** CARBON TETRACHLORIDE **CHLOROFORM CHROMIUM & COMPOUNDS CYANIDES LEAD & COMPOUNDS** MERCURY & COMPOUNDS METHYL ETHYL KETONE METHYL ISOBUTYL KETONE METHYLENE CHLORIDE **NICKEL & COMPOUNDS TETRACHLOROETHYLENE TOLUENE** TRICHLOROETHANE TRICHLOROETHYLENE **XYLENES**

THE 33/50 PROGRAM: A ONE-YEAR PROGRESS REPORT

REDUCING TOXIC RISKS THROUGH VOLUNTARY DIRECT ACTION

THE 33/50 PROGRAM

EPA's 33/50 Program is a year old — one year closer to its goals for reducing toxic chemical pollution through voluntary, direct action by industry. The 33/50 Program seeks to reduce the generation of 17 high-priority industrial toxic wastes by 50% by 1995, with an interim goal of a 33% reduction by 1992. The Program was formally announced in February 1991, and the first 33/50 Progress Report was released in July 1991. This report examines the progress of the 33/50 Program at its first anniversary, and looks ahead to the progress — and potential pitfalls — of the next few years.

GOALS AND APPROACH

The 33/50 Program is an ambitious EPA initiative designed to reduce toxic waste generation from industrial sources quickly and with an unprecedented degree of flexibility. Industry participation in the 33/50 Program is *voluntary*: the Program aims to demonstrate that voluntary reduction programs can augment the Agency's traditional regulatory approach by achieving targeted reductions more quickly than would regulations alone.

The 33/50 Program derives its name from the overall goals — an interim goal of a 33% reduction by 1992 with an ultimate goal of a 50% reduction by 1995 in environmental releases and off-site transfers of 17 high-priority toxic chemicals, using 1988 as a baseline year. In 1988, almost 6,000 companies reported to the Toxic Release Inventory (TRI) that 1.4 billion pounds of the 33/50 chemicals were either released to the environment or transferred off-site to waste management facilities. The aim of the 33/50 Program is to reduce this 1.4 billion pounds of wastes by at least 50%, or 700 million pounds, by 1995.

The 33/50 Program is part of a broad EPA thrust to encourage *pollution prevention* as the best means of reducing risk to human health and the environment. Pollution prevention moves the focus on toxic

Industry Embracing Voluntary Reduction Goals

The 33/50 Program's challenge to American industry to voluntarily reduce toxic chemical releases is being embraced by a wide spectrum of companies, ranging from Fortune 500 firms such as AT&T and Du Pont to small and midsized companies like Magee Carpet of Bloomsburg, Pennsylvania and Ultra Forge of Cuyahoga Falls, Ohio. For a description of the reduction programs being implemented by these and other companies, see "33/50 Activities - What Industry Is Doing." A complete list of all companies participating in the 33/50 Program is included in Appendix A.

chemicals *upstream*, away from managing wastes after they have been generated, towards an approach that avoids the generation of wastes wherever possible through toxics use reduction, equipment and process changes, improved handling and operations, and so on. Although the goal of EPA's 33/50 Program is expressed as a 50% reduction in TRI environmental releases and transfers by 1995, a goal chosen to allow for progress to be measured with readily available data, the central theme of the program is to promote continuous environmental improvement through pollution prevention. Therefore, EPA urges companies to use pollution prevention as the preferred means of achieving their reductions. Moreover, EPA hopes that by emphasizing pollution prevention, companies will instill a new management ethic that will achieve even greater environmental benefits, expanding their reduction efforts beyond the chemicals, targets, and time frames established for the 33/50 Program.

The goal of the 33/50 Program includes the reduction of both direct releases to the environment (1,134 million pounds) and off-site transfers of waste materials to sewage treatment plants or commercial waste management facilities (297 million pounds). While it is important to understand the difference between direct releases to the environment and off-site transfers of wastes, both are included in our measures of progress because the central theme of the 33/50 Program is to promote pollution prevention. Thus, EPA has included all waste materials, regardless of whether they are released or transferred, to encourage industry to consider all waste generation when reviewing their pollution prevention options.

33/50 AND THE TOXICS RELEASE INVENTORY

The chemicals included in the 33/50 Program are 17 high-priority toxic chemicals that are among the more than 320 chemicals reported annually to the Toxics Release Inventory (TRI). These chemicals were selected for

attention by the 33/50 Program not only because of toxicity concerns, but because they are all commonly used in high volumes by industry, and they all have high potential for reduction through pollution prevention.

In 1988, the baseline year for the 33/50 Program, these 17 chemicals accounted for 22% of the total quantities reported to TRI (1.4 out of 6.4 billion pounds). Another reason for targeting these particular chemicals in the 33/50 Program is that they are handled by a significant portion of the facilities required to report under TRI. More than 12,000 facilities associated with almost 6,000 companies reported releasing and/or transferring one or more of the 33/50 chemicals in 1988. This represents 57% of the more than 21,000 TRI facilities that reported in 1988. (See Figure 2.)

EPA'S 33/50 PROGRAM: THE 17 CHEMICALS TARGETED FOR REDUCTIONS

BENZENE **CADMIUM & COMPOUNDS** CARBON TETRACHLORIDE CHLOROFORM CHROMIUM & COMPOUNDS **CYANIDES** LEAD & COMPOUNDS MERCURY & COMPOUNDS METHYL ETHYL KETONE METHYL ISOBUTYL KETONE METHYLENE CHLORIDE NICKEL & COMPOUNDS **TETRACHLOROETHYLENE TOLUENE** TRICHLOROETHANE TRICHLOROETHYLENE **XYLENES**

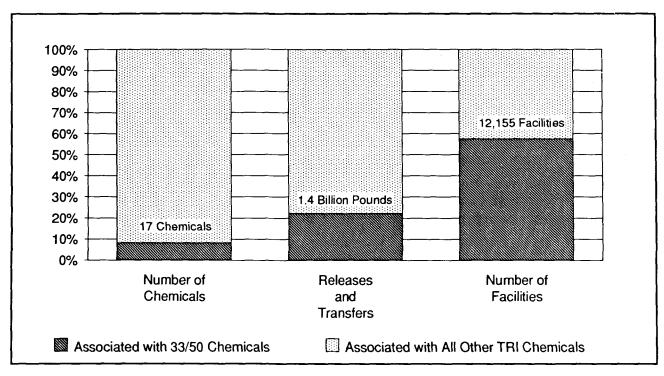


Figure 2. Total TRI and 33/50 Program Universe, 1988.

Pollution prevention benefits resulting from the Program could potentially extend to a substantial portion of the entire TRI universe, since companies are encouraged to consider reduction commitments beyond the goals of the 33/50 Program.

IMPLEMENTING THE 33/50 PROGRAM: EPA'S APPROACH

To achieve 33/50's goals, EPA developed a program consisting of four major elements: **outreach** to companies to encourage commitments; **public recognition** of companies for their commitments, pollution prevention efforts, and achievements; **technical assistance** to help companies overcome barriers and achieve commitments through pollution prevention practices; and **evaluation** of the effectiveness of both industry and government efforts in a voluntary, cooperative program.

Outreach: Perhaps the major challenge for the 33/50 Program is reaching out to the thousands of companies and over ten thousand facilities that can play a role in reducing toxic wastes. Letters to the heads of companies can be effective, but they are also easily overlooked by busy corporate executives with many priorities. There is also history and culture to contend with. The 33/50 Program is building a new type of relationship between government, communities and industry. Many companies, used to dealing with EPA or the public only in an adversarial relationship, are hesitant to embrace an EPA-sponsored voluntary program, no matter how sensible it might seem on paper. In order to make the most of our communications, EPA employed the following strategy:

A first round of intensive contacts with the "Top 600" companies. This entailed not only letters from the Administrator to company heads, but a series of about a dozen meetings with top executives from different industrial manufacturing sectors: chemicals; transportation related; machinery and electrical equipment; iron, steel, and primary metals; pulp and paper; petroleum refining; pharmaceuticals; wood and metal furniture; rubber and related products; and metal finishings and coatings. Trade associations, such as the Chemical Manufacturers Association, were instrumental in helping arrange these sessions. Program communications with individual company managers have also occurred through meetings with EPA Regional Administrators and staff and regional workshops with State program participation. Face to face contacts were invaluable in identifying issues, addressing questions, and providing assurances as to how the Program would and would not operate.

A **second round** of contacts involved not only letters to the heads of thousands of additional companies, but many direct meetings between EPA's Regional Offices and industries within their States. As many as a thousand additional companies will be contacted as new companies report to TRI for the first time, or as corporate affiliations change through sales, purchases, restructuring, and the like.

Continuing our outreach efforts, 33/50 Program staff have addressed conferences, provided information to the press, written articles, and circulated information about the Program wherever opportunities presented themselves. In this way, we can reach not only industry, but environmental groups, community organizations, organized labor, and the general public. The 33/50 Program is also independently reported on in the annual National Report released by the TRI Program. In addition, EPA routinely contacts companies that have not yet joined 33/50 to make certain they are aware of the Program, and to solicit their participation.

Public Recognition: EPA's release in 1989 of the first year of TRI data greatly increased public awareness about toxic pollution and industrial awareness of the depth of community concern about toxic wastes. The 33/50 Program provides industry a means of having its progress towards pollution prevention recognized through a formal EPA program

that receives broad public attention. At the same time, the commitment information submitted to 33/50 provides the public with access to information beyond that supplied in TRI reports.

In order to foster public awareness of industry's reduction efforts, the 33/50 Program publicizes company participation through Program publications, press releases, and in speeches and other routine federal and State communications. Companies submitting reduction commitments receive a formal certificate of participation from EPA. This year's **Administrator's Awards Program**,

More About 33/50...

Want to find out more about EPA's 33/50 Program? See the back page of this report for what's available, who to contact, and where to call, visit, or write.

1 Nearly 600 companies accounted for more than 75% of the total 1988 releases/transfers of 33/50 chemicals.

highlighting outstanding achievements in pollution prevention, is being coordinated with the 33/50 Program. Next year, 33/50 envisions having its own awards program to recognize company efforts in reducing wastes, including those that go beyond the goals set by 33/50, creating effective pollution prevention programs, communicating with and involving the public, and in other areas warranting special recognition. In addition, we are developing a compilation of 33/50 Company Progress Reports which will highlight effective company approaches to identifying pollution prevention opportunities and follow them through implementation.

Technical Assistance and Technology Transfer. The 33/50 Program is working closely with EPA's Office of Research and Development to help companies implement pollution prevention through information collection, coordination, and exchange. To date, there are five components to the 33/50 Program's technology assistance and transfer efforts:

- 1) The 33/50 Program is conducting a series of workshops across the country with industry to exchange information on pollution prevention theory and practices to aid in achieving reductions of the 17 chemicals.
- 2) EPA is expanding its Pollution Prevention Information Exchange System, a free computer bulletin board associated with EPA's Pollution Prevention Information Clearinghouse. The Bulletin Board and Clearinghouse contain technical, policy, programmatic, legislative, and financial information on pollution prevention, in general, and the 33/50 Program, in particular.
- EPA is preparing a series of bibliographic reports on pollution prevention and recycling techniques applicable to the major industries which release the 17 targeted chemicals.
- 4) EPA is publishing an expanded pollution prevention resource guide, Pollution Prevention Resources and Training Opportunities in 1992, which identifies key pollution prevention documents, industry specific guidance manuals, fact sheets, and videos. The guide also identifies federal, state, university, and other pollution prevention programs across the country. For example, the guide contains a complete listing of State programs that offer technical assistance on pollution prevention and waste minimization to businesses and industry.
- 5) EPA is identifying areas where new research efforts could lead to beneficial and readily transferable pollution prevention alternatives. As part of this effort, EPA will identify successful and innovative pollution prevention practices companies have implemented as part of the 33/50 Program and then share this information with other companies and other interested parties.

Program Evaluation: How well is the 33/50 Program working? Are reductions being achieved through pollution prevention? Do EPA regulatory programs or other barriers inhibit companies from making voluntary reduction commitments? Would reductions occur anyway without 33/50? These are important questions that need to be answered in order to determine *if* the 33/50 approach works, *why* it is working, and *what* it is

accomplishing. We are examining potential **regulatory obstacles** to pollution prevention in order to identify areas where EPA can remove obstacles without undercutting statutory mandates or environmental progress. Detailed **company progress reports**, prepared as part of program outreach, are focussing on incentives and obstacles to pollution prevention; they will allow independent validation of pollution prevention successes. A particular concern is documenting the extent to which reductions come about through true pollution prevention measures. As a result of passage of the Pollution Prevention Act of 1990, new TRI information on pollution prevention practices and the impact they are having will become available to EPA and to the public. Some companies are also providing additional information in their progress reports to the 33/50 Program. This information will provide invaluable insights towards evaluating the effectiveness of the Program.

33/50 AND OTHER FEDERAL, STATE, AND INTERNATIONAL PROGRAMS

The 33/50 Program is only one of the many pollution prevention activities underway at EPA, in the States, and elsewhere. Our activities are coordinated closely with other programs, wherever possible, so that there is a maximum impact with a minimum of overlap. Some of the cooperative efforts are described in the following paragraphs.

Other EPA Pollution Prevention Programs: Recent reorganizations at EPA have brought the 33/50 Program and the Pollution Prevention Division institutionally closer as a means of coordinating activities. EPA's new Office of Pollution Prevention and Toxics provides a central location for the Agency's pollution prevention activities. The 33/50 Program is becoming a key source of information for the Pollution Prevention Information Clearinghouse. We work closely with the early reductions program established by the Clean Air Act Amendments of 1990 to coordinate efforts to reduce industrial discharges of toxic chemicals prior to legislatively mandated schedules. The 33/50 Program is being looked to as a possible model as the Agency conducts a broad review of major regulatory activities, with the aim of further promoting pollution prevention. For example, the voluntary, direct action approach is proving successful not only in 33/50, but in EPA's energy conservation/pollution prevention initiative, The Green Lights Program.

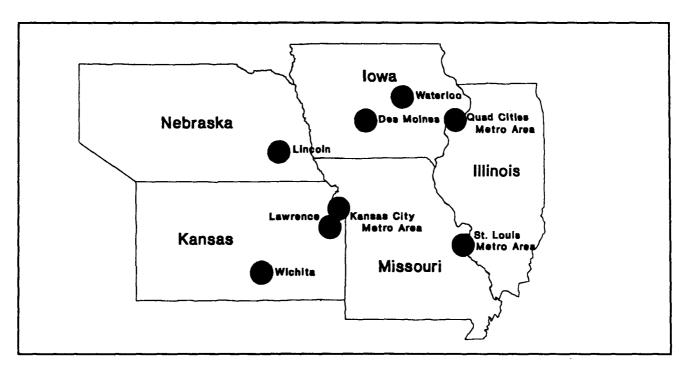
Other Federal Programs: 33/50 also is being considered as a potential model for a broad Federal Sector initiative, focussing on federal government facilities as generators of toxic releases. It would build on existing pollution prevention activities by setting ambitious reduction targets and creating a formal tracking system to measure progress. A large number of the Government Owned Contractor Operated facilities of the Department of Defense and the Department of Energy are operated by companies already committed to 33/50. We will continue our discussions with these Departments in order to make maximum use of the 33/50 approach for these facilities as well as Government Owned and Operated facilities.

EPA Regional Programs: EPA's Regional Offices play an important role in communicating Program goals to industry, States, and the community. Major activities include seeking company participation through individual company contacts and participation in regional and state meetings, and coordinating the implementation of the

Program with State pollution prevention and toxic use reduction initiatives. Through these activities, EPA seeks to minimize the potential for conflict with State programs and to develop cooperative efforts with industry, States, and the community.

EPA Region VII, with the participation of Region V, has taken a very innovative approach to the 33/50 Program. Working with the TRI list of the top 100 counties nationally for releases and transfers of the targeted 33/50 chemicals, Region VII selected the five counties and three metropolitan areas in its region that ranked highest (see Map A). By the end of 1991, the Regions, in cooperation with State agency and department officials, met with business and civic leaders and company representatives in each of these counties and metropolitan areas to encourage voluntary, **community-wide** reduction goals for all reported TRI chemical releases and transfers. They asked these communities for a separate focus on the 17 targeted 33/50 chemicals. A key distinction from the national 33/50 Program is that the geographic-oriented program targets groups of **facilities** in selected areas, as opposed to parent companies.

Through this effort in Region VII, a group of representatives from 26 companies and McConnell Air Force Base has announced its plan to reduce Sedgwick County TRI wastes by more than 90% by 1995. This is a reduction of 142 million pounds compared to the 1988 total of 151 million pounds in the county. The group also plans to reduce all TRI wastes by 31% (47 million pounds) by 1992. Other community-wide meetings have resulted in the formation of groups or steering committees to obtain similar commitments to achieve the 33/50 Program goals.



Map A. Geographic Voluntary Emissions Reduction Program, Communities in EPA Regions VII and V.

States: Pollution prevention has been a priority in many States for some time. The 33/50 Program has been a direct benefactor and is building onto the foundation established by these State initiatives. Many States have taken a strong interest in the 33/50 Program and are using it to their advantage to foster pollution prevention. States like California, Florida, Maryland, and North Carolina have written to companies encouraging participation in the Program. Other States such as Louisiana and New York are tracking reductions in the 33/50 Program chemicals as part of their State Toxics Programs. New York has already reported a sizable reduction, from 69 million pounds in 1988 to 36 million pounds in 1990, which will no doubt increase as the 33/50 Program builds momentum.

Yet other States like Colorado, Delaware, and Minnesota have their own voluntary reduction initiatives either in process or in place. For instance, Minnesota has launched the Minnesota 50 Project which sets a statewide 50% reduction goal for 1995 for the same chemicals included in 33/50. Minnesota 50 will reach many individual facilities in the State that would not otherwise be contacted by EPA, thus expanding the scope and potential impact of the voluntary reductions approach.

Several States (such as Connecticut, Massachusetts, Pennsylvania, and Rhode Island) are holding pollution prevention and technical assistance conferences that include discussions of 33/50 and disseminate information about the technologies that can be applied to reduce or eliminate the use of 33/50 and other hazardous chemicals. Activities such as the Northeast Waste Management Officials Association's distribution of a brochure describing the 33/50 Program and the technical assistance available in New England States also aid the 33/50 Program. Overall, Federal/State partnerships are forming to foster source reduction not only for the 33/50 chemicals, but for other hazardous chemicals as well, promoting a pollution prevention ethic within the respective States.

International: The 33/50 Program is seen as a possible model for voluntary reduction efforts in the international arena. EPA has been working with Environment Canada, the International Joint Commission, and others on a Pollution Prevention Initiative for the Great Lakes that incorporates 33/50 goals for reducing toxic discharges to these international waterways. Pollution prevention initiatives have been included in the Mexico-United States Plan to protect the border environment. For example, American corporations will be encouraged to make commitments to the Program for their facilities across the border.

INDUSTRY'S PARTICIPATION IN THE 33/50 PROGRAM

Nearly 6,000 companies — operating more than 12,000 facilities nationwide — submitted TRI reports to EPA for the year 1988 on one or more of the 33/50 chemicals. This is more than half of all facilities that reported to TRI. All told, these companies reported 1.4 billion pounds of releases and transfers of the seventeen chemicals in 1988, the baseline year for the 33/50 Program. All 5,747 companies have been invited to participate in the 33/50 Program (see Table 1).

The bulk of releases and transfersof these chemicals reported to TRI came from relatively few companies. Five hundred and fifty-five of the 5,747 companies accounted for more than three quarters (1.1 billion pounds) of the total for the 33/50 chemicals. This group of companies (often referred to as the "Top 600" companies) were sent letters by EPA in February 1991 inviting them to join the 33/50 Program. As reported in the first Progress Report, more than one-third (236 companies) had responded with a commitment to the program by July 1991. Since then 39 more of these companies have joined the

	"TOP 600" AS REPORTED IN JULY PROGRESS REPORT	"TOP 600" AS REPORTED IN THIS PROGRESS REPORT	REMAINING COMPANIES CONTACTED IN JULY, 1991	TOTAL
NUMBERS OF COMPANIES				
Companies Contacted by EPA	555	555	5,192	5,747
Companies Committing To 33/50 Program	236	275	459	734
Companies Providing Quantifiable Commitment	s 140	228	334	562
TRI RELEASE/TRANSFER QUANTITIES FOR THE 17 33/50 CHEMICALS (in millions of pounds, 1988)		-		
Total for 33/50 Chemicals	1,050	1,050	381	1,431
Total from Companies Committing to 33/50 Program		640	104	744
Total from Companies Providing Quantifiable Commitments	389	514	85	599
REDUCTION COMMITMENT QUANTITIES, 1988 TO 1995 (in millions of pounds)				
Amount of Reductions in TRI Release and Transfers Pledged by Companies Providing Quantifiable Commitments	201	260	· 44	304

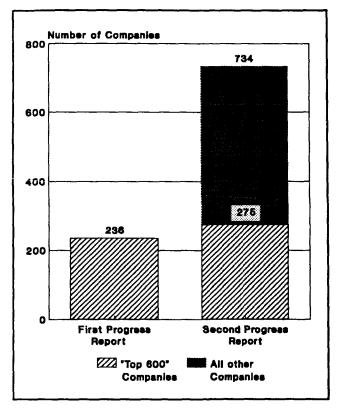
Program. To date, almost half of the "Top 600° — 275 companies — have voluntarily submitted reduction commitments to the 33/50 Program. These 275 companies represent 45% (640 million out of 1.4 billion pounds) of the wastes targeted by the 33/50 Program for reductions.

In July 1991, EPA sent letters to the remaining 5,192 companies that reported use of 33/50 chemicals to TRI in 1988, asking them to respond by November 1991. Of this second group of companies, 459 have thus far committed to participating in 33/50, accounting for an additional 104 million of the 1.4 billion pounds of 1988 33/50 releases and transfers. We recognize that this second round of companies have had less time to consider their participation in 33/50, and some may not have the level of resources available to many of the larger companies. Nonetheless, their participation is crucial to the success of the 33/50 Program, not only in terms of meeting our numerical goals but, in a broader sense, for fully promoting the pollution prevention culture throughout the industrial sector.

Across the two groups of companies, a total of 734 companies have indicated their willingness to reduce voluntarily their releases and transfers of the 33/50 chemicals a more than three fold increase since July (see Figure 3). All are listed in **Appendix A**. Together these 734 committed companies released and/or transferred 744 million pounds of the total 1.4 billion pounds associated with the 17 chemicals.

Of the 734 companies that have committed to the Program, 562 (77%) have responded with readily quantifiable reduction goals: 228 of these were from the "Top 600" and 334 from the second group. These goals lend themselves to numerical calculations of how much of its releases and transfers a company plans to reduce by 1995. By looking at these 562 companies with quantifiable commitments, we are able to determine the level of commitment that has been made as of this progress report. Of the 599 million pounds of releases and transfers of 33/50 chemicals associated with these companies, firms have committed to a reduction of 304 million pounds by 1995 (260 million pounds from the "Top 600"; 44 million from the rest). This pledged reduction of 304 million pounds represents an increase of 51% from the 201 million pounds committed to as of July, 1991, and 43% of the national goal of 700 million pounds (see Figure 4). Although individual company commitments vary considerably in amount, reduction pledges are averaging 50% per firm (304 million pounds of pledged reductions out of the 599 million pounds of 33/50 chemical releases and transfers reported by this group in 1988).

The 304 million pound national reduction commitment actually represents a lower bound in assessing the 33/50 Program's progress to date. This estimate is based only on a portion of the 734 company commitments received to date — the 562 commitments that can be quantified on a company-wide basis. Additional reductions have been pledged by companies on a chemical-, medium-, or facility-specific basis, requiring further analysis by EPA before their contributions toward the national goals can be accurately assessed. Other companies that have committed to the 33/50 Program have yet to specify their numerical goals. In some instances, these companies have indicated that they need to analyze their industrial processes before determining the level of reduction they can achieve.



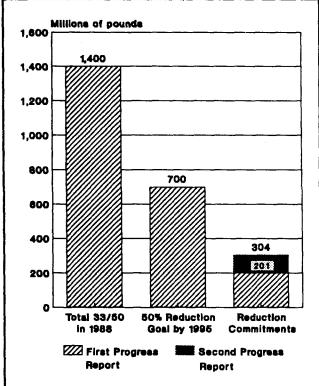


Figure 3. Companies Committing to the 33/50 Program.

Figure 4. Releases and Transfers of 33/50 Chemicals.

On the other hand, a number of companies have submitted quite detailed reduction commitments. One example is the commitment provided by LTV Steel Company, planning an overall 80% reduction by 1995 that is broken down by individual chemical (see Table 2). In another example, Honda of America supplied EPA with specific details of the planning needed to achieve their reduction goals (see Table 3).

The 33/50 Program's national goal of 700 million pounds reduction by 1995 is based upon achieving a 50% reduction in the 1.4 billion pounds of the 33/50 chemicals that were released and/or transferred in 1988. One way to achieve this goal is for every one of the 5,747 companies to commit to the Program with a 50% reduction in their releases and transfers. Realistically, however, some companies will choose not to participate in the Program and of those that do, some will make commitments amounting to less than a 50% reduction. Therefore, if the overall goal of a 700 million pound reduction is to be achieved, many companies will need to make commitments to reducing their releases and transfers of the 17 chemicals by greater than 50% and, indeed, some already have.

While there is much to be excited about with the level of voluntary commitment we are seeing by companies responding to the 33/50 Program, we clearly have a long way to go if we are to meet our national goal. EPA has planned follow-up activities involving those companies who did not respond or who responded expressing an interest in, but not a commitment to, the 33/50 Program.

TABLE 2. SAMPLE COMPANY REDUCTION GOALS (LTV STEEL)

	1988	% REDUCTION	1995
SOLVENTS			
Methylene Chloride	100,895	100	0
Methyl Isobutyl Keytone	170	0	170
Tetrachloroethylene	313,200	100	0
1,1,1-Trichloroethane	600,000	100	0
Subtotal	1,014,265	100	170
COKE PLANT CHEMICALS			
Benzene	1,282,698	89	142,400
Toluene	28,200	67	9,420
Xylene	150,000	50	75,710
Subtotal	1,460,898	84	227,530
METAL COMPOUNDS			
Chromium Compounds	318,712	0	318,712
Cyanide Compounds	9,256	0	9,256
Nickel Compounds	11,743	0	11,743
Subtotal	339,711	o	339,711
GRAND TOTAL	2,814,874	80	567,411

INDUSTRY FEEDBACK ON THE 33/50 PROGRAM

Why are companies voluntarily agreeing to cut back their toxic discharges? Many of the companies committing to 33/50 reductions have indicated their reasons for doing so. Among the most common are:

- Companies are already pursuing reduction efforts and welcome the opportunity for formal recognition of their efforts.
- 33/50 goals and Total Quality Management principles correspond well to voluntary industry efforts such as The Responsible Care Program organized by the Chemical Manufacturers Association.
- Pollution prevention deserves a higher priority both in industry and at EPA and can best be promoted through a voluntary program such as 33/50.
- Companies recognize their responsibilities as corporate citizens and welcome the focus that 33/50 provides to reduce releases beyond regulatory requirements.

At the same time, it is important for the success of a program such as 33/50 to understand the reasons why companies have elected *not* to participate. The reasons most often cited by companies that have been hesitant to join 33/50 are:

- The vagaries of the business cycle or of company operations make predictions about future waste generation next to impossible.
- Companies are already devoting maximum possible resources to deal with existing environmental requirements and cannot adopt additional environmental goals.
- Concern over possible conflicts between 33/50 endeavors and goals established by other federal or state environmental programs, such as reduction goals established under the Clean Air Act Amendments of 1990.

TABLE 3. SAMPLE COMPANY REDUCTION PLAN (HONDA OF AMERICA).

PROCESS	TECHNOLOGY REQUIRED TI	ALTERNAT ECHNOLOG CONFIRME	GY GENERAL SCHEDULE	ESTIMATED COST
Weld surface cleaning	Alternate cleaning process to replace 1,1,1 Tricloroethane without harming quality or creating associate safety concerns	No	MY94 MY95 MY96 MY96 Selection/testing of alternative processes	Unknown
Part degreasing	Vapor degreaser - driveshaft cold cleaner - valve bodies eliminate 12/91	No	Development of alternative process	\$150,000 - \$220,000
Spec change	Painting spec change	Yes	Ongoing trials for '92 model year	To be determined
Paint system cleaning	Addition of air/solvent purge equipment	No	→	\$31,000 capital
Paint process modification	Modification of coating specifications	Yes	Ongoing trials for '92 model year	\$40,000 - \$50,000 /yr expense
Paint system cleaning solvent	Replacement of existing cleaning solvent with alternative	No	Develop plan and criteria Testing and evaluation Impact analysis ■■■	\$265,000 - \$1,750,000/yr expense
Paint process modification	Reformulation of coatings to reduce usage of ITP chemicals	No	Develop plan and priorities Testing and evaluation Bring formulated coatings online	Unknown
Bumper pre-treatment	Replacement of current 1,1,1 Trichloroethane system with alternative system (may also reguire bumper substrate modification and painting system modification)	No	Research and development of alt. technology - plasma cleaning system - substrate modification with water borne pre-treatment system - substrate modification/poser wash pre-treat alternate coating system Production line renovation	\$24 million
Waterborne technology	Further replacement of solvent- borne coatings with waterborne	In process	Implementation goal - end of 1996	\$75 - \$200 million

Target date for implementation

- Constraints imposed by customers, such as military specifications for the types of chemicals and processes required to fulfill government contracts.
- Mandatory federal, state, and local permitting processes are extremely cumbersome, and the company is unwilling to pursue permit modifications that may be needed to implement 33/50 Program objectives.

EPA is examining these obstacles to learn where there is opportunity to make more companies interested in participating in 33/50. As the Program has stressed from its outset, 33/50 is not intended as a *substitute* for EPA's regulatory programs, and the Agency cannot relax regulatory oversight or enforcement as a means of encouraging participation. However, 33/50 is working carefully in concert with EPA's other programs, and with other federal agencies such as the Department of Defense, to insure maximum coordination and flexibility.

Some companies also wrote indicating that, as a holding company, partnership, or other financial arrangement with limited oversight of day-to-day operations or diverse business units, they were not the appropriate entity to decide environmental policy. The 33/50 Program is in the process of redirecting requests for participation to the individual business units at these companies.

33/50 ACTIVITIES — WHAT INDUSTRY IS DOING

A number of companies that have committed to the 33/50 Program have provided EPA with reports of their progress in meeting their reduction targets. A few of the "Top 600" company reports are summarized below. (Note: Information is this section was taken directly from company reports and has not been independently verified.)

- AT&T (New York, New York) reports that the corporation has already achieved a 66% reduction of its 33/50 chemicals, from 6.4 million pounds of releases and transfers in 1988, to 2.1 million in 1990. The reductions were achieved through a combination of techniques, chiefly chemical substitutions and process modifications, with an emphasis on pollution prevention. Some of the reductions were also due to decreased production levels at several of the company's plants. AT&T has set additional reduction targets for all its facilities worldwide. These include: (a) 95% elimination of toxic chemical air emissions (of all TRI chemicals) by 1995, striving for 100% elimination by 2000; (b) 100% phaseout of CFC's by 1994; and (c) reducing total manufacturing process waste 25% by 1994 (see Figure 5).
- BF GOODRICH (Akron, Ohio) reports a 32% reduction in 33/50 chemicals between 1988 and 1990, and anticipates exceeding its reduction target of 50% by 1995.

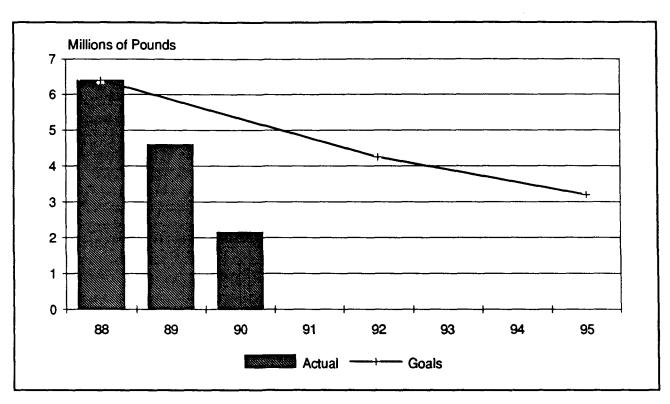


Figure 5. AT&T Reduction Goals for All Plants and Achievements to Date.

- DOW CHEMICAL's (Midland, Michigan) participation in the 33/50 Program includes not only the seventeen 33/50 chemicals, but all 121 TRI chemicals reported by company facilities, targeting overall reductions of 50% by 1995. Dow has reduced overall TRI quantities from 23.2 to 16.2 million pounds from 1988 to 1990, a reduction of 30%.
- DU PONT (Wilmington, Delaware) has created an internal corporate data base to manage information from 80 facilities in order to track progress towards its 33/50 goal of 50% reduction by 1995, as well as several other corporate goals: 60% reduction of air toxics from 1987 to 1993; 90% reduction of carcinogenic air emissions by 2000; eliminate toxic discharges to land by 2000. Between 1988 and 1990, Du Pont has reduced TRI totals of the 33/50 chemicals from 20.2 to 17.7 million pounds, a reduction of 12%.
- ILLINOIS TOOL WORKS (Glenview, Illinois), which operates 130 facilities in 20 states, has reduced its **use** of 33/50 chemicals by 33% between 1988 and 1990, with a consequent reduction in waste generation.
- REPUBLIC ENGINEERED STEELS (Massillon, Ohio) provided technical update information on its activities, including: installation of steam cleaning equipment to replace the use of trichloroethane, thus eliminating 40,000 pounds of releases; modifying capture hoods and increasing baghouse (filter) efficiencies to

capture greater amounts of metallic dusts, which the company hopes to be able to reuse; creating a task force to explore means of eliminating landfilling of electric arc furnace slag.

These large companies are not alone in making reduction commitments and in keeping the 33/50 Program (and the public) up to date. Among the smaller companies that have reported on their progress are:

- MAGEE CARPET (Magee Industrial Enterprises of Bloomsburg, Pennsylvania) has eliminated their use of trichloroethane, thereby eliminating 340,000 pounds of releases of this chemical.
- PINES TRAILER LIMITED PARTNERSHIP (Chicago, Illinois) has achieved reductions from 1988 to 1990 for the two 33/50 chemicals it reports: 48% reduction for xylene, and a 37% reduction for methyl isobutyl ketone, and anticipates overall reductions of at least 50% by 1995.
- **ULTRA FORGE** (Cuyahoga Falls, Ohio) has been replacing its solvent-based vapor degreasers with spray wash equipment, thereby eliminating more than 80,000 pounds of releases of trichloroethane and tetrachloroethylene; the company anticipates total elimination of these two chemicals in 1992.

RELEASE/TRANSFER PROFILE FOR 33/50 COMMITMENT COMPANIES

At this time in the 33/50 Program's development, the information submitted to EPA by companies participating in the Program is not detailed enough to enable us to analyze fully the nature or impact of the reduction commitments themselves. We can determine, as reported above, that the quantifiable commitments made by 562 companies to date amount to a nationwide pledge of 304 million pounds of reduced toxic chemical releases and transfers by 1995. But we are not yet in a position to determine the impacts of these reduction commitments on a geographic-, medium-, chemical-, or industry-specific basis.

By and large, companies have set reduction goals to be achieved on a company-wide basis, in many instances spanning operations at facilities dispersed throughout the nation and in a variety of industrial sectors. The details of how and where these reductions actually will be achieved are still being flushed out at the plant or production process level. Until more companies have completed their internal reduction plans and communicated them to EPA, further analyses of the impacts of the reduction commitments must be put on hold.

While we cannot yet analyze the impacts of companies' reduction commitments, we can describe the TRI release/transfer profiles of the companies which have committed to the 33/50 Program. This section of the report presents a series of analyses comparing the releases and offsite transfers of 33/50 chemicals by the 734 companies committing to the 33/50 Program to the total 33/50 release/transfer universe in the 1988 baseline year.

The analyses identify the **potential** impacts of companies' reduction commitments. Readers are cautioned that the reduction efforts eventually implemented by companies may result in a distribution of release/transfer reductions that differs markedly from the distribution of the companies' overall releases and transfers. For example, a company with identical facilities in Oregon and Tennessee could achieve a 40% company-wide reduction goal in a variety of ways: by reducing releases at each facility by 40%; by reducing by 60% percent at one facility and only 20% at the other; or, achieve its corporate goal entirely by concentrating reduction efforts to achieve an 80% reduction at one facility, leaving releases and transfers at the other facility unchanged for the time being. Accordingly, the release/transfer profiles presented below are not intended to represent the reductions that will be observed in companies' future TRI reports.

As indicated in Table 1 above, facilities associated with the 734 companies making 33/50 Program commitments reported 744 million pounds of 33/50 chemical releases and transfers in the Program's baseline year. Although the participating companies overall account for approximately one half of the 1.4 billion pounds of 33/50 releases and transfers in 1988, the analyses of these committed companies' releases and transfers presented below do not reflect an even distribution from sector to sector.

STATE/EPA REGIONAL DISTRIBUTIONS

The state-by-state and EPA Regional distributions of company participation in the 33/50 Program and associated releases and transfers of the seventeen 33/50 chemicals are shown in Tables 4 and 5. The number of 33/50 companies with their headquarters located in each state or reporting jurisdiction differs considerably, ranging from zero in Alaska and the Virgin Islands to 498 in Illinois (see Table 4). The company participation rate also varies ranging from a level of no participation (Montana, Nevada, New Mexico, North Dakota, South Dakota, Vermont, Wyoming, District of Columbia, and Puerto Rico) to a high of 33% in Hawaii and 23% in both Delaware and Oregon.

The five states with the largest amounts of 33/50 releases and transfers in 1988 were Ohio, Texas, Indiana, Pennsylvania, and Michigan (see Table 5). Each accounted for over 85 million pounds and together they represented almost one-third of the 33/50 national total. In looking at the releases and transfers of facilities belonging to the committed companies, we see that the top five states were the same, but in a slightly different order: Texas, Pennsylvania, Indiana, Michigan, and Ohio. (Note that releases and transfers are assigned to the state in which facilities are located, not the state in which their parent company headquarters are located.) The percentages varied among the states from less than 5% of the total represented by committed companies to greater than 90%. However, it should be noted that the extremes were associated with states with the smallest number of TRI facilities, so that one company has a large impact on such a percentage calculation. The percentages among the top five states were closer, ranging from 49% of the total represented by facilities of committed companies in Ohio to 58% in Pennsylvania.

MEDIA/DESTINATION DISTRIBUTION

Companies must report to TRI the amounts of a chemical that are released on site and/or transferred off site. Releases consist of air emissions (fugitive and point source), surface water discharges, on-site releases to land, and discharges to underground injection wells. Transfers are either to Publicly Owned Treatment Works (POTWs) or to off-site treatment, storage, and disposal facilities. While the **releases** of a chemical to a particular medium are clear, TRI data do not show the medium or geographic location to which **transfers** are eventually released or the quantities of those releases.

For example, a chemical that is transferred to a POTW may end up being discharged to surface water or sent in sewage sludge to a landfill (or released to the air through vaporization). The chemical wastes sent off-site to a treatment, storage, and disposal facility end up at a different geographic location and may be treated and reduced in amount by methods varying widely from chemical to chemical, and facility to facility. These differences should be kept in mind when looking at the amount of releases to the various media.

The distribution of releases and transfers by media/transfer destination for committed companies and other 33/50 companies can be seen in Figure 6 and Table 6. As shown, the 33/50 releases and transfers of committed companies differ significantly on a percentage basis between media and transfer destination. For example, in 1988 the 33/

TABLE 4. COMPANY PARTICIPATION IN 33/50 PROGRAM, BY STATE AND EPA REGION

STATE	NUMBER OF COMPANIES IN 33/50 UNIVERSE (Number)	NUMBER OF COMPANIES MAKING 33/50 COMMITMENTS (Number)	NUMBER OF COMPAI 33/50 COMMITMENTS AS P IN STATE/REI (Percent)	ERCENT OF TOTAL GION
EGION I Connecticut	215	32	14.88	
Maine	17	32 1	5.88	
Massachusetts	253	16	6.32	
New Hampshire	50	7	14.00	
Rhode Island	84	3	3.57	
Vermont	10	ŏ	0.00	
Region Total	629	59		9.38
-0.011				
EGION II New Jersey	205	4.4	13,54	
New York	325 443	44 69	15.58	
Puerto Rico	24	0	0.00	
Virgin Islands	0	ŏ		
Region Total	792	113		14.27
•	7.02	110		14,2,
EGION III				
Delaware	22	5	22.73	
District of Columbia	8	0	0.00	
Maryland	35	4	11.43	
Pennsylvania	332	55	16.57	
Virginia	113	15	13.27	
West Virginia	13	2	15.38	45.40
Region Total	523	81		15.49
EGION IV				
Alabama	73	8	10.96	
Florida	99	8	8.08	
Georgia	101	14	13.86	
Kentucky	63	7	11.11	
Mississippi	35	4	11.43	
North Carolina	134	14	10.45	
South Carolina	63	6	9.52	
Tennessee	89	8	8.99	
Region Total	568	69		12.15
EGION V				
Illinois	498	61	12.25	
Indiana	197	26	13.20	
Michigan	260	42	16.15	
Minnesota	116	18	15.52	
Ohio	426	68	15.96	
Wisconsin	224	32	14.29	
Region Total	1,721	247	14.25	14.35
•	1,721	241		14.55
EGION VI				
Arkansas	26	4	15.38	
Louisiana	31	4	12.90	
New Mexico	4	0	0.00	
Oklahoma	44	7	15.91	
Texas	274	35	12.77	
Region Total	379	50		13.19
GION VII				
lowa	61	4	6.56	
Kansas	37	1	2.70	
Missouri	161	15	9.32	
Nebraska	28	1	3.57	
Region Total	287	· 21		7.32
•				
EGION VIII	46	E	40.00	
Colorado	49	5	10.20	
Montana	3	0	0.00	
North Dakota	6	0	0.00	
South Dakota	6	0	0.00	
Utah	21	3	14.29	
Wyoming	1	0	0.00	0.00
Region Total	86	8		9.30
EGION IX				
Arizona	50	4	8.00	
California	460	56	12.17	
Hawaii	3	1	33.33	
Nevada	6	o	0.00	
Region Total	519	61		11.75
•				
EGION X	^	•		
Alaska	0	0		
	6	1 14	16.67	
Idaho	^^		23.33	
ldaho Oregon	60			•
ldaho Oregon Washington	86	10	11.63	
ldaho Or o gon				16.45
ldaho Oregon Washington	86	10		16.45

TABLE 5. RELEASES AND TRANSFERS OF 33/50 CHEMICALS, BY STATE AND EPA REGION, 1988

STATE	RELEASES/TRANSFERS OF ALL 33/50 CHEMICALS	RELEASES/TRANSFERS ASSOCIATED WITH COMPANIES MAKING COMMITMENTS	RELEASES/TRANSFERS ASSOCIATED WIT COMPANIES MAKING 33/50 COMMITMENT AS PERCENT OF STATE/REGIONAL TOTA
	(Pounds)	(Pounds)	(Percent)
REGION I			
Connecticut	28,761,305	11,774,886	40.94
Maine	5,866,262	3,904,154	66.55
Massachusetts	26,469,403	14,374,124	54.30
New Hampshire	9,144,265	4,772,812	52.19
Rhode Island	6,178,734	1,306,084	21.14
Vermont	1,502,495	202,386	13.47
Region total	77,922,464	36,334,446	46.63
REGION II			
New Jersey	40,145,307	19,168,291	47.75
New York	70,817,814	42,416,031	59.89
Puerto Rico	9,695,688	8,810,397	90.87
Virgin Islands	1,468,980	0	0.00
Region total	122,127,789	70,394,719	57.64
•	,	30,000,000	07.04
REGION III	0.750.000		-a
Delaware	3,752,990	2,235,556	59.57
District of Columbia	0	0	-
Maryland	9,676,045	5,435,313	56.17
Pennsylvania Virginia	87,844,154	50,948,249	58.00
Virginia Wast Virginia	38,529,040 13,794,018	19,988,619 8 200 713	51.88 64.80
West Virginia	12,794,018	8,290,712 86,898,449	64.80
Region total	152,596,247	86,898,449	56.95
REGION IV			
Alabama	36,758,750	23,258,269	63.27
Florida	17,248,263	6,388,575	37.04
Georgia	38,148,497	18,920,634	49.60
Kentudky	30,693,458	13,529,034	44.08
Mississippi	31,009,064	12,886,751	41.56
North Carolina	61,896,442	25,490,977	41.18
South Carolina	28,152,948	14,766,375	52.45
Tennessee	40,701,783	15,392,654	37.82
Region total	284,609,203	130,633,269	45.90
REGION V			
Illinois	71,617,104	23,843,367	33.29
Indiana	92,013,726	50,552,011	54.94
Michigan	84,873,345	48,372,378	56.99
Minnesota	40,118,538	30,706,931	76.54
Ohio	96,392,100	46,978,964	48.74
Wisconsin	35,164,828	11,024,548	31.35
Region total	420,179,641	211,478,199	50,33
•	420,110,011	277,470,100	55.55
EGION VI			
Arkansas	22,582,184	8,644,790	38.28
Louisiana	23,309,971	17,527,678	75.19
New Mexico	1,890,219	444,873	23.54
Oklahoma	17,484,903	6,193,305	35.42
Texas	93,665,640	52,695,978	56.26
Region total	158,932,917	85,506,624	53.80
EGION VII			
lowa	25,246,654	14,473,219	57.33
Kansas	13,339,907	7,690,789	57.65
Missouri	44,085,040	24,898,011	56.48
Nebraska	9,829,564	6,654,764	67.70
Region total	92,501,165	53,716,783	58.07
•			
EGION VIII			
Colorado	6,375,774	3,231,059	50.68
Montana	2,856,257	2,659,345	93.11
North Dakota	798,622	241,436	30.23
South Dakota	1,561,978	995,370	63.72
Utah	9,089,633	7,386,116	81.26
Wyoming	953,940	676,595	70.93
Region total	21,636,204	15,189,921	70.21
EGION IX			
Arizona	11,867,813	7,211,582	60.77
California	63,291,813	30,603,202	48.35
Hawaii	390,357	187,562	48.05
Nevada	698,020	34,114	4.89
Region total	76,248,003	38,036,460	49.89
•	, 0,20,000	30,000,700	70.00
EGION X			
Alaska	336,555	13,740	4.08
Idaho	1,024,902	871,438	85.03
Oregon	8,526,830	5,391,129	63.23
Washington	14,536,710	9,449,016	65.00
Region total	24,424,997	15,725,323	64.38
OTAL .	1,431,178,630	742.014.102	51.98
	1,451,110,030	743,914,193	31.90

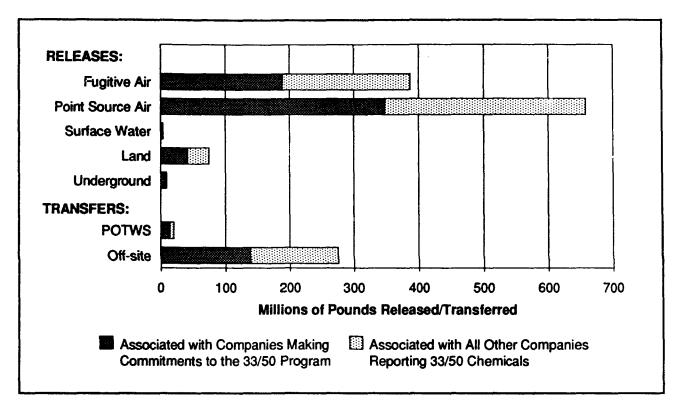


Figure 6. Releases and Transfers of 33/50 Chemicals by Media/Transfer Destination, 1988.

TABLE 6. RELEASES AND TRANSFERS OF 33/50 CHEMICALS BY MEDIA/TRANSFER DESTINATION, 1988

MEDIA/TRANSFER DESTINATION	RELEASES/ TRANSFERS OF ALL 33/50 CHEMICALS (Pounds)	RELEASES/TRANSFERS ASSOCIATED WITH COMPANIES MAKING COMMITMENTS (Pounds)	RELEASES/TRANSFERS ASSOCIATED WITH COMPANIES MAKING COMMITMENTS AS PERCENT OF MEDIA/ TRANSFER TOTAL (Percent)
Total Air Releases	1,044,819,113	536,933,395	51.39
Fugitive	386,587,300	189,110,023	48.92
Point Source	658,231,813	347,823,372	52.84
Surface Water Discharges	4,000,323	3,086,128	77.15
Land Releases	75,606,883	42,493,826	56.20
Underground Injection	9,344,343	7,595,544	81.28
Total Releases	1,133,770,662	590,108,893	52.05
Transfers to POTWS	20,892,597	14,229,849	68.11
Other Off-site Transfers	276,515,371	139,575,451	50.48
Total Transfers	297,407,968	153,805,300	51.72
Total Releases/Transfers	1,431,178,630	743,914,193	51.98

50 discharges to underground injection wells of facilities of committed companies represented 81% of all 33/50 discharges to such wells. In contrast, the 33/50 fugitive air emissions of committed companies accounted for 49% of total 33/50 fugitive air emissions.

INDUSTRY SECTOR DISTRIBUTION

The seventeen 33/50 chemicals are used by facilities manufacturing a wide range of goods, from the chemicals themselves to electronic equipment, paper, plastics, food, and furniture. Each of the industrial sectors that are required to report to TRI (the manufacturing Standard Industrial Classification (SIC) codes 20 through 39) have reported releases and transfers of the 33/50 chemicals. The distribution of companies' 33/50 Program participation rates across major industrial sectors are presented in Figure 7 and Table 7. The distribution of TRI-reported releases and transfers of 33/50 chemicals by facilities associated with these companies is presented in Figure 8 and Table 8. (The category called "multiple" represents individual facilities that use the chemical in the manufacture of products in more than one of the industrial sectors listed.) The amounts of releases and transfers are assigned to an industry sector according to how the chemical is used at an individual facility, which may in some cases be different than the primary industrial sector for the company as a whole.

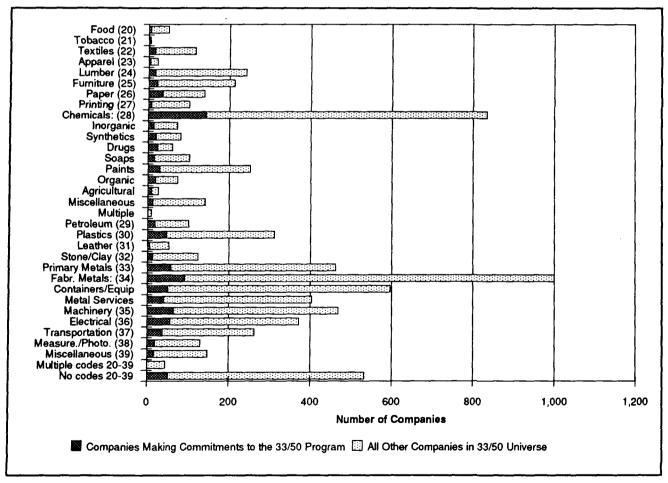


Figure 7. Company Participation in 33/50 Program, by Industry Sector.

The number of companies associated with 33/50 chemicals per industry sector ranged from a low of six in the tobacco industry to a high of 1,001 in the fabricated metals industry. The chemical sector had the second largest number of potential 33/50 companies with a total of 835. Together, the fabricated metals and the chemical industries accounted for approximately one-third of all potential 33/50 companies. (Subdivisions within these two industry sectors are shown.) The participation rate differed from sector to sector ranging from a low of approximately 2% for the "multiple codes" sector to 37% for drug/pharmaceutical manufacturers, a subdivision within the chemical sector (see Figure 7 and Table 7).

TABLE 7. COMPANY PARTICIPATION IN 33/50 PROGRAM, BY INDUSTRY SECTOR

SIC		NUMBER OF COMPANIES IN 33/50 UNIVERSE (Number)	NUMBER OF COMPANIES MAKING 33/50 COMMITMENTS (Number)	NUMBER OF COMPANIES MAKING 33/50 COMMITMENTS AS PERCENT OF TOTAL (Percent)
20	Food	51	6	11.76
21	Tobacco	6	2	33.33
22	Textiles	117	16	13.68
23	Apparel	23	4	17.39
24	Lumber	242	17 .	7.02
25	Fumiture	212	22	10.38
26	Paper	139	35	25.18
27	Printing	102	7	6.86
28	Chemicals	835	143	17.13
	Industrial Inorganic Chemicals	73	14	19.18
	Plastic Materials/Synthetics	82	20	24.39
	Drugs	61	23	37.70
	Soaps/Cleaners	104	15	14.42
	Paints	262	29	11.07
	Industrial Organic Chemicals	75	19	25.33
	Agricultural Chemicals	26	9	34.62
	Miscellaneous Chemicals	142	13	9.15
	Multiple Chemical Products	10	1	10.00
29	Petroleum Refining	102	18	17.65
30	Rubber/Plastic Products	313	47	15.02
31	Leather	54	6	11.11
32	Stone/Clay/Glass	125	13	10.40
33	Primary Metals	462	59	12.77
34	Fabricated Metals	1,001	92	9.19
	Metal Containers/Equipment/Others	597	51	8.54
	Metal Services	404	41	10.15
35	Machinery, except Electrical	468	65	13.89
36	Electrical/Electronic Equipment	373	57	15.28
37	Transportation Equipment	263	37	14.07
38	Measuring/Photographic Equipment	132	19	14.39
39	Miscellaneous Manufacturing	148	16	10.81
-	Multiple Manufacturing Products	45	1	2.22
	Other (non-manufacturing)	534	52	9.74
TOT	'AL	5,747	734	12.77

While the uses of 33/50 chemicals by the chemical and transportation equipment sectors were associated with the largest releases and transfers, the highest percentages of a sector's releases and transfers that were associated with committed companies came from the drug/pharmaceutical manufacturers and the food industry (over 81%). On the other hand, the printing and metal services industries had the lowest proportion (less than 10%) of their releases and transfers associated with committed companies. (See Figure 8 and Table 8.)

TABLE 8. 33/50 PROGRAM RELEASES AND TRANSFERS, BY INDUSTRY SECTOR, 1988

SIC		RELEASES/ TRANSFERS OF ALL 33/50 CHEMICALS (Pounds)	RELEASES/TRANSFERS ASSOCIATED WITH COMPANIES MAKING COMMITMENTS (Pounds)	RELEASES/TRANSFERS ASSOCIATED WITH COMPANIES MAKING 33/50 COMMITMENTS AS PERCENT OF SECTOR TOTAL (Percent)
20	Food	6,966,684	5,649,713	81.10
21	Tobacco	262,226	0	
22	Textiles	31,319,873	10,569,999	33.75
23	Apparel	1,051,544	308,458	29.33
24	Lumber	20,359,743	7,785,785	38.24
25	Furniture	46,114,984	12,323,456	26.72
26	Paper	82,431,820	50,677,929	61.48
27	Printing	60,187,632	5,603,890	9.31
28	Chemicals	271,096,114	190,284,148	70.19
	Industrial Inorganic Chemicals	25,171,688	9,954,080	39.54
	Plastic Material/Synthetics	27,929,058	21,117,580	75.61
	Drugs	39,462,007	35,690,927	90.44
	Soaps/Cleaners	1,910,691	694,347	36.34
	Paints	36,129,326	20,109,698	55.66
	Industrial Organic Chemicals	42,948,898	30,645,749	71.35
	Agricultural Chemicals	5,407,499	3,605,472	66.68
	Miscellaneous Chemicals	11,599,140	3,976,690	34.28
	Multiple Chemical Products	80,537,807	64,489,605	80.07
29	Petroleum Refining	37,718,098	26,102,758	69.20
30	Rubber/Plastic Products	99,349,626	35,139,571	35.37
31	Leather	11,051,613	3,655,424	33.08
32	Stone/Clay/Glass	17,280,661	8,988,425	52.01
33	Primary Metals	133,958,316	76,618,761	57.20
34	Fabricated Metals	101,269,676	24,048,780	23.75
	Metal Containers/Equipment/Other	78,221,021	22,013,831	28.14
	Metal Services	23,048,655	2,034,949	8.83
35	Machinery, except Electrical	49,683,360	15,038,035	30.27
36	Electrical/Electronic Equipment	96,525,335	54,115,545	56.06
37	Transportation Equipment	153,086,367	93,756,375	61.24
38	Measuring/Photographic Equipment	38,183,002	29,489,127	77.23
39	Miscellaneous Manufacturing	28,091,881	6,402,492	22.79
	Multiple Manufacturing Products	138,934,411	86,026,076	61.92
	Other (non-manufacturing)	6,255,664	1,329,446	21.25
TOT	AL	1,431,178,630	743,914,193	51.98

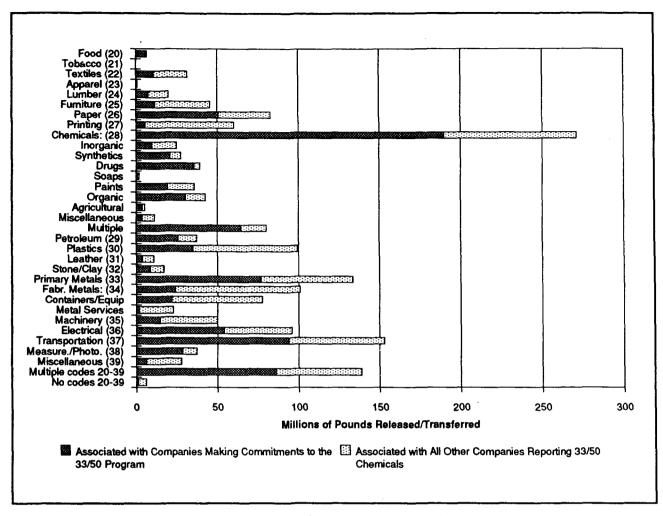


Figure 8. Releases and Transfers of 33/50 Chemicals, by Industry Sector, 1988.

CHEMICAL DISTRIBUTION

Analysis of TRI-reported releases and transfers on a chemical-specific basis also reveals varying levels of "coverage" by companies currently participating in the 33/50 Program, ranging from a high of nearly 93% for mercury and its compounds to a low of just over 40% for chromium and related compounds (see Figure 9 and Table 9). Ubiquitous chemicals with larger volumes of TRI releases and transfers, such as toluene (almost twice as large as any of the others) and trichloroethane, have lower portions of their total volume associated with companies participating in the 33/50 Program, highlighting the need to continue program outreach efforts aimed at bringing the numerous smaller users and manufacturers into the Program.

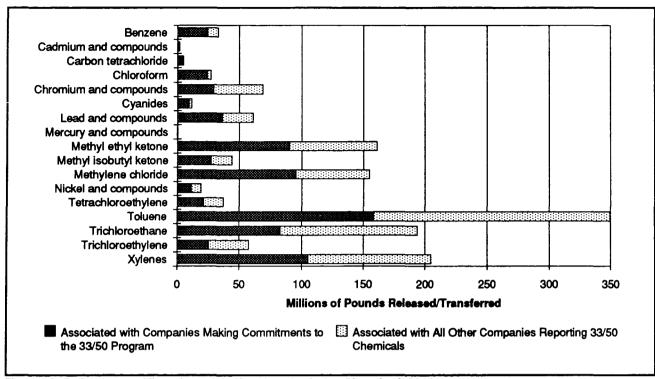


Figure 9. Releases and Transfers of 33/50 Chemicals, by Chemical, 1988.

TABLE 9. RELEASES AND TRANSFERS OF 33/50 CHEMICALS, BY CHEMICAL, 1988

	DELEACEC!	DELEACEO (TDANICEERO	RELEASES/TRANSFERS ASSOCIATED WITH
	RELEASES/ TRANSFERS OF	RELEASES/TRANSFERS ASSOCIATED WITH	COMPANIES MAKING 33/50
	ALL 33/50	COMPANIES MAKING	COMMITMENTS AS PERCENT
CHEMICAL	CHEMICALS	COMMITMENTS	OF TOTAL FOR CHEMICAL
CHEMICAL	(Pounds)	(Pounds)	(Percent)
Benzene	32,240,533	23,541,686	73.02
Cadmium and compounds	1,928,819	940,346	48.75
Carbon tetrachloride	5,029,696	4,519,278	89.85
Chloroform	26,882,013	23,708,139	88.19
Chromium and compounds	68,793,835	29,144,969	42.37
Cyanides	11,787,893	9,273,102	78.67
Lead and compounds	60,774,417	36,188,398	59.55
Mercury and compounds	318,587	295,835	92.86
Methyl ethyl ketone	161,203,453	90,182,171	55.94
Methyl isobutyl ketone	44,511,920	27,427,490	61.62
Methylene chloride	155,059,038	95,512,513	61.60
Nickel and compounds	19,289,876	11,388,249	59.04
Tetrachloroethylene	37,760,219	21,313,079	56.44
Toluene	349,388,787	157,864,903	45.18
Trichloroethane	194,137,772	82,928,321	42.72
Trichloroethylene	57,816,129	25,092,853	43.40
Xylenes	204,255,643	104,592,861	51.21
TOTAL	1,431,178,630	743,914,193	51.98

33/50 AFTER ONE YEAR — MAKING PROGRESS?

After one year of outreach efforts to solicit company commitments, almost half of the nation's largest releasers of 33/50 chemical wastes have submitted reduction commitments (275 out of 555 companies). Over 450 companies from the ranks of the 5,192 companies with samller releases and transfers of 33/50 chemicals have signed on, although they have had less time to formally consider their participation in the Program.

Is the 33/50 glass half empty or half full? If all 734 companies that have committed to the Program were to completely eliminate their TRI discharges of the seventeen 33/50 chemicals by 1995, they would have reduced the nation's waste load by more than 700 million pounds, meeting the 33/50 Program goal of a 50% reduction.

In fact, most of these companies have agreed to commitments of about 50% by 1995, with the result that the 33/50 Program still has to make substantial inroads on the generation of toxic pollution if it is to meet its reduction goals. On the encouraging side is the early indication that many companies have indicated that they expect to exceed — often by large amounts — their reduction targets; this has already occurred at AT&T (see What Industry Is Doing, above). On the other hand, there still remain the hundreds of large generators, and thousands of smaller ones, who, for whatever reasons, have not yet elected to participate. Our efforts to bring them on board will continue as the 33/50 Program matures.

33/50: WHAT LIES AHEAD?

The 33/50 Program has grown substantially in its first year, expanding from its initial face-to-face meetings with a few dozen companies and targeted contacts with the "Top 600" companies with the largest reports of 33/50 wastes, to broad outreach — orchestrated through EPA's ten Regional offices and involving several State agencies as well — to the thousands of companies who can assist us in achieving the Program's goals.

In the next few years, as we approach the 1995 target date, the focus of 33/50 will shift from outreach to evaluation and recognition. How much reduction has been achieved? What has been the impact of pollution prevention practices? One of the keys for answering these and other questions will be new information provided by the **Pollution Prevention Act of 1990**. The Act calls for additional data collection in TRI which will address the role of pollution prevention, recycling, and treatment in achieving reductions. The Act will also require all companies — not just 33/50 participants — to project their next two years' waste generation for the TRI chemicals, a source of data that will allow an early assessment of expected waste generation trends. The new pollution prevention data will first be reported to EPA and the States in July, 1992, covering the 1991 reporting year.

With this new information and the details that companies are voluntarily providing to the 33/50 Program, future Progress Reports and other communications will provide a realistic assessment of how successfully U.S. industry is able to apply pollution prevention to the reduction of releases and transfers of the seventeen 33/50 chemicals in the context of a voluntary reduction effort.

APPENDIX A

Companies Committing to the 33/50 Program (February, 1992)

This appendix provides a list of all companies that have indicated to EPA in writing as of February, 1992, that they intend to participate in the 33/50 Program. In many cases, subsidiary companies responded in addition to or in place of parent companies. In such instances, subsidiaries are listed indented underneath their parent company. All subsidiary companies are also listed in their own alphabetic order, with their parent company indicated in parentheses. State abbreviations are provided only for parent companies, indicating the location of their headquarters operations.

COMPANY	STATE	COMPANY	STATE
зм со	MN	AMERICAN TELEPHONE & TELEGRAPH	NY
A B C COMPOUNDING COMPANY INC	GA	AMERICAN TOY AND FURNITURE CO	WI
A B CHANCE CO	MO	AMERON INC	CA
A J INDUSTRIES INC	CA	AMITY LEATHER PRODUCTS CO	WI
SARGENT-FLETCHER		AMOCO CORP	IL
A T CROSS CO	RI	AMSTED INDUSTRIES INC	IL
A T R WIRE & CABLE CO	KY	AMWAY CORP	Mi
A W CHESTERTON CO	MA	ANABOLIC INC	CA
AACCO FOUNDRY INC	CA	ANDERSEN CORP	MN
ABBOTT LABORATORIES	IL	ANDERSON SCREW PRODUCTS INC	NY
ACC HOLDINGS CORP	PA	ANHEUSER-BUSCH CO	MO
ARISTECH CHEMICAL		ANOMATIC CORP	ОН
ACME ENGINEERING & MANUFACTURING	OK	ARCADIAN CORP	TN
ACME SPONGE & CHAMOIS CO	FL	ARCHER CO (RJR NABISCO HOLDINGS)	
ACME STEEL CO	IL.	ARCO PRODUCTS (ATLANTIC RICHFIELD)	
ACTION PLATING CORP	FL	ARISTECH CHEMICAL (ACC HOLDINGS)	
ADAC PLASTICS	Mi	ARKWIN INDUSTRIES INC	NY
ADVANCED CIRCUIT TECHNOLOGY	NH	ARMCO STEEL CO LP	ОН
ADVANCED FRICTION MATERIALS	MI	ARMORED KNIGHT CORP	n_
AERO METAL FINISHING INC	MO	CFC INTERNATIONAL	
AEROFIL TECHNOLOGY INC	MO	ARMSTRONG WORLD INDUSTRIES	PA
AEROFORGE CORP	IN	ARROW ENGINEERING INC	GA
AEROTHRUST CORP	FL	ARROW INTERNATIONAL INC	PA
AEROVOX (COOPER INDUSTRIES)		ARTISTIC POLISHING & PLATING	CA
AIR PRODUCTS AND CHEMICALS	PA	ASARCO INC	NY
AKRON PAINT & VARNISH INC	ОН	ASEA BROWN BOVERI INC	CT
AKZO CHEMICALS (AMERICA AKZO)		ASHLAND OIL INC	KY
ALABAMA RIVER PULP		ASSET MANAGEMENT ASSOCIATES	NY
(PARSONS & WHITTEMORE ENTERPRISES)		CHILDERS PRODUCT CO	
ALADDIN INDUSTRIES INC	TN	ASTRAL INDUSTRIES INC	IN
ALDAN RUBBER CO	PA	ATLANTIC RICHFIELD CO	CA
ALL METAL STAMPINGS INC	Wi	ARCO PRODUCTS	
ALLEGHENY LUDLUM CORP	PA	ATOCHEM (ELF AQUITAINE)	
ALLEN-BRADLEY CO	ок	AUBURN FOUNDRY INC	IN
ALLIED MINERAL PRODUCTS INC	ОН	AUTO-SWAGE PRODUCTS INC	СТ
ALLIED-SIGNAL INC	NJ	AUTOMATA INC	VA
ALUMINUM COMPANY OF AMERICA	PA	AUTOMATIC PLATING OF BRIDGEPORT	СТ
AMERICA AKZO INC	NY	AUTOMATIC WELDING & MANUFACTURING	ОН
AKZO CHEMICALS		AUTOMATION PLATING CORP	CA
AMERICAN & EFIRD (RUDDICK CORP)		AVESTA SANDVIK TUBE AB	FL
AMERICAN CAST IRON PIPE CO	AL	AVON NORTH AMERICA INC	MI
AMERICAN CYANAMID CO	NJ	CADILLAC RUBBER & PLASTIC	
AMERICAN ELECTRIC COMPONENTS	IN	AVONDALE INDUSTRIES INC	LA
AMERICAN PETROFINA HOLDING	TX	B F GOODRICH CO	ОН
FINA OIL AND CHEMICAL		B L DOWNEY CO	IL
AMERICAN SAFETY RAZOR (JORDAN GROUP)		BAIRNCO CORP	FL
AMERICAN STANDARD (KELSO ASI PARTNERS)		REINHOLD	
AMERICAN SYNTHETIC RUBBER CORP	KY		

COMPANY	STATE	COMPANY	STATE
BAKER HUGHES INC	TX	BUCKSTAFF CO	WI
BGA INTERNATIONAL		BULK MOLDING COMPOUNDS INC	IL
BALDOR ELECTRIC CO	AR	BURKE MILLS INC	NC
BALL SOCKET MANUFACTURING	СТ	BURMAH CASTROL HOLDINGS	NY
BARNETT VARNISH (OAK PARTNERS)		CHEM-TREND	
BARNHARDT MANUFACTURING CO	NC	BURR-BROWN CORP	AZ
BASF CORP	NJ	BURRELL-LEDER BELTECH (UNITED SILK MILLS)	
BASS PLATING CO	CT	BURROUGHS WELLCOME CO	NC
BASSETT FURNITURE INDUSTRIES	VA	BUSHWICK CAN	NY
BATH IRON WORKS	ME	C F & I STEEL CORP	co
BAXTER INTERNATIONAL INC	IL	C P G INTERNATIONAL INC	CA
BAYER USA INC	PA	CLEARPRINT	
BAYOU STEEL	LA	C P INC	IN
BELL & HOWELL CO	IL.	C P S CHEMICAL CO	NJ
BEMIS COMPANY INC	MN	CRLINC	IL
BENJAMIN MOORE & CO	NJ	CAAP CO	CT
BENNETT MANUFACTURING CO	NY	CABOT CORP	MA
BENSON MANUFACTURING	WI	CADDOCK ELECTRONICS INC	CA
BENTON INTERNATIONAL INC	CT	CADILLAC RUBBER & PLASTIC	
CIRCUIT WISE		(AVON NORTH AMERICA)	
BESLY PRODUCTS CORP	IL	CALGON CARBON CORP	PA
BEST CHAIRS	IN	CALIG STEEL DRUM CO	PA
FISCHER CHAIR		CALSONIC INTERNATIONAL INC	CA
BETHLEHEM STEEL CORP	PA	CAMEO MARBLE (LOUISVILLE TILE DISTRIBUTORS	•
BGA INTERNATIONAL (BAKER HUGHES)		CANON BUSINESS MACHINES INC	CA
BIMAC (CHEMINCON)		CAPITAL RESIN CORP	ОН
BIRD ELECTRONIC CORP	ОН	CAPITOL PRODUCTS CO	CT
BLACK & DECKER CORP	MD	CARD PAKING	ОН
BLASER DIE CASTING CO	WA	CARGILL DETROIT CORP	MI
CONTINENTAL BRASS		CARPENTER TECHNOLOGY CORP	PA
BLOOMSBURG MILLS (PENN COLUMBIA)	64	CARTER-WALLACE INC	NY
BLUE CIRCLE AMERICA INC	GA NO	CASCADE CABINET CORP	WA
BLUE RIDGE PRODUCTS CO	NC	CASKET SHELLS INC	PA
BLUE STREAK FINISHERS LTD	WA	CASPIAN INC	CA
BOEHRINGER INGELHEIM	CT	CENTRAL PLASTIC CO	OK
BOEING CO	WA	CERA-MITE CORP	WI
BOILMAN HAT CO	ID BA	CERTAINTEED CORP	PA
BOLLMAN HAT CO BOMARKO INC	PA IN	CFC INTERNATIONAL (ARMORED KNIGHT)	O.T.
BONDLINE ADHESIVES INC	IN	CHAMPION INTERNATIONAL CORP CHAMPION PARTS INC	CT "
BONDE PRODUCTS INC	NY		IL
BORDEN INC	NY	CHAPARRAL STEEL (TEXAS INDUSTRIES) CHAS H LILLY CO	OB
BOWATER INC	CT	CHEM-TECH LTD	OR
BP AMERICA INC	ОН	CHEM-TECH RUBBER	IA CT
BRISTOL-MYERS SQUIBB CO	NY	CHEM-TREND (BURMAH CASTROL HOLDINGS)	CT
BROD & MCCLUNG-PACE CO	OR	CHEMICAL SOLVENTS INC	ОΠ
BRUDERER INC	AL	CHEMICAL SYSTEMS INC	OH
BRULIN & COMPANY INC	IN	CHEMICAL STOTEMO INC	IL
Siramit & Com Mil 1110	***		

COMPANY	STATE	COMPANY	STATE
CHEMINCON INC	MI	CUSTOM PRODUCTS CORP	WI
BIMAC		CYCLOPS INDUSTRIES INC	PA
CHESTNUT RIDGE FOAM INC	PA	DSMCHEMICALS (DSMFINANCE)	
CHEVRON CORP	CA	D S M FINANCE US	DE
CHICAGO ADHESIVE PRODUCTS CO	IL	D S M CHEMICALS	
CHILDERS PRODUCT		DALLAS WOODCRAFT (HOME INTERIORS & GIFTS)	
(ASSET MANAGEMENT ASSOCIATES)		DALTON FOUNDRIES INC	iN
CIBA-GEIGY CORP	NY	DAVIS & HEMPHILL	MD
CIBRO PETROLEUM BRONX INC	NY	DAY & ZIMMERMAN/BASIL	PA
CIRCUIT WISE (BENTON INTERNATIONAL)		DECOR GRAVURE	
CITGO PETROLEUM CORP	ок	(RIVER CAPITAL PARTNERS I)	
CITICORP	NY	DEFT INC	CA
SYBRON CHEMICALS		DEGUSSA CORP	NJ
CLARK OIL & REFINING CORP	IL	DEL-CRAFT (KEY PLASTICS)	
CLEARPRINT (C P G INTERNATIONAL)		DELTA ENGINEERING & MANUFACTURING	OR
CMC STEEL GROUP (COMMERCIAL METALS)		DELTA RESINS & REFRACTORIES	WI
COACH & CAR EQUIPMENT CORP	IL	DERBY MANUFACTURING INC	ОН
COATING PLACE INC	WI	DESIGN HOUSE	WI
COATING SYSTEMS INC	NH	DIAL CORP	AZ
COLEMAN OUTDOOR PRODUCTS		DIEBOLD INC	ОН
(MACANDREWS FORBES HOLDINGS)		DISPLAY PACK INC	Mi
COLLIS INC	IA	DISSTON CO	VA
COLORADO PAINT CO	CO	DITRI ASSOCIATES INC	CT
COLUMBIA CORRUGATED BOX CO	OR	RIDG-U-RACK	
COMMERCIAL ENAMELING CO	CA	DITTLER BROTHERS	GA
COMMERCIAL METALS CO	TX	DOCK RESINS CORP	NJ
CMC STEEL GROUP		DOE RUN CO	MO
COMO PLASTICS (G L INDUSTRIES OF INDIANA)		DOFASCO INC	MI
CONAGRA INC	NE	WHITTAR STEEL STRIP	
UNITED AGRI PRODUCTS		DONALDSON CO	MN
CONDERE CORP	CT	DORMA DOOR CONTROLS INC	PA
CONGOLEUM (HILLSIDE CAPITAL)		DOUGLAS & LOMASON CO	M
CONTINENTAL BRASS (BLASER DIE CASTING)		DOW CHEMICAL CO	MI
CONTRAN CORP	TX	DOW CHEMICAL CO	
KEYSTONE STEEL & WIRE		MARION MERRELL DOW	
COOPER INDUSTRIES INC	TX	DU PONT	DE
COOPER INDUSTRIES INC		DUKANE CORP	IL.
AEROVOX		DUNCAN FINANCIAL CORP	CA
CORNING INC	NY	DUNDEE MILLS INC	GA
CORONET PAPER CORP	NJ	DUNLOP TIRE CORP	NY
CREATIVE FOAM CORP	MI	DUO-FAST CORP	IL
CRITERION CATALYST LTD PARTNERSHIP	TX	DURACELL INTERNATIONAL INC	CT
CROMPTON & KNOWLES CORP	CT	E F HOUGHTON & CO	PA
CROWN CORK & SEAL CO	PA	E R MOORE CO	IL.
CROWN METAL FINISHING CO	NJ	EAGLE CHEMICALS INC	ОН
CROWN ROLL LEAF INC	NJ	EAGLE OTTAWA LEATHER	
CRYSTAL CABINET WORKS INC	MN	(SMITH EVERETT INV LTD)	
CRYSTAL SPRINGS PRINTWORKS	GA	EAGLE-PICHER INDUSTRIES INC	ОН

COMPANY	STATE	COMPANY	STATE
EAST LIBERTY ELECTROPLATING	PA	FINITE INDUSTRIES INC	NJ
EASTMAN KODAK CO	NY	FIRST CHEMICAL (FIRST MISSISSIPPI)	
EASTON FOAM INC	PA	FIRST MISSISSIPPI CORP	MS
EATON CORP	ОН	FIRST CHEMICAL	
EBONEX INC	NY	FISCHER CHAIR (BEST CHAIRS)	
EBONITE INTERNATIONAL INC	KY	FISONS CORP	NY
EKLUND METAL TREATING INC	IL	FLEET AEROSPACE INC	CA
ELASTOMERIC TECHNOLOGIES INC	PA	FLEET AEROSPACE INC	
ELECTRONIC CHROME CO	CA	LANGLEY CORP	
ELECTROTEK CORP	WI	FLETCHER PAPER CO	Mi
ELF AQUITAINE INC	NY	FLEXCON COMPANY INC	MA
ELF AQUITAINE INC		FLEXFAB INC	MI
ATOCHEM		FLEXONICS (ZIMMERMAN HOLDINGS)	
ELI LILLY AND CO	IN	FLEXSTEEL INDUSTRIES INC	IA
ELJO PRODUCTS INC	ИЗ	FMC CORP	IL
ELPACO COATINGS CORP	IN	FORD MOTOR CO	MI
EMERALD ACQUISITION CORP	IL	FORSCH LTD	GA
VISKASE		EVANITE FIBER	
EMERALD PACKAGING INC	CA	FOTO MARK INC	MN
EMERSON ELECTRIC CO	MO	FOXBORO (SIEBE INC)	
ENGELHARD CORP	NJ	FRANKLIN INDUSTRIES INC	PA
EPEC INC	MA	FRASER PAPER (NORANDA FINANCE)	
ERDLE PERFORATING CO	NY	FROST PAINT & OIL	MN
ERICSSON-GE MOBILE COMMUNICATION	NJ	FULCRUM III LTD PARTNERSHIP	NY
ESAB GROUP INC	sc	WOODSTUFF	
ESSEX (MORGAN STANLEY LEV EQ FUND II)		FUNK FINECAST INC	ОН
ETHYL CORP	VA	G L INDUSTRIES OF INDIANA	IN
EVANITE FIBER (FORSCH LTD)		COMO PLASTICS	
EXCELL POLISHING & BUFFING CO	ОН	G T PRODUCTS INC	M
EXCELLO SPECIALTY CO	ОН	G W LISK CO	NY
EXXON CORP	TX	GAF CORP	NJ
F C HOLDINGS INC	VA	GARDEN STATE TANNING	
I R INTERNATIONAL		(HM ANGLO-AMERICAN)	
F W WINTER (ZIMMERMAN HOLDINGS)		GARDEN WAY INC	NY
FABRALLOY (STOLPER INDUSTRIES)		GATES CORP	CO
FACILE HOLDINGS INC	NJ 	GAYSTON CORP	ОН
FARLEY INC	IL	GEFINOR (USA)	NY
FARM & INDUSTRIAL CHEMICAL		SHAEFFER	787 .4
(MAYO CHEMICAL)		GENA LABORATORIES INC	TX
FASCO INDUSTRIES INC	IL N	GENCORP INC	OH
FEDERAL PAPER BOARD CO	NJ	GENERAL DYNAMICS CORP	MO
FEDERAL-MOGUL CORP	M	GENERAL ELECTRIC CO	CT
FEIN CONTAINER CORP	NJ	GENERAL FILTERS INC	MI
FERNOO INC	M	GENERAL METALS POWDER CO	OH
FIFTH DIMENSION INC	NJ	GENERAL MOTORS CORP	M
FINA OIL AND CHEMICAL		GENEVA STEEL	UT
(AMERICAN PETROFINA HOLDING)		GENTEX CORP	PA
		GEORGIA GULF CORP	GA

COMPANY	STATE	COMPANY	STATE
GEORGIA-PACIFIC CORP	GA	HM ANGLO-AMERICAN LTD	NY
GETTERS CORP OF AMERICA	ОН	GARDEN STATE TANNING	
GILBERT ENGINEERING (MERRILL LYNCH & CO)		JADE CORP	
GILLETTE CO	MA	HOECHST CORP	NJ
GIVAUDAN CORP	NJ	HOFFMAN-LA ROCHE	NJ
GLASGO PLASTICS INC	ОН	HOMACO INC	IL.
GLEN RAVEN MILLS INC	NC	HOME INTERIORS & GIFTS	Tχ
GLOBE MANUFACTURING CO	MA	DALLAS WOODCRAFT	
GOODMAN MANUFACTURING CORP	TX	HONDA OF AMERICA	CA
GOODYEAR TIRE & RUBBER CO	ОН	HONEYWELL INC	MN
GRAVURE PACKAGING INC	VA	HONOLULU WOOD TREATING CO	HI
GREAT WESTERN FOAM PRODUCTS	CA	HOOVER SYSTEMS INC	TX
GREEN BAY PACKAGING INC	WI	HOUSE OF PACKAGING INC	CA
GREENVILLE TECHNOLOGY INC	ОН	HOWMET (PECHINEY)	
GRIFFITH POLYMERS	OR	HPM CORP	OH
GRUMMAN CORP	NY	HUTCHENS INDUSTRIES INC	MO
GTI CORP	CA	HYDRO ALUMINUM USA INC	FL
GUARDSMAN PRODUCTS INC	M	HYDROZO (P C R GROUP)	
GUNDERSON (JAMES-FURMAN & CO)		I R INTERNATIONAL (F C HOLDINGS)	
H & N CHEMICAL CO INC	NJ	IBM	NY
H B IVES (HARROW INDUSTRIES)		ICI AMERICAN HOLDINGS	DE
H C C INDUSTRIES	CA	ICI AMERICAN HOLDINGS	
HADCO CORP	NH	VYTECH	
HALSTEAD INDUSTRIES INC	NC	IDEAL STENCIL MACHINE & TAPE CO	IL.
HANDY & HARMAN	NY	ILLINOIS TOOL WORKS INC	IL
HANDY BUTTON MACHINE CO	IL.	IMC FERTILIZER GROUP INC	IL
HANLIN GROUP INC	NJ	IMCERA GROUP INC	IL
HARBISON-FISCHER MANUFACTURING CO	TX	MALLINCKRODT	•••
HARROW INDUSTRIES INC	Mi	IMPHY ALLOYS INC	NJ
H B IVES		TECHALLOY	
HARVEY HOLDINGS	TX	INA BEARING CO	SC
HARVEY INDUSTRIES		INCO UNITED STATES INC	NY
HARVEY INDUSTRIES (HARVEY HOLDINGS)		INDAL ALUMINUM (INDAL INC)	140
HASTINGS MANUFACTURING CO	MI	INDAL INC	MS
HAUNI RICHMOND (KOERBER AG)	5.41	INDAL ALUMINUM	140
HAWORTH INDUSTRIES INC	MI	INDIANHEAD PLATING INC	WI "
HBD INDUSTRIES INC	ОН	INDUSTRIAL HARD CHROME LTD	IL.
PEERLESS-WINSMITH	0 13	INGERSOLL-RAND CO	NJ "
HERCULES ENGINES INC	OH	INLAND STEEL INDUSTRIES INC	IL OA
HERCULES INC	DE	INTEL CORP	CA "
HERESITE PROTECTIVE COATINGS	WI	INTERLAKE CORP	IL NY
HEWLETT-PACKARD CO	CA	INTERNATIONAL PAPER CO	NY
HI-SHEAR INDUSTRIES INC	NY	IRVING TANNING (VISTA RESOURCES)	OΗ
HILLSIDE CAPITAL INC	NY	ITEN INDUSTRIES INC	OH
CONGOLEUM	140	ITT CORP	NY
HILLYARD ENTERPRISES INC	MO	ITT HIGBIE MANUFACTURING	
HITCHINER MANUFACTURING CO	NH	ITT HIGBIE MANUFACTURING (ITT CORP)	
		JI CASE (TENNECO)	

COMPANY	STATE	COMPANY	STATE
J T SLOCOMB CO	СТ	KOLENE CORP	MI
J&L SPECIALTY PRODUCTS		KRAFT GENERAL FOODS (PHILIP MORRIS)	
(SPECIALTY MATERIALS)		LANGLEY CORP (FLEET AEROSPACE)	
JACOBSON MANUFACTURING CO	NJ	LECO CORP	MI
PENN JACOBSON CO		LECTROMAT INC	PA
JADE CORP (HM ANGLO-AMERICAN)		LEHIGH PRESS INC	NJ
JAMES RIVER CORP OF VIRGINIA	VA	LENMAR CHEMICAL CORP	GA
JAMES-FURMAN & CO	or	LIEBEL FLARSHEIM CO	ОН
GUNDERSON		LINCOLN ELECTRIC CO	ОН
JAMESTOWN PAINT & VARNISH CO	PA	LINCOLN GROUP INC	sc
JEFFERSON SMURFIT (SIBV/MS HOLDINGS)		LOCKHEED CORP	CA
JMK INTERNATIONAL INC	TX	LOMAC	MI
JOHNSON & JOHNSON	NJ	LORIN INDUSTRIES INC	MI
JOHNSON CONTROLS INC	WI	LOUISIANA-PACIFIC CORP	OR
JONES & VINING INC	MA	LOUISVILLE TILE DISTRIBUTORS	KY
JORDAN GROUP	NY	CAMEO MARBLE	
AMERICAN SAFETY RAZOR		LTV AEROSPACE (LTV CORP)	
JOYCE INTERNATIONAL INC	NY	LTV CORP	TX
STREATER		LTV AEROSPACE	
JULIAN LUMBER CO	ок	LTV STEEL	
K SYSTEMS	CA	LTV STEEL (LTV CORP)	
KAISER ELECTROPRESCISION		LUBRIZOL CORP	ОН
KAISER ELECTROPRESCISION (K SYSTEMS)		LUKE ENGINEERING & MANUFACTURING	ОН
KALAMA CHEMICAL	WA	LUSTRE-CAL NAMEPLATE CORP	CA
KALCOR COATINGS COMPANY INC	ОН	LYONDELL PETROCHEMICAL CO	TX
KANTHAL CORP	СТ	M H GRAHAM	MS
KASPAR WIRE WORKS INC	TX	MACLEAN-FOGG CO	IL
KELSO ASI PARTNERS L P	NY	MACANDREWS FORBES HOLDINGS	NY
AMERICAN STANDARD		COLEMAN OUTDOOR PRODUCTS	
KENNECOTT (RTZ AMERICA INC)		MACDONALD CARBIDE CO	CA
KENNEDY MANUFACTURING CO	ОН	MADIX INC	TX
KERN-LIEBERS USA INC	ОН	MAGEE INDUSTRIAL ENTERPRISES	PA
KERR-MCGEE CORP	ок	MALLINCKRODT (IMCERA GROUP)	
KEY PLASTICS INC	MI	MANNER PLASTIC MATERIALS	CA
DEL-CRAFT		MANNING FABRICS INC	NC
KEY TRONIC CORP	WA	MANSFIELD PAINT CO	ОН
KEYSTONE STEEL & WIRE (CONTRAN)		MANVILLE CORP	co
KEYWELL CORP	MD	MARATHON ELECTRIC MANUFACTURING	WI
KIMBERLY-CLARK CORP	TΧ	MARION MERRELL DOW (DOW CHEMICAL)	
KITZINGER COOPERAGE CORP	WI	MARKEM CORP	NH
KLIPSCH & ASSOCIATES INC	IN	MARTIN MARIETTA CORP	MD
KNOWLES ELECTRONICS	۱L	MARVIN LUMBER & CEDAR CO	MN
KOCH LABEL COMPANY INC	IN	MARVIN WINDOWS	
KOEHLER MANUFACTURING CO	MA	MARVIN WINDOWS (MARVIN LUMBER & CEDAR)	
KOERBER AG	VA	MASCO INDUSTRIES INC	MI
HAUNI RICHMOND		MASK-OFF CO	CA
		MASON AND HANGER (MASON CO)	
		` '	

COMPANY	STATE	COMPANY	STATE
MASON CO	KY	NATIONAL CHROMIUM CO	ст
MASON AND HANGER		NATIONAL COOPER & SMELTING	
MASTERMOLD	Wi	(NATIONAL TUBE HOLDING)	
MAUTZ PAINT CO	WI	NATIONAL ELECTRICAL CARBON	sc
MAYO CHEMICAL CO	GA	NATIONAL MANUFACTURING CO	IL
FARM & INDUSTRIAL CHEMICAL		NATIONAL METALS INC	AL
MCCULLOUGH (SHOP VAC CORP)		NATIONAL TUBE HOLDING CO	AL
MCDONNELL DOUGLAS CORP	MO	NATIONAL COOPER & SMELTING	
MEAD CORP	ОН	NAUGATUCK GLASS CO	CT
MEADEN SCREW PRODUCTS CO	IL	NELSON INDUSTRIES INC	WI
MECHANICAL GALV-PLATING CORP	ОН	NEO-WOOD PRODUCTS CO	ОН
MECO INC	IL	NEW DIMENSION PLATING	MN
MEMOREX CORP	CA	NEWELL CO	IL
MERCER INDUSTRIES	OR	NEWPORT ADHESIVES & COMPOSITES	CA
MERCK & CO INC	NJ	NORANDA FINANCE INC	TN
MERRILL LYNCH & CO	NY	FRASER PAPER	
GILBERT ENGINEERING		NORDSON CORP	ОН
METAL-COTE INC	MI	NORTH AMERICAN PAINT CORP	NJ
METALLICS INC	WI	NORTHERN PRECISION CASTING CO	WI
METROMEDIA CO	NJ	NORTHROP CORP	CA
METROMEDIA TECHNOLOGIES		NUPLA CORP	CA
METROMEDIA TECHNOLOGIES		NUTONE INC	ОН
(METROMEDIA CO)		O'SULLIVAN CORP	VA
MICOM CORP	MN	OAK PARTNERS INC	IL
MID AMERICA CLUTCH	IN	BARNETT VARNISH	
MID-WEST INDUSTRIAL CHEMICAL CO	MO	OCCIDENTAL PETROLEUM CORP	CA
MIDDCO TOOL & EQUIPMENT INC	WA	OHIO ART CO	ОН
MIDDLESEX RESEARCH MANUFACTURING	MA	OHLINE CORP	CA
MILLIKEN & COMPANY	SC	OLIN CORP	CT
MILLIPORE CORP	MA	OPTICAL COATING LABORATORY	CA
MOBIL CORP	VA	ORCON CORPORATION	CA
MODERN METAL PRODUCTS CO	IL	OREGON STEEL MILLS INC	OR
MODINE MANUFACTURING CO	WI	OWENS-CORNING FIBERGLAS CORP	OH
MOLDED FIBER GLASS CO	ОН	PB&H MOLDING CORP	NY
MON-ECO INDUSTRIES INC	NJ	P C R GROUP INC	FL
MONARCH LITHO INC	CA	HYDROZO	
MONROE EQUIPMENT (TENNECO)		PACIFIC ALLOY CASTINGS	CA
MONSANTO CO	MO	PACKAGING CORP (TENNECO)	
MOORE BUSINESS FORMS	IL.	PANEL PROCESSING INC	M
MORGAN STANLEY LEV EQ FUND II	NY	PARKER HANNIFIN CORP	OH
ESSEX		PARKER PEN USA LTD	Wi
MOTOROLA INC	IL.	PARSONS & WHITTEMORE ENTERPRISES	NY
NABORS MANUFACTURING	TN	ALABAMA RIVER PULP	<u>.</u> .
NALGE CO (SYBRON ACQUISITION)		PAULSEN WIRE ROPE CORP	PA
NASHUA CORP	NH	PECHINEY CORP	CT
NATIONAL BANNER CO	TX	HOWMET	
		PEERLESS OF AMERICA INC	IL.
		PEERLESS-WINSMITH (HBD INDUSTRIES)	

COMPANY	STATE	COMPANY	STATE
PENN COLUMBIA CORP	NY	R H SHEPPARD COMPANY INC	PA
BLOOMSBURG MILLS		R L C INDUSTRIES CO	OR
PENN JACOBSON (JACOBSON MFG)		ROSEBURG LUMBER	
PENNZOIL CO	TX	R P ADAMS CO	NY
PERRIGO CO	MI	RAMPART INDUSTRIES INC	Mi
PERRY & DERRICK CO	ОН	RANBAR TECHNOLOGY INC	PA
PETRO CHEMICAL PRODUCTS INC	FL	RAYOVAC CORP	Wi
PETROLITE CORP	MO	RAYTHEON CO	MA
PFISTER CHEMICAL INC	NJ	RED SPOT PAINT & VARNISH CO	IN
PFIZER INC	NY	REFRACTORY SALES & SERVICE CO	AL
PHILIP MORRIS CO	NY	REINHOLD (BAIRNCO CORP)	
KRAFT GENERAL FOODS		REINZ WISCONSIN GASKET CO	WI
PHILLIPS PETROLEUM CO	ок	RELIANCE FINISHING CO	MI
PHILLIPS PLASTICS CORP	WI	REPUBLIC ENGINEERED STEELS	ОН
PHOENIX HEAT TREATING INC	AZ	REPUBLIC STORAGE SYSTEMS CO	ОН
PHOTOCIRCUITS CORP	NY	RESILITE SPORTS PRODUCTS INC	PA
PINES TRAILER LTD PARTNERSHIP	IL	REVCOR INC	IL
PITNEY BOWES INC	CT	REVLIS CORP	ОН
PLUMMER PRECISION OPTICS	PA	REYNOLDS METALS CO	VA
PLYMOUTH RUBBER COMPANY INC	MA	RHONE-POULENC INC	NJ
PMF INDUSTRIES INC	PA	RICO COATINGS INC	GA
POLAROID CORP	MA	RIDG-U-RACK (DITRI ASSOCIATES)	
POLY PAK INDUSTRIES INC	NY	RIVER CAPITAL PARTNERS I	GA
POM INC	AR	DECOR GRAVURE	
POTLATCH CORP	CA	RIVERSIDE HOLDINGS INC	AR
POWELL INDUSTRIES INC	TX	RIVERSIDE INTERNATIONAL INC	MI
PPG INDUSTRIES INC	PA	RJR NABISCO HOLDINGS	NY
PQ CORP	PA	ARCHER CO	
PRECISION CASTPARTS CORP	OR	ROBERT WEED PLYWOOD CORP	IN
PRECISION FABRICS GROUP INC	NC	ROBINSON RUBBER PRODUCTS	MN
PRECISION PLATING CO	IL	ROCKWELL INTERNATIONAL CORP	CA
PRECISION PRODUCTS INC	IL	ROHM AND HAAS CO	PA
PREMARK INTERNATIONAL INC	IL	ROLSCREEN CO	IA
PRINTED CIRCUIT CORP	MA	ROMAC ELECTRONICS INC	NY
PROCTER & GAMBLE CO	ОН	ROME CABLE (ROME GROUP INC)	
PROGRESS CASTING GROUP INC	MN	ROME GROUP INC	NY
PROSPECT INDUSTRIES		ROME CABLE	
(PROSPECT PURCHASING)		ROMO INC	WI
PROSPECT PURCHASING CO	NJ	RONKEN INDUSTRIES INC	IL
PROSPECT INDUSTRIES		ROSEBURG LUMBER (R L C INDUSTRIES)	
PROVIDENCE METALLIZING CO	Ri	RSR HOLDING CORP	TX
PRUETT-SCHAFFER CHEMICAL CO	PA	RTZ AMERICA INC	UT
QUAKER STATE CORP	PA	KENNECOTT	
QUALITY COATINGS INC	IN	RUBICON INC	LA
QUALITY METAL PRODUCTS INC	со	RUDDICK CORP	NC
QUALITY ROLLING & DEBURRING CO	СТ	AMERICAN & EFIRD	
QUANTUM CHEMICAL CORP	NY	RUSSELL CORP	AL
R G F ENTERPRISES INC	CA	S C JOHNSON & SON INC	WI
Eliten investino	٠,٠		***

APPENDIX A—Companies Making Commitments to the 33/50 Program (February, 1992)

COMPANY	STATE	COMPANY	STATE
SADOLIN PAINT PRODUCTS INC	NC	SPRAY PRODUCTS CORP	PA
SANDEN OF AMERICA INC	CA	SPRAYING SYSTEMS CO	IL
SANDOZ CORP	NY	STANDARD CHLORINE CHEMICAL CO	NJ
SANDSTROM PRODUCTS CO	IL.	STANDARD INDUSTRIES INC	ΤX
SARA LEE CORP	IL.	STANDARD MOTOR PRODUCTS INC	NY
SARGENT-FLETCHER (A J INDUSTRIES)		STAR ENTERPRISE	TX
SARTORIUS NORTH AMERICA INC	NY	STEEL OF WEST VIRGINIA INC	wv
SAUNDERS SUPPLY CO	VA	STEELCASE INC	Mi
SCHERING-PLOUGH CORP	NJ	STEPHENSON & LAWYER INC	M
SCHNELLER INC	ОН	STERLING CHEMICALS INC	TX
SCOTT PAPER CO	PA	STEWART HALL CHEMICAL CORP	NY
SEABOARD METAL FINISHING CO	CT	STILLWATER INVESTMENT	СТ
SEAWARD INTERNATIONAL	VA	UNITED ELECTRIC	
SEM PAINT CO	CA	STOLPER INDUSTRIES INC	WI
SENECA FOODS CORP	NY	FABRALLOY	
SHAEFFER (GEFINOR)		STORA HOLDING INC	NJ
SHELL PETROLEUM INC	DE	TARKETT	
SHELLER-GLOBE (UNITED TECHNOLOGIES)		STOREYS TRANSPRINT INC	VA
SHEPHERD CHEMICAL	ОН	STREATER (JOYCE INTERNATIONAL)	
SHERWIN-WILLIAMS CO	ОН	SUBA MANUFACTURING INC	CA
SHOP VAC CORP	PA	SUMITOMO METAL USA CORP	NY
MCCULLOUGH		WESTERN TUBE & CONDUIT	
SHUFORD INDUSTRIES INC	NC	SUMMITVILLE TILES INC	ОН
SIBV/MS HOLDINGS INC	MO	SUN COMPANY INC	PA
JEFFERSON SMURFIT		SUN METAL PRODUCTS INC	in
SIEBE INC	MA	SUNNEN PRODUCTS	MO
FOXBORO		SUNSET FIREPLACE FIXTURES	CA
SILVER FURNITURE CO	TN	SWANK INC	MA
SIMPSON INVESTMENT CO	WA	SYBRON ACQUISITION CO	WI
SIMPSON PAPER		NALGE CO	
SIMPSON PAPER (SIMPSON INVESTMENT)		SYBRON CHEMICALS (CITICORP)	
SKF USA INC	PA	SYNTEX AGRIBUSINESS (SYNTEX USA)	
SLATER STEELS	IN	SYNTEX USA INC	CA
SMITH EVERETT INV LTD	WI	SYNTEX AGRIBUSINESS	
EAGLE OTTAWA LEATHER		TALON INC	PA
SMITH SYSTEM MANUFACTURING CO	MN	TARKETT (STORA HOLDING)	
SMITHKLINE BEECHAM AMERICAS	PA	TAWAS PLATING CO	MI
SNYDER GENERAL CORP	TX	TECH INDUSTRIES INC	RI
SOMMER METALCRAFT	IN	TECHALLOY (IMPHY ALLOYS)	
SONOCO PRODUCTS CO	sc	TECHMETALS INC	ОН
SOUTHWIRE (SPECTRUM LTD)		TECUMSEH PRODUCTS CO	Mi
SPD TECHNOLOGIES INC	PA	TEKNI-PLEX INC	NY
SPECIALTY MATERIALS CORP	PA	TELLABS INC	IL
J&L SPECIALTY PRODUCTS		TEMPLE-INLAND INC	TX
SPECTRULITE CONSORTIUM INC	IL	TEMPRESS INC	WA
SPECTRUM LTD	GA		
SOUTHWIRE			
SPIROL INTERNATIONAL HOLDING CO	CT		

COMPANY	STATE	COMPANY	STATE
TENNECO INC	TX	UOP	N_
JICASE		UPJOHN CO	M
MONROE EQUIPMENT		USS-POSCO INDUSTRIES	CA
PACKAGING CORP		VAIL RUBBER WORKS	M
TEXACO INC	NY	VALLEY CRAFT	MN
TEXAS INDUSTRIES INC	TX	VALSPAR CORP	MN
CHAPARRAL STEEL		VAN DER HORST USA CORP	TX
TEXAS INSTRUMENTS INC	TX	VANGUARD PAINTS & FINISHES	ОН
THIOKOL CORP	UT	VARIAN ASSOCIATES INC	CA
THOMAS INDUSTRIES INC	KY	VELIE CIRCUITS INC	CA
THOMAS STEEL STRIP CORP	ОН	VELSICOL CHEMICAL CORP	íL
THOMSON CONSUMER ELECTRONICS	IN	VICOM INC	TX
TIMKEN CO	ОН	VISKASE (EMERALD ACQUISITION)	
TISHCON CORP	NY	VISTA CHEMICAL CO	TX
TOLEDO COKE CORP	он	VISTA RESOURCES INC	NY
TORWICO ELECTRONICS INC	ИJ	IRVING TANNING	
TOWER OIL & TECHNOLOGY CO	IL.	VIZ MANUFACTURING CO	PA
TRANSCO PRODUCTS CORP	NJ	VULCAN MATERIALS CO	AL
TRI-STATE POLE & PILING INC	MS	VYTECH (ICI AMERICAN HOLDINGS)	
TRINOVA CORP	ОН	W J RUSCOE CO	ОН
TRIPLEX PLATING INC	IN	W M BARR & CO	TN
TUSONIX INC	AZ	W R GRACE & CO	NY
U S ENTERPRISE	IL.	W W CUSTOM CLAD INC	NY
WASHINGTON STEEL		WABASH NATIONAL CORP	iN
U S STEEL (U S X CORP)		WALLE CORP	LA
USXCORP	PA	WALTCO ENGINEERING CO	CA
U S STEEL		WARLICK PAINT CO	NC
UTICORP	PA	WARN INDUSTRIES (WARNCOM)	
UNIFORM TUBES		WARNCOM INC	OR
UCC INVESTORS HOLDING	CT	WARN INDUSTRIES	
UNIROYAL CHEMICAL CO		WARNER-LAMBERT CO	NJ
ULTRA FORGE INC	ОН	WASHINGTON STEEL (US ENTERPRISE)	
UNIFORM TUBES (UTICORP)		WEIRTON STEEL CORP	WV
UNION CAMP CORP	NJ	WEISS-AUG CO	NJ
UNION CARBIDE CORP	CT	WELDON TOOL CO	ОН
UNION ZINC INC	TN	WELLCO ENTERPRISES INC	NC
UNIROYAL CHEMICAL		WELLONS	OR
(UCC INVESTORS HOLDING)		WESTERN RESERVE MANUFACTURING CO	ОН
UNITED AGRI PRODUCTS (CONAGRA)		WESTERN TUBE & CONDUIT	
UNITED ELECTRIC (STILLWATER INVESTMENT)		(SUMITOMO METAL)	
UNITED SILK MILLS INC	NY	WESTINGHOUSE ELECTRIC CORP	PA
BURRELL-LEDER BELTECH INC		WESTVACO CORP	NY
UNITED TECHNOLOGIES	CT	WEYERHAEUSER CO	WA
UNITED TECHNOLOGIES		WHIRLPOOL CORP	M
SHELLER-GLOBE		WHITE CONSOLIDATED INDUSTRIES	ОН
UNIVERSAL COOPERATIVES INC	MN	WHITEHALL CORP	TX
UNIVERSAL PACKAGING CORP	NH	WHITTAR STEEL STRIP (DOFASCO)	
UNOCAL CORP	CA	WILKO PAINT	KS

COMPANY	STATE
WILLAMETTE INDUSTRIES INC	OR
WINCO INC	MN
WINONA CORP	IN
WISCONSIN TOOL & STAMPING CO)L
WISE CO	AR
WITCO CORP	NY
WOLVERINE HOLDING CO	AL.
WOLVERINE TUBE	
WOLVERINE TUBE (WOLVERINE HOLDING)	
WOOD PRESERVERS INC	VA
WOODBRIDGE HOLDINGS INC	PA
WOODSTUFF (FULCRUM III LTD PARTNERSHIP)	
WORLD GENERATOR CO	IL
WORTH INC	TN
XEROX CORP	CT
YALE SECURITY INC	NC
YOUNGWOOD ELECTRONIC METALS	PA
ZIMMERMAN HOLDINGS INC	CA
F W WINTER	
FLEXONICS	
ZIRCOA INC	ОН

FOR MORE INFORMATION...

Anyone interested in obtaining additional information about the 33/50 Program can do so by contacting EPA's TSCA Hotline at (202) 554-1404, Monday through Friday between 8:30 a.m. and 5:00 p.m. EST. In addition, all information received by EPA through the 33/50 Program is available to the public. Written communications from companies are maintained in the 33/50 Program Administrative Record, which is available for inspection on a walk-in basis at EPA's Emergency Planning and Community Right-to-Know Act (EPCRA) Reporting Center. To make requests from the 33/50 Program Administrative Record, please contact the Reporting Center at (202) 488-1501, or mail your request to: EPCRA Reporting Center, P. O. Box 23779, Washington, D. C., 20026-3779, Attention: 33/50 Program.

Information about the 33/50 Program can also be obtained by contacting EPA's Regional Offices:

Region I

33/50 Program Coordinator
US Environmental Protection Agency
Pesticides & Toxics Substances
1 Congress Street, Room 2203
Boston, MA 02203

Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont

Region II

33/50 Program Coordinator US Environmental Protection Agency Environmental Services Division 2890 Woodbridge Avenue, Building 10 Edison NJ 08837-3679

New Jersey, New York, Puerto Rico, Virgin Islands

Region III

33/50 Program Coordinator US Environmental Protection Agency 841 Chestnut Street Philadelphia, PA 19107

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Region IV

33/50 Program Coordinator US Environmental Protection Agency Title III & Toxics Section 345 Courtland Street, NE Atlanta, GA 30365

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region V

33/50 Program Coordinator US Environmental Protection Agency Pesticides & Toxic Substances Branch 77 West Jackson Chicago, IL 60604

Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region Vi

33/50 Program Coordinator US Environmental Protection Agency 1445 Ross Avenue Dallas, TX 75202-2733

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Region VII

33/50 Program Coordinator
US Environmental Protection Agency
Air & Toxics Division
726 Minnesota Avenue
Kansas City, KS 66101
lowa, Kansas, Missouri, Nebraska

Region VIII

33/50 Program Coordinator US Environmental Protection Agency 999 18th Street Denver, CO 80202-2405

Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Region IX

33/50 Program Coordinator US Environmental Protection Agency 75 Hawthome Street San Francisco, CA 94105

Arizona, California, Hawaii, Nevada, American Samoa, Guam, Commonwealth of the Northern Mariana Islands

Region X

33/50 Program Coordinator
US Environmental Protection Agency
Toxics Substances Section
1200 6th Avenue
Seattle, WA 98101
Alaska, Idaho, Oregon, Washington