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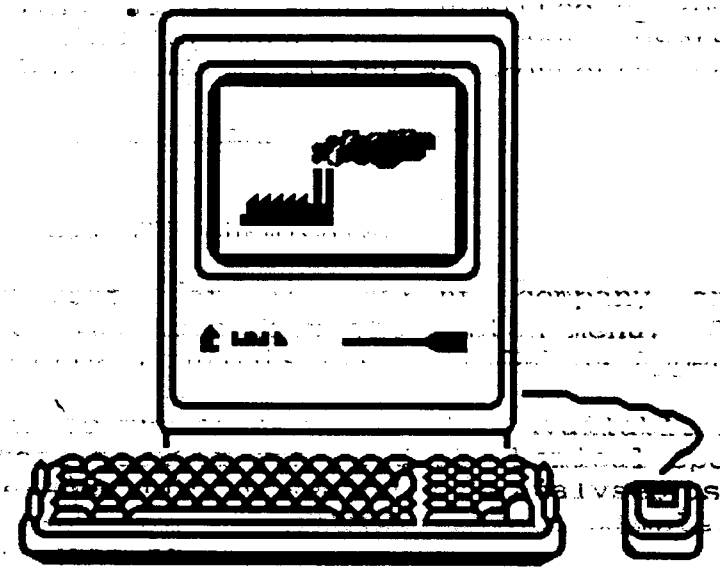
EPA

System 33/50: Tracking EPA's 33/50 Program In Region 3

DISCLAIMER

SYSTEM 33/50



TRACKING EPA'S 33/50 PROGRAM IN REGION III

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ENVIRONMENTAL SERVICES DIVISION

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I.

SYSTEM OVERVIEW

INTRODUCTION

33/50 is EPA's voluntary pollution prevention initiative designed to

- Reduce releases of 17 toxic chemicals from 1988 Toxics Release Inventory (TRI) levels 33% by the end of 1992 and 50% by the end of 1995.

- Encourage companies to use pollution prevention practices to achieve these key reductions.

- Foster a pollution prevention ethic in American business.

EPA is contacting thousands of companies to solicit their participation in 33/50 through public commitments to reducing releases of the 17 33/50 chemicals. Corporate participation in the 33/50 program is completely voluntary. Overall success of the 33/50 program will be based on a national aggregate of releases of all 17 chemicals, rather than releases by individual companies or facilities. Progress towards achievingf the national goal of a 50% reduction by 1995 will be tracked using data submitted yearly to the Toxics Release Inventory (TRI).

The 17 chemicals being targeted for reductions under the 33/50 program are shown in Table 1. These 17 chemicals were selected because they

- Pose serious health and environmental concerns,

- Are high volume industrial chemicals with substantial releases, and

- Can be reduced through pollution prevention.

33/50 involves a significant outreach effort by EPA in contacting thousands of parent companies nationwide whose industrial facilities emit 33/50 chemicals. Through these contacts, EPA is providing companies with information on 33/50 and soliciting voluntary company participation in the program. Companies are being asked to develop written commitments to publicly state their reduction goals and how they plan to achieve them. While the majority of these industry contacts are being handled by EPA's Special Projects Office in Washington, Region III has taken on the responsibility of contacting and actively seeking 33/50 commitments from more than 400 parent companies which operate exclusively within the Region. Through aggressive outreach and coordination with the various state environmental agencies, Region III will attempt to get 33/50 commitments from as many of these companies as possible. A tracking system has been developed within Region III to effectively manage all company contact and commitment information associated with the Region's 33/50 project.

33/50 TRACKING SYSTEM GOALS

33/50 will generate potentially large quantities of anecdotal information on Region III parent companies and facilities; only through the orderly maintenance of this data will the Region be able to systematically track the progress of the program. Accurate tracking of 33/50 contacts and commitments will be crucial in facilitating coordination between Region III, EPA Headquarters, and state agencies working concurrently on the project. Additionally, the 33/50 tracking system will allow the Region to generate status reports on the progress of the 33/50 project as a whole, to respond accurately to internal and external requests for information on 33/50, and to identify Region III companies and facilities which may be eligible for awards or recognition under the program.

TRACKING SYSTEM COMPONENTS

The 33/50 tracking system will have two major components, hard copy data forms and a computerized database. These two components work in tandem to ensure timely and accurate 33/50 tracking. A flow diagram of the complete 33/50 tracking system is shown in Figure 1.

Coding Sheets

As the Region receives 33/50 response letters from parent companies, the information included in the letters will be analyzed and transcribed onto a standardized coding sheet. Information from these forms will then be entered into the Region's computer database. Hard copy coding sheets will have spaces for documenting communications with 33/50 parent companies and the details of their 33/50 commitments. Copies of the coding sheets are presented in Appendix C.

Computer Database

An interactive relational database system has been developed within the Region using dBASE III+. 33/50 contact and commitment information from the coding sheets will be entered into the database, which will then be used to generate company or facility profiles and to track overall progress of the Regional project. The database system is operated by a user-friendly, menu-driven program which allows users to quickly and easily generate a detailed profile for any Region III parent company or facility of concern. The system currently includes the following information on parent companies and facilities in Region III:

- Company 33/50 contact information (e.g., names, addresses, dates, and results of communications with the company.)

- Company 33/50 commitment information (details of any 33/50 commitments made by the company.)

- Lists of parent companies' Region III facilities.

- General facility information (e.g., address, SIC code, contact names, etc. for any Region III facility.)

- TRI release and transfer data - The database system contains all TRI reports submitted by Region III facilities for both 1988 and 1989. Users can view TRI data by chemical and environmental medium for:

  - 33/50 chemicals only

  or

  -all TRI chemicals.

Hard copy printouts of all parent company and/or facility information are available from the system menu. Sample facility and company profile printouts are included as Appendices A and B.

In addition to the on-line searches available from the system menu, the system operator can conduct chemical-specific, county-specific, state-specific, or Region-wide analyses using the various functions available in dBASE III+. For example, the database system could be used to :

- Calculate the total releases of Toluene in Region III.

- List Region III-specific parent companies which have made 33/50 commitments.

- Rank the top 25 facilities in the city of Philadelphia by total 33/50 chemical releases.

Again, the results of these and any other requested analyses can be made available to all staff in hard copy form.

This system will be installed on the Region III LAN, providing all staff with "read-only" access to the contents of the database. The ability to update system data will be restricted to specific individuals appointed by the 33/50 program director. General management of the system will be handled centrally by IRMB.

POTENTIAL FOR SYSTEM EXPANSION

The current database system possesses a great deal of flexibility, and could eventually be expanded to include additional

data sets and search functions of importance to other Region III program divisions. For example, potential expansions could allow:

- Identification of existing chemicals targeted by other programs (e.g., Chesapeake Bay toxics of concern.)
- Addition of other parameters of interest (e.g., RCRA permit status.)
- Interfacing with other Region III program databases (e.g., Water Division's Permit Compliance System.)

Through such expansions, the 33/50 system could eventually develop into a Region III multi-media toxics database, allowing cross-program sharing of data and development of comprehensive facility profiles covering a wide range of environmental and regulatory issues.

DATABASE STRUCTURE

The database system consists of five distinct database files containing different data sets with relational linkages. These database files are all called on by an interactive program file, allowing an interface between 33/50 information and TRI release and transfer data. The five database files are as follows:

R3.DBF contains one record for each manufacturing facility in Region III which reported to TRI in 1988 or 1989. This database contains general information (e.g. addresses, contacts, SIC codes, etc.) for each facility. There are 2,337 records in this database for Region III.

R3PARENT.DBF contains one record for each parent company owning a TRI-reporting manufacturing facility in Region III. Single-site facilities are included as their own parent companies. This database contains address and contact information as well as all information pertinent to the 33/50 project. There are 1,516 records in the Region III database.

R3_87.DBF, R3_88.DBF and **R3_89.DBF** contain all TRI reports from Region III facilities for 1987, 1988 and 1989 respectively. This includes release and transfer amounts to all environmental media and optional waste minimization data where available.

The database structures for these five data files are presented in Appendix D.

UPDATING THE SYSTEM

Only one database file, R3PARENT.DBF, needs to be constantly updated, as it contains the 33/50 contact and commitment information for each company. Updating of this information is done through a separate, user-friendly update program, UPDATE.PRG. The update program allows the user to select a parent company of interest, then guides the user through a series of update screens into which new information may be entered. This update procedure is described in detail in Section II of this report.

The other three database files can be updated occasionally as needed through periodic downloading of data from the TRIS mainframe, using the menu-driven TRIS download procedure. The download procedure is described in detail in Section III of this report.

USING SYSTEM 33/50

A user on the system first encounters the **System Menu**, which allows a choice between reviewing information on Region III **facilities** or Region III **parent companies**.

If a user chooses to search by **facility**, a variety of search functions are available. The user may search by state, SIC code, facility name, or by parent company. If a user searches initially by state, the search may be narrowed down further by selecting by SIC code or facility name.

From the **Facility Menu**, the following options are available:

- General facility information.
- TRI data for 33/50 chemicals, 1987, 1988 or 1989.
- TRI data for all TRI chemicals, 1987, 1988 or 1989.
- Parent company information.
    - List of parent's Region III facilities.
    - 33/50 contact information.
    - 33/50 commitment information.
- Printout of all facility information.

If a user chooses to search by **parent company**, the search is conducted by entering an alphabetical range within which the name of the desired parent company falls. After selecting a particular parent company, the user may select from the following options on the **Parent Company Menu**:

- 33/50 contact information.
- 33/50 commitment information.
- List of company's Region III facilities (any of which may be selected for a profile.)
- Printout containing all parent company information.

At any time, a user on the system may return to the **System Menu** or quit and exit the system entirely.

II.

DATA ENTRY

DATA ENTRY FOR SYSTEM 33/50

33/50 Tracking Workstation.

To ensure systematic and accurate tracking of incoming 33/50 information, a workstation should be set up. The workstation should include four bins for holding letters and tracking forms at various stages in the process, as described below. The workstation should also include a file cabinet for filing hard copies of company 33/50 letters and coding sheets, and a computer with the 33/50 database file and update program. A schematic of the 33/50 tracking workstation is shown in Figure 2.

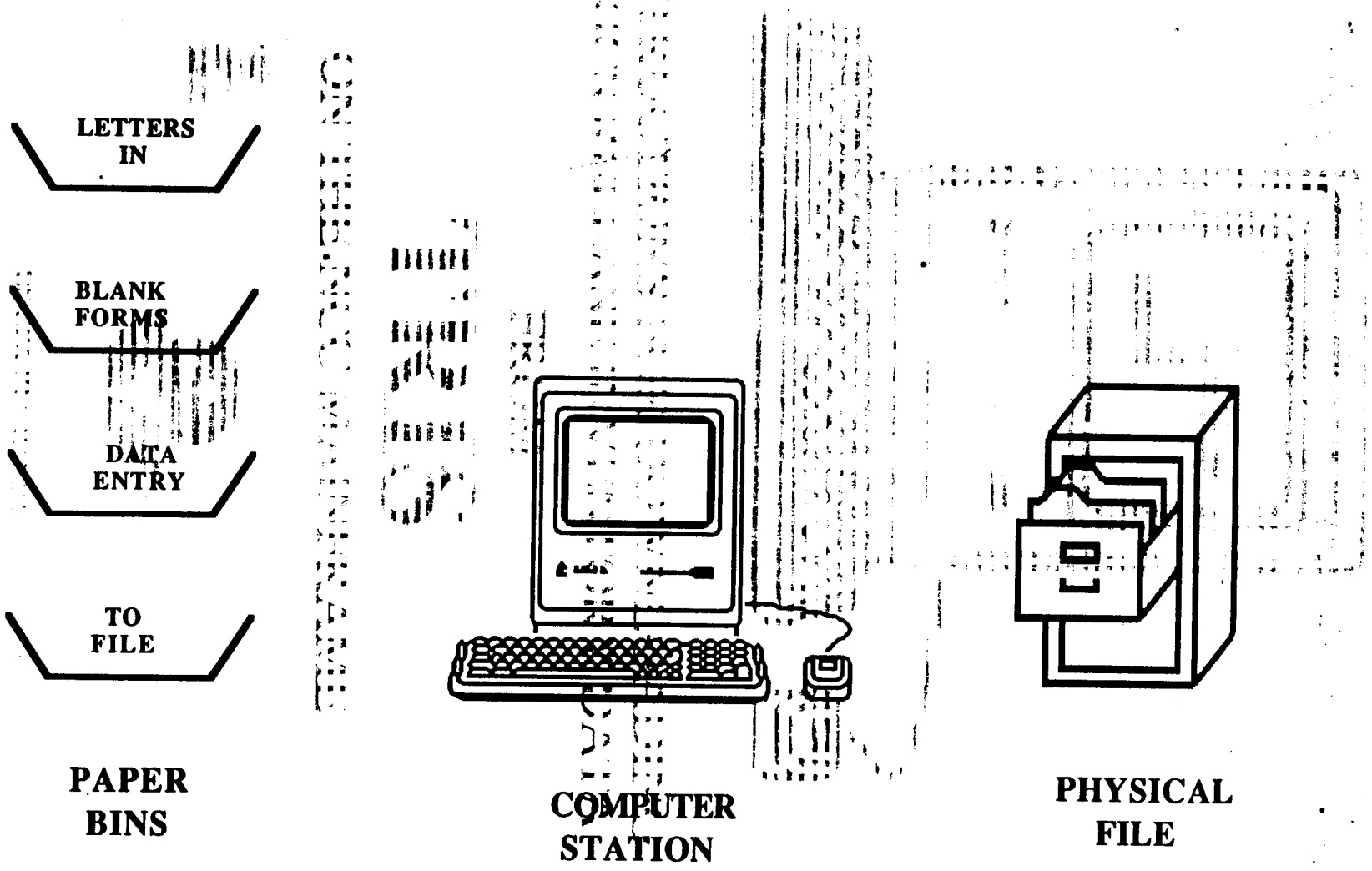
Data Sources - 33/50 Letters.

Data which needs to be entered into System 33/50 will be records of communications with companies for 33/50 and details of company commitments made under the program. This information will come from letters mailed from companies to EPA Headquarters or directly to EPA Region III.

Copies of all 33/50 letters received at EPA Headquarters will be sent out periodically in batches to the Regional 33/50 coordinators. Only letters from companies with facilities in Region III will be entered into the Region's database. These companies can be identified through comparison with the list of Region III 33/50 companies in Appendix E. Letters from companies on this list should be placed in the "Letters In" bin for review, coding, and eventual data entry. Letters from companies not on the Region III list should be kept in a separate file.

Letters mailed directly to the Region III office from Region III-specific companies should be logged in and immediately photocopied. Originals should be sent to the Special Projects Office at EPA Headquarters. Copies should be placed in the

FIGURE 2. 33/50 TRACKING WORKSTATION



"Letters In" bin for review, coding, and data entry.

Reviewing Letters.

Each 33/50 letter received from a Region III company must be carefully read and reviewed to extract all relevant an important 33/50 information. All relevant information in the letter should be marked with yellow highlighter. This includes company name, address, phone number, fax number, letter date, and all contact names. any statements regarding company 33/50 commitments must be carefully read and marked as these will come in varied and often difficult-to-decipher formats. Any additional anecdotal information provided by the company should be highlighted for inclusion in the database.

Coding Sheets.

As 33/50 response letters are received from parent companies, the information included in the letters will be analyzed and coded onto a standardized data form. Information will then be entered from these coding sheets directly into the computer database. The coding sheet which has been developed for tracking 33/50 in Region III has two sections: one for documenting communications between EPA and the company, and another for documenting the details of the company's 33/50 commitment, if any. Blank coding sheets are located in the "Blank Forms" bin of the workstation. A sample coding sheet is shown in Appendix C.

After transcribing all relevant information from the letter onto the coding sheet, the letter should be stapled to the back of the coding sheet. Side One of the coding sheet should be facing up. The first letter of the company name should be written in the "File Under:" space in the top right hand corner of Side One of the coding sheet. Once the coding sheet has been completely

filled in, it should be placed in the "Data Entry" bin of the workstation.

Data Entry.

Data entry from the coding sheets into the database is done via a user-friendly, menu-driven program which presents the user with a series of update screens for entering 33/50 information. The data fields presented on the update screens follow the exact sequence as the coding sheets. To begin the data entry program select "System 33/50 Update" from the menu screen.

The update program first provides two screens of written instructions on the update procedure similar to the instructions provided here.

The update program allows a user to update all dat field for any parent company in the Region's database. The desired parent company is selected by entering an alphabetical range into which the company name falls. The computer will prompt the user to enter a range

FROM _____

TO _____

It is important that the entered range be broad enough to include all possible spellings of the company's name. For example, to select "AMOCO CORP.", one might enter a range

FROM AMO_____

TO AMP_____

The screen will display all Region III parent companies which fall within this alphabetical range. The parent company of interest

should appear in the list. The program will then prompt you to

ENTER PARENT COMPANY RECORD # :

Select the company of interest by entering the "RECORD#" which appears directly to the left of the company's name on the screen.

Upon entering the record number a series of 12 update screens will appear one-by-one into which appropriate 33/50 information may be entered. Press [Enter] after each data field to move on to the next entry. The arrow keys move the cursor between fields within a particular screen, while the [Page Up] and [Page Down] keys allow movement from screen to screen. Screen 12, the last data entry screen, asks you to confirm your entries for the company. If all entered information is correct, press return; otherwise, you may go back through the screens using [Page Up] and [Page Down], and editing any incorrect entries.

When data entry for the company has been completed, the program will present the prompt:

EDIT ANOTHER RECORD (Y/N) ?

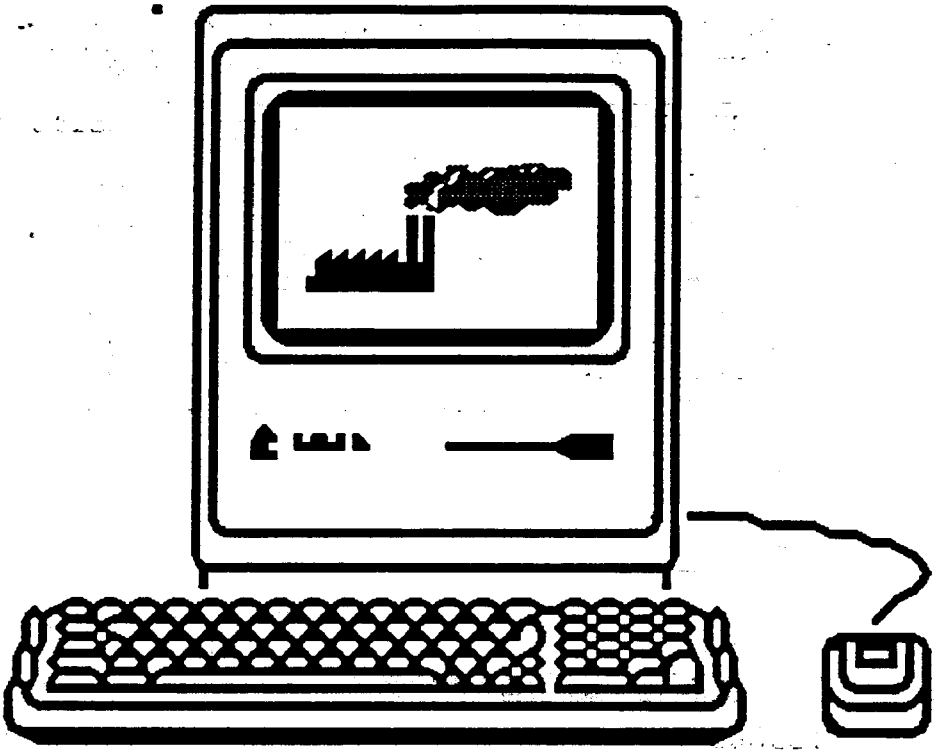
Enter "Y" to search for another parent company to edit; enter "N" to quit.

Filing.

When data entry has been completed, place the coding sheet with letter(s) attached in the "To File" bin of the workstation. Coding sheets/letters from this bin should be filed alphabetically by parent company name in the physical file, where they can be easily retrieved for future reference. When these hard copies have been file, the update process is complete.

III.

TRIS DATA DOWNLOAD PROCEDURE



INSTRUCTIONS FOR DOWNLOADING TOXICS RELEASE INVENTORY DATA

FROM

TRIS

ON THE NCC MAINFRAME

US EPA REGION III

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INTRODUCTION

The Toxic Release Inventory System (TRIS) is an ADABAS database residing on an IBM 3090 mainframe computer located at the National Computer Center (NCC) in Research Triangle Park, North Carolina. TRIS contains yearly data on releases and transfers of over 300 toxic chemicals from U.S. manufacturing facilities. This data is collected pursuant to the the Emergency Planning and Community Right-to Know Act, also known as Title III of the 1986 Superfund amendments.

In Spring 1991, TRIS added a new menu-driven data offload feature which allows a user to transfer TRIS data from the mainframe ADABAS files to a mainframe sequential file. The sequential file can then be used to download the data to a Personal Computer (PC) or a Local Area Network (LAN). In most cases data files can be completely downloaded within four hours, providing quick and useful access to up-to-date TRI data. Data can be put into dBASE III+ format, facilitating analysis and report generation within the Region.

This guide presents step-by-step instructions for carrying out this download procedure using the Region III LAN. The process is broken down into four steps:

1. Accessing TRIS on the NCC mainframe
2. Data Offload - Creating a data file on the NCC mainframe.
3. Downloading data files into a PC or LAN in Region III.
4. Putting the data in dBASE III+ format.

Each step is described in detail. Hard copy printouts of some of the screens encountered during this procedure are included for each step.

If you have questions or encounter problems, consult the Region III IRMB Hotline at x1304 or TRIS User Support at EPA headquarters at (202)-475-9419.

1. ACCESSING TRIS ON THE NCC MAINFRAME

In order to properly execute the Data Offload procedure, you must be in the Region III LAN. If you do not have a LAN User ID, contact your division's LAN administrator.

To gain access to TRIS on the NCC mainframe, you will also need a TRIS User ID and password. Contact IRMB or TRIS User Support for information on getting a TRIS User ID.

Enter the Region III LAN.

Exit the WordPerfect Office Manager by pressing [F7] until you get to the Automaxx FILE SERVER MENU.

From the FILE SERVER MENU Select [F4] **Communications.**

From the COMMUNICATIONS MENU Select [F2] **IBM 3270 Communications.**

From the IBM 3270 COMMUNICATIONS MENU Select [F2] **SNA Gateway (83 Key - IBM PC/XT, TELEX).** This loads the communications program. As you will see on the on-screen message, there is a "jump key" which will toggle you back and forth between communications and regular LAN operations. The "jump key" for this operation is [ALT] + [SCROLL LOCK]; These keys must be hit *simultaneously*.

Press any key to continue. The LAN FILE SELECTION MENU will appear.

Press the "jump key", [ALT] + [SCROLL LOCK]. The US EPA MENU SYSTEM will appear.

Enter [2] for **System Menu.**

From the SYSTEM SELECTION MENU ENTER [4] for **TSO on the NCC Mainframe.** The EPA2 TSO/E LOGON screen will appear.

Enter your TRIS USERID and PASSWORD in the appropriate fields. At this point system messages will appear, followed by three asterisks, ***.

Press [ENTER] until the "READY" prompt appears on the screen.

At the "READY" prompt, type "NATP", then press [ENTER]. The NATURAL LOGON PROCEDURE screen will appear.

At the "ENTER APPLICATION ID:" prompt, type "TRISONLN" and press [ENTER]. More system messages may appear.

Press [ENTER] until you get to the TRIS DATA RETRIEVAL MENU. You have successfully accessed the Toxics Release Inventory System.

TMAIN U.S. Environmental Protection Agency
Menu System

Date: 05/28/91
Time: 15:02:51
Terminal: T18AN012
Logmode: M2SDLCQ

lease enter selection or command and then press ENTER.

1. INFORMATION News Alerts and User Memos
2. SYSTEM MENU System Selection Menu
3. EMAIL EPA Electronic Mail for 3270

mand ===> 2
F13=Help F5/F17=Refresh F12/F24=Cancel

TRACKING SPAS IN A PROGRAM
IN REVIEW

JESYS01 U.S. Environmental Protection Agency Date: 05/28/9
System Selection Menu Time: 15:03:4

Please enter selection or command and then press ENTER.

1.	PCICS	Production CICS
2.	DCICS	Development CICS
3.	RCICS	Disaster Recovery CICS
4.	TSO	TSO on the NCC Mainframe
5.	CINCINNATI	TSO on the Cincinnati Mainframe
6.	ARBITER	Arbiter on the NCC Mainframe
7.	ARBCI	Arbiter on the Cincinnati Mainframe
8.	POSTMAN	PC file mailing system

Command ===> 4

F1/F13=Help F3/F15=Exit F5/F17=Refresh F12/F24=Cancel

```
---------------------------- EPA2 TSO/E LOGON ------------------------T18AN012
/PF13 ==> Help ..  PF3/PF15 ==> Logoff     PA1 ==> Attention     PA2 ==> Reshow

ENTER LOGON PARAMETERS BELOW:                    RACF LOGON PARAMETERS:

USERID     ===> YDK

PASSWORD   ===>                                  NEW PASSWORD ===>

PROCEDURE  ===> $EPATSO                          GROUP IDENT  ===>

ACCT NMBR  ===> TRI3

FIMAS      ===> TRISDBMS                         BIN NUMBER   ===> PYDK

SIZE       ===> 4000                             SYSOUT DEST  ===> PH

COMMAND    ===>

ENTER AN "S" BEFORE EACH OPTION DESIRED BELOW

      -NOMAIL          -NONOTICE          -NOSUMMARY          -CANCEL
```

***** NATURAL LOGON PROCEDURE *****

ENTER APPLICATION-ID: TRISONLN USER-ID: YDK

FOR A LIST OF APPLICATIONS CURRENTLY AVAILABLE FOR SELECTION,
ENTER '??' AS THE APPLICATION-ID.

TO TERMINATE NATURAL, ENTER 'FIN' AS THE APPLICATION-ID.

FOR MORE HELP, ENTER A '?' AS THE APPLICATION-ID.

1: TRMOOOP TOXIC RELEASE INVENTORY SYSTEM 05/28/91
2: TRMOOOM1 DATA RETRIEVAL MENU 15:08:00

1 ONLINE QUERIES

2 BATCH REPORTS

3 DATA OFFLOAD

4 TUTORIAL

5 USER SUPPORT

X EXIT SYSTEM

Key selection and press <ENTER> ===> 4

er-PF1---PF2---PF3---PF4---PF5---PE6---PF7---PF8---PF9---PF10--PF11--PF12---
HELP EXIT

2. DATA OFFLOAD - CREATING A DATA FILE ON THE NCC MAINFRAME

While in TRIS, each screen will have a menu at the bottom displaying the available Program Function (PF) keys. These keys are for moving from screen to screen, or menu to menu, within TRIS. The PF keys are numbered (PF1, PF2, PF3, etc....), and their functions are labeled in the menu at the bottom of each screen. These PF keys are activated by *simultaneously* pressing [CONTROL] and the number of the PF key on the keyboard (i.e., *not* on the number pad). For example, to utilize PF2 and return to the Main Menu, you would press [CONTROL] and [2] at the same time.

If you are using TRIS or the Data Offload function for the first time, it is strongly suggested that you go through the brief on-line tutorial provided by TRIS. The tutorial introduces you to the various screens and fields you will encounter in using the Data Offload function; it provides detailed step-by-step instructions which will help you to better understand the Data Offload procedure. To get to the TUTORIAL MENU, select [4] from the DATA RETRIEVAL MENU.

From the TUTORIAL MENU, select [5] to review the Data Offload function.

When you have completed the Data Offload tutorial, return to the DATA RETRIEVAL MENU by pressing PF2 ([CONTROL] + [2]).

To begin creating a sequential file on the mainframe, select [3] DATA OFFLOAD from the DATA RETRIEVAL MENU. The SELECT GEOGRAPHICAL/CHEMICAL INFORMATION screen will appear. This is where the Data Offload function begins. There are eight selection criteria fields to allow you to define and narrow down your search. *Do not press* [ENTER] *until you have filled your desired criteria fields*; you can move around the screen by entering values, or by using the arrow or [TAB] keys.. "YEAR" is a required field; you *must* enter the reporting year that you want to access. You may limit your search further by entering additional GEOGRAPHICAL or CHEMICAL criteria as shown on the screen. It is not necessary for you to enter values in all of the fields. However, if you enter a value for CITY or COUNTY, then you must enter a value for STATE.

When you have selected your search criteria, press [ENTER]. The SELECT DATA ELEMENTS screen will appear. Here you have the option of selecting any or all of the 39 data fields that may be necessary for your project. Select a field by typing an [X] in the blank space in front of the field name. The data fields FACILITY TRI ID # and DOCUMENT CONTROL NUMBER (DCN) will be added automatically to all Data Offload requests. Again, do not press [ENTER] until you have completed your field selections; you can move around the screen by typing [X] by your selections, or by using the arrow or [TAB] keys.

When you have completed field selection, type PF5 ([CONTROL] + [5]) to see a profile of your newly-created data file. When you create a TRIS download file, the computer sends you a printed report to verify the creation of your file(s) on the NCC mainframe. This printed report also contains the filename(s) and file sizes, which will be necessary information for the eventual downloading of the file(s) into your PC or LAN. The BATCH JOB PROFILE screen allows you to control the time, output destination, and the number of copies for your printed report. It is important that the data fields in the BATCH JOB PROFILE screen be filled in accurately, or your

job may not be completed correctly. The on-line Data Offload Tutorial provides more detailed explanations of these fields. Very generally speaking, the default values in the BATCH JOB PROFILE are the correct ones. However, it is important to double-check. It is particularly important that your ACCOUNT NO: is the same one you used when you logged onto the TRIS system (You will have to find out what it is. If you received your TRIS User ID through EPA Region III, your proper account number is *probably* TRI3DBMSP). Also, to ensure receipt of your printed reports, the REMOTE NO: must be correct. If you want your report to come to the Region III office, the correct value is "PH". Your printout will arrive at 841 Chestnut Building, 8th floor computer room, usually within four hours. If you do not receive your report within 24 hours, or if you get an error message on your screen upon completion of the job, it may be due to incorrect values in the BATCH JOB PROFILE fields. Again, IRMB Hotline or TRIS User Support can be helpful in sorting out these problems.

When the BATCH JOB PROFILE fields are correctly filled, press [ENTER] to complete the submission of your Data Offload request. A message will appear on the screen displaying the Download file name and the Job #. Record this information for future reference.

Press [ENTER] to return to the SELECT GEOGRAPHICAL/CHEMICAL INFORMATION menu. From this point you may initiate another Offload request, or return to the main menu by selecting PF2 ([CONTROL] + [2]).

At some point a short message of this type will appear on the screen:

```
10.37.37 JOB08318 $HASP165 YDK18     ENDED AT NCCIBM1
***
```

This is to verify that your Data Offload request has been received at NCC. If there has been any problem with your Offload request, an error message will also appear at this point. Press [ENTER] to return to the system menu(s).

To exit TRIS, type "LOGOFF" at the "READY" prompt.

When your job has been completed, a computer printout will arrive (usually within four hours, or overnight at the latest) with a complete job description and list of filenames. This will tell you that your sequential files have been successfully created on the NCC mainframe, and are ready for downloading into your PC or LAN.

M: TRF01OP TOXIC RELEASE INVENTORY SYSTEM 05/28/91
P: TRF01OM1 SELECT GEOGRAPHIC/CHEMICAL INFORMATION 15:08:33

EQUIRED YEAR: 1989

PTIONAL REGION: 03
STATE: DE
CITY: _____
COUNTY: _____
ZIP CODE: _____

CAS NUMBER: _____
--OR--
EMICAL/CATEGORY: _____

Type Geographic and/or Chemical information and press <ENTER>

ter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
HELP MAIN PREV

9. PUTTING THE DATA IN DBASE III FORMAT

```
PGM: TRF020P                    TOXIC RELEASE INVENTORY SYSTEM                    05/28/9
MAP: TRF020M1                     SELECT DATA ELEMENTS                            15:09:2

X FACILITY NAME                _ PUBLIC CONTACT                  X CHEMICAL NAME
X FACILITY STREET              _ PUBLIC TELEPHONE                X CAS NUMBER
X FACILITY CITY                _ TECHNICAL CONTACT               X FUGITIVE/NON-PNT AIR
X FACILITY COUNTY              _ TECHNICAL TELEPHONE             X STACK/POINT AIR
X FACILITY STATE               X PARENT COMPANY NAME             X WATER BODIES
X FACILITY ZIP                 X PARENT DUNS NUMBER              X UNDERGROUND INJECTION
_ FACILITY ENT/PRT CODE        _ STATE COUNTY FIPS CODE          X LAND ON-SITE
_ FACILITY LATITUDE            X WASTE MIN CODE                  X POTW
_ FACILITY LONGITUDE           X WASTE MIN CURRENT YEAR          X OTHER OFF-SITE
_ CENTROID LATITUDE            X WASTE MIN PRIOR YEAR            _ UIC ID(1-2)
_ CENTROID LONGITUDE           X WASTE MIN PCT CHANGE            _ EPA ID(1)
_ MAXIMUM AMOUNT CODE          X WASTE MIN INDEX                 X SIC CODE(1-3)
_ ACTVTY USE CODE(1-13)        X WASTE MIN REASON CODE           X DUNS NUMBER(1)

                Type X to select data elements and press <ENTER>
        NOTE: The TRF Facility ID and the DCN will be selected automatically.

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
     HELP  MAIN  PREV        PROCL
```

M: TRF020P
P: TRF020M2

TOXIC RELEASE INVENTORY SYSTEM
BATCH JOB PROFILE

05/28/91
15:11:00

USER-ID:	YDK	ACCOUNT NO:	TRI3DBMSP
BIN/BOX:	MYDK	SYSOUT CLASS:	A
CPU-TIME:	02.00	PRIORITY:	2
COPIES:	1_	REMOTE NO:	PH_____

Press <ENTER> to continue

ter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
HELP MAIN PREV

3. DOWNLOADING DATA FILES INTO A PC OR LAN IN REGION III.

When you complete the Data Offload procedure, two files will be created on the NCC mainframe, a "DOWNLOAD" file and a "DESCRIPT" file. The names and sizes of these files will be listed on the computer printout you will receive to verify completion of the job. The first of the two files contains the requested data. The filename for the "DOWNLOAD" file follows the format in the example below:

YDKTRI3.D910503.T122555.DOWNLOAD.FILE

YDK	= Your TRIS User ID
TRI3	= Your TRIS Account #
D910503	= Date the file was created:
	91 = Year
	05 = Month
	03 = Date
T122555	= Time the file was created:
	12 = Hour
	25 = Minutes
	55 = Seconds
DOWNLOAD.FILE	= Type of file

The second file, the "DESCRIPT" file, contains a listing of field names, data types, field lengths, and number of decimal places for the data elements in the "DOWNLOAD" file. It has the same filename, with the word "DESCRIPT" used in place of "DOWNLOAD". The companion "DESCRIPT" file to the "DOWNLOAD" file in the example above would be

YDKTRI3.D910503.T122555.DESCRIPT.FILE

The purpose of this second file is to give you the information needed to create a dBASE III+ database structure into which you can read the data from the "DOWNLOAD" file.

Once you receive a computer printout verifying that these two sequential files have been created for you on the NCC mainframe and giving you the complete filenames and sizes, you can proceed to download the files into your PC.

Access TRIS as described in Part 1 above. When you get to the "READY" prompt, press the "jump key", [ALT] + [SCROLL LOCK]. This will return you to the LAN FILE SERVER MENU.

Select **[F4] Communications.**

From the COMMUNICATIONS menu, select **[F2] IBM 3270 Communications.**

From the IBM 3270 COMMUNICATIONS MENU, select **[F5] Receive file from host (PCOX/FT Receive).** A "Receive 1.3" screen will come up, prompting you to enter information on the file you want to download. Proceed as described below:

PROMPT	ACTION
Host session short name (X:):	press [ENTER]
Host File/Data set name:	type the NCC mainframe filename, *enclosed in single quotes*, e.g. 'YDKTRI3.D910502.T122555.DOWNLOAD.FILE'
DOS Filespec ([d:][path]filename):	Enter the drive, path, and filename to which you want the file to be written, e.g. C:\TEMP\FILENAME.DTA *Be sure there is enough space on the drive you specify to accommodate the file you are transferring.*
Options:	type ASCII CRLF

If these fields are filled in correctly, the NCC mainframe file will be downloaded into the drive and filename you have specified. Do this procedure for both the "DOWNLOAD" and "DESCRIPT" files for each Data Offload request.

st session short name (X:):
st File/Data set name: YDKTRI3.D910503.T122555.DOWNLOAD.FILE
S filespec ([d:][path]filename): C:\TEMP\FILENAME.DTA
tions: ASCII CRLF

***** NO MORE TRI CHEMICAL RELEASES FOR THIS FACILITY *****

4. PUTTING THE DATA IN dBASE III+ FORMAT.

When you have successfully downloaded the NCC mainframe files into your PC, you will want to put the data in dBASE III+ format for your use. To do this you must first create an empty dBASE III+ file to hold the data. This file must have the exact same configuration as the downloaded data file; the data field types and lengths must be the same, and in the same order. Creating a database file can be done in dBASE III+ Assist mode; consult the dBASE III+ user's manual if you need assistance with this operation.

As a first step you should print out a copy of the "DESCRIPT" file you downloaded. This will list in order the data fields, data types, lengths, and number of decimal points in the data file.

Enter dBASE III+. Create a database file with the exact fieldnames, types, lengths, and number of decimal points as listed in the "DESCRIPT" file. These fields must also be in the same order as they appear in the "DESCRIPT" file.

When you have finished creating the database file, return to the dBASE III+ Assist menu. *Do not enter any records into the new file.*

Press [ESCAPE] to get to the dBASE III+ dot prompt. You are now ready to read the downloaded data into the newly-created dBASE III+ file.

At the dot prompt type **"APPEND FROM FILENAME.DTA TYPE SDF"**. "FILENAME.DTA" is the name you assigned to the data file during the download procedure in Part 3 above. This command should cleanly read the downloaded TRI data records into the dBASE III+ database structure you have created. You can now set up the newly-created file and work with the data using all of the functions and procedures available in dBASE III+.

APPENDIX A

SYSTEM 33/50
FACILITY PROFILE PRINTOUT

SYSTEM 33/50 FACILITY PROFILE

ASHLAND CHEMICAL INC. - GENERAL FACILITY INFORMATION

BIG SANDY RIVER RD.
NEAL WV 25530

COUNTY: WAYNE

FACILITY TRI ID #: 25530SHLNDBIGSA

SIC CODE: 2865

PUBLIC CONTACT: BRENT MCGINNIS
TELEPHONE: 6148893446

TECHNICAL CONTACT: HAROLD N. HICKS
TELEPHONE 3044536101

PARENT COMPANY:

ASHLAND OIL INC.
P.O. BOX 391
ASHLAND KY 411140391

PARENT COMPANY'S REGION III FACILITIES

FACILITY	CITY	STATE
ASHLAND CHEMICAL CO.	PHILADELPHIA	PA
ASHLAND CHEMICAL INC.	EASTON	PA
ASHLAND CHEMICAL INC.	NEAL	WV

ASHLAND CHEMICAL CO. - 1988 RELEASES & TRANSFERS OF TRI CHEMICALS

CHEMICAL NAME: ACRYLIC ACID
33/50 CHEMICAL (T/F) ? .F.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	0
STACK AIR:	3800
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	0
TOTAL ENVIRONMENTAL LOAD:	3800 POUNDS

CHEMICAL NAME: ETHYLBENZENE
33/50 CHEMICAL (T/F) ? .F.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	1400
STACK AIR:	11800
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	10000
TOTAL ENVIRONMENTAL LOAD:	23200 POUNDS

CHEMICAL NAME: MALEIC ANHYDRIDE
33/50 CHEMICAL (T/F) ? .F.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	4800
STACK AIR:	2700
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	0
TOTAL ENVIRONMENTAL LOAD:	7500 POUNDS

ASHLAND CHEMICAL CO. - 1988 RELEASES & TRANSFERS OF TRI CHEMICALS

CHEMICAL NAME: SODIUM HYDROXIDE (SOLUTION)
33/50 CHEMICAL (T/F) ? .F.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	0	
STACK AIR:	0	
WATER:	0	
UND. INJECTION:	0	
LAND:	0	
POTW:	0	
OTHER OFF-SITE:	0	
TOTAL ENVIRONMENTAL LOAD:	0	POUNDS

CHEMICAL NAME: XYLENE (MIXED ISOMERS)
33/50 CHEMICAL (T/F) ? .T.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	5100	
STACK AIR:	44200	
WATER:	0	
UND. INJECTION:	0	
LAND:	0	
POTW:	0	
OTHER OFF-SITE:	38050	
TOTAL ENVIRONMENTAL LOAD:	87350	POUNDS

***** NO MORE TRI CHEMICAL RELEASES FOR THIS FACILITY *****

ASHLAND CHEMICAL INC. - TOTAL RELEASES OF 33/50 CHEMICALS, 1988

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	5100	
STACK AIR:	44200	
WATER:	0	
UND. INJECTION:	0	
LAND:	0	
POTW:	0	
OTHER OFF-SITE:	38050	
TOTAL ENVIRONMENTAL LOAD:	87350	POUNDS

ASHLAND CHEMICAL INC. - TOTAL RELEASES OF ALL TRI CHEMICALS, 1988

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	11300	
STACK AIR:	62500	
WATER:	0	
UND. INJECTION:	0	
LAND:	0	
POTW:	0	
OTHER OFF-SITE:	48050	
TOTAL ENVIRONMENTAL LOAD:	121850	POUNDS

ASHLAND CHEMICAL INC. - 1989 RELEASES & TRANSFERS OF TRI CHEMICALS

CHEMICAL NAME: ACRYLIC ACID
33/50 CHEMICAL (T/F) ? .F.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	0
STACK AIR:	1900
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	0
TOTAL ENVIRONMENTAL LOAD:	1900 POUNDS

CHEMICAL NAME: O-XYLENE
33/50 CHEMICAL (T/F) ? .T.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	201
STACK AIR:	14004
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	139929
TOTAL ENVIRONMENTAL LOAD:	154134 POUNDS

CHEMICAL NAME: MALEIC ANHYDRIDE
33/50 CHEMICAL (T/F) ? .F.

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	1462
STACK AIR:	3400
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	0
TOTAL ENVIRONMENTAL LOAD:	4862 POUNDS

***** NO MORE TRI CHEMICAL RELEASES FOR THIS FACILITY *****

ASHLAND CHEMICAL INC. - TOTAL RELEASES OF 33/50 CHEMICALS, 1989

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	201
STACK AIR:	14004
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	139929
TOTAL ENVIRONMENTAL LOAD:	154134 POUNDS

ASHLAND CHEMICAL INC. - TOTAL RELEASES OF ALL TRI CHEMICALS, 1989

RELEASES & TRANSFERS (POUNDS):

FUGITIVE AIR:	1663
STACK AIR:	19304
WATER:	0
UND. INJECTION:	0
LAND:	0
POTW:	0
OTHER OFF-SITE:	139929
TOTAL ENVIRONMENTAL LOAD:	160896 POUNDS

ASHLAND OIL INC.
P.O. BOX 391
ASHLAND KY 411140391

33/50 CONTACT TRACKING INFORMATION

COMPANY 33/50 CONTACTS:

CO. CONTACT # 1:	JOHN R. HALL
POSITION:	CHAIRMAN OF THE BOARD AND C
TELEPHONE:	6063293621
FAX:	
CO. CONTACT # 2:	
POSITION:	
TELEPHONE:	
FAX:	

33/50 CONTACT WITH COMPANY:

COMPANY CONTACTED FOR 33/50 (T/F) ?	T
INITIAL CONTACT BY:	EPA HEADQUARTERS
INITIAL CONTACT DATE:	03/27/91
COMPANY RESPONSE TO THIS CONTACT (T/F) ?	T
RESPONSE DATE:	04/22/91
33/50 FOLLOW-UP CONTACT MADE (T/F) ?	F
FOLLOW-UP CONTACT BY:	
FOLLOW-UP CONTACT DATE:	/ /
COMPANY RESPONSE TO THIS CONTACT (T/F) ?	F
RESPONSE DATE:	/ /

33/50 CONTACT TRACKING COMMENTS:

33/50 COMMITMENT INFORMATION

COMPANY RESPONSE:

COMPANY COMMITMENT WITH NUMERICAL GOALS

33/50 COMMITMENT FROM THIS COMPANY (T/F) ?	T
COMMITMENT DATE:	04/22/91
% REDUCTION COMMITTED, 1992:	33 %
% REDUCTION COMMITTED, 1995:	50 %
1988 33/50 CHEMICAL EMISSIONS, REGION III:	88368
1988 33/50 CHEMICAL EMISSIONS, NATIONWIDE:	1246412
NATIONWIDE 33/50 EMISSIONS GOAL, 1995:	623206
CO. PURSUING SOURCE REDUCTION (T/F) ?	T
DOES CO. HAVE ADDITIONAL GOALS FOR SPECIFIC FACIITIES, ADDITIONAL CHEMICALS, OTHER YEARS, OR NON-U.S. FACILITIES (T/F) ?	F

33/50 COMMITMENT NOTES:

04/22/91 USE ONLY 11 OF THE 17 CHEMICALS.

APPENDIX B

SYSTEM 33/50
PARENT COMPANY PROFILE PRINTOUT

SYSTEM 33/50 PARENT COMPANY PROFILE

AT&T

131 MORRISTOWN ROAD
BASKING RIDGE NJ 07920

PARENT COMPANY'S REGION III FACILITIES

FACILITY	CITY	STATE
AT&T	READING	PA
AT&T CO.	ALLENTOWN	PA
AT&T MICROELECTRONICS	RICHMOND	VA
AT&T MICROELECTRONICS	RICHMOND	VA
AT&T MICROELECTRONICS	RADFORD	VA

(7) DOES COMPANY HAVE OTHER PLANS FOR

COVERING ADDITIONAL CHEMICALS, OTHER LEARS,

OR MORE FACILITIES (YES OR NO)? YES NO

(8) COMMENTS NOTES

DATE

AT&T
131 MORRISTOWN ROAD
BASKING RIDGE NJ 07920

33/50 CONTACT TRACKING INFORMATION

COMPANY 33/50 CONTACTS:

CO. CONTACT 1:	ROBERT E. ALLEN
POSITION:	CHAIRMAN OF THE BOARD AN
TELEPHONE:	
FAX:	
CO. CONTACT 2:	DAVID R. CHITTICK
POSITION:	V.P. ENVIRONMENTAL & SAF
TELEPHONE:	9082048700
FAX:	9082048218

33/50 CONTACT WITH COMPANY:

COMPANY CONTACTED FOR 33/50 (T/F) ?	T
INITIAL CONTACT BY:	EPA HEADQUARTERS
INITIAL CONTACT DATE:	03/27/91
COMPANY RESPONSE TO THIS CONTACT (T/F) ?	T
RESPONSE DATE:	05/15/91
33/50 FOLLOW-UP CONTACT MADE (T/F) ?	F
FOLLOW-UP CONTACT BY:	NONE
FOLLOW-UP CONTACT DATE:	/ /
COMPANY RESPONSE TO THIS CONTACT (T/F) ?	F
RESPONSE DATE:	05/15/91

33/50 CONTACT TRACKING COMMENTS:

33/50 COMMITMENT INFORMATION

COMPANY RESPONSE:

COMPANY COMMITMENT WITH NUMERICAL GOALS

33/50 COMMITMENT FROM THIS COMPANY (T/F) ?	T
COMMITMENT DATE:	05/15/91
% REDUCTION COMMITTED, 1992:	33 %
% REDUCTION COMMITTED, 1995:	50 %
1988 33/50 CHEMICAL EMISSIONS, REGION III:	1393253
1988 33/50 CHEMICAL EMISSIONS, NATIONWIDE:	6389748
NATIONWIDE 33/50 EMISSIONS GOAL, 1995:	3194874
IS CO. PURSUING SOURCE REDUCTION (T/F) ?	T
DOES CO. HAVE ADDITIONAL GOALS FOR SPECIFIC FACILITIES, ADDITIONAL CHEMICALS, OTHER YEARS, OR NON-U.S. FACILITIES (T/F) ?	T

33/50 COMMITMENT NOTES:

05/15/91 OTHER GOALS: 100% REDUCTION BY 2000.
REPORT ON 12 OF 17 CHEMICALS.
SEE LETTER FOR OTHER COMMITMENTS.

APPENDIX C

SYSTEM 33/50 CODING SHEETS

EPA REGION III

33/50 PROGRAM TRACKING FORM

FILE UNDER:

(Co. 1st Letter)

I. 33/50 COMPANY CONTACT TRACKING

(1) 33/50 COMPANY NAME _____

(2) STREET ADDRESS _____

(3) CITY _____

(4) STATE _____ (5) ZIP CODE _____

COMPANY CONTACTS:

(6) CO. CONTACT # 1 _____

(7) POSITION _____

(8) PHONE (___) - ___ - ____ (9) FAX (___) - ___ - ____

(10) CO. CONTACT # 2 _____

(11) POSITION _____

(12) PHONE (___) - ___ - ____ (13) FAX (___) - ___ - ____

(14) HAS THIS COMPANY BEEN CONTACTED FOR 33/50 (CIRCLE ONE) ? YES NO

(15) INITIAL CONTACT MADE BY (CIRCLE ONE) : EPA HQ EPA REGION III STATE

(16) INITIAL CONTACT DATE : ___ / ___ / ___

(17) HAS THE COMPANY RESPONDED (CIRCLE ONE) ? YES NO

(18) RESPONSE DATE : ___ / ___ / ___

(19) CONTACT NOTES : _____

USE REVERSE SIDE FOR TRACKING COMPANY'S 33/50 PROGRAM COMMITMENTS

EPA REGION III
33/50 PROGRAM TRACKING FORM

II. 33/50 COMPANY COMMITMENT TRACKING

(1) COMPANY RESPONSE TO 33/50 LETTER (circle one) :

- X = NO INFORMATION / NOT CONTACTED
- 1 = CONTACTED, NO RESPONSE
- 2 = COMPANY DECLINED PARTICIPATION
- 3 = COMMITMENT IN PRINCIPLE, NO NUMERICAL GOALS
- 4 = COMPANY COMMITMENT WITH NUMERICAL GOALS
- 0 = OTHER (DESCRIBE IN 'COMMITMENT NOTES')

(2) HAS THE COMPANY MADE A 33/50 COMMITMENT (circle one) ? YES NO

(3) COMMITMENT DATE : __ / __ / __

(4) PERCENT REDUCTION COMMITTED, 1992 : _ _ _ %

(5) PERCENT REDUCTION COMMITTED, 1995 : _ _ _ %

(6) IS COMPANY PURSUING SOURCE REDUCTION / POLLUTION PREVENTION (circle one) ? YES NO

(7) DOES COMPANY HAVE OTHER GOALS FOR 33/50, COVERING ADDITIONAL CHEMICALS, OTHER YEARS, OR NON-U.S. FACILITIES (circle one) ? YES NO

(8) COMMITMENT NOTES : _____

FORM COMPLETED BY : _____ DATE __ / __ / __

ENTERED INTO DATABASE BY : _____ DATE __ / __ / __

APPENDIX D

SYSTEM 33/50 DATABASE STRUCTURES

Structure for database: C:\3350\R3PARENT.DBF
Number of data records: 1516
Date of last update : 08/05/91

Field	Field Name	Type	Width	Dec
1	PARENT_CO	Character	45	
2	PARENT_DUN	Character	9	
3	ITP_CO	Logical	1	
4	SRPARENT	Logical	1	
5	C_STREET1	Character	30	
6	C_CITY	Character	25	
7	C_STATE	Character	2	
8	C_ZIP	Character	9	
9	C_CONTACT1	Character	45	
10	POSITION1	Character	45	
11	C_PHONE1	Character	10	
12	C_FAX1	Character	10	
13	C_CONTACT2	Character	45	
14	POSITION2	Character	45	
15	C_PHONE2	Character	10	
16	C_FAX2	Character	10	
17	CONTACTED1	Logical	1	
18	CONT_BY_1	Character	1	
19	CONT_DATE1	Date	8	
20	RESPONSE1	Logical	1	
21	RESP_DATE1	Date	8	
22	CONTACTED2	Logical	1	
23	CONT_BY_2	Character	1	
24	CONT_DATE2	Date	8	
25	RESPONSE2	Logical	1	
26	RESP_DATE2	Date	8	
27	CONT_NOTES	Memo	10	
28	RESP_TYPE	Character	1	
29	COMMITMENT	Logical	1	
30	COMM_DATE	Date	8	
31	PCT_1992	Numeric	3	
32	PCT_1995	Numeric	3	
33	R3_LBY_88	Numeric	10	
34	US_LBY_88	Numeric	10	
35	US_GOAL_95	Numeric	10	
36	SOURCE_RED	Logical	1	
37	OTH_GOALS	Logical	1	
38	COMM_NOTES	Memo	10	
** Total **			449	

Structure for database: C:\3350\R3.dbf
Number of data records: 2337
Date of last update : 07/15/91

Field	Field Name	Type	Width	Dec
1	F_NAME1	Character	30	
2	F_NAME2	Character	30	
3	F_STREET1	Character	30	
4	F_STREET2	Character	30	
5	F_CITY	Character	25	
6	F_COUNTY	Character	25	
7	F_STATE	Character	2	
8	F_ZIP	Character	9	
9	F_LAT	Numeric	8	
10	F_LONG	Numeric	8	
11	PUB_NAME	Character	45	
12	PUB_PHONE	Character	10	
13	TECH_NAME	Character	45	
14	TECH_PHONE	Character	10	
15	PARENT_CO	Character	45	
16	PARENT_DUN	Character	9	
17	SIC_CODE1	Character	4	
18	SIC_CODE2	Character	4	
19	SIC_CODE3	Character	4	
20	F_DUNS	Character	9	
21	F_ID	Character	15	
22	ITP_FAC	Logical	1	
23	ITP88_TOT	Numeric	10	
** Total **			409	

Structure for database: C:\3350\R3_87.DBF
Number of data records: 7457
Date of last update : 07/29/91

Field	Field Name	Type	Width	Dec
1	F_NAME1	Character	30	
2	WM_CODE	Character	2	
3	WM_CYR_QTY	Numeric	13	
4	WM_PYR_QTY	Numeric	13	
5	WM_PCT_CHG	Numeric	7	2
6	WM_INDEX	Numeric	5	1
7	WM_ACTION	Character	2	
8	CHEM_NAME	Character	70	
9	CAS_NO	Character	9	
10	ITP_CHEM	Logical	1	
11	AIR_NON_PT	Numeric	11	
12	AIR_PNT	Numeric	11	
13	REL_WATER	Numeric	11	
14	REL_UNDER	Numeric	11	
15	REL_LAND	Numeric	11	
16	REL_POTW	Numeric	11	
17	REL_OFSITE	Numeric	11	
18	REL_TOTAL	Numeric	11	
19	SIC_CODE1	Character	4	
20	F_ID	Character	15	
** Total **			260	

Structure for database: C:\3350\R3_88.DBF
Number of data records: 8027
Date of last update : 07/17/91

Field	Field Name	Type	Width	Dec
1	F_NAME1	Character	30	
2	WM_CODE	Character	2	
3	WM_CYR_QTY	Numeric	13	
4	WM_PYR_QTY	Numeric	13	
5	WM_PCT_CHG	Numeric	7	2
6	WM_INDEX	Numeric	5	
7	WM_ACTION	Character	2	
8	CHEM_NAME	Character	70	
9	CAS_NO	Character	9	
10	ITP_CHEM	Logical	1	
11	AIR_NON_PT	Numeric	11	
12	AIR_PNT	Numeric	11	
13	REL_WATER	Numeric	11	
14	REL_UNDER	Numeric	11	
15	REL_LAND	Numeric	11	
16	REL_POTW	Numeric	11	
17	REL_OFSITE	Numeric	11	
18	REL_TOTAL	Numeric	11	
19	SIC_CODE1	Character	4	
20	F_ID	Character	15	
** Total **			260	

Structure for database: C:\3350\R3_89.DBF
Number of data records: 7913
Date of last update : 07/17/91

Field	Field Name	Type	Width	Dec
1	F_NAME1	Character	30	
2	WM_CODE	Character	2	
3	WM_CYR_QTY	Numeric	13	
4	WM_PYR_QTY	Numeric	13	
5	WM_PCT_CHG	Numeric	7	2
6	WM_INDEX	Numeric	5	
7	WM_ACTION	Character	2	
8	CHEM_NAME	Character	70	
9	CAS_NO	Character	9	
10	ITP_CHEM	Logical	1	
11	AIR_NON_PT	Numeric	11	
12	AIR_PNT	Numeric	11	
13	REL_WATER	Numeric	11	
14	REL_UNDER	Numeric	11	
15	REL_LAND	Numeric	11	
16	REL_POTW	Numeric	11	
17	REL_OFSITE	Numeric	11	
18	REL_TOTAL	Numeric	11	
19	SIC_CODE1	Character	4	
20	F_ID	Character	15	
** Total **			260	

APPENDIX E

REGION III 33/50 COMPANIES

REGION III 33/50 COMPANIES

* Asterisk denotes Single-Region parent company

1 3M CO.
2 A & L HANDLES INC.
* 3 A V R
4 A-1 PLATING CO. INC.
5 A-TREAT BOTTLING CO.
6 A. H. ROBINS CO. INC.
7 A. T. WALL CO.
8 A. W. CADMAN MFG. CO.
9 A. WHITMAN CO.
10 ABBOTT LABORATORIES INC.
11 ABC RAIL CORP.
12 AC & S INC.
* 13 ACCURATE ELECTROPLATING
14 ACME PRINTING INK CO.
15 ACME WOOD PRESERVING INC.
* 16 ADIENCE EQUITIES INC.
17 ADOLPH COORS CO.
* 18 ADVANCED HEAT TREATING INC.
* 19 ADVANCED PRINTING TECHNOLOGY
* 20 AEL INDUSTRIES INC.
21 AGA GAS INC.
22 AGWAY CROP SERVICES
23 AIR PRODUCTS & CHEMICALS INC.
24 AIRGAS INC.
25 AJAX X-RAY INC.
* 26 AJUSTA BUCKETS INC.
27 AKER PLASTICS CO. INC.
28 AKZO CHEMICALS INC.
29 ALCAN ALUMINUM CORP.
30 ALCAN ROLLED PRODUCTS CO. CLEVELAND OHIO
31 ALCO INDUSTRIES INC.
32 ALCOA
33 ALDAN RUBBER CO.
34 ALEX C. FERGUSSON INC.
* 35 ALEXANDRIA METAL FINISHERS INC.
* 36 ALLEGHENY CHEMICAL CORP.
37 ALLEGHENY LABEL INC.
38 ALLEGHENY LUDLUM CORP.
39 ALLEGHENY POWDER METALLURGY
40 ALLEN FAMILY FOODS INC.
* 41 ALLEN MORRISON INC.
42 ALLIED BLOCK INDUSTRIES INC.
43 ALLIED COLLOIDS GROUP P.L.C.
44 ALLIED FENCE MFG. CO.
45 ALLIED METAL FINISHING CORP.
46 ALLIED-SIGNAL INC.
* 47 ALLOY STEEL CORP.
48 ALLTECH ASSOCIATES INC.
* 49 ALPHA SINTERED METALS
50 ALPHACHEM INC.
51 ALPINE PRESSED METAL INC.
52 ALPO PETFOODS INC.
53 ALU CHEM INC.

54 ALUMAX CORP.
55 AMAX INC.
56 AMCAST INDUSTRIAL CORP.
* 57 AMERICAN ALLOYS INC.
58 AMERICAN BRANDS INC.
* 59 AMERICAN CHEMSOL CORP.
60 AMERICAN COPPER PRODUCTS
61 AMERICAN CYANAMID CO.
62 AMERICAN HOME PRODUCTS CORP.
63 AMERICAN INKS & COATINGS CORP.
* 64 AMERICAN MANUFACTURING CORP.
65 AMERICAN MEDICAL INDUSTRIAL
66 AMERICAN METER CO.
* 67 AMERICAN MIRROR CO. INC.
* 68 AMERICAN MOULDING INC.
69 AMERICAN NATIONAL CAN CO.
70 AMERICAN NICKELOID CO.
71 AMERICAN ORIGINAL CORP.
* 72 AMERICAN PRESS INC.
73 AMERICAN PROTEINS INC.
* 74 AMERICAN REFINING GROUP INC.
75 AMERICAN STANDARD INC.
* 76 AMERICAN TINNING & GALVANIZING
77 AMERICAN TOBACCO CO.
78 AMERICAN TRIM PRODUCTS INC.
* 79 AMERICAN WOODMARK CORP.
* 80 AMERICO
81 AMETEK INC.
* 82 AMG RESOURCES CORP.
83 AMICALE INDUSTRIES INC.
84 AMOCO CHEMICAL CO.
85 AMOCO CORP.
86 AMP CORP.
87 AMPCO-PITTSBURGH CORP.
* 88 AMSCO INTERNATIONAL INC.
89 AMSTAR SUGAR CORP.
90 AMSTED INDUSTRIES INC.
* 91 ANCHOR FENCE INC.
92 ANCHOR GLASS CONTAINER CORP.
93 ANDERSON BROS. LUMBER CO. INC.
94 ANHEUSER-BUSCH COMPANIES INC.
95 ANSON MANUFACTURING INC.
* 96 APOLLO METALS LTD.
97 APPALACHIAN PLASTICS INC.
98 APPALACHIAN TIMBER SERVICES
99 APPLETON PAPERS INC.
100 APPLIED RADIANT ENERGY CORP.
101 APTER INDUSTRIES INC.
102 ARBCO INDUSTRIES INC.
103 ARC METALS INC.
104 ARISTECH CHEMICAL CORP.
105 ARKAY INDUSTRIES
106 ARLINGTON INDUSTRIES INC.
107 ARMADA CORP.
108 ARMCO INC.
109 ARMSTRONG STORE FIXTURE CORP.
110 ARMSTRONG WORLD INDUSTRIES INC.
111 ARRO FORGE INC.
* 112 ARROW INTERNATIONAL INC.
113 ARTHUR ENTERPRISES

* 114 ASHEVILLE-SCHOONMAKER MICA CO.
115 ASHLAND OIL INC.
116 ASHMAN ENTERPRISES
117 ASHWORTH BROS. INC.
* 118 ASSET MANAGEMENT ASSOCIATES
119 ASSOCIATED CERAMICS & TECHNOLOGY INC.
120 ASSOCIATED NAVAL ARCHITECTS
121 ASTRO CONTAINERS INC.
122 AT&T
123 ATCATEL N.V.
124 ATCOR INC.
125 ATHLONE
126 ATLANTIC METALS CORP.
127 ATLANTIC RICHFIELD CO.
128 ATLANTIC WOOD INDUSTRIES INC.
129 ATLAS MINERALS & CHEMICALS
130 ATLAS ROOFING CORP.
131 ATOCHEM NORTH AMERICA INC.
* 132 ATOMIZED MATERIALS CO. INC.
133 AUDIOPAK INC.
* 134 AUTOMATA INC.
135 AVERY INTERNATIONAL
136 AVTEX FIBERS INC.
137 AWH CORP.
138 AXEL JOHNSON INC.
* 139 B. BRAUN OF AMERICA INC.
140 B. C. VAUGHAN PLANT
141 BABCOCK INDUSTRIES INC.
* 142 BACHARACH INC.
* 143 BACOVA GUILD LTD.
144 BAILEY CONTROLS CO.
* 145 BAIRNCO CORP.
146 BAKER EQUIPMENT ENGINEERING
147 BAKER HOLDING CO.
148 BALL CORP.
149 BALL-INCON GLASS PACKAGING CORP.
150 BANNER FIBERBOARD CO.
151 BANNER INDUSTRIES
* 152 BANNER METALS INC.
153 BARBIZON CORP.
154 BARNES GROUP INC.
155 BARTON-COTTON INC.
156 BASF CORP.
157 BASSETT FURNITURE INDUSTRIES
158 BASSETT MIRROR CO. INC.
159 BATA SHOE CO. INC.
160 BAUER COMPRESSOR
161 BAUSCH & LOMB INC.
162 BAXTER HEALTHCARE CORP.
163 BAYCRAFT FIBERGLASS
164 BAYER USA INC.
165 BEAR ROOFING & INSULATION INC.
166 BEATRICE COMPANIES INC.
167 BEDFORD REINFORCED PLASTICS
* 168 BELDING HEMINWAY CO. INC.
169 BELL & HOWELL CO. INC.
170 BELMONT INDUSTRIES INC.
171 BEMIS CO. INC.
172 BENJAMIN MOORE & CO.
173 BENNETTE PAINT MFG. CO. INC.

* 174 BERENFIELD CONTAINERS INC.
175 BERETTA USA CORP.
* 176 BERGER INDUSTRIES INC.
177 BERK TEK INC.
* 178 BERKELEY INTL CAPITAL
* 179 BERKLEY PRODUCTS CO.
* 180 BERTREX
* 181 BERWIND CORP.
182 BETHLEHEM APPARATUS CO. INC.
183 BETHLEHEM STEEL CORP.
184 BETZ LABORATORIES INC.
185 BF GOODRICH CO.
186 BFG ELECTROPLATING & MFG. CO.
* 187 BGF INDUSTRIES
188 BIBB CO. INC.
189 BIG THREE INDUSTRIES INC.
190 BIGBEE STEEL & TANK CO.
191 BINGHAM CO.
192 BIOREGIONAL ENERGY ASOCIATES LTD.
193 BIRMINGHAM STEEL CORP.
194 BISSELL INC.
195 BLACK & DECKER
196 BLACKSTONE INC.
197 BLAW KNOX CORP.
* 198 BLILEY ELECTRIC CO.
199 BLOOM ENGINEERING CO. INC.
200 BLUE BIRD BODY CO.
201 BLUE RIDGE TALC CO. INC.
202 BLUE RIDGE WOOD PRESERVERS INC
203 BNY
204 BNZ MATERIALS INC.
205 BOC GROUP
* 206 BOEHRINGER INGELHEIM & A. H. ROBINS CO.
207 BOEING CO.
208 BONDED PRODUCTS INC.
209 BONGRAIN S. A.
210 BORDEN INC.
* 211 BOSTIK INC.
* 212 BOURAS INDUSTRIES
213 BOWATER INC.
* 214 BOWTHORPE HOLDINGS PLC
215 BP AMERICA
216 BRADEN SUTPHIN INK CO.
* 217 BRADLEY PAINT CO.
* 218 BRAELAN
219 BRANT ALLEN INDUSTRIES INC.
220 BRENCO INC.
221 BRICK & TITLE CORP.
* 222 BRIDESBURG FOUNDRY CO.
223 BRIDGE PRODUCTS INC.
224 BRIDGESTONE/FIRESTONE INC.
225 BRIDON P/C
226 BRISTOL CORP.
227 BROCKWAY PRESSED METALS INC.
228 BROOKVILLE WOOD PRODUCTS INC.
229 BROUGHTON FOODS CO.
230 BROWN-FORMAN CORP.
231 BRUNING PAINT CO.
232 BRUNSWICK CORP.
233 BRUSH WELLMAN INC.

234 BTR INC.
* 235 BUCHAN INDUSTRIES INC.
236 BUCK CO.
* 237 BULLEN CO.
238 BURKE-PARSONS-BOWLBY CORP.
* 239 BURLE INDUSTRIES INC.
240 BURLINGTON INDUSTRIES INC.
241 BURNDY CORP.
242 BURNHAM CORP. (HYDRONICS
243 BURNS & RUSSELL CO.
* 244 BURNS PHILP & CO. LTD.
245 BUTLER MANUFACTURING CO.
246 C&D CHARTER POWER SYSTEMS INC.
* 247 C. K. COMPOSITES INC.
248 C. M. ATHEY PAINT CO.
249 C. M. OFFRAY & SON INC.
* 250 C. R. HUDGINS PLATING INC.
251 C.B. FLEET CO. INC.
252 C.F. SAUER CO.
253 C/S GROUP
254 CABOT CORP.
255 CADMUS COMMUNICATIONS
256 CALBAR INC.
* 257 CALGON CARBON CORP.
* 258 CALIG STEEL DRUM CO.
259 CAMBREX CORP.
* 260 CAMBRIDGE WIRE CLOTH CO. INC.
261 CAMPBELL SOUP CO.
262 CANAM STEEL CORP.
263 CAPON VALLEY MARBLE
264 CARBON/GRAPHITE GROUP INC.
265 CARBONAIRE CO. INC.
266 CARBOSE CORP.
267 CARDO INVESTMENST AB
268 CARDONE INDUSTRIES
269 CARGILL INC.
270 CARL ZEISS OF AMERICA HOLDING CORP.
271 CARLISLE CO. INC.
272 CARPENTER TECHNOLOGY CORP.
273 CARR-LOWREY GLASS CO.
274 CARTER FOOTWEAR INC.
* 275 CASKET SHELLS INC.
276 CASTROL INC.
277 CATERPILLAR INC.
278 CATTIE GALVANIZING CORP.
279 CAWSL CORP.
280 CBI INDUSTRIES INC.
* 281 CCX
* 282 CENTERVILLE CASTINGS INC.
283 CENTRAL CHEMICAL CORP.
284 CENTRAL SOYA CO. INC.
* 285 CERAMIC COLOR & CHEMICAL MFG.
286 CERTAINTEED CORP.
287 CHAMPION PARTS INC.
* 288 CHANNELLOCK INC.
* 289 CHAPMAN INDUSTRIAL FINISHES
290 CHARLES D. SNYDER & SON INC.
291 CHASE CORP.
292 CHEM REX INC.
* 293 CHEMALLOY CO. INC.

* 294 CHEMCOAT INC.
* 295 CHEMSOLV INC.
* 296 CHEMTREAT INC.
297 CHEROKEE SANFORD GROUP INC.
298 CHESAPEAKE CORP.
299 CHESAPEAKE HARDWOOD PRODUCTS INC.
* 300 CHESTNUT RIDGE FOAM INC.
301 CHEVRON CORP.
* 302 CHICAGO METALLIC CORP.
* 303 CHICAGO PLASTIC PRODUCTS CORP.
* 304 CHICAGO RIVET & MACHINE CO.
* 305 CHILD STORE FIXTURES INT'L.
* 306 CHROMAGRAPHIC PROCESSING CO.
307 CHRYSLER CORP.
308 CIBA-GEIGY CORP.
309 CIMENTS FRANCAIS
310 CITISTEEL USA INC.
311 CITY OF NORTON
312 CIVES CORP.
313 CLARCOR INC.
314 CLARION FIBERGLASS
315 CLARK EQUIPMENT CO.
316 CLEANERS HANGER CO.
* 317 CLENDENIN BROTHERS INC.
* 318 CLEVELAND STEEL CONTAINER CORP.
319 CLOROX CO.
320 CMI INTERNATIONAL INC.
321 COASTAL CORP.
322 COASTAL LUMBER CO.
323 COCA-COLA CO.
324 COCHRANE FOUNDRY INC.
325 CODO MFG. CORP.
* 326 COINCO D/B/A MORCO
327 COLDWATER SEAFOOD CORP.
328 COLES BOOK PEOPLE
329 COLONIAL CIRCUITS INC.
330 COLONIAL FIBERGLASS INDUSTRIES
331 COLONIAL FURN. CO.
* 332 COLONIAL GUILD LTD.
333 COLONIAL MARBLE PRODUCTS LTD.
* 334 COLONIAL METALS CO.
* 335 COLONNA'S SHIPYARD INC.
336 COLUMBIA PAINT CORP.
337 COMBUSTION ENGINEERING INC.
* 338 COMDIAL CORP.
339 COMMODORE BUSINESS MACHINES
340 COMMONWEALTH FILM PROCESSING
* 341 COMMONWEALTH WOOD PRESERVERS
342 COMMUNICATIONS CORP.
343 COMMUNITY PLAYTHINGS
344 COMPAGNIE DE ST. GOBAIN
345 CON-AGRA INC.
346 CONCORD BEVERAGE CO.
* 347 CONN-WELD INDUSTRIES INC.
348 CONNUMAH CORP.
349 CONSOLIDATED CIGAR CORP.
350 CONSOLIDATED GLASS & MIRROR
351 CONSTRUCTION FASTENERS INC.
352 CONTAINER CORP. OF AMERICA
353 CONTINENTAL CAN CO. INC.

354 CONTINENTAL FOOD PACKAGING
355 CONTINENTAL WHITECAP
* 356 CONTINENTAL WIRE & CABLE
357 COOKSON AMERICA INC.
358 COOPER INDUSTRIES INC.
359 COOPER WOOD PRODUCTS INC.
* 360 CORCAP INC.
361 CORCO CHEMICAL CORP.
362 CORNING INC.
363 CORONET FOODS INC.
* 364 CORRY CONTRACT INC.
* 365 CORRY INDUSTRIES
366 CORRY RUBBER CORP.
367 COURIER CORP.
368 COURTAULDS PERFORMANCE FILMS
369 COURTNEY INDUSTRIES INC.
370 COWAN METAL FINISHING CO.
* 371 COX CREEK REFINING CO.
* 372 CP INDUSTRIES INC.
373 CRAWFORD FURNITURE MFG. CORP.
374 CREATIVE PULTRUSIONS INC.
* 375 CREATIVE URETHANES INC.
376 CRESCENT BRASS MFG. CORP.
* 377 CRESSONA ALUMINUM CO.
378 CRODA INC.
379 CROMPTON & KNOWLES CORP.
380 CROWDER JR. CO.
381 CROWLEY FOODS INC.
382 CROWN CORK & SEAL CO. INC.
* 383 CULBRO CORP.
384 CURTICE BURNS INC.
* 385 CUSTOM WOOD PRODUCTS
386 CYCLOPS INDUSTRIES
387 CYPRUS MINERALS CO.
388 DAD'S PRODUCTS CO. INC.
389 DAINIPPON INKS & CHEMICALS OF JAPAN
390 DAIRYMEN INC.
* 391 DAMASCUS STEEL CASTING CO.
* 392 DAMON CO. OF SALEM INC.
393 DANA CORP.
394 DANAHER CORP.
* 395 DART CONTAINER CORP.
* 396 DAVIS & HEMPHILL INC.
397 DAVIS PAINT MFG. INC.
398 DAWSON INTERNATIONAL
399 DBA TWIN RIVERS FOREST PRODUCT
400 DEAN FOODS CO.
401 DELAGRA CORP.
* 402 DELBAR PRODUCTS INC.
403 DELCO MORAINE DIV. GMC
404 DELTA CHEMICAL CORP.
405 DELUXE CORP.
406 DENT MANUFACTURING INC.
* 407 DENTSPLY INTERNATIONAL INC.
408 DEROYAL INDUSTRIES INC.
409 DETIA DEGESCH GMBH
410 DEVILBISS HOLDING CO. INC.
* 411 DEVLIN LUMBER & SUPPLY CORP.
412 DICK BROTHERS INC.
* 413 DICKLER CHEMICAL LABORATORIES

414 DIETRICH'S MILK PRODUCTS
* 415 DIGIORGIO CORP.
416 DILLON COMPANIES INC.
* 417 DISPERSION SPECIALTIES INC.
* 418 DISSTON CO.
* 419 DITRI ASSOCIATES
420 DIVERSEY CORP.
421 DIXON TICONDEROGA CO. INC.
* 422 DIXON VALVE & COUPLING CO.
* 423 DMI FURNITURE INC.
424 DOMINION CHEMICAL CO.
* 425 DONSCO INC.
426 DOPACO INC.
* 427 DORMA DOOR CONTROLS INC.
428 DOUGLAS & LOMASON CO.
429 DOYLE LUMBER INC.
430 DRAGON CORP.
431 DRAPER KING COLE
432 DRESSER INDUSTRIES INC.
433 DU PONT
434 DUCHOSSOIS INDUSTRIES INC.
435 DUNHAM-BUSH INC.
436 DUNMORE CORP.
* 437 DURAKON INDUSTRIES INC.
438 DURON INC.
439 DYNAMET INC.
440 DYNAMICS CORP. OF AMERICA
441 DYNASURF CHEMICAL CORP.
442 DYSON KISSNER MORAN CORP.
443 E-SYSTEMS INC.
444 E. C. DODSON PLANT
* 445 E. F. HOUGHTON & CO.
446 E. H. HALL CO.
447 E. R. CARPENTER CO. INC.
448 EAGLE CONVEX GLASS
449 EAGLE-PICHER INDUSTRIES INC.
450 EASCO HAND TOOLS INC.
* 451 EAST LIBERTY ELECTROPLATING
* 452 EAST PENN MANUFACTURING CO.
* 453 EASTERN ELECTRIC SALES INC.
454 EASTERN ENTERPRISES
* 455 EASTERN MD. WOOD TREATING CO.
456 EASTON FOAM CORP.
* 457 EDGEWATER CORP.
458 EDMAR ABRASIVE CO.
459 EDON CORP.
460 EG & G INC.
* 461 ELASTOMERIC TECHNOLOGIES
* 462 ELECTRIC MATERIALS CO.
* 463 ELECTRO-PLATERS OF YORK INC.
464 ELECTROCHEMICAL CO. INC.
465 ELECTROLUX CORP.
466 ELECTROPLATE - RITE CORP.
467 ELF AQUITAINE INC.
468 ELKEM METALS CO.
469 ELLICOTT MACHINE CORP.
470 ELLIOTT TURBOMACHINERY CO.
471 ELLWOOD CITY FORGE CORP.
472 EM-BED-IT INC.
473 EMBASSY DAIRY INC.

474 EMERSON ELECTRIC CO.
* 475 EMGLO PRODUCTS CORP.
* 476 EMPIRE STEEL CASTINGS INC.
* 477 EMPORIUM SPECIALTIES CO. INC.
* 478 ENAMEL PRODUCTS & PLATING CO.
* 479 ERICSSON-GE MOBILE COMMUNICATIONS HOLDING
480 ERIE ADVANCED MANUFACTURING INC.
481 ERIE CERAMIC ARTS CO.
482 ERIE COKE CORP.
* 483 ERIE PLATING CO.
484 ERVIN INDUSTRIES INC.
485 ESAB GROUP INC.
486 ESMARK APPAREL INC.
487 ESSCHEM INC.
488 ESSEX CHEMICAL CORP.
489 ESSEX INDUSTRIES
490 ETHAN ALLEN INC.
491 EUREKA ELECTRICAL PRODUCTS
492 EVERBRITE INC.
493 EXIDE CORP.
494 EXPLOSIVES TECHNOLOGIES INTERNATIONAL INC.
495 EXPOSAIC INDUSTRIES INC.
496 EXTRUDE HONE CORP.
497 EXXON CORP.
498 F. B. LEOPOLD HOLDING CO.
* 499 F. W. WOOLWORTH CO. INC.
500 FABER-CASTELL CORP.
* 501 FABRICATED METALS IND. INC.
502 FANSTEEL INC.
503 FARLEY INC.
* 504 FARMER MACHINE CO. INC.
505 FEDDERS CORP.
506 FEDERAL MOGUL CORP.
507 FELLOWES MFG CO.
* 508 FENCO INC.
509 FENTON ART GLASS CO.
510 FERRANTI INTERNATIONAL SIGNAL INC.
511 FERRO CORP.
512 FEUER LEATHER CORP.
513 FIBERGLASS ENGINEERING CO.
514 FIBERMASTER LTD.
515 FIELDCREST CANNON INC.
516 FIGGIE INTERNATIONAL INC.
517 FIL-TEC INC.
* 518 FINNAREN & HALEY INC.
519 FIRST CHEMICAL CORP.
520 FIRST MISSISSIPPI CORP.
521 FL INDUSTRIES INC.
522 FLEETWOOD ENTERPRISES INC.
523 FLINT INK CORP.
524 FLOWLINE CORP.
525 FLURY FOUNDRY CO.
526 FMC CORP.
527 FORBO-VICRTEX INC.
528 FORCE CHEMICALS DIV.
529 FORD MOTOR CO.
530 FORMICA CORP.
531 FORMOSA PLASTICS CORP. USA
532 FOSECO HOLDING INC.
533 FOUNDRY SERVICE & SUPPLY CO. INC.

* 534 FOX INDUSTRIES INC.
535 FRANKLIN BRONZE & ALLOY CO.
536 FRANKLIN INDUSTRIES INC.
* 537 FRANKLIN MINT
* 538 FRANKLIN SMELTING & REFINING
* 539 FREEDOM FORGE
540 FREEPORT BRICK CO.
* 541 FREIGHTLINER CORP.
542 FRITO-LAY INC.
* 543 FROG SWITCH & MANUFACTURING
544 FRUEHAUF CORP.
545 G. HEILEMAN BREWING CO.
546 G. WHITFIELD RICHARDS CO.
547 GAF CORP.
* 548 GALA INDUSTRIES INC.
549 GANNETT CO. INC.
550 GARDEN STATE TANNING
551 GARDNER INDUSTRIES INC.
552 GARROD HYDRAULICS INC.
* 553 GATES ENGINEERING
554 GBP INDUSTRIES INC.
555 GE CO.
556 GENCORP INC.
557 GENERAL CINEMA CORP.
* 558 GENERAL CONFERENCE OF SEVENTH DAY ADVENTIST
559 GENERAL FELT INDUSTRIES INC.
560 GENERAL METALCRAFT INC.
561 GENERAL PRODUCTS CO. INC.
662 GENERAL SIGNAL CORP.
563 GENICOM CORP.
* 564 GENTEX CORP.
565 GENUINE PARTS CO.
* 566 GEO W. BELLMAN & CO. INC.
567 GEORGE JOWITT & SONS LTD.
568 GEORGIA GULF CORP.
569 GEORGIA-PACIFIC CORP.
570 GERBER PRODUCTS CO. INC.
571 GESMAR CORP.
572 GHM INC.
573 GIANT GROUP LTD.
574 GIBSON-HOMANS CO.
575 GICHNER SYSTEMS GROUP INC.
576 GILBERT SPRUANCE CO.
577 GLEASON CORP.
* 578 GLEN GERY CORP.
579 GLENSHAW GLASS CO. INC.
580 GLIDDEN CO.
581 GLOBAL TECHNOLOGY SYSTEMS
582 GLOBE IRON CONSTRUCTION CO.
583 GMC
584 GOGLIO LUIGI MILANO SPA
585 GOLD BOND BUILDING PRODUCTS
586 GOLDSCHMIDT AG
587 GOODYEAR TIRE & RUBBER CO.
588 GOULDS PUMPS INC.
* 589 GRABILL AEROSPACE
590 GRACE-SIERRA HORTICULTURAL PRODUCTS CO.
591 GRAHAM ARCHITECTURAL PROD.
* 592 GRAND METROPOLITAN USA
* 593 GRAND VALLEY MANUFACTURING CO.

594 GRAPHIC FINE COLOR INC.
* 595 GRAPHIC HOLDINGS
* 596 GRAVURE PACKAGING INC.
* 597 GREAT HORN
598 GREAT NORTHERN NEKOOSA CORP.
* 599 GREENVILLE METALS INC.
600 GREYHOUND-DIAL CORP.
601 GRIFFITH LABORATORIES USA INC.
602 GROSS-GIVEN MANUFACTURING CO.
603 GROW GROUP INC.
604 GRUMMAN CORP.
605 GTCO CORP.
606 GTE CORP.
* 607 GTI CORP.
* 608 GUILFORD MILLS INC.
609 H. H. ROBERTSON CO.
610 H. J. HEINZ CO.
611 H. M. ACQUISITION CORP.
612 H. M. HOLDINGS INC.
* 613 H. M. STAUFFER & SONS INC.
614 H. P. MCGINLEY INC.
615 H. P. PACKAGING HOLDINGS
616 H. WARSHOW & SONS INC.
617 H.P. PACKAGING HOLDINGS
618 H.R. SIMON & CO. INC.
* 619 H.S. HASH TIMBER CORP.
* 620 HALE PRODUCTS INC.
621 HALLMARK CARDS INC.
622 HALSTEAD INDUSTRIES INC.
623 HAMMOND LEAD PRODUCTS INC.
624 HANDY & HARMAN
625 HANKINS & JOHANN INC.
626 HANLIN GROUP INC.
627 HANOVER BRONZE & ALUMINUM
628 HANSON INDUSTRIES
629 HARLEY DAVIDSON INC.
630 HARRIS CORP.
631 HARROW PRODUCTS INC.
632 HARRY MILLER CORP.
633 HARSCO CORP.
634 HARVARD INDUSTRIES INC.
* 635 HASKELL CHEMICAL CO. INC.
* 636 HASKELL OF PITTSBURGH INC.
637 HATFIELD QUALITY MEATS INC.
638 HAVEN CORP.
639 HEALTH CHEM CORP.
640 HEEKIN CAN INC.
* 641 HELMICK CORP.
642 HENKEL CORP.
* 643 HENKEL HARRIS CO. INC.
644 HENLEY GROUP INC.
645 HERBCO ENTERPRISES
646 HERCULES INC.
647 HERITAGE METAL FINISHING INC.
* 648 HERMES ABRASIVES LTD.
649 HERSHEY FOODS CORP.
650 HESS CO. INDUSTRIES INC.
651 HICKORY SPRINGS MANUFACTURING CO.
* 652 HICKSON DANCHEM CORP.
653 HICKSON INTERNATIONAL

654 HIDDEN CREEK INDUSTRIES
* 655 HIGH VOLTAGE ENGINEERING CORP.
656 HILLENBRAND INDUSTRIES INC.
657 HILLOCK ANODIZING INC.
658 HILLSIDE INDUSTRIES INC.
659 HITTMAN MATERIALS & MEDICAL
660 HMF INC.
661 HODGE FOUNDRY INC.
662 HOECHST CELANESE CORP.
* 663 HOFMANN INDUSTRIES INC.
664 HOLLINEE CORP.
665 HOLLY FARMS CORP.
666 HOLLY MILK COOPERATIVE
667 HON INDUSTRIES
668 HONEYWELL INC.
* 669 HOOD & CO. INC.
670 HOOKER FURNITURE CORP.
671 HOOVER COLOR CORP.
672 HORSEHEAD INDUSTRIES INC.
* 673 HOWES LEATHER CO. INC.
674 HOWMET CORP.
675 HPM INDUSTRIES INC.
676 HUBBELL INC.
677 HUDSON FOODS INC.
678 HULS AMERICA INC.
679 HUNTINGTON LABORATORIES INC.
680 HUNTINGTON PLANTING INC.
681 HUNTSMAN CHEMICAL CORP.
682 HUSSEY COPPER LTD.
683 HUSSMANN AN IC INDUSTRIES CO.
684 HYDROL CHEMICAL CO.
* 685 I R INTERNATIONAL
686 I-CHEM RESEARCH
687 IBM
* 688 IBSTOCK-JOHNSON LTD.
* 689 ICAHN HOLDING
690 ICELAND SEAFOOD CORP.
691 ICI AMERICAS HOLDINGS INC.
* 692 IDL INC.
693 ILLINOIS TOOL WORKS
694 IMO INDUSTRIES INC.
695 IMPERIAL ADHESIVES INC.
696 INCO US INC.
697 INDAL LTD.
698 INDSPEC CHEMICAL CORP.
699 INDUSTRIAL METAL PLATING INC.
700 INDUSTRIAL TERMINAL SYSTEM
701 INGERSOLL-RAND
702 INNOVATIVE SUPPLY INC.
703 INOLEX CHEMICAL CO.
* 704 INSTRUMENT SPECIALTIES CO. INC.
* 705 INTELLIGENCER PRINTING CO.
706 INTERCHEM
707 INTERCO INC.
708 INTERLAKE INC.
709 INTERMET CORP.
* 710 INTERMET FOUNDRIES INC.
711 INTERMETRO INDUSTRIES CORP.
712 INTERNATIONAL CHEMICAL CO.
713 INTERNATIONAL COLD STORAGE

* 714 INTERNATIONAL JENSEN INC.
715 INTERNATIONAL PAPER
* 716 INTERROYAL CORP.
* 717 INTERSTATE CHEMICAL CO. INC.
* 718 INTERTAPE POLYMER
719 IONICS INC.
720 IRECO INC.
721 IRVING TEXTILE PRODUCTS INC.
722 ISC DEFENSE & SPACE GROUP INC.
723 ITT CORP.
* 724 IVACO INC.
725 IVEX CORP.
* 726 IVY INDUSTRIES INC.
727 J & L SPECIALTY PRODUCTS CORP.
728 J. B. POINDEXTER & CO.
729 J. M. HUBER CORP.
* 730 J. W. FERGUSSON & SONS INC.
* 731 J. WALTER MILLER CO.
732 J.M. FRY CO. INC.
* 733 JACOBSON MANUFACTURING CO. INC.
734 JAMES AUSTIN CO.
735 JAMES RIVER CORP.
* 736 JAMESTOWN PAINT & VARNISH CO.
737 JAMISON DOOR CO.
* 738 JANBRIDGE INC.
* 739 JCL INTERNATIONAL
740 JEANNETTE SHADE & NOVELTY CO.
741 JEFFERSON HOMEBUILDERS INC.
* 742 JEFFERSON MILLS
743 JEPSON CORP.
744 JIFFY FOAM INC.
745 JIM WALTER CORP.
* 746 JLG INDUSTRIES INC.
747 JOHN F. COPE CO. INC.
748 JOHN LABATT LTD.
749 JOHN MANEELY CO. INC.
* 750 JOHN R. HOLLINGSWORTH CO.
751 JOHN V. POTERO CO. INC.
752 JOHN W. TAYLOR PACKING CO.
* 753 JOHNSON & BLOY CANADA INC.
754 JOHNSON & JOHNSON
755 JOHNSON CONTROLS INC.
756 JOHNSON MATTHEY INC.
757 JOHNSTOWN CORP.
758 JONATHAN CORP.
* 759 JONES & HUNT INC.
760 JONES CHEMICALS INC.
* 761 JORDAN INDUSTRIES
762 JOY TECHNOLOGIES INC.
763 JOYCE INTERNATIONAL INC.
764 JRS TEXTILE GROUP
765 K-CASTINGS INC.
* 766 KALAS MFG. INC.
767 KALICHEMIE A.G. WEST GERMANY
* 768 KAMIN
* 769 KANASCO LTD.
* 770 KATY INDUSTRIES INC.
* 771 KAUMAGRAPH CORP.
772 KAYDON CORP.
773 KELLER GROUP

774 KELLER MANUFACTURING CO. INC.
775 KELLOGG CO.
776 KENNAMETAL INC.
777 KERR-MCGEE CORP.
778 KERRICO CORP.
* 779 KESSEL LUMBER SUPPLY INC.
* 780 KEYSOR CENTURY CORP.
781 KEYSTONE CARBON CO.
782 KEYSTONE PROTEIN CO.
783 KEYSTONE RUSTPROOFING INC.
* 784 KEYSTONE WOOD TREATING CORP.
785 KINCAID ENTERPRISES INC.
786 KINGSBURY INC.
787 KIRSCHNER MEDICAL CORP.
* 788 KLEIN PLATING WORKS INC.
789 KMC FOODS INC.
790 KNOLL INTERNATIONAL HOLDINGS INC.
791 KOCH REFINING CO.
* 792 KOERBER AG
793 KOHLER CO.
794 KOLLMORGEN CORP.
* 795 KOP FLEX INC.
796 KOPP GLASS INC.
797 KOPPERS INDUSTRIES INC.
798 KORE MART LTD.
799 KRAFT GENERAL FOODS INC.
800 KRANSCO
801 KRB-KLEARKAST
802 KROGER CO.
803 KUEHNE CHEMICAL CO. INC.
804 KULP FOUNDRY INC.
805 KURZ-HASTING INC.
806 KYOCERA INTERNATIONAL CORP.
* 807 L.C.C. MANAGEMENT SERVICES
* 808 L-WOOD SOUTHERN PINE
809 L.B. FOSTER CO.
810 L.E. SMITH GLASS CO.
811 L.H. LINCOLN & SON INC.
812 LACLEDE STEEL CO.
813 LADD FURNITURE INC.
814 LAFRANCE CORP.
815 LANCASTER MALLEABLE CASTINGS
816 LANGER INDUSTRIES INC.
817 LARRY-E.-GEIST INC.
* 818 LASH HOLDINGS LIMITED
819 LASTING PAINTS
* 820 LATRONICS CORP.
821 LAUREL PACKAGING INC.
* 822 LAWRENCE MCFADDEN CO.
823 LCARCO
824 LEATEX CHEMICAL CO.
825 LEBANON CHEMICAL CORP.
* 826 LECTROMAT INC.
827 LEHIGH CULTURED MARBLE INC.
* 828 LENMAR INC.
829 LENOX INC.
830 LERRO PRODUCTS INC.
* 831 LEVOLOR CORP.
832 LIBERTY FABRICS INC.
* 833 LIBERTY POLYGLAS INC.

834 LIFE SCIENCES INTERNATIONAL INC.
* 835 LINCOLN FOUNDRY INC.
836 LINEAR DYNAMIS INC.
837 LIPHART STEEL CO. INC.
838 LITTON INDUSTRIES INC.
839 LITTON SYSTEMS INC.
* 840 LOEWS
* 841 LONG LIFE TREATED WOOD INC.
842 LONZA INC.
843 LORAL CORP.
844 LORD CORP.
* 845 LOUIS BERKMAN CO.
846 LOUISIANA-PACIFIC CORP.
847 LOZIER CORP.
848 LPL TECHNOLOGIES INC.
849 LTV STEEL CO. INC.
850 LUKENS INC.
851 LUSTRIK CORP.
852 M. A. BRUDER & SONS INC.
* 853 MACK PRINTING CO.
854 MACK TRUCKS INC.
* 855 MADISON SQUARE FURNITURE
* 856 MADISON WOOD PRESERVERS INC.
* 857 MAGEE CARPET CO.
858 MAGNETEK INC.
859 MAGNOX PULASKI INC.
860 MAIDA DEVELOPMENT CO.
861 MALCO PLASTICS
862 MALLINCKRODT INC.
863 MANN INDUSTRIES INC.
864 MANOR HILL FOOD
865 MANVILLE CORP.
866 MAP INTERNATIONAL INC.
867 MARLEY HOLDINGS USA INC.
868 MARMON GROUP
869 MARPAX INK CO. DIV.
870 MARS INC.
871 MARTIN MARIETTA CORP.
872 MARTINSVILLE NOVELTY CORP.
873 MARYLAND & VIRGINIA MILK PRODUCERS ASSOC.
874 MARYLAND PAPER BOX CO.
875 MASCO CORP.
876 MASLAND INDUSTRIES
* 877 MATEC CORP.
878 MATERIAL SCIENCES CORP.
879 MATHEWS MARBLE MFG. CORP.
880 MATTHEWS INTERNATIONAL CORP.
881 MAXWELL COMMUNICATION CORP.
882 MAXXAM INC.
883 MCCLARIN PLASTICS INC.
884 MCCORMICK & CO. INC.
885 MCCORMICK PAINT WORKS CO.
886 MCDERMOTT INC.
* 887 MCGEE INDUSTRIES INC.
888 MCINNES STEEL CO.
889 MEAD CORP.
890 MEDRAD INC.
891 MEDSURG INDUSTRIES INC.
892 MELLOTT WOOD PRESERVING CO.
* 893 MEMTEC AMERICA CORP.

894 MENASHA CORP.
895 MENNEN MILLING CO.
896 MENNEN CO.
897 MERCK & CO. INC.
898 MERCURY STAINLESS CORP.
899 MEREDITH CORP.
* 900 MERRILL LUMBER CO. INC.
* 901 METAL EXCHANGE CORP.
* 902 METAL MASTERS FOODSERVICE CO.
903 METALKRAFT INDUSTRIES INC.
904 METALLURGICAL PRODUCTS CO.
905 METALLURGICAL SERVICE & SUPPLY
906 METLAB CO.
* 907 METRO MACHINE CORP.
908 MFG JUSTIN TANKS INC.
909 MG INDUSTRIES
910 MH DIELECTRIES INC.
* 911 MID-ATLANTIC WOOD PRESERVERS INC.
912 MILES INC.
913 MILLER WASTE MILLS INC.
914 MILTON STEEL INC.
* 915 MINE SAFETY APPLIANCES CO.
916 MISCO PRODUCTS CORP.
917 MOBAY CORP.
918 MODINE MANUFACTURING CO.
919 MOEN INC.
920 MOLDED FIBER GLASS CO.
921 MOLTRUP STEEL PRODUCTS CO.
922 MONARCH RUBBER CO. INC.
923 MONSANTO CO.
924 MONSEY PRODUCTS CO.
* 925 MOONEY CHEMICALS INCAMERICA INC.
926 MOORE
927 MOORE & MORFORD INC.
928 MOORE CO.
* 929 MOORE PRODUCTS CO.
930 MORGANITE NORTH AMERICA
931 MORNING STAR FOODS INC.
932 MORNINGSTAR FOODS INC.
933 MORTON INTERNATIONAL INC.
* 934 MOTOR COILS MFG. CO.
935 MOUNTAIRE CORP.
936 MOYER PACKING CO. SOUD. REND.
937 MT. SAVAGE SPECIALTY
938 MURATA ERIE NORTH AMERICAN INC.
939 MURRAY CORP.
940 MURRY'S INC.
941 MXL INDUSTRIES INC.
* 942 MYLAN LABORATORIES INC.
943 N. F. & M INTERNATIONAL INC.
944 NAC PRODUCTS INC.
945 NAPCO INC.
* 946 NATIONAL CHEMICAL LABORATORIES
947 NATIONAL FORGE CO.
948 NATIONAL FRUIT PRODUCT CO.
949 NATIONAL STANDARD
950 NATIONAL STARCH & CHEM. CO.
* 951 NAUTILUS SPORTS/MEDICAL INDS.
952 NEAGLE'S FLEXO INC.
953 NEO INDUSTRIES INC.

* 954 NEUMAN USA LTD.
* 955 NEVAMAR CORP.
956 NEVILLE CHEMICAL CO.
957 NEW BERRY INC.
* 958 NEW CASTLE BATTERY MFG. CO.
959 NEW ENTERPRISE STONE & LIME CO.
960 NEW HAMPSHIRE OAK INC.
* 961 NEW STANDARD CORP.
962 NEWELL CO.
963 NEWELL SPECIALTY CHEMICALS
964 NEWMAN & CO.
965 NEWPORT NEWS SHIPBUILDING
966 NGK METALS CORP.
967 NI INDUSTRIES INC.
968 NIBCO INC.
969 NIMBUS RECORDS
970 NORANDEX INC.
971 NORFOLK SHIPBUILDING & DRYDOCK CORP.
972 NORRIS TRIM INC.
973 NORTEK INC.
974 NORTH AMERICA SILICA CO.
975 NORTH AMERICAN PHILIPS CORP.
976 NORTH AMERICAN REFRACTORIES
977 NORTH AMERICAN REFRACTORIES CO.
978 NORTH STAR STEEL
* 979 NORTHEAST INDUSTRIAL BATTERIES
980 NORTON CO.
981 NOXELL CORP.
982 NRG BARRIER WEST INC.
* 983 NU-BRITE CHEMICAL CO.
984 NVF CO.
985 O'SULLIVAN CORP.
986 O. F. ZURN CO.
987 OAK CRYSTAL INC.
988 OAK INDUSTRIES INC.
989 OAKITE PRODUCTS INC.
990 OBERG INDUSTRIES
991 OCCIDENTAL PETROLEUM CORP.
992 OGDEN MFG. CO.
993 OHIO VALLEY STEEL
994 OI-NEG TV PRODUCTS INC.
* 995 OLD DOMINION WOOD PRESERVERS
996 OLD LINE PLASTICS INC.
997 OLIN CORP.
998 OLIN ELECTRONIC MATERIALS INC.
* 999 OLIVETTI SUPPLIES INC.
1000 ONDULINE INC.
* 1001 ORB INDUSTRIES INC.
1002 ORT'S INC.
1003 OWENS CORNING FIBERGLAS CORP.
1004 OWENS-ILLINOIS INC.
* 1005 P L C ENTERPRISES
1006 P. H. GLATFELTER CO.
1007 PACIFIC DUNLOP GNB CORP.
* 1008 PADGETT MANUFACTURING CO. INC.
* 1009 PAGE ALUMINIZED STEEL CORP.
1010 PALMER INTERNATIONAL INC.
1011 PAM ENGINEERING
1012 PANGBORN CORP.
* 1013 PANNEBAKER CABINET CO.

1014 PANNIER CORP.
* 1015 PAPER MANUFACTURERS CO.
* 1016 PAPERBOARD INDUSTRIES CORP.
1017 PARA-CHEM SOUTHERN INC.
* 1018 PARAMOUNT PACKAGING CORP.
* 1019 PARK-OHIO INDUSTRIES INC.
1020 PARKER CUTLERY ASSOCIATION
1021 PARKER METAL DECORATING CO.
* 1022 PAULSEN WIRE ROPE CORP.
1023 PAXAR CORP.
* 1024 PECORA CORP.
1025 PEEN MAR CASTINGS INC.
* 1026 PEERLESS INDUSTRIES
1027 PELIKAN INC.
* 1028 PENCO PRODUCTS
* 1029 PENGUIN INDUSTRIES INC.
1030 PENN COLOR INC.
1031 PENN DAIRIES INC.
* 1032 PENN ENGINEERING & MFG. CORP.
1033 PENN PROTECTIVE COATINGS CORP.
* 1034 PENNCAST CORP.
* 1035 PENNEX PRODUCTS
* 1036 PENNSTYLE CAMPERS INC.
1037 PENNSYLVANIA ELECTRIC COIL
* 1038 PENNSYLVANIA STEEL FOUNDRY
* 1039 PENNSYLVANIA/TEXAS
1040 PENNZOIL PRODUCTS CO.
1041 PEPSICO
* 1042 PERDUE FARMS INC.
1043 PERFORMER YACHTS INC.
* 1044 PERIDOT CHEMICALS INC.
1045 PERKASIE INDUSTRIES CORP.
* 1046 PERMAGRAIN PRODUCTS INC.
1047 PESTCO INC.
1048 PFIZER INC.
1049 PHARMACHEM CORP.
* 1050 PHB INC.
1051 PHELPS DODGE CORP.
1052 PHIL CARTER SYSTEM INC.
1053 PHILADELPHIA RUST-PROOF CO.
1054 PHILIP MORRIS CO. INC.
1055 PHILIPP BROTHERS CHEMICALS
1056 PHILIPS INDUSTRIES INC.
1057 PHOENIX FORGING CO. INC.
* 1058 PHYSICAL ACOUSTICS
1059 PIEDMONT EXPLOSIVES INC.
1060 PILKINGTON VISIONCARE INC.
1061 PINK INK CORP.
1062 PIONEER LEIMEL FABRICS INC.
1063 PIONEER OIL CO. INC.
1064 PITMAN-MOORE INC.
1065 PITT DES MOINES INC.
* 1066 PITTS LUMBER CO. INC.
1067 PITTSBURGH CORNING CORP.
* 1068 PITTSBURGH FORGINGS CO.
1069 PITTSBURGH TUBE CO.
1070 PLAIN 'N FANCY KITCHENS INC.
1071 PLANT CITY STEEL DIV. OF HARSCO CORP.
1072 PLASTIC DEVELOPMENT CO. INC.
1073 PLASTIC INDUSTRIES

1074 PLAYTEX INC.
* 1075 PLUMMER PRECISION OPTICS INC.
1076 PLY-GEM INDUSTRIES INC.
1077 PLYMOUTH TUBE CO.
1078 PMC INC.
* 1079 PMF INDUSTRIES INC.
1080 POLY FAB CORP.
* 1081 POLYCOM HUNTSMAN INC.
* 1082 POLYMER ACQUISITION
1083 POLYMER ENTERPRISES INC.
* 1084 POLYSAT INC.
* 1085 POLYSCIENCES INC.
1086 POPE & TALBOT INC.
1087 PORI INTERNATIONAL INC.
* 1088 POTOMAC SUPPLY CORP.
* 1089 POTTSTOWN PLATING WORKS
1090 POWEREX INC.
1091 PPG INDUSTRIES INC.
1092 PQ CORP.
1093 PRATT & LAMBERT INC.
* 1094 PRECISION COMPONENTS CORP.
1095 PRECISION FINISHING INC.
1096 PRECISION INDUSTRIES INC.
1097 PRECISION TUBE CO. INC.
1098 PRECISIONFORM INC.
1099 PREMARK INTERNATIONAL
* 1100 PRESQUE ISLE PLATING INC.
1101 PRESSURE CHEMICAL CO.
1102 PRESSURE PRODUCTS INC.
* 1103 PRIMARY OIL & ENERGY
* 1104 PRINCETON PACKAGING INC.
1105 PRINTPACK INC.
1106 PRO AMERICA PREMIUM TOOLS
1107 PROCTER & GAMBLE CO.
1108 PROCTOR-STLEX INC.
1109 PROTO CIRCUITS INC.
* 1110 PRUETT SCHAFFER CHEMICAL CO.
1111 PRW
1112 PT COMPONENTS INC.
* 1113 PULASKI FURNITURE CORP.
1114 PURE INDUSTRIES INC.
* 1115 PURITAN PAINT & OIL CO.
1116 QUAKER CHEMICAL CORP.
1117 QUAKER MAID DIV. OF WHITE
1118 QUAKER OATS CO.
1119 QUAKER STATE CORP.
1120 QUALITY COMPONENTS INC.
* 1121 QUALITY CUSTOM KITCHENS INC.
1122 QUALITY INVESTMENT CASTINGS
1123 QUALITY WOOD TREATING CO. INC.
1124 QUIN-T CORPORATION-PA
1125 QUINT CO.
* 1126 R. H. SHEPPARD CO. INC.
1127 R. R. DONNELLEY & SONS CO.
1128 RACAL CHUBB FIRE SECURITY INC.
1129 RALSTON PURINA CO.
* 1130 RANBAR TECHNOLOGY INC. DBA BALL CHEMICAL CO.
1131 RASCHIG AG
* 1132 RAVENSWOOD ALUMINUM
1133 RAYTHEON CO.

1134 REACTIVE METALS & ALLOYS CORP.
* 1135 READING ALLOYS INC.
1136 REBCO INC.
1137 RECAL-CHUBB FIRE SECURITY INC.
1138 RED MILL MANUFACTURING INC.
1139 REEVES INDUSTRIES INC.
* 1140 REHRIG INTERNATIONAL
1141 REICHHOLD CHEMICALS INC.
1142 REILLY PLATING CO.
* 1143 RELIANCE WOOD PRESERVING CO.
1144 RENTOKIL SUPATIMBER INC.
1145 REPUBLIC ENGINEERED STEELS INC.
1146 RESCO PRODUCTS INC.
* 1147 RESILITE SPORTS PRODUCTS INC.
1148 REXMET CORP.
1149 REXNORD CORP.
1150 REYNOLDS METALS CO.
1151 RFS WEBCRAFT HOLDING CORP.
* 1152 RHEEMAX INC.
1153 RHONE POULENC INC.
* 1154 RICH CRAFT CUSTOM KITCHENS
1155 RICH PRODUCTS CORP.
1156 RICHDALE LTD.
1157 RICHMOND LUMBER CO. INC.
* 1158 RIVERTON INVESTMENT CORP.
1159 RJR NABISCO INC.
* 1160 ROANOKE ELECTRIC STEEL CORP.
1161 ROBROY INDUSTRIES-TEXAS INC.
1162 ROCCO INC.
1163 ROCHE HOLDINGS INC.
1164 ROCK TENN CO.
1165 ROCKLAND INDUSTRIES INC.
1166 ROCKWELL INTERNATIONAL
1167 ROCKWOOD INDUSTRIES
* 1168 ROCKY TOP WOOD PRESERVERS INC.
* 1169 RODEL INC.
* 1170 ROGERS BROTHERS CORP.
1171 ROHM & HAAS CO.
1172 ROHR INDUSTRIES INC.
1173 ROLLS TECHNOLOGY
1174 RONILE INC.
1175 ROOT CORP.
* 1176 RORER GROUP INC.
1177 RORER PHARMACEUTICAL CORP.
* 1178 ROSS ENGINEERING CO.
* 1179 ROYSTER CO.
1180 RPM INC.
1181 RUBBER MILLERS INC.
1182 RUBBERMAID INC.
1183 RUETGERSWERKE AG
1184 RUST-OLEUM CORP.
1185 RUTTER BROS DAIRY INC.
1186 RYNONE MFG CORP
1187 SADACEM S. A.
1188 SAFEWAY INC.
* 1189 SAM MOORE FURNITURE INDUSTRIES
* 1190 SANDMEYER STEEL CO.
1191 SANDVIK INC.
1192 SARA LEE CORP.
1193 SARTOMER CO. INC.

*	1194	SAUNDERS SUPPLY CO. INC.
	1195	SCHAFFNER MANUFACTURING CO.
	1196	SCHERING BERLIN INC.
	1197	SCHEYEL DIV.
	1198	SCHINDLER ELEVATOR CORP.
	1199	SCHOTT GLASS TECHNOLOGIES INC.
	1200	SCHROTH INDUSTRIES
	1201	SCHUYLKILL HAVEN BLEACH
	1202	SCOTT PAPER CO.
	1203	SEAGRAM CO. LTD
	1204	SEAGRAVE COATINGS CORP.
	1205	SECODYNE INC.
	1206	SENECA PRINTINC INC.
	1207	SENECA WIRE & MANUFACTURING CO.
	1208	SENTRY PAINT TECHNOLOGIES INC.
	1209	SEPR INC.
	1210	SEQUA CORP.
	1211	SERVICE CORP. INTERNATIONAL
*	1212	SERVICEMASTER CO. L.P.
	1213	SETON CO.
*	1214	SEWARD INTERNATION INC.
	1215	SEWELL PRODUCTS INC.
	1216	SFAC INC.
	1217	SG KEYWELL CO.
	1218	SHARON STEEL CORP.
*	1219	SHARON TUBE CO.
*	1220	SHARPLES INC.
	1221	SHELL OIL CO.
	1222	SHENANDOAH FIBERGLASS PRO. CO.
*	1223	SHENANGO GROUP INC.
	1224	SHERWIN WILLIAMS CO.
*	1225	SICPA INDUSTRIES OF AMERICA INC.
	1226	SIEBE PLC
	1227	SIEGWERK FARBENFABRIK
	1228	SIEMENS CAPITAL CORP.
	1229	SILBERLINE MANUFACTURING CO.
	1230	SIMKINS INDUSTRIES INC.
	1231	SIMPSON INVESTMENT CO.
	1232	SINCLAIR & VALENTINE L.P.
	1233	SKF USA INC.
	1234	SKW ALLOYS INC.
	1235	SL INDUSTRIES INC.
*	1236	SLOCUM CHEMICAL
*	1237	SMALL TUBE PRODUCTS CO. INC.
*	1238	SMITH MOUNTAIN WOOD PRESERVERS
	1239	SMITHFIELD FOODS INC.
	1240	SMITHKLINE BEECHAM CORP.
*	1241	SMR TECHNOLOGIES INC.
	1242	SNAP-TITE INC.
	1243	SNYDER GENERAL CORP.
	1244	SOCIETE DES CIMENTS FRANCAIS
	1245	SOLITE CORP.
	1246	SONOCO PRODUCTS CO.
	1247	SOUTHEASTERN ADHESIVES
	1248	SOUTHERN ATLANTIC LABEL CO.
	1249	SOUTHERN GALVANIZING CO.
*	1250	SOUTHERN INTERNATIONAL CO. L P
	1251	SOUTHERN IRON WORKS INC.
	1252	SOUTHERN STATES COOPERATIVE INC.
	1253	SOUTHLAND INDUSTRIES INC.

1254 SOUTHWEST VIRGINIA TIRE CO. INC.
* 1255 SPANG & CO.
* 1256 SPD TECHNOLOGIES
1257 SPECIALTY EQUIPMENT CO.
1258 SPECIALTY WOODCRAFTS CO.
1259 SPECTRUM CONTROL INC.
1260 SPRAGUE ELECTRIC CO.
1261 SPRAGUE TECHNOLOGIES INC.
* 1262 SPRAY PRODUCTS CORP.
1263 SPRECKELS INDUSTRIES INC.
* 1264 SPRIGG LANE INVESTMENT CORP.
1265 SPRINGS INDUSTRIES INC.
1266 SPS CORP.
1267 SPS TECHNOLOGIES INC.
1268 SPURLOCK CO.
* 1269 ST. GEORGE CRYSTAL LTD.
* 1270 ST. LAWRENCE CEMENT INC.
* 1271 ST. MARYS CARBON CO.
1272 STACKPOLE CARBON CO.
1273 STACKPOLE CORP.
* 1274 STANDARD CHLORINE OF DELAWARE
1275 STANDARD PRODUCTS CO.
* 1276 STANLEY FURNITURE CO.
1277 STANLEY WORKS
1278 STAR IRON WORKS INC.
* 1279 STATTON FURNITURE
* 1280 STEEL OF WEST VIRGINIA
1281 STEELTIN CAN CORP.
* 1282 STERLING CASKET HARDWARE CO.
1283 STILLWATER INC.
1284 STINNES CORP.
1285 STIXI GROSSER MARKET
1286 STONE CONTAINER CORP.
* 1287 STONER INC.
1288 STORA STOCKHOLM SWEDEN
1289 STOREYS TRANSPRINTS INC.
1290 STROH CO. INC.
1291 STRUCTOFAB INC.
* 1292 STRUTHERS WELLS CORP.
1293 STUART-IRONSIDES INC.
1294 SULLIVAN GRAPHICS
1295 SUN CO. INC.
1296 SUNLITE PLASTICS CO. INC.
1297 SUPER RADIATOR COILS
1298 SUPERIOR BRANDS INC.
1299 SUPERPAC INC.
1300 SUPRADUR MANUFACTURING CORP.
1301 SURTECH INDUSTRIES
1302 SWEETHEART CUP CO. INC.
* 1303 SYLVANIA CHEMICAL CO.
1304 SYRACUSE CHINA CORP.
* 1305 TALON INC.
1306 TANDY CORP.
1307 TAPPA ENTERPRISES INC.
1308 TASTY BAKING CO.
1309 TATE ACCESS FLOORS INC.
1310 TAYLOR INDUSTRIES INC.
* 1311 TAYLOR-RAMSEY CORP.
1312 TECHALLOY CO. INC.
1313 TECHNITROL INC.

1314 TECHNOGRAPHICS CORP.
1315 TECHNOLOGY SERVICE GROUP
1316 TELEDYNE AVIONICS
1317 TELEDYNE INC.
1318 TELEDYNE VASCO LATROBE PA.
1319 TELEFLEX INC.
1320 TEMPLE-INLAND INC.
1321 TENNECO INC.
1322 TEREX CORP.
1323 TEXACO INC.
1324 TEXTRON CORP.
1325 TEXTRON INC.
1326 THE MAYTAG CORP.
1327 THERM O ROCK INC.
* 1328 THERMOCLAD CO.
1329 THOMAS & BETTS CORP.
* 1330 THOMAS INTERNATIONAL INC.
1331 THOMASVILLE FURNITURE INDUSTRIES
1332 THOMSON CONSUMER ELECTRONICS INC.
1333 THOMSON INDUSTRIES
* 1334 THREE RIVERS ALUMINUM
1335 TIMKEN CO.
1336 TMF TECHSERV INC.
1337 TNEMEC CO. INC.
1338 TOKHEIM CORP.
1339 TOKYO YOGYO CO. LTD.
1340 TOMPKINS RUBBER CO.
1341 TOPAZ MARINE CORP.
* 1342 TOPFLIGHT
1343 TORPEDO WIRE & STRIP INC.
* 1344 TOWER CHEMICAL CORP.
1345 TOWLE MFG. CO.
1346 TOWNSENDS INC.
* 1347 TRANSFAB INC.
1348 TRANSTECHNOLOGY CORP.
1349 TREAD CORP.
1350 TREDEGAR INDUSTRIES INC.
1351 TRI-CITY MARBLE INC.
1352 TRIANGLE CIRCUITS
1353 TRIANGLE PACIFIC CORP.
1354 TRIANGLE PWC INC.
1355 TRIBORO ELECTRIC CORP.
1356 TRIMEN INDUSTRIES INC.
1357 TRINITY INDUSTRIES INC.
1358 TRW INC.
1359 TSG INC.
1360 TWIN Y CORP.
1361 TYCO LABORATORIES INC.
1362 TYLER CORP.
1363 TYLER PIPE (INDUSTRIES INC.)
1364 TYSON FOODS INC.
1365 U. S. BRONZE POWDERS INC.
1366 U. S. CAN CO.
1367 U. S. INDUSTRIES MANAGEMENT SERVICES INC.
* 1368 U. S. LEISURE INC.
1369 U. S. PRINTING INK CORP.
1370 U. S. REDUCTION CO.
1371 U.S. HISTORICAL SOCIETY
1372 U.S. MARINE
1373 U.S. PRINTING INK CORP.

1374 UARCO INC.
1375 UIS INC.
1376 UNICAST CO.
1377 UNILEVER U.S. INC.
1378 UNION CAMP CORP.
1379 UNION CARBIDE CHEMICALS
1380 UNION CARBIDE CORP.
1381 UNION OIL CO.
* 1382 UNION PACIFIC CORP.
1383 UNIROYAL GOODRICH TIRE CO. INC.
1384 UNISYS CORP.
* 1385 UNITED ACQUISITION
* 1386 UNITED BRASS WORKS INC.
* 1387 UNITED GILSONITE LABORATORIES
1388 UNITED INDUSTRIAL CORP.
1389 UNITED OIL CO. INC.
* 1390 UNITED PANEL PARTNERSHIP
* 1391 UNITED ROPEWORKS (USA) INC.
1392 UNITED STATES GYPSUM CORP.
1393 UNITED TECHNOLOGIES CORP.
* 1394 UNIVERSAL AUTO RADIATOR MFG.
1395 UNIVERSAL COMPANIES INC.
1396 UNIVERSAL FOODS CORP.
1397 URDAN INDUSTRIES ISRAEL
1398 US AIRGAS INC.
1399 US MARINE
1400 USE DIAMOND INC.
1401 USG CORP.
1402 USX CORP.
1403 UTI CORP.
1404 UTILITY TRAILER MANUFACTURING CO.
1405 UTZ QUALITY FOODS INC.
1406 V. F. CORP.
1407 VALLEY MOULD CO.
1408 VALLEY PROTEINS INC.
* 1409 VALLEY TIMBER SALES INC.
1410 VALLEYDALE PACKERS INC.
1411 VALSPAR CORP.
1412 VALVOLINE INC.
1413 VAN AIR SYSTEMS INC.
1414 VAN LEER CONTAINERS
1415 VANITIES INC.
1416 VAUGHAN FURNITURE CO. INC.
1417 VAUGHAN-BASSETT FURN. CO.
* 1418 VENETIAN MARBLE INC.
1419 VESPER CORP.
1420 VESUVIUS CRUCIBLE CO.
1421 VFP INC.
1422 VI TEX PACKAGING INC.
1423 VICTAULIC CO. OF AMERICA
* 1424 VICTOR INDUSTRIES
1425 VIRGINIA FIBRE CORP.
1426 VIRGINIA GALVANIZING CORP.
* 1427 VIRGINIA HOUSE FURNITURE CORP.
1428 VIRGINIA MABLE MFTRS INC.
1429 VIRGINIA MIRROR CO. INC.
* 1430 VIRGINIA TRANSFORMER CORP.
1431 VISHAY INTERTECHNOLOGY INC.
1432 VISTA CHEMICAL CO.
1433 VISTA METALS INC.

1434 VITRO S.A.
* 1435 VIZ MANUFACTURING CO.
* 1436 VOITH HYDRO
* 1437 VOLKSWAGEN OF AMERICA INC.
1438 VOLVO GM HEAVY TRUCK CORP.
1439 VOLVO NORTH AMERICA CORP.
1440 W. L. GORE & ASSOCIATES INC.
1441 W. R. GRACE & CO.
1442 WAHOO! BOATS UNLIMITED
1443 WALDORF MARBLE INC.
* 1444 WALTON D.B.A. BEAVER PAINT CO.
1445 WAMPLER-LONGACRE-ROCKINGHAM INC.
1446 WAMPUM HARDWARE CO.
1447 WARD MACHINERY CO.
1448 WARD MANUFACTURING INC.
1449 WARMINSTER FIBERGLASS CO.
1450 WARNER LAMBERT CO.
1451 WASHINGTON PENN PLASTIC CO. INC.
1452 WASHINGTON RESOURCES GROUP INC.
1453 WATERVIEW INVESTMENT CORP.
1454 WATKINS-JOHNSON CO.
1455 WATSON STANDARD CO.
* 1456 WAYNESBORO TEXTILES
* 1457 WAYTEC ELECTRONICS
* 1458 WCC INDUSTRIES INC.
1459 WEA MFG. INC.
1460 WEAVER FERTILIZER CO. INC.
* 1461 WEBB FURNITURE ENTERPRISES INC.
1462 WEIRTON STEEL CORP.
1463 WELCH'S
1464 WELLAND CHEMICAL INC.
1465 WEN-DON CORP.
1466 WERNER HOLDING CO. INC.
* 1467 WEST CO.
* 1468 WEST ELIZABETH LUMBER CO.
1469 WEST PENN OIL CO. INC.
1470 WEST PHILADELPHIA BRONZE
1471 WEST POINT PEPPERELL INC.
1472 WEST POINT TENDER CORP.
* 1473 WESTERN PUBLISHING GROUP INC.
1474 WESTINGHOUSE ELECTRIC CORP.
1475 WESTRONIX INC.
1476 WESTVACO CORP.
1477 WEXCO INC.
1478 WHEATLAND STEEL PROCESSING
* 1479 WHEELING-NISSHIN INC.
1480 WHEELING-PITTSBURGH STEEL CORP.
1481 WHIRLEY INDUSTRIES INC.
1482 WHITE CONSOLIDATED INDUSTRIES INC.
1483 WHITMAN CORP.
1484 WIGGINS TEAPE APPLETON
1485 WILKINS-ROGERS INC.
1486 WILLAMETTE INDUSTRIES INC.
1487 WILMINGTON FINISHING CO.
1488 WIMPEY MINERALS INC.
1489 WITCO CORP.
1490 WLR FOODS INC.
1491 WM. T. BURNETT & CO. INC.
1492 WOLFE DYE & BLEACH INC.
1493 WONDER CHEMICAL CORP.

*	1494	WOOD PRESERVERS INC.
*	1495	WOOD-METAL IND. INC.
	1496	WOODBRIDGE HOLDINGS
	1497	WOOLRICH INC.
	1498	WORLD RESOURCES CO.
	1499	WORTHEN INDUSTRIES
	1500	WORTHINGTON INDUSTRIES INC.
*	1501	WPMP
	1502	XERXES CORP.
*	1503	YOKOHAMA CORP. NORTH AMERICA
	1504	YORK GRAPHIC SERVICES INC.
	1505	YORK INTERNATIONAL CORP.
*	1506	YORK METAL FINISHING CO.
	1507	YORK WALLCOVERINGS INC.
*	1508	YOUNG INDUSTRIES INC.
*	1509	YOUNGWOOD ELECTRONIC METALS
*	1510	YUASA BATTERY CORP. OF AMERICA
	1511	ZAPATA HAYNIE CORP.
	1512	ZEDMARK INC.
	1513	ZIMMERMAN HOLDINGS INC.
*	1514	ZIPPO MFG. CO.
	1515	ZURN INDUSTRIES INC.
*	1516	STANDARD STEEL

APPENDIX F

SYSTEM 33/50 PROGRAM CODE

Available upon request from James Henby, FTS 597-4914.

APPENDIX G

SYSTEM 33/50 SOFTWARE

To work properly, all System 33/50 files must be installed in a DOS directory called

C:\3350

The files on System 33/50 Disk 1 are **COMPRESSED !**

To install these files, you must use the PKUNZIP utility located on Disk 1.

Place Disk 1 in drive A: and type

PKUNZIP A:R3DBF.ZIP C:\3350