

## VII. COMPLIANCE AND ENFORCEMENT HISTORY

### Background

To date, EPA has focused much of its attention on measuring compliance with specific environmental statutes. This approach allows the Agency to track compliance with the Clean Air Act, the Resource Conservation and Recovery Act, the Clean Water Act, and other environmental statutes. Within the last several years, the Agency has begun to supplement single-media compliance indicators with facility-specific, multimedia indicators of compliance. In doing so, EPA is in a better position to track compliance with all statutes at the facility level, and within specific industrial sectors.

A major step in building the capacity to compile multimedia data for industrial sectors was the creation of EPA's Integrated Data for Enforcement Analysis (IDEA) system. IDEA has the capacity to "read into" the Agency's single-media databases, extract compliance records, and match the records to individual facilities. The IDEA system can match Air, Water, Waste, Toxics/Pesticides/EPCRA, TRI, and Enforcement Docket records for a given facility, and generate a list of historical permit, inspection, and enforcement activity. IDEA also has the capability to analyze data by geographic area and corporate holder. As the capacity to generate multimedia compliance data improves, EPA will make available more in-depth compliance and enforcement information. Additionally, sector-specific measures of success for compliance assistance efforts are under development.

### Compliance and Enforcement Profile Description

Using inspection, violation, and enforcement data from the IDEA system, this section provides information regarding the historical compliance and enforcement activity of this sector. In order to mirror the facility universe reported in the Toxic Chemical Profile, the data reported within this section consists of records only from the TRI reporting universe. With this decision, the selection criteria are consistent across sectors with certain exceptions. For the sectors that do not normally report to the TRI program, data have been provided from EPA's Facility Indexing System (FINDS) which tracks facilities in all media databases. Please note, in this section, EPA does not attempt to define the actual number of facilities that fall within each sector. Instead, the section portrays the records of a subset of facilities within the sector that are well defined within EPA databases.

As a check on the relative size of the full sector universe, most notebooks contain an estimated number of facilities within the sector according to the Bureau of Census (See Section II). With sectors dominated by small businesses, such as metal finishers and printers, the reporting universe within the EPA databases may be small in comparison to Census data. However, the group selected for inclusion in this data analysis section should be consistent with this sector's general make-up.

Following this introduction is a list defining each data column presented within this section. These values represent a retrospective summary of inspections and enforcement actions, and solely reflect EPA, State, and local compliance assurance activities that have been entered into EPA databases. To identify any changes in trends, the EPA ran two data queries, one for the past five calendar years (August 10, 1990 to August 9, 1995) and the other for the most recent twelve-month period (August 10, 1994 to August 9, 1995). The five-year analysis gives an average level of activity for that period for comparison to the more recent activity.

Because most inspections focus on single-media requirements, the data queries presented in this section are taken from single media databases. These databases do not provide data on whether inspections are State/local or EPA-led. However, the table breaking down the universe of violations does give the reader a crude measurement of the EPA's and States' efforts within each media program. The presented data illustrate the variations across regions for certain sectors.<sup>2</sup> This variation may be attributable to State/local data entry variations, specific geographic concentrations, proximity to population centers, sensitive ecosystems, highly toxic chemicals used in production, or historical noncompliance. Hence, the exhibited data do not rank regional performance or necessarily reflect which regions may have the most compliance problems.

## Compliance and Enforcement Data Definitions

### General Definitions

**Facility Indexing System (FINDS)** -- this system assigns a common facility number to EPA single-media permit records. The FINDS identification number allows EPA to compile and review all permit, compliance, enforcement, and pollutant release data for any given regulated facility.

**Integrated Data for Enforcement Analysis (IDEA)** -- is a data integration system that can retrieve information from the major EPA program office databases. IDEA uses the FINDS identification number to "glue together" separate data records from EPA's databases. This is done to create a "master list" of data records for any given facility. Some of the data systems accessible through IDEA are: AIRS (Air Facility Indexing and Retrieval System, Office of Air and Radiation), PCS (Permit Compliance System, Office of Water), RCRIS (Resource Conservation and Recovery Information System, Office of Solid Waste), NCDB (National Compliance Data Base, Office of Prevention, Pesticides, and Toxic Substances), CERCLIS (Comprehensive Environmental and Liability Information System, Superfund), and TRIS (Toxic Release Inventory System). IDEA also contains information from outside sources such as Dun and Bradstreet and the Occupational Safety and Health Administration (OSHA). Most data queries displayed in notebook Sections IV and VII were conducted using IDEA.

### Data Table Column Heading Definitions

**Facilities in Search** -- are based on the universe of TRI reporters within the listed SIC code range. For industries not covered under TRI reporting requirements, the notebook uses the FINDS universe for executing data queries. The SIC code range selected for each search is defined by each notebook's selected SIC code coverage described in Section II.

**Facilities Inspected** --- indicates the level of EPA and State agency facility inspections for the facilities in this data search. These values show what percentage of the facility universe is inspected in a 12 or 60 month period. This column does not count non-inspectional compliance activities such as the review of facility-reported discharge reports.

**Number of Inspections** -- measures the total number of inspections conducted in this sector. An inspection event is counted each time it is entered into a single media database.

**Average Time Between Inspections** -- provides an average length of time, expressed in months, that a compliance inspection occurs at a facility within the defined universe.

**Facilities with One or More Enforcement Actions** -- expresses the number of facilities that were party to at least one enforcement action within the defined time period. This category is broken down further into Federal and State actions. Data are obtained for administrative, civil/judicial, and criminal enforcement actions. Administrative actions include Notices of Violation (NOVs). A facility with multiple enforcement actions is only counted once in this column (facility with 3 enforcement actions counts as 1). All percentages that appear are referenced to the number of facilities inspected.

**Total Enforcement Actions** -- describes the total number of enforcement actions identified for an industrial sector across all environmental statutes. A facility with multiple enforcement actions is counted multiple times (a facility with 3 enforcement actions counts as 3).

**State Lead Actions** -- shows what percentage of the total enforcement actions are taken by State and local environmental agencies. Varying levels of use by States of EPA data systems may limit the volume of actions accorded State enforcement activity. Some States extensively report enforcement activities into EPA data systems, while other States may use their own data systems.

**Federal Lead Actions** -- shows what percentage of the total enforcement actions are taken by the U.S. EPA. This value includes referrals from State agencies. Many of these actions result from coordinated or joint State/Federal efforts.

**Enforcement to Inspection Rate** -- expresses how often enforcement actions result from inspections. This value is a ratio of enforcement actions to inspections, and is presented for comparative purposes only. This measure is a rough indicator of the relationship between inspections and enforcement. This measure simply indicates historically how many enforcement actions can be attributed to inspection activity. Related inspections and enforcement actions under the Clean Water Act (CWA), the Clean Air Act (CAA) and the Resource Conservation and Recovery Act (RCRA) are included in this ratio. Inspections and actions from the TSCA/FIFRA/EPCRA database are not factored into this ratio because most of the actions taken under these programs are not the result of facility inspections. This ratio does not account for enforcement actions arising from non-inspection compliance monitoring activities (e.g., self-reported water discharges) that can result in enforcement action within the CAA, CWA and RCRA.

**Facilities with One or More Violations Identified** -- indicates the number and percentage of inspected facilities having a violation identified in one of the following data categories: In Violation or Significant Violation Status (CAA); Reportable Noncompliance, Current Year Noncompliance, Significant Noncompliance (CWA); Noncompliance and Significant Noncompliance (FIFRA, TSCA, and EPCRA); Unresolved Violation and Unresolved High Priority Violation (RCRA). The values presented for this column reflect the extent of noncompliance within the measured

time frame, but do not distinguish between the severity of the noncompliance. Percentages within this column can exceed 100 percent because facilities can be in violation status without being inspected. Violation status may be a precursor to an enforcement action, but does not necessarily indicate that an enforcement action will occur.

**Media Breakdown of Enforcement Actions and Inspections** -- four columns identify the proportion of total inspections and enforcement actions within EPA Air, Water, Waste, and TSCA/FIFRA/EPCRA databases. Each column is a percentage of either the "Total Inspections," or the "Total Actions" column.

#### **VII.A. Furniture and Fixtures Industry Compliance History**

Exhibit 24 provides a Regional breakdown of the five year enforcement and compliance activities for the furniture and fixtures industry. Region IV conducted approximately 68 percent of the inspections of furniture manufacturing facilities performed in the United States. This large percentage is due to the concentration of furniture manufacturers in the Southeastern U.S., specifically in North Carolina.

**Exhibit 24**  
**Five Year Enforcement and Compliance Summary for the Wood Furniture and Fixtures Industry**

A	B	C	D	E	F	G	H	I	J
Furniture and Fixtures SIC 25	Facilities in Search	Facilities Inspected	Number of Inspections	Average Number of Months Between Inspections	Facilities w/one or more Enforcement Actions	Total Enforcement Actions	State Lead Actions	Federal Lead Actions	Enforcement to Inspection Rate
Region I	13	10	52	15	0	0	0%	0%	-
Region II	14	10	33	25	3	3	0%	100%	0.09
Region III	39	33	211	11	7	15	100%	0%	0.07
Region IV	121	103	1,045	7	10	40	94%	6%	0.04
Region V	50	36	144	21	10	25	96%	4%	0.17
Region VI	10	8	20	30	1	1	0%	100%	0.05
Region VII	13	4	12	65	1	1	100%	0%	0.08
Region VII I	3	3	6	30	1	5	100%	0%	0.83
Region IX	24	3	7	206	1	1	0%	100%	0.14
Region X	6	3	4	90	0	0	0%	0%	-
Total/Average	293	213	1,534	11	34	91	91%	9%	0.06

**VII.B. Comparison of Enforcement Activity Between Selected Industries**

Exhibits 25-28 contain summaries of the one and five year enforcement and compliance activities for the furniture and fixtures industry, as well as for other selected industries. As indicated in Exhibits 25 and 26, the furniture and fixtures industry has a low enforcement to inspection rate compared to other industries. Exhibits 27 and 28 provide a breakdown of inspection and enforcement activities by statute. Of all the furniture and fixtures industry inspections, approximately 52 percent were performed under the Clean Air Act, while approximately 45 percent were conducted under RCRA. The large percentages of CAA and RCRA inspections for this industry are due to the VOC emissions and spent finishing materials resulting from the solvent intensive processes used by this industry.

**Exhibit 25**  
**Five Year Enforcement and Compliance Summary for Selected Industries**

A	B	C	D	E	F	G	H	I	J
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Average Number of Months Between Inspections	Facilities w/One or More Enforcement Actions	Total Enforcement Actions	State Lead Actions	Federal Lead Actions	Enforcement to Inspection Rate
Metal Mining	873	339	1,519	34	67	155	47%	53%	0.10
Non-metallic Mineral Mining	1,143	631	3,422	20	84	192	76%	24%	0.06
Lumber and Wood	464	301	1,891	15	78	232	79%	21%	0.12
Furniture	293	213	1,534	11	34	91	91%	9%	0.06
Rubber and Plastic	1,665	739	3,386	30	146	391	78%	22%	0.12
Stone, Clay, and Glass	468	268	2,475	11	73	301	70%	30%	0.12
Nonferrous Metals	844	474	3,097	16	145	470	76%	24%	0.15
Fabricated Metal	2,346	1,340	5,509	26	280	840	80%	20%	0.15
Electronics/Computers	405	222	777	31	68	212	79%	21%	0.27
Motor Vehicle Assembly	598	390	2,216	16	81	240	80%	20%	0.11
Pulp and Paper	306	265	3,766	5	115	502	78%	22%	0.13
Printing	4,106	1,035	4,723	52	176	514	85%	15%	0.11
Inorganic Chemicals	548	298	3,034	11	99	402	76%	24%	0.13
Organic Chemicals	412	316	3,864	6	152	726	66%	34%	0.19
Petroleum Refining	156	145	3,257	3	110	797	66%	34%	0.25
Iron and Steel	374	275	3,555	6	115	499	72%	28%	0.14
Dry Cleaning	933	245	633	88	29	103	99%	1%	0.16

**Exhibit 26**  
**One Year Enforcement and Compliance Summary for Selected Industries**

A	B	C	D	E		F		G	H
				Facilities w/One or More Violations	Facilities w/One or More Enforcement Actions	Total Enforcement Actions	Enforcement to Inspection Rate		
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Number	Percent*	Number	Percent*		
Metal Mining	873	114	194	82	72%	16	14%	24	0.13
Non-metallic Mineral Mining	1,143	253	425	75	30%	28	11%	54	0.13
Lumber and Wood Furniture	464	142	268	109	77%	18	13%	42	0.15
Rubber and Plastic	293	160	113	66	41%	3	2%	5	0.04
	1,665	271	435	289	107%	19	7%	59	0.14
Stone, Clay, and Glass	468	146	330	116	79%	20	14%	66	0.20
Nonferrous Metals	844	202	402	282	140%	22	11%	72	0.18
Fabricated Metal	2,346	477	746	525	110%	46	10%	114	0.15
Electronics/Computers	405	60	87	80	133%	8	13%	21	0.24
Motor Vehicle Assembly	598	169	284	162	96%	14	8%	28	0.10
Pulp and Paper	306	189	576	162	86%	28	15%	88	0.15
Printing	4,106	397	676	251	63%	25	6%	72	0.11
Inorganic Chemicals	548	158	427	167	106%	19	12%	49	0.12
Organic Chemicals	412	195	545	197	101%	39	20%	118	0.22
Petroleum Refining	156	109	437	109	100%	39	36%	114	0.26
Iron and Steel	374	167	488	165	99%	20	12%	46	0.09
Dry Cleaning	933	80	111	21	26%	5	6%	11	0.10

\*Percentages in Columns E and F are based on the number of facilities inspected (Column C). Percentages can exceed 100% because violations and actions can occur without a facility inspection.

## Exhibit 27

## Five Year Inspection and Enforcement Summary by Statute for Selected Industries

Industry Sector	Number of Facilities Inspected	Total Inspections	Enforcement Actions	Clean Air Act		Clean Water Act		Resource Conservation and Recovery Act		FIFRA/TSCA/* EPCRA/Other	
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions
Metal Mining	339	1,519	155	35%	17%	57%	60%	6%	14%	1%	9%
Non-metallic Mineral Mining	631	3,422	192	65%	46%	31%	24%	3%	27%	<1%	4%
Lumber and Wood	301	1,891	232	31%	21%	8%	7%	59%	67%	2%	5%
Furniture	293	1,534	91	52%	27%	1%	1%	45%	64%	1%	8%
Rubber and Plastic	739	3,386	391	39%	15%	13%	7%	44%	68%	3%	10%
Stone, Clay and Glass	268	2,475	301	45%	39%	15%	5%	39%	51%	2%	5%
Nonferrous Metals	474	3,097	470	36%	22%	22%	13%	38%	54%	4%	10%
Fabricated Metal	1,340	5,509	840	25%	11%	15%	6%	56%	76%	4%	7%
Electronics/Computers	222	777	212	16%	2%	14%	3%	66%	90%	3%	5%
Motor Vehicle Assembly	390	2,216	240	35%	15%	9%	4%	54%	75%	2%	6%
Pulp and Paper	265	3,766	502	51%	48%	38%	30%	9%	18%	2%	3%
Printing	1,035	4,723	514	49%	31%	6%	3%	43%	62%	2%	4%
Inorganic Chemicals	302	3,034	402	29%	26%	29%	17%	39%	53%	3%	4%
Organic Chemicals	316	3,864	726	33%	30%	16%	21%	46%	44%	5%	5%
Petroleum Refining	145	3,237	797	44%	32%	19%	12%	35%	52%	2%	5%
Iron and Steel	275	3,555	499	32%	20%	30%	18%	37%	58%	2%	5%
Dry Cleaning	245	633	103	15%	1%	3%	4%	83%	93%	<1%	1%

\*

Actions taken to enforce the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic Substances and Control Act, and the Emergency Planning and Community Right-to-Know Act as well as other Federal environmental laws.

**Exhibit 28**  
**One Year Inspection and Enforcement Summary by Statute for Selected Industries**

Industry Sector	Number of Facilities Inspected	Total Inspections	Enforcement Actions	Clean Air Act		Clean Water Act		Resource Conservation and Recovery Act		FIFRA/TSCA/EPCRA/Other	
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions
Metal Mining	114	194	24	47%	42%	43%	34%	10%	6%	<1%	19%
Non-metallic Mineral Mining	253	425	54	69%	58%	26%	16%	5%	16%	<1%	11%
Lumber and Wood	142	268	42	29%	20%	8%	13%	63%	61%	<1%	6%
Furniture	293	160	5	58%	67%	1%	10%	41%	10%	<1%	13%
Rubber and Plastic	271	435	59	39%	14%	14%	4%	46%	71%	1%	11%
Stone, Clay, and Glass	146	330	66	45%	52%	18%	8%	38%	37%	<1%	3%
Nonferrous Metals	202	402	72	33%	24%	21%	3%	44%	69%	1%	4%
Fabricated Metal	477	746	114	25%	14%	14%	8%	61%	77%	<1%	2%
Electronics/Computers	60	87	21	17%	2%	14%	7%	69%	87%	<1%	4%
Motor Vehicle Assembly	169	284	28	34%	16%	10%	9%	56%	69%	1%	6%
Pulp and Paper	189	576	88	56%	69%	35%	21%	10%	7%	<1%	3%
Printing	397	676	72	50%	27%	5%	3%	44%	66%	<1%	4%
Inorganic Chemicals	158	427	49	26%	38%	29%	21%	45%	36%	<1%	6%
Organic Chemicals	195	545	118	36%	34%	13%	16%	50%	49%	1%	1%
Petroleum Refining	109	439	114	50%	31%	19%	16%	30%	47%	1%	6%
Iron and Steel	167	488	46	29%	18%	35%	26%	36%	50%	<1%	6%
Dry Cleaning	80	111	11	21%	4%	1%	22%	78%	67%	<1%	7%

\* Actions taken to enforce the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic Substances and Control Act, and the Emergency Planning and Community Right-to-Know Act as well as other Federal environmental laws.

## VII.C. Review of Major Legal Actions

This section provides summary information about major cases and supplemental enforcement projects that pertain to the Wood Furniture and Fixtures Industry. Information in this section is provided by the Office of Enforcement and Compliance Assurance and EPA's *Enforcement Accomplishments Report*.

### VII.C.1. Review of Major Cases

As indicated in EPA's *Enforcement Accomplishments Report, FY1991, FY1992, FY1993* publications, two significant enforcement actions were resolved between 1991 and 1993 for the furniture and fixtures industry, involving RCRA violations. One of the RCRA enforcement cases also included CWA violations. The companies against which the cases were brought include a school furniture manufacturer and a furniture refinisher.

Of the two actions involving RCRA violations, one was a civil action for penalties and injunctive relief against the school furniture manufacturer. The action was based on 29 RCRA and significant CWA violations discovered by EPA inspectors. The violations resulted primarily from the use of two unlined surface impoundments as part of a waste water treatment facility. The second case involving RCRA violations was against a furniture refinisher and resulted in a conviction on four counts of illegal disposal of hazardous waste and imposition of a jail sentence. The hazardous waste consisted primarily of furniture stripping solvents.

### VII.C.2. Supplemental Environmental Projects

SEPs are compliance agreements that reduce a facility's stipulated penalty in return for an environmental project that exceeds the value of the reduction. Often, these projects fund pollution prevention activities that can significantly reduce the future pollutant loadings of a facility. The yearly Regional updates and the *Enforcement Accomplishments Reports, FY1991, FY1992, and FY1993* did not provide information on any SEPs entered into by furniture or fixture manufacturing facilities.

## VIII. COMPLIANCE ACTIVITIES AND INITIATIVES

This section highlights the activities undertaken by this industry sector and public agencies to voluntarily improve the sector's environmental performance. These activities include those independently initiated by industrial trade associations. In this section, the notebook also contains a listing and description of national and regional trade associations.

### VIII.A. Sector-related Environmental Programs and Activities

One major sector-related environmental research project has been undertaken at the Furniture and Manufacturing and Management (FMM) Center at North Carolina State University (NCSU), organized in 1991 as an outgrowth the Furniture Manufacturing and Management curriculum, which began in 1948. The mission of the FMM Center is three-fold:

- To conduct applied research on manufacturing and engineering issues for the benefit of the furniture industry;
- To carry out an extension program providing ongoing technical assistance and technology transfer in support of the furniture industry. Extension services focus on the areas of upholstery furniture manufacturing, case goods manufacturing, and environmental management;
- To educate engineers with specific knowledge of furniture manufacturing.

The Environmental Program of the FMM Center is divided into applied research activities and extension services. Research activities are related to the industry in general rather than a particular company. Currently, the FMM Center has two ongoing research projects related to environmental issues:

- Development of environmental recordkeeping software and a computerized tracking system for chemical usage and emission reporting;
- Exploration of a biofiltration project, a method for destruction of VOC and HAP emissions from finishing operations.

The following project, requested by the U.S. EPA, may be undertaken in the near future:

- Use of very low VOC/HAP coatings for wood finishing processes as a pollution prevention option for complying with the MACT and CTG.

The purpose of the environmental extension program is to promote cooperation between the furniture industry and the FMM Center. Activities include providing technical assistance and advisory guidance, conducting literature searches, acting as

liaison, and providing training, and other requested services, including:

- Quarterly environmental forum for environmental managers and engineers in the furniture industry
- Information dissemination, including free computerized literature searches
- Technical assistance on an individual company basis, including short-term consultations
- Workshops and training.

In addition to the FMM initiatives, the North Carolina Small Business Ombudsman has been active in increasing awareness about the proposed MACT and CTG for the wood furniture finishing industry by issuing a fact sheet. The Small Business Ombudsman and some of the larger trade associations have also been involved in other compliance-related initiatives (see Section VIII.C.1.).

## **VIII.B. EPA Voluntary Programs**

### **33/50 Program**

The "33/50 Program" is EPA's voluntary program to reduce toxic chemical releases and transfers of 17 chemicals from manufacturing facilities. Participating companies pledge to reduce their toxic chemical releases and transfers by 33 percent as of 1992 and by 50 percent as of 1995 from the 1988 baseline year. Certificates of Appreciation have been given to participants who met their 1992 goals. The list of chemicals includes 17 high-use chemicals reported in the Toxics Release Inventory.

Of the 17 chemicals covered by the 33/50 Program, 11 are used by and are outputs of the wood furniture manufacturing industry. All but three of these eleven chemicals are solvents which are used throughout furniture production, particularly in the finishing stages of the process.

Exhibit 28 lists those companies participating in the 33/50 program that reported under SIC code 25 to TRI. Many of the participating companies listed multiple SIC codes (in no particular order), and are therefore likely to conduct operations in addition to Wood Furniture and Fixtures Industry. The table shows the number of facilities within each company that are participating in the 33/50 program; each company's total 1993 releases and transfers of 33/50 chemicals; and the percent reduction in these chemicals since 1988.

According to EPA, 359 furniture manufacturing companies comprise the potential 33/50 universe. Of those companies, 31 or 8.64 percent are participating in the program, which is less than the average for all industries of 14 percent participation.

**Exhibit 28**  
**Wood Furniture and Fixtures Facilities Participating in the 33/50 Program**

Parent Facility name	Parent City	ST	SIC Codes	# of	1993 Releases	% Reduction
Armstrong World Industries	Lancaster	PA	2511	11	1,109,350	*
Bassett Superior Lines	Bassett	VA	2511	12	2,063,109	50
Best Chairs Inc.	Ferdinand	IN	2511	1	51,700	***
Geiger Group Inc	Atlanta	GA	2521	1	45,078	81
Hamilton Industries Inc	Two Rivers	WI	2521	1	31,875	7
Haworth Inc	Holland	MI	2522, 2521	2	194,050	50
Heidelberg Cement Inc	Allentown	PA	2511	1	119,957	*
Itr Industries Inc	Deer Park	NY	2511	1	34,882	*
Joyce International Inc (De)	New York	NY	2541	2	118,847	25
Klipsch & Associates Inc	Indianapolis	IN	2517, 2519, 3651	1	11,521	*
La-Z-Boy Chair Company	Monroe	MI	2511	7	572,153	**
Lozier Corporation	Omaha	NE	2542, 2541	2	186,715	85
Madix Inc	Terrell	TX	2542, 2541	1	623,805	55
Marmon Group, Inc	Chicago	IL	2541	1	1,092,218	1
Mascotech	Taylor	MI	2511	17	3,163,830	35
North American Philips Corp	New York	NY	2517	1	1,281,928	50
Oklahoma Fixture Co.	Tulsa	OK	2541	2	236,975	***
Seely Pine Furniture Inc.	Berkeley	WV	2511	1	22,996	***
Shuford Industries Inc	Hickory	NC	2511	3	1,613,303	58
Silver Furniture Co Inc	Knoxville	TN	2511	1	73,705	45

**Exhibit 28**  
**Wood Furniture and Fixtures Facilities Participating in the 33/50 Program (cont'd)**

Parent Facility name	Parent City	ST	SIC Codes	# of	1993 Releases	% Reduction
Steelcase Inc	Grand Rapids	MI	2522, 2542,	5	2,042,735	20
Suba Mfg. Inc	Benicia	CA	2541	1	5,949	25
Thomson Consumer Electronics	Indianapolis	IN	2517	1	2,110,314	43
W. J. Roscoe Co.	Akron	OH	2851, 2891, 2517	1	40,051	50
White Consolidated Industries	Cleveland	OH	3585, 2542, 2541	1	808,298	81
* = not quantifiable against 1988 data.						

### Environmental Leadership Program

The Environmental Leadership Program (ELP) is a national initiative piloted by EPA and State agencies in which facilities have volunteered to demonstrate innovative approaches to environmental management and compliance. EPA has selected 12 pilot projects at industrial facilities and Federal installations which will demonstrate the principles of the ELP program. These principles include: environmental management systems, multimedia compliance assurance, third-party verification of compliance, public measures of accountability, community involvement, and mentoring programs. In return for participating, pilot participants receive public recognition and are given a period of time to correct any violations discovered during these experimental projects. (Contact: Tai-ming Chang, ELP Director, 202-564-5081 or Robert Fentress, 202-564-7023)

### Project XL

Project XL was initiated in March 1995 as a part of President Clinton's *Reinventing Environmental Regulation* initiative. The projects seek to achieve cost effective environmental benefits by allowing participants to replace or modify existing regulatory requirements on the condition that they produce greater environmental benefits. EPA and program participants will negotiate and sign a Final Project Agreement, detailing specific objectives that the regulated entity shall satisfy. In exchange, EPA will allow the participant a certain degree of regulatory flexibility and may seek changes in underlying regulations or statutes. Participants are encouraged to seek stakeholder support from local governments, businesses, and environmental groups. EPA hopes to implement fifty pilot projects in four categories including facilities, sectors, communities, and government agencies regulated by EPA. Applications will be accepted on a rolling basis and projects will move to implementation within six months of their selection. For additional information regarding XL Projects, including application procedures and criteria, see the May 23, 1995 Federal Register Notice, or contact Jon Kessler at EPA's Office of Policy Analysis (202) 260-4034.

### **Green Lights Program**

EPA's Green Lights program was initiated in 1991 and has the goal of preventing pollution by encouraging U.S. institutions to use energy-efficient lighting technologies. The program has over 1,500 participants which include major corporations; small and medium sized businesses; Federal, State and local governments; non-profit groups; schools; universities; and health care facilities. Each participant is required to survey their facilities and upgrade lighting wherever it is profitable. EPA provides technical assistance to the participants through a decision support software package, workshops and manuals, and a financing registry. EPA's Office of Air and Radiation is responsible for operating the Green Lights Program. (Contact: Susan Bullard at 202-233-9065 or the Green Light/Energy Star Hotline at 202-775-6650)

### **WasteWi\$e Program**

The WasteWi\$e Program was started in 1994 by EPA's Office of Solid Waste and Emergency Response. The program is aimed at reducing municipal solid wastes by promoting waste minimization, recycling collection, and the manufacturing and purchase of recycled products. As of 1994, the program had about 300 companies as members, including a number of major corporations. Members agree to identify and implement actions to reduce their solid wastes and must provide EPA with their waste reduction goals along with yearly progress reports. EPA in turn provides technical assistance to member companies and allows the use of the WasteWi\$e logo for promotional purposes. (Contact: Lynda Wynn, 202-260-0700 or the WasteWi\$e Hotline at 1-800-372-9473).

According to a representative from the Business and Institutional Furniture Manufacturers Association (BIFMA), BIFMA has recently joined the EPA's Waste Wi\$e Program.

### **Climate Wise Recognition Program**

The Climate Change Action Plan was initiated in response to the U.S. commitment to reduce greenhouse gas emissions in accordance with the Climate Change Convention of the 1990 Earth Summit. As part of the Climate Change Action Plan, the Climate Wise Recognition Program is a partnership initiative run jointly by EPA and the Department of Energy. The program is designed to reduce greenhouse gas emissions by encouraging reductions across all sectors of the economy, encouraging participation in the full range of Climate Change Action Plan initiatives, and fostering innovation. Participants in the program are required to identify and commit to actions that reduce greenhouse gas emissions. The program, in turn, gives organizations early recognition for their reduction commitments; provides technical assistance through consulting services, workshops, and guides; and provides access to the program's centralized information system. At EPA, the program is operated by the Air and Energy Policy Division within the Office of Policy Planning and Evaluation.

(Contact: Pamela Herman, 202-260-4407)

### NICE<sup>3</sup>

The U.S. Department of Energy and EPA's Office of Pollution Prevention are jointly administering a grant program called The National Industrial Competitiveness through Energy, Environment, and Economics (NICE<sup>3</sup>). By providing grants of up to 50 percent of the total project cost, the program encourages industry to reduce industrial waste at its source and become more energy-efficient and cost-competitive through waste minimization efforts. Grants are used by industry to design, test, demonstrate, and assess the feasibility of new processes and/or equipment with the potential to reduce pollution and increase energy efficiency. The program is open to all industries; however, priority is given to proposals from participants in the pulp and paper, chemicals, primary metals, and petroleum and coal products sectors. (Contact: DOE's Golden Field Office, 303-275-4729)

### VIII.C. Trade Association/Industry Sponsored Activity

The following discussion will provide an overview of the larger trade associations representing the wood furniture manufacturing industry, with contact names, addresses, and summaries of activities undertaken by the associations to heighten their member companies' awareness of environmental regulations and compliance issues.

#### VIII.C.1. Environmental Programs

The larger trade associations with member companies from the wood furniture manufacturing industry have undertaken campaigns to educate further their membership on environmental regulations and compliance issues. The American Furniture Manufacturers Association (AFMA), in conjunction with 3M Environmental Engineering, Akzo Nobel, and Radian Corporation, has developed an industry compliance notebook and training course to inform facility managers of environmental regulations which could apply to their manufacturing operations. Similarly, Business and Institutional Furniture Manufacturers Association (BIFMA), AFMA, and the Kitchen Cabinet Manufacturers Association (KCMA) have already conducted four training seminars on the draft CTG and MACT standards for the wood furniture industry and how to comply with the new requirements. In addition, AFMA, BIFMA, KCMA, and the National Paint and Coatings Association were the primary industry trade association representatives in the lengthy regulatory negotiation process with EPA and other interested parties on the CTG and MACT standards.

#### VIII.C.2. Summary of Trade Associations

American Furniture Manufacturers Association (AFMA) P.O. Box HP-7 High Point, NC 27261 Phone: (910) 884-5000 Fax: (910) 884-5303	Members: 336 Staff: 14
---	---------------------------

Founded in 1984, this trade association includes manufacturers seeking to provide a unified voice for the furniture industry and to aid in the development of personnel. The group provides market research data, industrial relations services, costs and operating statistics, and general management and information services. The AFMA has annual meetings and publishes a membership directory once a year.

Business and Institutional Furniture Manufacturers Association (BIFMA) 2680 Horizon Drive S.E., Suite A-1 Grand Rapids, MI 49546 Fax: (616) 285-3765	Members: 221 Staff: 6 Budget: \$700,000 Contact: Russell Coyner, Exec. Dir. Phone: (616) 285-3963
--	---

This trade association consists of firms that manufacture furniture intended for use in offices, public spaces, and non-live-in institutions (including seating and space divider manufacturers). BIFMA is involved in industry relations, government relations, and maintains and provides industry information and statistics. The group conducts annual management conferences and publishes an annual membership directory, a bimonthly newsletter, and various statistical reports for its membership.

Futon Association International (FAI) P.O. Box 6548 Chico, CA 95927-6548 Phone: (916) 534-7833 Toll free: (800) 327-3262 Fax: (916) 534-7875	Members: 450 Staff: 2 Contact: Timothy Jacobs, Executive Director
---	--

The FAI includes manufacturers, suppliers, wholesalers, and retailers of futons. This trade association facilitates contact and communication within the futon industry and keeps members informed of changes in the bedding industries codes, laws, and regulations. The FAI annually hosts a Futon EXPO and publishes periodic bulletins, membership directories, and a quarterly document entitled *Updates*.

Grand Rapids Area Furniture Manufacturers Association (GRAFMA) 4362 Cascade Road, S.E., Suite 113 Grand Rapids, MI 49506 Phone: (616) 942-6225 Fax: (616) 942-1730	Members: 56 Staff: 2 Budget: \$97,000 Contact: Carol Kooistra, Executive Director
--	---

This association consists of furniture manufacturers located in western Michigan. The organization conducts wage surveys, compiles statistics, sponsors periodic seminars on furniture technology, and publishes brochures, newsletters, and the document entitled *Roster*.

International Home Furnishings Marketing Association (IHFMA) P.O. Box 5687 High Point, NC 27262 Phone: (910) 889-0203 Fax: (910) 889-7460	Members: 55 Staff: 2 Contact: Richard Barentine, Executive Director
---	--

Founded in 1955, this furniture manufacturers' group works to create a cooperative business environment. The IHFMA holds semiannual meetings in North Carolina and publishes various brochures and pamphlets.

International Wholesale Furniture Association (IWFA) P.O. Box 2482 164 S. Main Street, Suite 404 High Point, NC 27261 Phone: (910) 884-1566	Members: 127 Staff: 2 Contact: Sonny Berry, Executive Director
---	---

The IWFA consists mainly of wholesalers of home furniture but also includes some supplier firms that manufacture products offered for sale by wholesale-distributor members. This trade association hosts semiannual banquets and publishes a monthly newsletter entitled *National Wholesale Furniture Association* and an annual publication *Who's Who in Furniture Distribution*.

**IX. CONTACTS/ACKNOWLEDGMENTS/RESOURCE MATERIALS/BIBLIOGRAPHY**

For further information on selected topics within the furniture and fixtures industry, a list of publications is provided below:

**General Profile**

---

*Encyclopedia of Associations*, 27th ed., Deborah M. Burek, ed., Gale Research Inc., Detroit, Michigan, 1992.

*Enforcement Accomplishments Report, FY 1991*, U.S. EPA, Office of Enforcement (EPA/300-R92-008), April 1992.

*Enforcement Accomplishments Report, FY 1992*, U.S. EPA, Office of Enforcement (EPA/230-R93-001), April 1993.

*Enforcement Accomplishments Report, FY 1993*, U.S. EPA, Office of Enforcement (EPA/300-R94-003), April 1994.

*Standard Industrial Classification Manual*, Office of Management and Budget, 1987.

*1992 Toxic Release Inventory (TRI) Public Data Release*, U.S. EPA, Office of Pollution Prevention and Toxics, April 1994. (EPA/745-R94-001)

*U.S. Industrial Outlook 1994 - Household Consumer Durables*, Department of Commerce.

*1987 Census of Manufacturers, Industry Series: Household Furniture*, Bureau of the Census. (MC87-I-25A)

*1992 Census of Manufacturers, Preliminary Report Industry Series: Household Furniture*, Bureau of the Census, May 1994. (MC92-I-25A(P))

**Process Descriptions**

---

*Draft Guidelines for the Control of Volatile Organic Compound Emissions from Wood Furniture Coating Operations*, U.S. EPA, Office of Air and Radiation, October 1991.

*EPA Document AP-42 - Compilation of Air Pollutant Emission Factors*

*McGraw-Hill Encyclopedia of Science & Technology*, 6th ed., vols. 5, 6, 11, 13, 14, 16, 18, 19, McGraw-Hill Book Company, New York, New York, 1987.

---

**Regulatory Profiles**


---

*Draft Control Techniques Guidelines (CTGs) - Appendix B: Preliminary Draft Model Rule for Wood Furniture Finishing and Cleaning Operations*, U.S. EPA.

*Environmental Guide for the Furniture Industry*, AFMA, 3M Environmental Engineering, Akzo Nobel, Radian Corporation, Research Triangle Park, North Carolina, 1994.

*Furniture/Wood Manufacturing and Refinishing*, U.S. EPA, RCRA Fact Sheet. (EPA/530-SW-90-027c)

---

**Pollution Prevention**


---

*Pollution Prevention Options in Wood Furniture Manufacturing, A Bibliographic Report*, U.S. EPA, Office of Pollution Prevention and Toxics, February 1992. (EPA/560/8-92/001C)

---

**Contacts**


---

Name	Organization	Telephone
Rosalyn Hughes	U.S. EPA, Region IV (inspector)	404-347-2904
David Stout	Broyhill Corporation	704-758-3111
Gary Bell	La-Z-Boy Chair Company	313-242-1444
Stan Payne	Bassett Furniture	703-629-6000
Ronald Pridgeon	NC Department of Environment, Health, and Natural Resources	919-571-4000
John Cullen	Masco Corporation	313-274-7400
Larry Runyan	American Furniture Manufacturers Association	910-884-5000
Bob Naboicheck	Futon Association International	203-549-2000
Sholeh Azar	NC State University	919-515-6400
Bob McCrillis	U.S. EPA, Office of Research and Development	919-541-2733
Bob Marshall	U.S. EPA, OECA	202-564-7021
Madeliene Strum	U.S. EPA, RTP	919-541-2383
Paul Eisele	Masco Corporation	313-274-7400

---

Name	Organization	Telephone
Edyth McKinney	Small Business Ombudsman, North Carolina	800-829-4841
John Lank	U.S. EPA, Region IV (inspector)	404-347-7603

<sup>1</sup> TOXNET is a computer system run by the National Library of Medicine that includes a number of toxicological databases managed by EPA, National Cancer Institute, and the National Institute for Occupational Safety and Health. For more information on TOXNET, contact the TOXNET help line at 1-800-231-3766. Databases included in TOXNET are: CCRIS (Chemical Carcinogenesis Research Information System), DART (Developmental and Reproductive Toxicity Database), DBIR (Directory of Biotechnology Information Resources), EMICBACK (Environmental Mutagen Information Center Backfile), GENE-TOX (Genetic Toxicology), HSDB (Hazardous Substances Data Bank), IRIS (Integrated Risk Information System), RTECS (Registry of Toxic Effects of Chemical Substances), and TRI (Toxic Chemical Release Inventory). HSDB contains chemical-specific information on manufacturing and use, chemical and physical properties, safety and handling, toxicity and biomedical effects, pharmacology, environmental fate and exposure potential, exposure standards and regulations, monitoring and analysis methods, and additional references.

<sup>2</sup> EPA Regions include the following States: 1 (CT, MA, ME, RI, NH, VT); 2 (NJ, NY, PR, VI); 3 (DC, DE, MD, PA, VA, WV); 4 (AL, FL, GA, KY, MS, NC, SC, TN); 5 (IL, IN, MI, MN, OH, WI); 6 (AR, LA, NM, OK, TX); 7 (IA, KS, MO, NE); 8 (CO, MT, ND, SD, UT, WY); 9 (AZ, CA, HI, NV, Pacific Trust Territories); 10 (AK, ID, OR, WA).