RCRA Docket No. F-2001-PMLP-FFFFF

LISTING BACKGROUND DOCUMENT
FOR
PAINT MANUFACTURING
LISTING DETERMINATION

For the

U.S. Environmental Protection Agency
Office of Solid Waste
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LIST OF ACRONYMS

ARIP	Accidental Release Information Program
BRS	Hazardous Waste Biennial Reporting System
CEPPO	Chemical Emergency Preparedness and Prevention Office
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Act Information System
D&B	Dun and Bradstreet
DOD	Department of Defense
DOJ	Department of Justice
DTIC	Defense Technical Information Center
EC	Economic Census
EDF	Environmental Defense Fund
ERNS	Emergency Response Notification System
FINDS	Facility Index System
FR	Federal Register
GAO	Government Accounting Office
HSWA	Hazardous and Solid Waste Amendments
ICR	Information Collection Request
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NESHAPs	National Emission Standards for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
NIOSH	National Institute of Occupational Safety and Health
NPCA	National Paint and Coatings Association
NPL	National Priorities List

LIST OF ACRONYMS (Continued)

NTIS	National Technical Information Service
OEM	Original Equipment Paint Manufacturers
OMB	Office of Management and Budget
OSW	Office of Solid Waste
PA	Preliminary Assessment
PCS	Permit Compliance System
POTW	Publicly Operated Treatment Works
RCRIS	Resource Conservation and Recovery Information System
RCs	Residuals of Concern
RIN	Residual Identification Number
ROD	Records of Decision
RTK	Right-to-Know Network
SIC	Standard Industrial Code
SPIS	Superfund Public Information System
TRI	Toxic Release Inventory
VOC	Volatile Organic Compound
WWTF	Waste Water Treatment Facilities

LIST OF ACRONYMS FOR SECTION 4

BIF	Boiler and Industrial Furnace
CK	Cement Kiln
D001	Characteristic of Ignitability
D002	Characteristic of Corrosivity
D003	Characteristic of Reactivity
D004	Toxicity Characteristic - Arsenic
D005	Toxicity Characteristic - Barium
D006	Toxicity Characteristic - Cadmium
D007	Toxicity Characteristic - Chromium
D008	Toxicity Characteristic - Lead
D010	Toxicity Characteristic - Selenium
D018	Toxicity Characteristic - Benzene
D026	Toxicity Characteristic - Cresol
D035	Toxicity Characteristic - Methyl ethyl ketone
FB	Fuel Blender
F001	Spent halogenated solvents - see 261.31 for complete description
F002	Spent halogenated solvents - see 261.31 for complete description
F003	Spent non-halogenated solvents - see 261.31 for complete description
F004	Spent non-halogenated solvents - see 261.31 for complete description
F005	Spent non-halogenated solvents - see 261.31 for complete description
HC	Hazardous Container
HCL	Hazardous liquid residual from caustic waste water
HCS	Hazardous sludges from caustic cleaning residual
HED	Hazardous emission control dust
HES	Hazardous emission control sludge

LIST OF ACRONYMS FOR SECTION 4 (Continued)

HOR	Hazardous off-specification residual
HSL	Hazardous liquid residual from solvent cleaning
HSS	Hazardous sludges from solvent cleaning waste
HTK	Hazardous Tank
HWL	Hazardous liquid residual from wash water
HWS	Hazardous sludges from wash water residual
HWTS	Hazardous sludges from wastewater treatment
INC	Incinerator
LWAK	Light Weight Aggregate Kiln
MLF	Municipal Kiln
NCS	Non Hazardous sludges from caustic cleaning residual
NCL	Non Hazardous liquid residual from caustic wash water
NED	Non Hazardous emission control dust
NES	Non Hazardous emission control sludge
NHC	Non Hazardous Container
NHTK	Non Hazardous Tank
NHWP	Non Hazardous Waste Pile
NOR	Non Hazardous off-specification residual
NPDES	National Pollution Discharge Elimination System
NSL	Non Hazardous liquid residual from solvent cleaning
NSS	Non Hazardous sludges from solvent cleaning residuals
NWL	Non Hazardous liquid residual from wash water
NWS	Non Hazardous sludges from wash water residual
NWTS	Non Hazardous sludges from wastewater treatment

LIST OF ACRONYMS FOR SECTION 4 (continued)

POTW	Publicly Owned Treatment Works
SCILF	Subtitle C Industrial Landfill
SDILF	Subtitle D Industrial Landfill
ST	Storage
TRT	Treatment
WS	Wastestreams
WWTF	Wastewater Treatment Facility

1.0 INTRODUCTION

1.1 Purpose of this Document

This listing background document provides information which the Agency believes is integral to the hazardous waste listing options presented in this proposal. The Agency used many sources of information to arrive at the decisions stated in the rule, but has only included the most relevant information in this document. Other information which can be presented more easily in separate, stand alone documents has been included in the docket for this rule under a separate docket index number. For example, the Agency's use of statistical analysis to define the universe of the paint industry and to perform representative survey sampling of the industry from the population is important to the listing analysis, but has been included in a separate supporting document. Likewise, the RCRA 3007 Questionnaire database assembled to study trends in waste management practices along with the numerous data queries ran have been included in a separate database analysis document. Also, various elements of the industry study performed early on in the listing process could have also been included in this listing background document, but has similarly been placed in the docket under a separate index number. This paint manufacturing listing background document provides background information on the methodology explained in the preamble for this rulemaking. This document also provides summary information which the Agency assembled from information obtained from industry responses on the RCRA 3007 Questionnaire.

1.2 Background of the Paint Listing Determination

The Agency is required to make a hazardous waste listing determination on five wastestreams generated by the paint manufacturing industry. The Agency is evaluating whether or not certain wastes within the scope of this listing should become listed hazardous wastes under the Resource Conservation and Recovery Act (RCRA). Specifically, the waste codes being evaluated are the following:

- solvent cleaning wastes from tank and equipment cleaning operations
- water and/or caustic cleaning wastes from tank and equipment cleaning operations
- emission control dusts or sludges
- wastewater treatment sludges, and
- off-specification production wastes

1.2.1 Previous Listing

The EPA promulgated four hazardous waste listing determinations on July 16, 1980 (45 FR 47832). This final rule listed four wastestreams as hazardous waste and designated them with specific source K codes. This four wastestreams were the following:

- K078 solvent cleaning wastes from equipment and tank cleaning from paint manufacturing (I, T);
- K079 water or caustic cleaning wastes from equipment and tank cleaning from paint manufacturing (T);
- K081 wastewater treatment sludge from paint manufacturing (T); and
- K082 emission control dust or sludge from paint manufacturing (T).

The Agency based its previous listing rationale on the following considerations:

- All four wastestreams contain high levels of heavy metals, including lead and chromium, and high levels of organic constituents;
- Each year approximately 450,000 tons of these hazardous wastes are generated; and
- Mismanagement of these paint wastes had occurred, posing hazards to human health and the environment.

On January 16, 1981, in response to public comments that the listings were too broad, and therefore unnecessarily burdensome to the industry as a whole, the interim final rule for the above wastes was suspended temporarily, pending further investigations (46 FR 4614).

Subsequently, in 1984, Congress required the Agency in the Hazardous and Solid Waste Amendments (HSWA) of 1984 to list, where appropriate, wastes from a number of industrial segments, which included the paint manufacturing industry.

1.2.2 Consent Decree Obligations

For failure to meet numerous listing determinations required by HSWA, the Agency was sued by the Environmental Defense Fund (EDF). A settlement agreement (consent decree) signed in 1994 by EPA and the Department of Justice (DOJ) in *Environmental Defense Fund v. Reilly*, filed in 1989 and last modified in 1997, identifies wastestreams and manufacturing sectors for which the Agency must make listing determinations. On June 13, 1997, the U.S. EPA and DOJ signed a consent decree in *EDF v. Browner* (Civ. No. 89-0598 D.D.C.) establishing an extensive series of deadlines for, among others, promulgating and in some cases proposing RCRA rules and for completing certain studies and reports. The consent decree subsequently was modified in September and December 1997 (Ref. 1). Paragraph 1.d of the consent decree requires EPA to propose a hazardous waste listing determination for five specific wastestreams from the paint manufacturing industry. The five wastestreams within the scope of the consent decree are: solvent cleaning wastes, water/caustic cleaning wastes, wastewater treatment sludge, emission control dust or sludge and off-specification products.

As a result of the consent decree, the Agency began a multi-year project to determine whether the five wastestreams pose a threat to human health and the environment and to develop a basis for making such a determination. The Agency limited the scope of this rulemaking effort to performing the tasks and fulfilling the obligation specified in Paragraph 1 (d) of the Consent Decree.

1.3 Scope of Listing

In determining which wastes and types of paint manufacturing operations should be included within the scope of this rulemaking, the Agency reviewed and based its decision making on information contained in the EDF consent decree. Paragraph 1.d of the consent decree states:

> Paint production wastes- EPA shall promulgate a final listing determination for paint production wastes on or before March 30, 2002. This listing determination shall be proposed for comment on or before January 28, 2001. This listing determination shall include the following wastes: solvent cleaning wastes (K078), water/caustic cleaning wastes (K079), wastewater treatment sludge (K081), and emission control dust or sludge (K082) for which listings were suspended on January 16, 1981 (46 FR 4614), and off-specification production wastes.

We believe that the consent decree requires us to address only those industries and types of wastes included in the original paint production waste listings that the Agency suspended on January 16, 1981, plus one additional waste, off-specification production wastes. Therefore, this rule has included within its scope the five following wastestreams: (1) solvent cleaning wastes from tank and equipment cleaning operations, (2) water and/or caustic cleaning wastes from tank and equipment cleaning operations, (3) emission control dust or sludge, (4) wastewater treatment sludges, and (5) off-specification production wastes.

After reviewing the original rulemaking record for the suspended 1980 interim final rule, EPA determined that it had previously listed wastes from the manufacture of paints within the Standard Industrial Code (SIC) 2851, and that it had not included wastes from the production of associated allied products (e.g., brushes and paint thinners) which is also a segment within SIC code 2851. The Agency's original listing work was based heavily of the Office of Water's Effluent Guidelines Document which specified the scope to be SIC 2851. Therefore, manufacturers of allied products and allied products production wastes are not covered by this proposed rule. Also, the Agency made the decision that for purposes of this rulemaking, "paint manufacturing" would be limited to the SIC code 2851 and would not include other types of paint manufacturing (e.g., artist material). The Agency reached this decision since there was no mention in the 1980 rulemaking record which suggested that artist materials were considered in this earlier listing development work. Therefore, manufacturers of artist paints and artist production wastes are not subject to today's proposed rule.

Concerning off-specification production waste since it was not originally part of the previous listings, we believe that the most straight forward reading of the consent decree is that this wastestreams has the same scope as the other enumerated wastestreams. Nothing in the consent decree suggests that either party intended the off-specification production wastestreams to apply more narrowly or more broadly than the other wastestreams. Therefore, with respect to off-specification production wastes, the Agency has limited its scope to the same as for the other four listings.

The Agency did, however, perform a preliminary study of the artist manufacturing industry (under SIC 3952) to determine whether or not it could have been included within the scope of this listing. The Agency found that the artist material manufacturing industry operates on a much lower waste volume scale using different production strategies. As a result, the Agency would not have been able to include this industry into the same type of regulation which is being proposed, the concentration based listing, due to the great differences in waste volume generation and its effects on the risk assessment in handling these volumes. Because of this, it did not pursue an in-depth study of this industry and is not making hazardous waste decisions on wastes generated from artist material manufacturing. Information on this study can be found in the docket for this rulemaking.

1.3.1 What Industries and Wastes Are Covered by this Listing Determination

Today's proposed rule applies to paint and coatings manufacturers generally categorized under SIC 2851 as Architectural (28511), Original Equipment Manufacturer (OEM) (28512) and Special Purpose (28513), or North American Industry Classification System (NAICS) as 325510, Architectural (32551010), OEM (32551040) and Special Purpose (32551070). This includes, but is not limited to, entities who manufacturer: paints (including undercoats, primers, finishes, sealers, enamels, refinish paints and tinting bases), stains, varnishes (including lacquers), product finishes for original equipment manufacturing and industrial application, and, coatings (including special purpose coatings and powder coatings). Products produced by this industry that are included within the scope of this proposed rule are referred to as "paints" and/or "coatings." This classification agrees with the U.S. Department of Commerce Bureau of Census definition of the commercial paint industry whose products are used as surface applications to protect and/or decorate the substrate.

The following definitions of the three paint types are based on the SIC and NAICS codes. For a more complete description of SIC and NAICS codes, the reader is referred to the Census Bureau Department's classification listings in the docket for this proposed rule.

This listing determination covers wastes generated by three main industrial manufacturing operations within the paint manufacturing industry: Architectural Paint Production, OEM, and Special Purpose Paint Production.

Architectural Paint Production

Architectural paints include exterior and interior house paints, stains and varnishes, and undercoats, primers and sealers. Architectural coatings, the largest market component for paints and coatings, typically are distributed through wholesale and retail channels. Architectural coatings account for approximately 42 percent of the total market for paints and coatings (Ref. 2). These coatings consist of interior and exterior solvent and waterborne paints, primers and lacquers. The paint products include various finishes such as flat, satin, semi-gloss and gloss.

OEM Paint Production

OEM paints include paints applied to appliances, automobiles, machinery and equipment, toys and sporting goods, wood furniture and fixtures, coil coatings, electrical insulation, factory-finished wood, metal containers, paper, film and foil, and non-automotive transportation. OEM paints and coatings comprise approximately 39 percent of the market (Ref. 2).

Special Purpose Paint Production

Special purpose paints include aerosols, arts and crafts, automotive refinishing, traffic paint, roof coatings, swimming pool coating, marine paint, metallic coatings, bridge maintenance paint, and high performance/maintenance paint. Special purpose coatings are the third largest market segment making up the remainder of the market, approximately 19 percent (Ref. 2).

1.3.2 What Industries and Associated Wastes Are Not Covered under this Listing Determination

As mentioned previously, this proposal does not apply to wastes generated from the manufacture of miscellaneous allied products (paint and varnish removers, thinners for lacquers and other solvent-based paint products, pigments dispersions or putty) included under SIC 28515 (NAICS 325510A) or artist paint which is classified under SIC 3952 (NAICS 339942).

The definition of paints and coatings covered in section 1.3 does not include such coatings as porcelain enamels, or electroplated or electroless metal films (which do not contain an organic binder), or other surface treatments that do not impart desired physical or chemical attributes to the substrate (e.g., inks). It also does not include products that are not applied to the surface of a substrate, such as pigments that are dispersed throughout the body of a plastic article during manufacture, or that are not designed to permanently adhere to the substrate (e.g., mold release agents). Therefore these manufacturing processes and their associated wastes are not affected by this listing determination.

Inks are not covered by this listing determination because they are considered to be a separate product classification from paints. The composition of certain inks parallels that of paints in that the product may consist of an opaque pigment and an organic binder dispersed in a suitable liquid vehicle. However, inks may be differentiated from paints by a number of criteria: function (dissemination of information by printing as opposed to protection or decoration of the substrate), customers, method of application, product volume, toxicity of the constituents, etc. (Ref. 3)

Many of the paint manufacturers in the U.S. also produce other paint-related materials, termed Allied Materials, such as putties, caulks, paint removers, paint thinners, etc. which are not covered by this listing determination. Again, such products may be contrasted to paints by end use, substrate, production volume, method of application, and chemical composition (Ref. 3).

1.4 Current Regulation of the Paint Manufacturing Industry

1.4.1 Existing and Proposed Listings Affecting Paint Manufacturers

The paint manufacturing industry generates several wastestreams listed under 40 CFR 261.31, hazardous wastes from non-specific sources (F listed wastes). These wastestreams, including F001, F003 and F005 (from questionnaire returns data), are associated with the use of organic solvent materials for equipment and tank cleaning and, in some cases, their recovery for reuse in on-site facilities. In addition, many wastestreams from paint production are listed as hazardous wastes due to a characteristic (D Listed waste). Such characteristics include ignitability and toxicity. The existing listings which may impact the paint manufacturing industry are listed below:

- F001, F002, F003, F004, F005
- D001, D005, D006, D007, D008, D009, D010, D018, D021, D023, D024, D025, D026, D027, D028, D029, D030, D035, D036, D037, D039, D040, D043

1.4.2 Other EPA Regulatory Programs Impacting the Paint Manufacturing Industry

Each of EPA's major program offices has long-standing regulatory controls tailored to the paint manufacturing industry. Some of the more significant programs with relevance to paint manufacturing wastes include:

- National Volatile Organic Compound Emission Standards for Architectural Coatings, 40 CFR Part 59 Subpart D;
- The Clean Air Act's Benzene National Emission Standards for Hazardous Air Pollutants (NESHAPs), designed to control benzene releases from process and waste management units, 40 CFR Part 61 Subparts Y, BB, FF;
- The Clean Air Act's National Ambient Air Quality Standards (NAAQS), which prescribe limits for SOx, CO, particulate matter, NOx, VOCs, and ozone, 40 CFR Part 50
- The National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings, 40 CFR Part 59 Subpart B
- The Clean Water Act sets specific technology-based limits and water quality-based standards for discharges to navigable waters (40 CFR Part 446) and POTWs (40 CFR Part 403);
- The LDR Program, 40 CFR Part 268; and
- Standards of Performance for Storage Vessels for Volatile Organic Liquids and Petroleum liquids, 40 CFR Part 60 Subpart K.

1.5 Selection of a Concentration-Based Listing Approach

A concentration-based listing specifies constituents-specific levels in a waste that cause the waste to become a listed hazardous waste. In the proposed rule, we identify constituents of concern likely to be present in solvent, water, and/or caustic cleaning residuals; wastewater treatment sludges; emission

control dust or sludges; and off-specification products and which may pose a risk above specified concentrations levels. Using risk assessment tools developed to support our hazardous waste identification program, we assessed the potential risks associated with the constituents of concern in plausible waste management scenarios. From this analysis, we developed "listing concentrations" for each of the constituents of concern in the waste categories listed above.

A concentration-based listing approach is believed the most defensible approach for this industry and the wastes it produces. The paint industry wastestreams are highly variable due, in part, to the use of batch processing for the manufacturing of paints. The industry often changes pigments and other ingredients from batch to batch. The wastestreams also are variable due to the type of paint manufactured. Many facilities "specialize" in waterborne or solvent-based paints, architectural, original equipment or special purpose type paints. This has a big impact on the type of wastestreams generated and their constituents. The batch process nature of the paint manufacturing industry and the fact that chemical reactions are not part of the paint manufacturing process, ensures that the industry has a very good knowledge of its waste constituents A concentration-based listing approach avoids bringing in wastestreams that do not pose a risk and focuses on toxic constituents.

The Agency acknowledges that the 1980 listing was overly broad in scope which led to a number of delisting requests. The concentration-based listing approach will allow industry to focus its attention on wastestreams of interest to the Agency and those that are harmful to individuals and the environment. In fact, this concentration based listing approach utilizes a "built-in" delisting for facilities as it places the hazardous waste listing determination for the waste codes in the hands of the owner or operator at the plant

1.6 Designation of K179 and K180 Waste Codes To Handle All Five Wastestreams

The Agency has decided to propose to list in this rulemaking waste solids and waste liquids from the manufacture of paint. The Agency is proposing to designate these two new hazardous waste streams as K179 and K180, respectively. As before mentioned, this proposal covers five separate wastestreams; however, residuals from each wastestreams depending upon if the are solid or liquid would be designated as by either of the two new hazardous waste codes. The Agency has decided to propose this approach because it has found that paint facilities for the most part manage all waste solids similarly and all waste liquids similarly as well. For example, if a paint manufacturer generates a liquid wastestreams from the cleanout of a blending tank and intents to dispose of this waste, this wastestreams, should it contain any one or more of the constituents of concern for each listing at levels equal to or greater than the listed concentration levels, that stream would be considered a listed hazardous waste, designated as K180. If, however, the manufacturer produced a sludge from this liquid, the resulting sludge would be a newly generated waste designated as K179 for waste solids. The reader is referred to the preamble section of this proposal for a discussion of how and why these waste designations are being applied in this rulemaking.

2.0 INDUSTRY STUDY

In order to make a hazardous waste listing decision, the Agency must perform a study of the industry to obtain information which will support a decision to list or not to list the wastes in question as hazardous waste. The Agency performs a study of not only the waste types and constituents generated, but also on the management practices employed by the industry. The information collected in used in a formal risk assessment which is performed to determine based on types of waste, waste volumes, and management practices whether the waste poses a risk to human health or the environment.

In performing this industry study, the Agency used various sources to obtain information on how the wastes from this industry are generated and subsequently managed on and off-site. The main sources of information were the following:

- Literature search on the industry about paint manufacturing and waste generation
- Engineering Site Visits
- RCRA 3007 Questionnaire data
- EPA Regional Offices
- State and local agencies, and
- Other Federal Agencies

Dynamac Corporation (Dynamac) has been contracted to assist EPA in all phases of the present listing determination under EPA Contract No. 68-W-98-231.

2.1 Literature Review

Industry Overview Report

The Agency updated the previous version of the Industry Overview Report. This report provides an overview of the paint and other surface coatings manufacturing industry in the United States. The report summarizes the available information concerning this manufacturing industry (description of the industry and manufacturing processes), surface coating formulations (product description and raw material usage), waste characteristics and management practices prevalent in the industry, and waste minimization. The information was used by the Agency to become more knowledgeable of the industry from a waste generation and management perspective. This early study also allowed Agency personnel to better select facilities for site visits. The report provides a more detailed economic analysis of the paint industry, and goes into substantial detail on paint types, production methods and paint uses. The report is available for reading in the docket.

Bureau of Census Information

The Agency has relied on Census Bureau information to describe the industry in economic terms. The Bureau publishes, at regular intervals, economic reports on the Paint and Allied products industry and listed by SIC and/or NAICS codes. The MA28F and MQ28F reports, released by year and by quarter respectively, include country-wide sales and production volumes for each product (by SIC or NAICS). The Economic Census (EC) series of reports prepared by the Census Bureau and also used by EPA, provide more details on the industry, some on a state by state basis, including personnel levels, inventory information, asset values, etc. Reports used by the Agency, MA28F(97) and EC97M-3255A are included in the docket. The Census bureau reports are also available to the public at no charge at the Bureau's web site, www.census.gov. The Census Bureau categorizes the industry by annual sales using the following: small, less than $5 million; medium, between $5 and $20 million; and large, greater than $20 million. The Agency used the same sales ranges to categorize the industry for the statistical survey (see section 2.4).

Database of Published Information on Paint Manufacture

The exhaustive literature review performed by the Agency, including previous work performed by EPA, several hazardous and toxic waste databases maintained by the Agency, and textbooks on paint chemistry and paint production, provided the information that was used to develop the Database of Published Information on Paint Manufacture. The database, in Microsoft Access, includes four modules that provide information on: (1) the paint constituents that represent the greatest threat to human health and the environment; (2) selected paint formulations specifically chosen to contain constituents of concern; (3) paint manufacturing residuals of concern characteristics, and; (4) a list of references (included in the bibliography module and comprising over 330 entries). The database is available in electronic and hard copy formats in the RCRA docket.

Several information sources were examined to extract relevant data for the Database of Published Information on Paint Manufacture. The majority of these sources constitute the Paint Bibliography Module of the database. The Paint Bibliography and other sources include:

- Environmental Abstracts;
- First Search, 1990 to present;
- Kirk-Othmer Encyclopedia of Chemical Technology;
- Toxline 1981 to present;
- National Technical Information Service (NTIS);
- Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS), all Records of Decisions (RODs) with "paint" root - 113;
- Federal Register (FR) (1994 to present);
- Paint Red Book (survey results published by the Modern Paint and Coatings Journal);
- National Paint and Coatings Association (NPCA) publications;
- Texts on paint technology;
- Studies on the paint industry by EPA's Risk Reduction Laboratory and other research groups

within EPA;
- Resource Conservation and Recovery Information System (RCRIS);
- Hazardous Waste Biennial Reporting System (BRS);
- Treatment, Storage, Disposal and Recycling Survey;
- Hazardous Waste Generator Survey;
- Toxic Release Inventory (TRI) Database;
- 1986 EPA "Industrial Subtitle D Screening Information"; and
- EPA "Summary of Data on Industrial Non-hazardous Waste Disposal practices."

2.2 Engineering Site Visits

The Agency visited the 10 paint manufacturing sites to observe and collect information on waste management and also to interview plant personnel on specific waste management practices. Many different manufacturing process types and varying production sizes were observed. This section discusses the sites visits and makes general conclusions about the site visits. The reader is referred to the docket for this rulemaking for the individual site visit reports.

The Agency collected information specifically about the following areas:

- types of production and volume
- waste management units used
- how each residual was managed (as hazardous or not)
- evidence of off-spec product storage and tracking system
- volume of each residual generated and form (liquid, slurry) and how each is stored on site
- management practices for each residual for both on-site and off-site (POTWs, tanks)
- types of constituents used at plant
- how the use of constituents changed over time–to obtain constituent variances in waste streams
- note how reuse of solvent/washwater is occurring (e.g., note if washwater is used as ingredient in next batch)
- pollution prevention and waste minimization practices
- presence of solvent stills onsite
- presence of any closed loop recycling practices
- appearance of unsafe operating practices or disposal practices by facility
- cleanliness of plant and housekeeping practices
- knowledge of plant damage incidents resulting from daily management practices

The Agency used the site visit information not only to gain insight into the paint plant waste management practices, but also to prepare a more streamlined RCRA 3007 questionnaire or survey from which to collect more detailed waste management information on waste volumes, constituents found in waste, and waste management on and off-site. Knowledge obtained from these visits also assisted EPA personnel in evaluating data received back from the RCRA 3007 Questionnaires. In addition to the general information above, EPA risk assessment personnel attended many visits to obtain information

about terrain and other parameters which could be used to support values selected for the risk assessment.

In general, the Agency found the plants frequently used pollution prevention and waste minimization practices throughout their plants to reduce or eliminate waste generation. Most plants maintained very good housekeeping practices which minimized tracking of contaminants on the floor. The Agency found that, in most cases, companies maintained very good control of both hazardous and non-hazardous wastes generated at each plant. The majority of companies visited stored liquid waste in drums or containers and solids went usually to Subtitle D dumpsters. The Agency notes that all companies were very receptive and helpful during the plant visits, providing the Agency with data on lab analysis of waste generated. Most plants visits were classified as large quantity generators under RCRA and contracted with hazardous waste haulers to remove waste from site every 90 days. Some plants operated on-site stills to recover solvents used to clean tanks and equipment while others used cleaning solvents as ingredients to subsequent batches. Although the Agency did not perform sampling and analysis to collect and analyze waste constituents, it did, however, obtain technical information from various plants on wastestreams chemical and physical parameters which it used in the risk assessment to support the findings of this hazardous waste listing options presented in this proposal.

Raw material costs make up nearly 70% of paint production costs. Employing pollution prevention and waste minimization is expected for a company to stay competitive with the market. Other pollution prevention and waste minimization practices identified include

- campaign colors from light to dark, which reduces the cleaning between colors;
- improve cleaning operations by using the cleanup wash water in the next batch and utilizing stainless steel tanks (easier to clean);
- recycle product samples;
- when changing from solvent based to water based product, line cleaning is accomplished by washing and power blasting with water, with the resulting residue filtered and reused;
- reuse cleaning solution as much as possible by distilling solvent cleaning waste and recycling the solvents;
- improving cleaning operations by cleaning more with a resin substrate instead of a solvent which can be used in the next batch;
- reformulation of off-specification product; and
- alternate uses for off-specification product.

2.3 RCRA Section 3007 Survey

EPA developed an extensive questionnaire under the authority of §3007 of RCRA for distribution to the paint manufacturing industry. A blank copy of the survey instrument is available in the RCRA docket or on the internet at www.epa.gov/epaoswer/hazwaste/id/paint/index.htm.

The Agency has the authority to collect data from industries under RCRA §3007(a) (42 U.S.C. 6927), which specifically states that *"any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous wastes"* is required to *"furnish information relating to such wastes"* upon EPA request. This information request can be made *"for purposes of developing or assisting in the development of any regulation...."*

2.3.1 Questionnaire Organization and Development

In order to fulfill its obligations under the Consent Decree and to use the concentration-based listing process, EPA needed specific information on the characteristics, volume, and hazardous constituents of waste generated, as well as the current waste management practices employed by the paint industry. This information was not publicly available and could be collected only through an industry survey and site visits. As a result, the Agency developed a RCRA §3007 questionnaire for this purpose.

The Agency, mindful of the burden to the industry imposed by the questionnaire, was careful to streamline the process as much as possible. The Agency selected questions which:

- required no special records to be maintained or generated
- required no CBI information disclosures
- provided information only critical to the risk assessment

Requested information was for calender year 1998 only. When available information was insufficient to complete the questionnaire, respondents could rely on engineering judgement to provide responses or provide an “unknown” response.

2.3.2 ICR Federal Register Notices

In compliance with the 1995 Paper Reduction Act, an Information Collection Request (ICR) must be placed in the Federal Register prior to asking for Office of Management and Budget (OMB) approval. As this ICR (EPA ICR No. 1925.01) is non-rule-related (although information collected will be used to support promulgation of a rule), EPA solicited public comments for a 60-day period prior to submittal of the ICR to OMB (64 FR 46375). The OMB did grant the ICR, under clearance number 2050-0168, expiration date June 30, 2001.

The ICR package sent to OMB included a Supporting Statement to substantiate and justify the EPA responses on the OMB Form 83-I, the request to submit a questionnaire and make site visits for data and information collection.

The Supporting Statement included Part A which is required for all ICRs and Part B since this ICR required the administration of a statistical survey instrument. Copies of both Part A and Part B are part of the Docket.

The Agency needed to obtain information on the paint industry wastes in a reasonable time frame and with statistical accuracy. Publicly available information from the NPCA and various trade journals such as The Paint Red Book, and information from commercial databases such as Dun and Bradstreet D&B) and American Business Directories List , placed the number of paint manufacturers at between approximately 1,000 and 2,000 facilities. The Agency determined that the wide discrepancy was likely due to the definition each uses to describe a paint manufacturing facility. The Agency is not interested in manufacturers of allied paint products which were believed to be included in the higher estimates.

2.3.3 Sampling Methodology and Strategy

A statistical approach to obtaining the necessary information for the listing determination was chosen for the following reasons:

- To reduce the burden on the industry;
- To reduce the amount of time and tax payer money spent; and
- A statistical approach was shown to provide adequate coverage of the industry to collect the needed data.

A census approach would have required over 1,000 questionnaires (perhaps as high as 2,000) to be printed, mailed, filled out, analyzed, inputted and reported on. The effort to perform a census type survey would have taken too much time to perform and would have utilized too many Agency resources for the time which it had been given under the consent decree. During the questionnaire development, the Agency evaluated a statistical approach. Using a smaller number of questionnaires was shown to be effective in getting representative data.

The sampling strategy was based on the following:

- EPA had cause to believe that size of facility and type of paint manufactured influenced the type of waste produced as well as management practices;
- A random sampling strategy for the distribution of the questionnaire was required to effectuate a statistical survey;
- The Agency decided that setting a probability of finding a one in 20 event at the 90 percent level was sufficient for our needs; and
- Manufacturers listed under SIC 2851 and subject to the Toxic Release Inventory reporting were of particular interest because they would likely provide information on waste constituents and management practices of concern

It was considered extremely important to ensure that differences between paint manufacturers were captured in the survey. Aggregating similar facilities in individual categories and ensuring samples are taken from each category was deemed necessary for the success of the survey. The Agency decided to stratify the universe of paint manufacturers into discreet categories based on paint type (architectural,

OEM or special purpose), sales volume (size) and TRI status (Y/N). Facilities in each category were randomly selected; the number selected was sufficient to meet the 90 percent probability of finding a one in 20 rare event such as waste management unit or constituent.

The Agency used publicly available data to determine the universe of possible paint manufacturers. Dun and Bradstreet, American Business Lists and Paint Red Book advertise databases targeted to the paint manufacturing industry. D&B was considered the better as its categories more closely matched the Census Bureau SIC code breakdown. A detailed description of the D&B database, the stratification process and the selection of the facilities to receive the questionnaire is available in the following report found in the docket: "Sampling Scheme for Distributing RCRA Section 3007 Questionnaire to Paint Manufacturing Facilities, Task 6, QRT #3 Final Report, Revision 2.

The sampling was accomplished in two rounds. Round 1 was conducted in February 2000, and consisted of sending out, by registered return receipt mail, a total of 250 questionnaires. A second round of sampling was decided on to correct the absence of recipients in States that follow Ohio alphabetically (due to human error) and to ensure adequate returns from paint manufacturers to meet the statistical requirements. An additional 49 questionnaires were sent in March 2000.

Of the 299 surveys distributed, completed and usable responses were obtained for 187 facilities. An additional 105 facilities notified EPA that they were not paint manufacturers. Of the remaining seven facilities, five did not receive the questionnaire or were out of business and two did not submit a reply and were referred to enforcement. Of the 187 usable responses, 36 facilities claimed no generation of the residuals of interest. No CBI information was received (Ref. 4). From the information obtained from the questionnaires, the Agency developed a database of information which it could use to run query routines to determine waste management and waste volume trends among the various types of facilities. This information would then be used to make statistical assertions about hazardous waste management in the industry as a whole.

The individual queries ran from the database are included in a separate document in the docket for this rulemaking.

2.3.4 Paint Survey Database

The Paint Survey Database, a Microsoft Access program, contains an electronic version of the RCRA Section 3007 Survey for Paint Manufacturing Facilities. Data and information received in the questionnaire returns was inputted for the 187 facilities that responded to the questionnaire as paint manufacturers. The database was queried and reports and spreadsheets generated from the response data on the waste streams of concern, the constituents contained in those waste streams, and the waste management units identified. The database proved useful in manipulating the data and extracting specific information to support the listings determination.

2.3.5 Statistical Weights and Actual Probabilities

The survey conducted by the EPA was a statistical survey and allowed the Agency to extrapolate the results to the population universe. In this case, the sampling population is 884. The extrapolation is performed by weighting the results of each category based on the number of questionnaires sent from the sampling frame in that category. A weight of 1 in a category represents 100 percent sampling of that category. A weight of 2 would represent 50 percent sampling of the category. Since the sampling was conducted in two rounds, each round has its unique weights. **Tables 2-1** and **2-2** provide the weight data. Categories with no members are not included.

Table 2-1 - Weights for Categories in First Round - States Through Ohio

Category	Number in Category	Number of Questionnaires sent	Weight
Large, TRI, SIC 2851-01	2	2	1.0000
Small, TRI, SIC 2851-01	4	4	1.0000
Large, non-TRI, SIC 2851-01	25	24	1.0417
Medium, non-TRI, SIC 2851-01	49	41	1.1951
Small, non-TRI, SIC 2851-01	255	63	4.0476
Small, TRI, SIC 2851-02	6	6	1.0000
Large, non-TRI, SIC 2851-02	21	20	1.0500
Medium, non-TRI, SIC 2851-02	34	28	1.2143
Small, non-TRI, 2851-02	225	62	3.6290
Total	**621**	**250**	

Table 2-2 - Weights for Categories in Second Round - States After Ohio

Category	Number in Category	Number of Questionnaires Sent	Weight
Small, TRI, SIC 2851-01	2	2	1.0000
Large, non-TRI, SIC 2851-01	9	4	2.2500
Medium, non-TRI, SIC 2851-01	13	7	1.8571
Small, non-TRI, SIC 2851-01	124	14	8.8571
Small, TRI, SIC 2851-02	1	1	1.0000
Large, non-TRI, SIC 2851-02	2	2	1.0000
Medium, non-TRI, SIC 2851-02	13	6	2.1667
Small, non-TRI, 2851-02	99	13	7.6154
Total	**263**	**49**	

The calculated weights allowed the Agency to correlate the data obtained from the respondents to the entire sampling population of 884 facilities. The sampling of the categories is described as unequal. Each category may have a different number of facilities and each has a different number of survey samples. Higher percentages of categories with a small number of facilities were sampled. This is particularly true of the "large and medium" categories which make up a minority of the total paint manufacturing population.

The weight calculated for a particular category identified the number of like facilities not sampled. If a facility has a 3.5 weight, it indicates that, statistically speaking, the respondent's data represent 3.5 facilities in the total universe. As an example, in Table 2-3, the large, non-TRI, SIC 2851-02 had 2 questionnaires sent out of a total population of 2. Each respondent is weighted as 1 (= 2 ÷ 2). From the same table, the small, non-TRI, SIC 2851-02 had 13 questionnaires sent out of a total population of 99. Each respondent is weighted as 7.6154 (= 99 ÷ 13). Parameters that can be weighted include residual types, densities and volumes. The information provided voluntarily in Section 5.a.2 of the questionnaire cannot be statistically linked to the universe of facilities, but non-statistical estimates can be made.

The Agency also calculated the actual probabilities of finding a rare one in 20 event based on the returns. The probabilities changed due to the non-paint manufacturers in the overall population. **Table 2-3** provides the actual probabilities (Ref. 5).

Table 2-3 - Table of Probabilities With Actual Responses

Probabilities were derived using modified population sizes. Modifications to population sizes are based on the number of manufacturers versus the number of sample returns for each category. Probabilities and sample sizes are based on the information provided by returned questionnaires.

Category	Original Number (Based on D & B)	Total Number of Useable Questionnaires Received from Category	Probability of Missing a WMP Used by 1 in 20 Facilities	Probability of Capturing a WMP Used by 1 in 20 Facilities
Large, 2851-01, TRI	2	2	0.0000 (1 in 2)	100.0
Medium, 2851-01, TRI	0	0	NA	NA
Small, 2851-01, TRI	6	6	0.0000 (1 in 6)	100.0
Large, 2851-01, non-	34	17	p = 0.150	85.0
Medium, 2851-01,	62	42	p = 0.011	98.9
Small, 2851-01, non-	379	44	p = 0.083	91.7
Large, 2851-02, TRI	0	0	NA	NA
Medium, 2851-02, TRI	0	0	NA	NA
Small, 2851-02, TRI	7	7	0.0000 (1 in 7)	100.0
Large, 2851-02, non-	23	14	p = 0.067 (1 in 15)	93.3
Medium, 2851- 02,	47	24	p = 0.0802	91.98
Small, 2851- 02, non-	324	31	p = 0.138	86.2
Totals	**884**	**187**		

Of the 9 categories with probability statistics, 7 have probabilities of finding a rare 1 in 20 event of 90 percent or greater. The other two have probabilities of 86.2 percent and 85 percent.

Two Agency statisticians at the Center for Environmental Information and Statistics, Office of Policy peer-reviewed our survey statistics and they were satisfied with our sampling approach and response rate achieved. Furthermore, we presented our statistical re-analysis to the OMB.

Our subsequent statistical re-analysis of the questionnaire returns indicated that the achieved statistical probabilities of finding a waste management activity used by one in 20 facilities are satisfactory. More importantly, the survey successfully captured a wide variety of intermediate and final waste management practices of most interest. Therefore, we believe we have identified all reasonable management practices and that we have met the objective of our sampling survey designed for this listing determination.

2.4 Telephone Information Collection

The ICR request granted by OMB allowed EPA to request surveyed facilities to provide clarifications, questions and updates to the questionnaire data. EPA had anticipated this need and had allowed time for this activity. EPA used telephone calls for this purpose to reduce the industry burden and meet the "Paper Reduction Act" requirement. These telephone calls allowed the Agency to ask focused questions about the facilities waste and waste management practices and to ensure that the data was correct.

Much of the follow-up information collection was performed by the Agency's contractor. EPA designed a questionnaire response evaluation sheet by which the reviewer measured the completeness and accuracy of the submission. Follow-up questions were derived from the evaluation sheet.

The Agency did receive returns with rare management practices, including one waste pile and one surface impoundment. After questioning the respondent, and in the case of the waste pile, actually visiting the site, EPA determined that the surface impoundment had been used in 1998 to manage wastes. The waste pile did not meet the normal definition of a waste pile and was not considered further as a waste pile for purposes of running a risk assessment to support this rulemaking.

A number of respondents failed to include density value for their residuals. Many did not fill out required sections based on the residuals they claimed. Follow up phone calls resolved most outstanding issues with respondents that identified themselves as generating residuals of concern. Detailed telephonic notes documenting these calls can be found in the docket.

2.5 Decision Not to Collect and Analyze Waste Samples

The Agency decided early on not to perform waste sampling and analysis at manufacturing facilities. The paint manufacturing process is basically a blending process which does not involve chemical reactions; hence, the paint raw materials will pass unchanged into the wastestreams generated during production. The Agency's knowledge of paint raw materials allows the EPA to determine which constituents to expect in the wastes. The Agency analyzed other sources of information, such as TRI, to obtain constituent information in paint production wastestreams. The Agency decided early on to conduct a concentration-based listing determination. Such an approach does not rely on the typical waste sampling approach; the concentration-based listing uses the presence of a set of known constituents in a wastestreams and a predetermined risk level from a set of exposure pathways to establish a protective concentration level in a wastestreams; this approach does not rely on the actual concentrations in the wastestreams to determine risk and, therefore, sampling is not needed; and the number of formulations produced in each product category indicates there would be high variability in the wastestreams generated; a sampling approach would not result in a dataset from which the Agency could draw useful inferences into the characteristics of the universe of paint wastes; differences in chemical usage change dramatically when comparing waterborne and solvent based paint types, among others.

3. SELECTION OF CONSTITUENTS FOR LISTING

3.1 Raw Materials Database

The selection process for identifying the constituents for listing started with the creation of a database of raw materials used in paint manufacturing. The Raw Materials Module of the Database of Published Information on Paint Manufacture includes listings under five headings:

- Metal containing pigments, both inorganic and organic;
- Solvents;
- Metal containing additives;
- Binders; and
- Biocides.

This module was not intended to be all encompassing. The raw materials included in this module were those that pose the highest risk to human health or the environment should they be present in the wastestreams of concern. Work previously conducted by the Agency had identified metal-containing paint constituents and solvents as the highest risk materials. Biocides, due to their toxic properties, are considered high-risk constituents. Some binder types, such as epoxies, urethanes and isocyanates can leave trace quantities of the respective basic monomers in the residuals of concern and are considered highly toxic. This raw material database was composed of approximately 400 constituents.

The list of paint raw materials was used to:

- Provide the initial input into the preliminary risk assessment on specific constituents; and
- Project the identity of the constituents which are likely to be present in paint production wastes
- Used as a first screen for constituents of concern for the risk assessment

A copy of this database can be found in the docket for this rule.

3.2 Selection of List of Constituents For Paint Listing Determination

From the selected raw material database, EPA determined that 114 constituents had sufficient health based information for risk assessment modeling purposes. The primary objective of this selection process was to produce a list of constituents that were clearly known to be contained in paint wastes and that had all the necessary information available to model in a risk assessment. To accomplish this objective, the Agency used a screening process which used published and other publically available information about the paint industry and the constituents contained in paint waste. The information sources for the screening process were: (1) SW-846 Methods for Testing Solid Waste, (2) Physical and chemical properties of constituents obtained by EPA risk assessors, (3) Toxic Release Inventory Reports For SIC 2851 (Paints and Coatings), (4) Biennial Reporting System Reports for RCRA

Hazardous Waste Large Quantity Generators, and (5) the 1999 Paint Red Book. The steps in this screening process are described below.

Screening Step One

The first screening step consisted of determining which of the 114 chemicals had physical/chemical properties that were required for risk assessment modeling. Out of the 114 constituents, only 73 had both the physical and chemical properties necessary for modeling. Forty-one constituents did not have the required chemical/physical parameters.

Screening Step Two

The second step in this screening process was eliminating those constituents that could not be analyzed in a water or solid matrix by using a SW-846 analytical testing method. Eleven of the 73 constituents from the Step 1 screening had no SW-846 test method, leaving 62 constituents for Screening Step Three.

Screening Step Three

The third screening step was a TRI query for all releases in 1997 of any of the TRI reportable constituents for SIC 2851 facilities. This query probably provided the most comprehensive information publically available on wastestreams from RCRA regulated and non-RCRA regulated paint and coatings facilities.

WIB queried the TRI for reports with constituent information compiled by: 1) facility that reported releasing the constituent; 2) amount of the constituent released to specific media (air, water, land); and, 3) amount of the constituent released to specific waste management units (landfills, surface impoundments, wastewater discharge points, incinerators, etc.). The information provided in these reports was used to determine which constituents were released from SIC 2851 facilities to the environment in the largest amounts. The management units studied included onsite landfills, offsite landfills, surface impoundments, solidification, tanks and wastewater treatment.

These units were selected from the list of units that the TRI contains because they are the most similar units that will be used for the paint listing risk assessment modeling. Based on this information, a list of twenty constituents were selected that are released in the highest volumes to the units of concern. **Table 3-1** lists the 20 constituents.

Table 3-1 - List of Constituents for First Risk Assessment Modeling

Twenty Constituents Identified in Step 3	Amount Released* (pounds)	Thirteen Constituents Identified in Step 4	Amount Released** (pounds)
Ethylbenzene	29311	Styrene	188527
Ethylene glycol	139153	2,4-Dimethyl phenol	44685
Methyl isobutyl ketone	6585	Acrylonitrile	1014
Toluene	27811	Vinyl Acetate	58611
Phenol	13950	Formaldehyde	12570
Diethylhexylphthalate	1800	Nickel	138
Tetrachloroethene	1600	Silver	1480
Xylene, mixed isomers	84938	Copper	964
Methanol	4150	Cadmium	0
n-Butyl alcohol	4416	Mercury	0
Lead & compounds	4498	Selenium	0
Antimony & compounds	1480	Chloroform	0
Barium & compounds	39287	Pentachlorophenol	0
Chromium & compounds	11622		
Methylene chloride	6806		
Methyl ethyl ketone	21381		
Methyl methacrylate	4614		
Dibutyl phthalate	1902		
Phthalic anhydride	18059		
Zinc	76306		

* Amounts released to air, land and water for 1997

** Total amount released for 1997

A second tier TRI screen was conducted to assist with selection of additional constituents from among the remaining 42 constituents. This screen consisted of summing the amounts of each of the remaining 42 constituents released to all media and all management units reported to TRI.

Screening Step Four

This screening step was conducted in two parts. In Part 1, WIB totaled the number of constituents on the list of 20 that were in each of four categories of raw materials in paint: 1) pigments; 2) binders (resins); 3) biocides; and 4) solvents. Thirteen of the 20 constituents were solvents; five of the 20 were pigments; one constituent was a binder and one a biocide. In order to equally represent the constituents in all four categories, it was decided to choose the next group of 12 constituents only from the categories of binders, pigments and biocides. Twenty one of the 42 constituents fell into those categories.

Part 2 of the fourth step of this selection process consisted of querying the BRS for a list of the facilities that reported hazardous wastes generated in 1995 containing any of the 42 constituents remaining on the original list of 62 constituents. As a result, 13 additional constituents were added to the first 20 constituents to be modeled in the first risk assessment effort. Table 3.1. lists the additional 13 from Step four. Of the 13, four were in the binder category, three were in the biocide category and six were in the pigment category.

Appendix 3 contains raw data used for the constituent selection.

3.3 Constituents Used for Questionnaire

The Agency identified a list of constituents for the questionnaire that included those used for risk assessment and others that were known to be constituents of paints. The Agency wanted to obtain available information on the use of these constituents by the paint manufacturing industry. **Table 3.2** lists the constituents used for the questionnaire for which each respondent provided information on whether the constituent was in the wastestreams. The table also provides information received on the number of times that particular constituent was identified in a wastestreams. The bolded constituents are those used in the preliminary risk assessment.

Table 3.2 - List of Constituents from Questionnaire

Constituent	CASRN (Reference)	Number of Times Reported
Acetone	67-64-1	97
Acrylamide and Acrylamide-derived polymers	79-006-1	8
Acrylonitrile and Acrylonitrile-derived polymers	**107-13-1**	**12**
Allyl Alcohol	107-18-6	0
Antimony and Compounds	**7440-36-0**	**29**
Barium and Compounds	**7440-39-3**	**118**
Benzene	71-43-2	31
Benzyl Alcohol	100-51-6	12
Butyl Benzyl Phthalate	85-68-7	20
Cadmium and Compounds	**7440-43-9**	**41**
Chloroform	**67-66-3**	**0**
Chromium and Compounds	**16065-83-1**	**92**
Cobalt and Compounds	**7440-48-4**	**91**
Copper and Compounds	**7440-50-8**	**81**
Cyanide	57-12-5	0
Cyclohexane	110-82-7	9
Dibutyl Phthalate	**84-74-2**	**31**
3-(3,4-Dichlorophenyl-1)1 dimethylurea	330-54-1	1
Diethyl Phthalate	84-66-2	0
Di (2-ethylhexyl) Phthalate	**117-81-7**	**4**
2,4 Dimethylphenol	**105-67-9**	**3**
1,4 Dioxane	123-91-1	2

Table 3.2 - List of Constituents from Questionnaire (continued)

Constituent	CASRN (Reference)	Number of times reported
Ethyl Acetate	141-78-6	49
Ethylbenzene	**100-41-4**	**108**
Ethylene Glycol	**107-21-1**	**89**
Formaldehyde and Formaldehyde-derived polymers	**50-00-0**	**50**
Isophorone	78-59-1	7
Lead and Compounds	**7439-92-1**	**79**
M-Cresol	108-39-4	5
Methanol	**67-56-1**	**86**
Methyl Acrylate	96-33-3	5
Methylene Chloride	75-09-2	7
Methyl Ethyl Ketone	**78-93-3**	**168**
Methyl Isobutyl Ketone	**108-10-1**	**130**
Methyl Methacrylate and Methyl Methacrylate-derived polymers	**80-62-6**	**26**
2,2 Methylenebis (3,4,6-trichlorophenol)	70-30-4	0
Mercury and Compounds	**7439-97-6**	**12**
Molybdenum and Compounds	7439-98-7	14
M-Xylene	**108-38-3**	**21**
Naphthalene	91-20-3	37
N-Butyl Alcohol	**71-36-3**	**91**
Nickel and Compounds	**7440-02-0**	**27**
Nitrobenzene	98-95-3	1
2-Nitropropane	79-46-9	0
O-Cresol	95-48-7	7

Table 3.2 - List of Constituents from Questionnaire (continued)

Constituent	CASRN (Reference)	Number of times reported
O-Xylene	**95-47-6**	**28**
P-Cresol	106-44-5	4
Pentachlorophenol	**87-86-5**	**0**
Phthalic Anhydride	85-44-9	13
Phenol	**108-95-2**	**19**
Selenium and Compounds	**7782-49-2**	**12**
Silver and Compounds	**7440-22-4**	**24**
Styrene and Styrene-derived polymers	**100-42-5**	**66**
Tetrachloroethene	**127-18-4**	**0**
Tin and Compounds	7440-31-5	8
Toluene	**108-88-3**	**182**
Toluene diisocyanate	26471-62-5	9
1,2,4-Trichlorobenzene	120-82-1	3
1,1,1 Trichloroethane	71-55-6	4
Trichloroethene	79-01-6	0
2,4,6 Trichlorophenol	88-06-2	0
Vanadium and Compounds	7440-62-2	4
Vinyl Acetate and Vinyl Acetate-derived polymers	**108-05-4**	**44**
Vinylidene Chloride and Vinylidene Chloride-derived polymers	75-35-4	3
Xylene (mixed isomers)	**1330-20-7**	**205**
Zinc and Compounds	**7440-66-6**	**130**

3.4 Constituents Modeled in Final Risk Assessment

Table 3.3 provides the list of chemicals modeled in the final risk analysis.

Table 3.3 - Final Risk Assessment Constituents

Metals	Organic Constituents	
Antimony	Acrylamide	Formaldehyde
Barium	Acrylonitrile	Methanol
Cadmium	Benzene	Methyl ethyl ketone
Chromium III	Butylbenzylphthalate	Methyl isobutyl ketone
Chromium VI	Chloroform	Methyl methacrylate
Cobalt	Cresol	n-Butyl alcohol
Copper	Cresol, o	Pentachlorophenol
Divalent mercury	Cresol, p	Phenol
Lead	Di(2-ethylhexylphathalate)	Styrene
Mercury	Dibutylphthalate	Tetrachloroethylene
Nickel	Dichloromethane	Toluene
Nickel oxide	Dimethylphenol 2,4	Vinyl acetate
Selenium	Ethylbenzene	Zylene (mixed isomers)
Silver	Ethylene glycol	
Tin		
Zinc		

4.0 PROCESS AND WASTE DESCRIPTIONS

4.1 Paint Manufacturing Process Description

The production of paints and surface coatings is a fairly simple mixing process that consists of dispersing and stabilizing pigment particles in a binder (resin) and a vehicle (solvent). Generally, no chemical reactions take place during the manufacturing process. Most paint manufacturing facilities formulate paint in batch operations that can range in size from 10 to 10,000 gallons. **Figure 4-1** shows a typical process flow diagram of the paint manufacturing process. The four major steps involved in the manufacturing of paints and surface coatings are:

- preassembly/premixing;
- grinding/milling/dispersion;
- product finishing/blending; and
- product filling/packaging

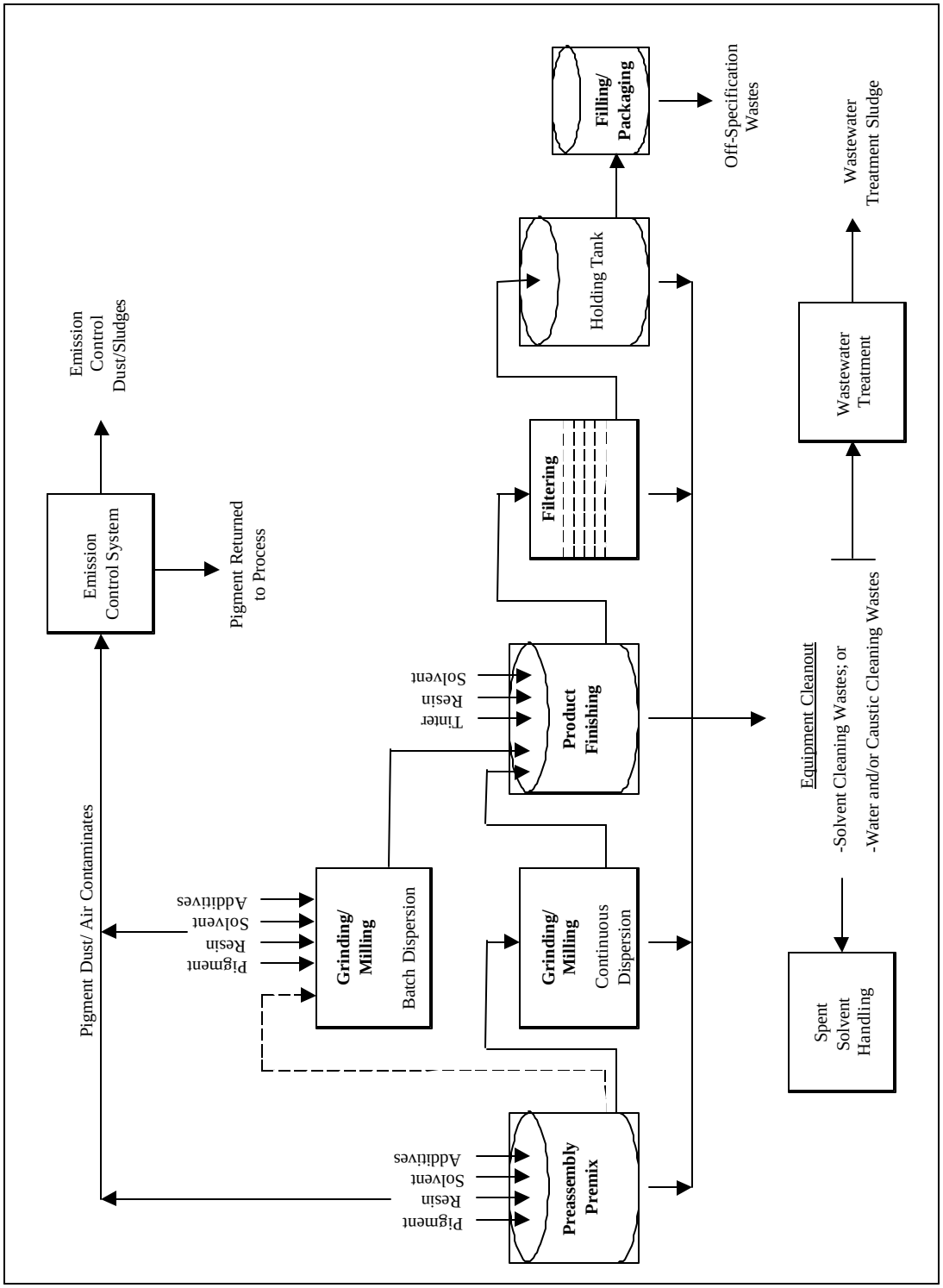
There are some variations in unit operations depending on the type of paint or coating being formulated such as:

- destabilization of water-based resins during milling and dispersion must be avoided when producing water-based paints; and
- powder coatings require an additional grinding step after product finishing to reduce the coating to a powder.

A number of important secondary operations are required in the manufacturing of paint. Much of the waste generated by the paint manufacturing industry is a direct result of these secondary operations. These secondary operations include:

- equipment clean out;
- emissions control;
- solvent recovery; and
- wastewater treatment.

Figure 4-1 - Process Diagram for a Typical Paint Manufacturing Process



4.2 Basic Unit Operations

The purpose of this section is to discuss the four basic unit operations associated with batch paint processes. Powder coatings are discussed in section 5.3.3.

4.2.1 Preassembly/Premixing

The first step in the manufacturing process is preassembly and premixing, in which the liquid raw materials (e.g., resins, solvents, oils, alcohols, and/or water) are mixed in containers. Pigments and other solid raw materials are added to the liquids to form the viscous (thick) mill base. Because the correct ratios of pigments, resins and solvents are required to prevent reaggregation of pigments during and after the mixing and blending step, each raw material is carefully measured out prior to mixing. A variety of equipment may be used for premixing depending on batch size and the physical characteristics of the mixture. Drum batches may be blended with a portable mixer attached to the drum. Batches also may be prepared in portable mix tanks that can be moved to fixed high-speed or variable-speed mixers fitted with paddle, propellor, turbine, or disc-type agitators. Alternatively, the raw materials sometimes may be added directly to the milling equipment, with premix and milling being accomplished in one pot.

4.2.2 Milling

The mill base is processed further by milling to break up aggregations and agglomerates (clusters) of solids, producing a uniform dispersion of finely divided solid particles in the liquid vehicle. Milling consists of wetting, grinding, and dispersion. Wetting of the pigment particles with the vehicle occurs by displacement of adsorbed contaminants (e.g., air, moisture and gases) from the surface of the particles. This may be facilitated by the use of wetting agents. Grinding is the mechanical breakup of aggregations of solid particles into isolated primary particles. Dispersion is the movement of the particles into the vehicle to form a stable mixture in which settling and reaggregation of the solids is prevented or inhibited. Equipment commonly employed for milling includes roller mills (single roll or three roll), ball and pebble mills, sand mills, attritors, bead and shot mills, stone and colloid mills, high-speed dispersers, impingement mills, and horizontal mills.

4.2.3 Finishing

Final product specifications are achieved in the product finishing step, by thinning, tinting and blending. Thinning, or let down , consists of diluting the milled dispersion with binder, solvents, and/or diluents to achieve desired product characteristics such as viscosity, drying time, etc. Other additives may be incorporated at this stage. Tinting refers to adjustment of the product color by the addition of tinting bases. Thinning and tinting are accomplished by blending the required ingredients with the milled dispersion. In batch operations, finishing may be accomplished in the same ball mill used for dispersion, or the dispersion may be transferred to fixed, agitated thinning and tinting tanks. In either case, material additions usually are made through top openings, and the finished product is removed by pumping or

gravity feed through bottom or side spigots. The finishing process requires extensive use of various types of mixers. Paddle, propellor, turbine or disc-type agitators are used often in portable or fixed mixing tanks that can be controlled by manual or automatic timing devices.

4.2.4 Filling

The final manufacturing step is product filling. The finished blend is transferred to holding tanks or hoppers and is pumped or gravity fed through filters to remove solid impurities such as dust, pigment agglomerates, gelled or skinned resin, etc. Filter media may consist of open gravity sieves, rotary strainers, cartridge filters, or bag strainers. The filtered product then is transferred to pails, drums, tanks, or other containers for storage and shipment.

4.3 Production Variations Among Paint Categories

Although both paints and coatings normally are manufactured in batches, there are some variations in unit operations among the different categories of paint and coatings. The following section discusses some of these differences in paint and coatings production.

4.3.1 Solvent-Based Paint

The production of solvent-based paints follows the four major paint manufacturing steps outlined above. Liquid raw materials and the pigments and other solid materials are mixed together in a high speed mixer to form the mill base. The mill base is milled/ground to disperse the pigment particles evenly within the resin. The dispersed mixture then is tinted, thinned and blended to the customers finished specifications. The finished paint is filtered and transferred to containers for storage and shipment.

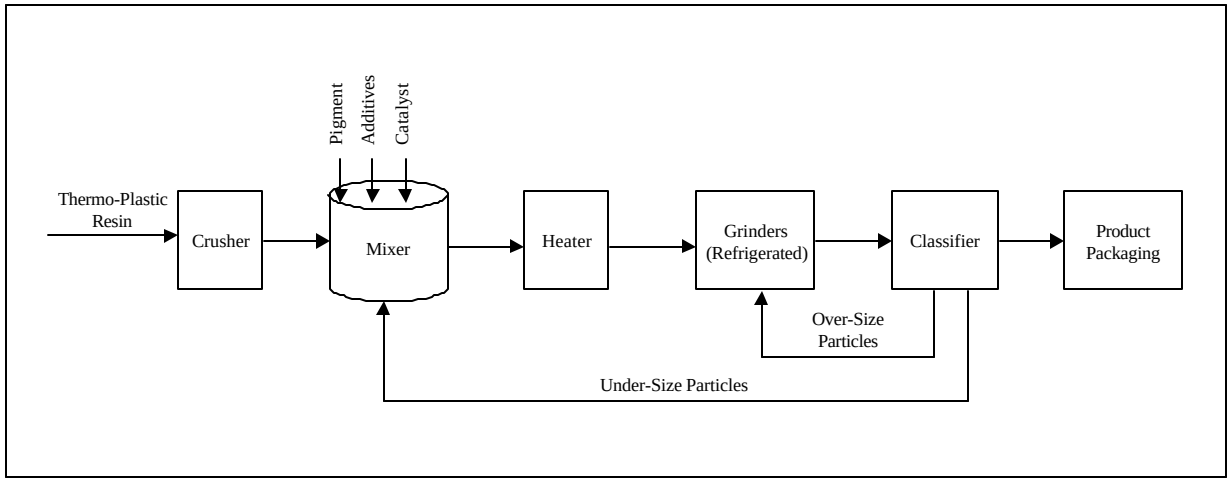
4.3.2 Water-Based Paint

Water-based paints are produced in a slightly different manner than solvent-based paints. Often the water-based resin is withheld from the milling and dispersion operations. Many resins are destabilized by dispersion. The pigment normally is mixed and dispersed in water along with additives such as emulsifiers or wetting agents. However pre-dispersed pigments are used sometimes and the dispersion process is not needed. The bulk of the resin, tint, and any additional water is then added to the pigment/water dispersion. All mixing takes place in the product finishing stage. The finished mixture is then filtered and packaged for storage and shipment.

4.3.3 Powder-Coating

The manufacturing of powder coatings involves dispersing a pigment in a thermo-plastic or a thermo-setting resin. The solid binders are reduced to minute particles and mixed with pigments, extenders, catalysts, hardeners, and additives. The crushed mixture then is metered, melted, and homogenized in an extruder. The homogenous paste is cooled on a cooling belt and crushed into chips with a roll crusher. The chips are finely ground using an impact pulverizer or air separation mill. The ground coating passes through a classifier that removes the particles of the wrong size. Over-sized particles are returned to the grinder and under-sized particles heated up and returned to the mixer. The finished coating then is packaged for storage and shipment. **Figure 5-2** contains a process flow diagram for the manufacturing of powder coatings.

Figure 4-2 - Process Flow Diagram for Powder Coating Manufacturing



4.4 Paint Manufacturing Wastestreams

This section will describe how each wastestreams within the scope of this listing determination is generated and typically managed.

4.4.1 Solvent Cleaning Residual

Solvent cleaning residuals are generated when equipment, tanks, and secondary piping are washed with a solvent or blend of solvents.

Solvent cleaning wastes can be recycled back through the paint production process. To extend the life of the solvent wash water, many facilities send the solvent wash water through a reclamation process. Reclamation may be through distillation or evaporation. This generates solvent waste sludges. The

solvent wash waters and sludges typically are sent off-site for use as a fuel for cement kilns and incinerators.

4.4.2 Water and/or Caustic Cleaning Residuals

Waste and/or caustic cleaning residuals are generated when equipment, tank, and secondary piping are washed with water, caustic, or a blend of water and caustic.

Wash water liquid residuals can be recycled. Typically the wash water is filtered prior to reuse which generates a sludge. The sludge typically is disposed of at off-site landfills (municipal and Subtitle D) or sent off site for fuel blending. Wash water is disposed of predominately at off-site waste water treatment plants and publically owned treatment works (POTWs). Caustic wash water liquid wastes usually are hazardous wastes and are sent to off-site incinerators, waste water treatment facilities, and POTWs. Caustic wash water sludge is sent off site for fuel blending and incineration and also is sent off-site to waste water treatment facilities. Some facilities co-mingle all their liquid wastestreams (e.g., solvent cleaning wastes, wash water wastes and caustic cleaning wastes) prior to disposal.

4.4.3 Wastewater Treatment Sludges

Wastewater treatment sludges are generated from the on-site treatment of plant equipment and tank cleaning washes, and other miscellaneous wash water streams through physical and/or chemical treatment (e.g., sludges generated from the waste water treatment of floor washings).

Due to the size and nature of paint manufacturing facilities, wastewaters typically are not treated on-site. Facilities that do treat their wastewaters on site in tanks or at on-site waste water treatment facilities generate a sludge that usually is sent to an off-site landfill (municipal and Subtitle D) for disposal. Facilities also may send their waste off site for incineration or to a fuel blender.

4.4.4 Emission Control Dust or Sludge

Emission control dust or sludge is generated during the assembly, pre-mix, and blending steps and is a very fine powder comprised of the resins and pigments that were added into the batch. Dust collectors generally are found over the tanks used during these steps to capture the emission and collect the dust in a bag house.

Emission control dust or sludge can be recycled. Otherwise facilities will dispose of if off site at landfills (municipal and Subtitle C) or incinerators.

4.4.5 Off-Specification Production Residuals

Off-specification paints consist of finished products which are not saleable “as is”. These wastes arise from changes in customer demand, new superior products, and expiration of shelf life. In addition, off-

specification product can result from operator error, equipment malfunction, improper equipment cleaning, or quality control failure during the manufacturing process. This wastestreams also includes small quantities of retained product samples. Product samples, or quality control samples are retained in case of customer complaints regarding specific batches.

Most off-specification paint is re-worked back into the process. Off-specification paint which cannot be used or reworked back into the manufacturing process or cannot be sold as a lesser grade product is usually stored in drums or tanks and sent off-site for disposal. Disposal options include incinerators, cement kilns, fuel blender or burned as a fuel. Other non-disposal options for off-specification paint products include: sale in a new market; rework into a primer or undercoat; sale to waste exchangers; and donation to volunteer and charity organizations.

4.5 Waste Groupings

For the purposes of this listing determination the five wastestreams identified in the consent decree were grouped into three waste groupings: hazardous wastestreams, Non Hazardous wastes solids and Non Hazardous waste liquids. The following sections will describe each waste grouping and its management as reported by the facilities in their RCRA §3007 questionnaire response.

4.5.1 Waste Management of Hazardous Wastestreams

The wastestreams that comprise the hazardous wastestreams grouping are as follows:

- HSL - Hazardous liquid residual from solvent cleaning
- HSS - Hazardous sludges from solvent cleaning waste
- HWL - Hazardous liquid residual from wash water
- HWS - Hazardous sludges from wash water residual
- HCL - Hazardous liquid residual from caustic waste water
- HCS - Hazardous sludges from caustic cleaning residual
- HWTS - Hazardous sludges from wastewater treatment
- HED - Hazardous emission control dust
- HES - Hazardous emission control sludge
- HOR - Hazardous off-specification residual

Table 4-1 presents the weighted number of facilities that reported generating these wastestreams. No facilities reported generating HWTS or HED.

Table 4-1 - Weighted Number of Facilities Generating Wastestreams

Hazardous Wastestreams	Weighted Number of Facilities Reporting Generation of This Wastestreams
HSL	195.4781
HSS	105.2614
HWL	38.0394
HWS	3.4402
HCL	6.4094
HCS	7.9071
HWTS	0
HED	8.3427
HES	0
HOR	139.5855

Table 4-2 presents the minimum, maximum and total volume in metric tons of each wastestreams that is managed in each different type of management unit. The minimum and maximum volumes are unweighted and the total volume and number of wastestreams (#WS) are weighted. As can be seen in this table most of the hazardous wastes generated are solvent cleaning wastes (HSS and HSL) and these wastes are predominately sent to fuel blenders, incinerators and cement kilns. The weighted generation amount for the 5 residuals of concern is 18,507 metric tons of solvent cleaning wastes, 3,029 metric tons of off-specification waste (HOR), 1,047 metric tons of water and/or caustic cleaning waste (HWL, HCL, HWS and HCS) and 39 metric tons of emission control dust/sludge (HED). For all hazardous wastes generated 48,723.50 metric tons are sent to fuel blenders, 1,672.4 metric tons to incinerators, 604.22 metric tons to cement kilns, 100.65 metric tons to waste water treatment facilities, 93.54 metric tons to boiler and industrial furnaces, 72.57 metric tons to light-weight aggregate kilns, 32.59 metric tons to municipal landfills, 18.86 metric tons to Subtitle C landfills, and 1.42 metric tons to Subtitle D landfills. In addition, Table 4-2 shows that a total of 6,641.68 metric tons are managed in a management unit classified as "other". The other category includes solvent recovery operations and other recycling activities.

Table 4-3 presents a management summary for all hazardous wastestreams and shows the weighted total volume in kilograms by wastestreams that is managed in each management unit.

Table 4-4 presents the same information in gallons. Facilities reported waste volumes in gallons and also provided densities. These two values were used to derive the volume in kilograms that is managed in each management unit.

Table 4-2 - Hazardous Wastestreams Volumes Managed in Specified Management Units

	Volumes of Hazardous Wastestreams Managed in Specified Management Units in Metric Tons											
	HSL				HSS				HWL			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
BIF	1.21	8.19	8.19	9.95	NA[6]	NA	NA	NA	NA	NA	NA	NA
CK	9.31	1.45	154.73	383.91	12.12	0.41	50.61	78.38	NA	NA	NA	NA
FB	80.75	0.51	3600.00	29639.83	44.45	0.49	12540.00	17164.12	26.63	0.60	34.37	141.77
HC (offsite)	4.82	0.68	22.43	82.20	4.05	10.21	10.21	41.31	NA	NA	NA	NA
HC (onsite)	109.19	0.29	2812.28	5836.67	71.52	0.01	12540.00	15936.25	31.13	0.45	55.02	217.07
INC	25.53	0.58	155.57	438.31	14.36	0.36	115.67	186.17	5.46	0.45	74.24	111.20
LWAK	2.43	18.37	41.39	72.57	NA	NA	NA	NA	NA	NA	NA	NA
MLF	NA	NA	NA	NA	4.05	2.61	2.61	10.56	NA	NA	NA	NA
NHC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NHC (onsite)	NA	NA	NA	NA	4.05	2.61	2.61	10.56	NA	NA	NA	NA
NHWP (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NPDES (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other (offsite)	13.95	0.29	1096.98	1702.26	1.20	2.53	2.53	3.02	4.05	17.87	17.87	72.34

Table 4-2 - Hazardous Wastestreams Volumes Managed in Specified Management Units (continued)

	Volumes of Hazardous Wastestreams Managed in Specified Management Units in Metric Tons											
	HSL				HSS				HWL			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
Other (onsite)	10.74	1.64	2812.28	3221.64	1.04	0.00	0.00	0.00	NA	NA	NA	NA
POTW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SCILF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDILF	1.20	1.09	1.09	1.30	2.17	0.09	0.09	0.20	NA	NA	NA	NA
ST-HTK (onsite)	4.28	29.66	2812.28	4787.81	2.04	54.36	1406.14	1519.13	5.05	17.87	93.21	165.55
ST-NHTK (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRT-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WWTF (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	1.04	55.02	55.02	57.31
WWTF (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2 - Hazardous Wastestreams Volumes Managed in Specified Management Units (continued)

	Volumes of Hazardous Wastestreams Managed in Specified Management Units in Metric Tons											
	HWS				HCL				HCS			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
BIF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	3.44	1.23	6.49	9.04	NA	NA	NA	NA	3.86	0.78	2.45	4.72
HC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HC (onsite)	3.44	1.23	6.49	9.04	2.41	3.18	4.08	8.74	7.91	0.26	68.26	98.83
INC	NA	NA	NA	NA	6.60	1.02	433.97	491.30	3.00	1.35	68.26	84.80
LWAK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MLF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NHC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NHC (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NHWP (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NPDES (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	1.05	0.26	0.26	0.28

Table 4-2 - Hazardous Wastestreams Volumes Managed in Specified Management Units (continued)

	Volumes of Hazardous Wastestreams Managed in Specified Management Units in Metric Tons											
	HWS				HCL				HCS			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
Other (onsite)	NA	NA	NA	NA	1.00	433.97	433.97	433.97	NA	NA	NA	NA
POTW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SCILF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDILF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-HTK (onsite)	NA	NA	NA	NA	2.00	3.76	34.30	38.07	NA	NA	NA	NA
ST-NHTK (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRT-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WWTF (offsite)	NA	NA	NA	NA	1.00	34.30	34.30	34.30	2.00	1.16	7.88	9.04
WWTF (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2 - Hazardous Wastestreams Volumes Managed in Specified Management Units (continued)

	Volumes of Hazardous Wastestreams Managed in Specified Management Units in Metric Tons							
	HED				HOR			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total
BIF	4.05	20.00	20.00	80.95	1.21	2.18	2.18	2.64
CK	NA	NA	NA	NA	9.12	0.45	87.47	141.93
FB	NA	NA	NA	NA	85.36	0.24	422.75	1746.02
HC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA
HC (onsite)	7.29	0.02	20.00	119.20	106.74	0.11	422.75	2009.69
INC	1.05	18.44	18.44	19.36	25.36	0.94	102.21	452.46
LWAK	NA	NA	NA	NA	NA	NA	NA	NA
MLF	NA	NA	NA	NA	4.05	5.44	5.44	22.03
NHC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA
NHC (onsite)	NA	NA	NA	NA	4.05	5.44	5.44	22.03
NHWP (onsite)	NA	NA	NA	NA	NA	NA	NA	NA
NPDES (offsite)	NA	NA	NA	NA	NA	NA	NA	NA
Other (offsite)	NA	NA	NA	NA	3.13	14.93	1096.98	1194.91
Other (onsite)	NA	NA	NA	NA	7.68	0.11	3.53	13.26
POTW	NA	NA	NA	NA	NA	NA	NA	NA
SCILF	1.00	18.86	18.86	18.86	NA	NA	NA	NA
SDILF	1.20	0.02	0.02	0.03	NA	NA	NA	NA
ST-HTK (onsite)	NA	NA	NA	NA	9.09	5.59	1288.83	1531.59
ST-NHTK (offsite)	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2 - Hazardous Wastestreams Volumes Managed in Specified Management Units (continued)

	Volumes of Hazardous Wastestreams Managed in Specified Management Units in Metric Tons							
	HED				HOR			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total
TRT-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA
WWTF (offsite)	NA	NA	NA	NA	NA	NA	NA	NA
WWTF (onsite)	NA	NA	NA	NA	NA	NA	NA	NA

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Weighted number of wastestreams
[3] Unweighted minimum volume reported.
[4] Unweighted maximum volume reported.
[5] Weighted total volume.
[6] No facility reported managed this wastestreams in this management unit.

Table 4-3 - Weighted Hazardous Waste Stream Quantities in Kilograms Managed in Management Units

Management Units[1]																		
WS Code[2]	SDILF & MLF	SCILF	On-site ST-TK[3]	Off-site ST-TK[3]	On-site TRT-TK[3]	Off-site TRT-TK[3]	FB	POTW	WWTF	NPDES	INC	CK	BIF	LWAK	C	WP	UI, SI, HLAFT, NHLAFT	Other
HOR	22,031.55	0.00	1,531,593.81	0.00	0.00	0.00	1,741,667.78	0.00	0.00	0.00	452,457.53	141,934.12	2,644.05	0.00	2,027,366.95	0.00	0.00	1,208,168.53
HED	27.10	18,860.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19,360.48	0.00	367.19	0.00	38,615.17	0.00	0.00	0.00
HES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HWTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HWS	0.00	0.00	0.00	0.00	0.00	0.00	9,043.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,043.76	0.00	0.00	0.00
HCS	0.00	0.00	0.00	0.00	0.00	0.00	4,718.32	0.00	9,038.77	0.00	84,801.55	0.00	0.00	0.00	98,833.69	0.00	0.00	275.05
HSS	10,753.35	0.00	1,519,129.37	0.00	0.00	0.00	1,989,360.16	0.00	0.00	0.00	186,169.67	78,375.04	0.00	0.00	813,359.50	0.00	0.00	3,022.04
HWL	0.00	0.00	165,546.25	0.00	0.00	0.00	141,769.61	0.00	57,313.30	0.00	111,197.27	0.00	0.00	0.00	217,072.51	0.00	0.00	72,338.58
HCL	0.00	0.00	38,067.39	0.00	0.00	0.00	0.00	0.00	34,302.56	0.00	491,300.98	0.00	0.00	0.00	8,738.24	0.00	0.00	433,971.32
HSL	1,296.95	0.00	4,787,808.15	0.00	0.00	0.00	2,327,606.14	0.00	0.00	0.00	438,305.67	383,909.96	9,948.51	72,565.33	5,918,861.71	0.00	0.00	4,923,907.02

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Wastestreams Code
[3] These are intermediate steps. Waste volumes are also shown in their final destinations.

Table 4-4 - Weighted Hazardous Waste Stream Quantities in Gallons Managed in Management Units

Management Units[1]																		
WS Code[2]	SDILF & MLF	SCILF	On-site ST-TK[3]	Off-site ST-TK[3]	On-site TRT-TK[3]	Off-site TRT-TK[3]	FB	POTW	WWTF	NPDES	INC	CK	BIF	LWAK	C	WP	UI, SI, HLAFT, NHLAFT	Other
HOR	4,047.60	0.00	441,550.29	0.00	0.00	0.00	442,571.42	0.00	0.00	0.00	108,731.89	34,290.36	534.29	0.00	499,857.25	0.00	0.00	354,385.59
HED	17.88	11,519.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,250.00	0.00	80.95	0.00	16,868.80	0.00	0.00	0.00
HES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HWTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HWS	0.00	0.00	0.00	0.00	0.00	0.00	1,577.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,577.11	0.00	0.00	0.00
HCS	0.00	0.00	0.00	0.00	0.00	0.00	1,106.42	0.00	2,145.00	0.00	17,700.00	0.00	0.00	0.00	21,009.17	0.00	0.00	57.75
HSS	2,067.13	0.00	416,272.75	0.00	0.00	0.00	523,153.86	0.00	0.00	0.00	46,344.43	18,540.40	0.00	0.00	193,883.70	0.00	0.00	920.23
HWL	0.00	0.00	43,320.15	0.00	0.00	0.00	35,373.20	0.00	15,042.15	0.00	29,133.27	0.00	0.00	0.00	55,373.62	0.00	0.00	19,145.15
HCL	0.00	0.00	9,814.00	0.00	0.00	0.00	0.00	0.00	8,814.00	0.00	126,396.11	0.00	0.00	0.00	2,130.11	0.00	0.00	112,162.00
HSL	394.38	0.00	1,349,113.43	0.00	0.00	0.00	649,887.44	0.00	0.00	0.00	116,192.39	107,278.07	2,617.46	23,984.85	1,635,356.54	0.00	0.00	1,380,677.01

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Wastestreams Code
[3] These are intermediate steps. Waste volumes are also shown in their final destinations.

Table 4-5 presents the hazardous wastestreams and the RCRA hazardous waste codes that the wastes were identified as in the questionnaire. Table 4-5 shows that a large number of the hazardous wastestreams are identified as ignitable (D001) or contain solvents (F003, F005 and D035). In addition, some of the hazardous wastestreams contain metals such as lead, chromium, cadmium and barium (D008, D007, D006, and D005).

Table 4-5 - Hazardous Wastestreams and Associated RCRA Hazardous Waste Codes

Hazardous Waste Codes[1]	**Unweighted Number of Hazardous Wastestreams With This Code**						
	HSL & HSS	HWL & HWS	HCL & HCS	HWTS	HED	HOR	TOTAL
D001	134	11	6		2	63	216
D002	1	2	11			1	15
D003						2	2
D004		1					1
D005	8	1	1			3	13
D006	3		2		1	3	9
D007	17	4	4		3	9	37
D008	15	3	4		3	8	33
D010	1	1					2
D018	6					2	8
D026	2		1			1	4
D035	65	4	2			26	97
F001	2					1	3
F002	1					1	2
F003	116	8	1		1	37	163
F004	1						1
F005	94	6			1	35	136
U220						1	1
Not Listed	2	2					4

[1] See the acronym list for Section 3 at the beginning of the document.

4.5.2 Waste Management of Non Hazardous Waste Solids

The wastestreams that comprise the Non Hazardous waste solids grouping are as follows:

- NSS - Non Hazardous sludges from solvent cleaning residuals
- NWS - Non Hazardous sludges from wash water residual
- NCS - Non Hazardous sludges from caustic cleaning residual
- NWTS - Non Hazardous sludges from wastewater treatment
- NED - Non Hazardous emission control dust
- NES - Non Hazardous emission control sludge
- NOR - Non Hazardous off-specification residual

Table 4-6 presents the weighted number of facilities that reported generating these wastestreams. No facilities reported generating NES.

Table 4-6 - Weighted Number of Facilities Generating Non Hazardous Waste Solids

Non Hazardous Waste Solids	Weighted Number of Facilities Reporting Generation of Non Hazardous Waste Solids
NSS	15.1415
NWS	70.9416
NCS	8.8571
NWTS	28.2495
NED	75.636
NES	0
NOR	105.1672

Table 4-7 presents the minimum, maximum and total volume in metric tons of each wastestreams that is managed in each different type of management unit. The minimum and maximum volumes are unweighted and the total volume and number of wastestreams (#WS) are weighted.

As can be seen in this table most of the Non Hazardous solid wastes generated are washwater cleaning sludge (NWS) and these wastes are predominately managed in landfills. The weighted generation amount for the 5 residuals of concern is 2,990 metric tons of washwater cleaning sludge, 1,971 metric tons of emission control dust (NED), 1,948 metric tons of off-specification product (NOR) 1, 490 metric tons of wastewater treatment sludge(NWTS), 35 metric tons of solvent cleaning sludge (NCS) and 6 metric tons of caustic cleaning sludge (NCS). For all Non Hazardous solid wastes generated 4,528.98 metric tons are sent to Subtitle D landfills, 2,721.86 are managed in municipal landfills,

440.31 metric tons are managed in Subtitle C landfills, 53.23 metric tons are managed in waste water treatment facilities and 32.52 metric tons are managed in a waste pile. In addition, Table 4-7 shows that a total of 144.51 metric tons are managed in a management unit classified as "other". The other category includes recycling activities.

Table 4-8 presents a management summary for all non Hazardous waste solids and shows the weighted total volume in kilograms for each wastestreams that is managed in each management unit. **Table 4-9** presents the same information in gallons. Facilities reported waste volumes in gallons and also provided densities. These two values were used to derive the volume in kilograms that is managed in each management unit.

Table 4-7 - Non Hazardous Waste Solid Volumes Managed in Specified Management Units

	Volumes of Non Hazardous Waste Solids Managed in Specified Management Units in Metric Tons											
	NSS				NWS				NCS			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
BIF	NA[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	2.24	1.09	2.47	3.87	NA	NA	NA	NA
HC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HC (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INC	NA	NA	NA	NA	10.05	3.36	17.46	50.62	8.86	0.63	0.63	5.60
LWAK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MLF	13.95	0.04	31.23	34.69	41.38	0.03	88.32	440.19	NA	NA	NA	NA
NHC (offsite)	12.90	0.04	0.23	2.16	NA	NA	NA	NA	NA	NA	NA	NA
NHC (onsite)	NA	NA	NA	NA	74.03	0.03	351.86	1153.95	8.86	0.63	0.63	5.60
NHWP (onsite)	1.04	31.23	31.23	32.53	NA	NA	NA	NA	NA	NA	NA	NA
NPDES (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other (offsite)	NA	NA	NA	NA	1.86	0.31	0.31	0.57	NA	NA	NA	NA

Table 4-7 - Non Hazardous Waste Solid Volumes Managed in Specified Management Units (continued)

	Volumes of Non Hazardous Waste Solids Managed in Specified Management Units in Metric Tons											
	NSS				NWS				NCS			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
Other (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SCILF	NA	NA	NA	NA	1.00	351.86	351.86	351.86	NA	NA	NA	NA
SDILF	1.20	0.38	0.38	0.45	15.61	0.09	2000.00	2341.97	NA	NA	NA	NA
ST-HTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (onsite)	NA	NA	NA	NA	1.00	2000.00	2000.00	2000.00	NA	NA	NA	NA
TRT-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WWTF (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WWTF (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7 - Non Hazardous Waste Solid Volumes Managed in Specified Management Units (continued)

	Volumes of Non Hazardous Waste Solids Managed in Specified Management Units in Metric Tons											
	NWTS				NED				NOR			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
BIF	NA	NA	NA	NA	NA	NA	NA	NA	1.00	3.45	3.45	3.45
CK	NA	NA	NA	NA	NA	NA	NA	NA	1.20	46.79	46.79	55.92
FB	2.25	9.35	9.35	21.04	NA	NA	NA	NA	32.14	0.87	74.48	353.15
HC (offsite)	NA	NA	NA	NA	3.63	0.07	0.07	0.26	NA	NA	NA	NA
HC (onsite)	NA	NA	NA	NA	3.63	0.07	0.07	0.26	1.04	17.01	17.01	17.72
INC	1.20	20.05	20.05	23.96	3.30	0.02	4.82	5.53	20.00	0.82	500.00	570.18
LWAK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MLF	19.32	0.47	183.00	916.46	34.19	0.45	79.38	740.96	15.71	2.72	120.75	589.56
NHC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	13.22	2.35	8.70	76.59
NHC (onsite)	18.61	0.47	183.00	1060.46	72.53	0.02	891.88	3051.72	127.58	0.54	2860.00	23621.55
NHWP (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NPDES (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other (offsite)	NA	NA	NA	NA	2.24	0.69	2.26	3.42	10.53	0.61	13.36	80.69

Table 4-7 - Non Hazardous Waste Solid Volumes Managed in Specified Management Units (continued)

	Volumes of Non Hazardous Waste Solids Managed in Specified Management Units in Metric Tons											
	NWTS				NED				NOR			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
Other(onsite)	NA	NA	NA	NA	11.76	0.54	1.22	7.10	1.04	50.62	50.62	52.73
POTW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SCILF	NA	NA	NA	NA	3.00	0.27	5.69	8.91	1.00	79.54	79.54	79.54
SDILF	4.44	11.34	500.00	638.83	18.57	0.27	891.88	1205.69	24.80	0.54	107.96	352.04
ST-HTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ST-NHTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	1.04	50.62	50.62	52.73
TRT-NHTK (onsite)	9.66	0.68	500.00	533.48	1.20	891.88	891.88	1065.88	NA	NA	NA	NA
WWTF (offsite)	1.04	4.63	4.63	4.82	NA	NA	NA	NA	4.94	2.87	29.03	48.41
WWTF (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.

[2] Weighted number of wastestreams

[3] Unweighted minimum volume reported.

[4] Unweighted maximum volume reported.

[5] Weighted total volume.

[6] No facility reported managed this wastestreams in this management unit.

Table 4-8 - Weighted Non Hazardous Waste Solid Quantities in Kilograms Managed in Management Units

Management Units[1]																		
WS Code[2]	SDILF & MLF	SCILF	On-site ST-TK[3]	Off-site ST-TK[3]	On-site TRT-TK[3]	Off-site TRT-TK[3]	FB	POTW	WWTF	NPDES	INC	CK	BIF	LWAK	C	WP	UI, SI, HLAFT, NHLAFT	Other
NOR	941,601.09	79,537.52	52,731.86	0.00	0.00	0.00	351,701.67	0.00	48,408.70	0.00	72,221.24	55,917.01	3,445.49	0.00	2,023,277.28	0.00	0.00	133,419.08
NED	1,946,656.28	8,908.56	0.00	0.00	1,065,882.27	0.00	0.00	0.00	0.00	0.00	5,527.10	0.00	0.00	0.00	3,052,247.29	0.00	0.00	10,526.60
NES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NWTS	1,440,134.63	0.00	0.00	0.00	487,072.97	0.00	21,044.44	0.00	4,819.58	0.00	23,960.33	0.00	0.00	0.00	991,707.87	0.00	0.00	0.00
NWS	2,596,533.74	351,861.55	1,814,371.64	0.00	0.00	0.00	3,872.73	0.00	0.00	0.00	50,616.56	0.00	0.00	0.00	1,153,948.14	0.00	0.00	571.71
NCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,598.41	0.00	0.00	0.00	5,598.41	0.00	0.00	0.00
NSS	35,140.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,155.64	32,532.16	0.00	0.00

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Wastestreams Code
[3] These are intermediate steps. Waste volumes are also shown in their final destinations.

Table 4-9 - Weighted Non Hazardous Waste Solid Quantities in Gallons Managed in Management Units

Management Units[1]																		
WS Code[2]	SDILF & MLF	SCILF	On-site ST-TK[3]	Off-site ST-TK[3]	On-site TRT-TK[3]	Off-site TRT-TK[3]	FB	POTW	WWTF	NPDES	INC	CK	BIF	LWAK	C	WP	UI, SI, HLAFT, NHLAFT	Other
NOR	199,205.39	16,700.00	12,500.40	0.00	0.00	0.00	82,428.50	0.00	12,292.79	0.00	18,396.89	12,976.40	844.00	0.00	457,880.32	0.00	0.00	31,130.21
NED	587,267.62	4,727.97	0.00	0.00	93,994.62	0.00	0.00	0.00	0.00	0.00	1,370.02	0.00	0.00	0.00	691,980.43	0.00	0.00	4,709.12
NES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NWTS	204,214.07	0.00	0.00	0.00	74,320.25	0.00	4,639.50	0.00	1,250.04	0.00	5,282.34	0.00	0.00	0.00	139,025.18	0.00	0.00	0.00
NWS	451,837.81	66,700.00	324,149.11	0.00	0.00	0.00	893.15	0.00	0.00	0.00	9,042.97	0.00	0.00	0.00	200,308.60	0.00	0.00	102.14
NCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,328.57	0.00	0.00	0.00	1,328.57	0.00	0.00	0.00
NSS	8,682.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	581.68	7,969.01	0.00	0.00

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Wastestreams Code
[3] These are intermediate steps. Waste volumes are also shown in their final destinations.

Table 4-10 presents the unweighted number of Non Hazardous waste solids wastestreams that identified the shown constituent as being in their wastestreams. The top five constituents identified in Non Hazardous waste solids are zinc and compounds, barium and compounds, ethylene glycol, copper and compounds and chromium and compounds.

Table 4-10 - Constituents Identified in Non Hazardous Waste Solids

Constituent	Unweighted Number of Non Hazardous Waste Solids With This Constituent						
	NSS	NWS	NCS	NWTS	NED	NOR	TOTAL
Acetone					1	2	3
Acrylamide and Acrylamide-derived polymers			1	1		2	4
Acrylonitrile and Acrylonitrile-derived polymers			1	2		4	7
Antimony and Compounds		3		1	2	3	9
Barium and Compounds		9	1	4	17	9	40
Benzene					1	2	3
Butyl Benzyl Phthalate		2				4	6
Cadmium and Compounds		1		1	6	2	10
Chromium and Compounds		4		4	9	4	21
Cobalt and Compounds		3		1	5	8	17
Copper and Compounds		6		3	7	5	21
Dibutyl Phthalate				1		1	2
Ethyl Acetate					1	1	2
Ethylbenzene						2	2
Ethylene Glycol	1	4		2	2	14	23
Formaldehyde and Formaldehyde-derived polymers		3	1	1		8	13
Lead and Compounds		3		3	5	3	14
M-Cresol					1		1
Methanol		1	1			5	7

Table 4-10 - Constituents Identified in Non Hazardous Waste Solids (continued)

Constituent	Unweighted Number of Non Hazardous Waste Solids With This Constituent						
	NSS	NWS	NCS	NWTS	NED	NOR	TOTAL
Methyl Acrylate						1	1
Methyl Ethyl Ketone			1		2	3	6
Methyl Isobutyl Ketone					1	3	4
Methyl Methacrylate and Methyl Methacrylate-derived polymers		2				4	6
Mercury and Compounds				1	3	1	5
Molybdenum and Compounds		1			1		2
Naphthalene						1	1
N-Butyl Alcohol		1				5	6
Nickel and Compounds		2			2	2	6
Nitrobenzene					1		1
O-Cresol		1					1
Phthalic Anhydride		1					1
Phenol		2				2	4
Selenium and Compounds					2		2
Silver and Compounds		1	1	2	5	2	11
Styrene and Styrene-derived polymers		6				8	14
Tin and Compounds		1			1	2	4
Toluene			1		1	4	6
Vanadium and Compounds		1			1	1	3
Vinyl Acetate and Vinyl Acetate-derived polymers		4	1	2	2	7	16
Vinylidene Chloride and Vinylidene Chloride-derived polymers						1	1

Table 4-10 - Constituents Identified in Non Hazardous Waste Solids (continued)

Constituent	Unweighted Number of Non Hazardous Waste Solids With This Constituent						
	NSS	NWS	NCS	NWTS	NED	NOR	TOTAL
Xylene (mixed isomers)		1		1	1	7	10
Zinc and Compounds		9		5	17	11	42

4.5.3 Waste Management of Non Hazardous Waste Liquids

The wastestreams that comprise the Non Hazardous waste liquids grouping are as follows:

- NSL - Non Hazardous liquid residual from solvent cleaning
- NWL - Non Hazardous liquid residual from wash water
- NCL - Non Hazardous liquid residual from caustic wash water

Table 4-11 presents the weighted number of facilities that reported generating Non Hazardous waste liquids.

Table 4-11 - Weighted Number of Facilities Generating Non Hazardous Waste Liquids

Non Hazardous Waste Liquids	Weighted Number of Facilities Reporting Generation of Non Hazardous Waste Liquids
NSL	1.05
NWL	154.0328
NCL	3.2643

Table 4-12 presents the minimum, maximum and total volume in metric tons of each wastestreams that is managed in each different type of management unit. The minimum and maximum volumes are unweighted and the total volume and number of wastestreams (#WS) are weighted.

As can be seen in this table most of the Non Hazardous liquid wastes generated are washwater cleaning liquid (NWL) and these wastes are predominately managed in landfills. The weighted generation amount for the residuals of concern is 31, 036 metric tons of washwater cleaning liquid, 66 metric tons of caustic cleaning liquid (NCL) and 4 metric tons of solvent cleaning liquid (NSL). For all Non Hazardous liquid wastes generated 27,657.24 metric tons are sent to a POTW. 6,407.30 are managed in a waste water treatment facility, 458.42 are sent to a fuel blender, 76.47 metric tons are

discharged under an NPDES permit, 56.13 metric tons are sent to incinerators and 51.68 metric tons are sent to a cement kiln. In addition, Table 4-10 shows that a total of 1342.32 metric tons are managed in a management unit classified as "other". The other category includes recycling activities.

Table 4-13 presents a management summary for all non Hazardous waste liquids and shows the weighted total volume in kilograms for each wastestreams that is managed in each management unit. **Table 4-14** presents the same information in gallons. Facilities reported waste volumes in gallons and also provided densities. These two values were used to derive the volume in kilograms that is managed in each management unit.

Table 4-12 - Volumes of Non Hazardous Waste Liquids Managed in Specified Management Units

	Volumes of Non Hazardous Waste Liquids Managed in Specified Management Units in Metric Tons											
	NSL				NWL				NCL			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
BIF	NA[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CK	NA	NA	NA	NA	1.20	43.24	43.24	51.68	NA	NA	NA	NA
FB	1.05	3.52	3.52	3.70	10.07	0.42	111.97	454.72	NA	NA	NA	NA
HC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HC (onsite)	NA	NA	NA	NA	6.28	0.42	39.04	49.28	NA	NA	NA	NA
INC	NA	NA	NA	NA	15.96	0.48	12.43	56.13	NA	NA	NA	NA
LWAK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MLF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NHC (offsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NHC (onsite)	1.05	3.52	3.52	3.70	63.86	0.48	127.58	1467.55	NA	NA	NA	NA
NHWP (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NPDES (offsite)	NA	NA	NA	NA	4.05	18.89	18.89	76.47	NA	NA	NA	NA
Other (offsite)	NA	NA	NA	NA	4.05	4.11	17.52	40.34	1.00	33.22	33.22	33.22

Table 4-12 - Volumes of Non Hazardous Waste Liquids Managed in Specified Management Units (continued)

	Volumes of Non Hazardous Waste Liquids Managed in Specified Management Units in Metric Tons											
	NSL				NWL				NCL			
Mgmt[1] Unit	#WS[2]	Min[3]	Max[4]	Total[5]	# WS	Min	Max	Total	# WS	Min	Max	Total
Other (onsite)	NA	NA	NA	NA	12.78	1.04	462.66	1268.76	NA	NA	NA	NA
POTW	NA	NA	NA	NA	86.61	0.44	3783.42	27624.85	2.26	4.63	22.67	32.39
SCILF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDILF	NA	NA	NA	NA	2.09	0.29	2.49	2.92	NA	NA	NA	NA
ST-HTK (onsite)	NA	NA	NA	NA	NA	NA	NA	NA	1.00	33.22	33.22	33.22
ST-NHTK (offsite)	NA	NA	NA	NA	1.20	0.64	0.64	0.76	NA	NA	NA	NA
ST-NHTK (onsite)	NA	NA	NA	NA	33.31	9.56	2095.60	14530.45	1.21	22.67	22.67	27.53
TRT-NHTK (onsite)	NA	NA	NA	NA	15.95	25.04	2095.60	7486.95	NA	NA	NA	NA
WWTF (offsite)	NA	NA	NA	NA	33.94	0.58	529.49	2082.23	NA	NA	NA	NA
WWTF (onsite)	NA	NA	NA	NA	5.09	65.54	1051.71	4325.16	NA	NA	NA	NA

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Weighted number of wastestreams
[3] Unweighted minimum volume reported.
[4] Unweighted maximum volume reported.
[5] Weighted total volume.
[6] No facility reported managed this wastestreams in this management unit.

Table 4-13 - Weighted Non Hazardous Waste Liquid Quantities in Kilograms Managed in Management Units

Management Units[1]																		
WS Code[2]	SDILF & MLF	SCILF	On-site ST-TK[3]	Off-site ST-TK[3]	On-site TRT-TK[3]	Off-site TRT-TK[3]	FB	POTW	WWTF	NPDES	INC	CK	BIF	LWAK	C	WP	UI, SI, HLAFT, NHLAFT	Other
NWL	2,920.72	0.00	14,530,454.72	760.28	7,486,947.75	0.00	454,723.27	27,624,849.06	6,407,392.37	76,467.84	56,125.01	51,679.09	0.00	0.00	1,516,829.76	0.00	0.00	1,309,103.56
NCL	0.00	0.00	33,223.28	0.00	27,528.88	0.00	0.00	32,386.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33,223.28
NSL	0.00	0.00	0.00	0.00	0.00	0.00	3,701.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,701.11	0.00	0.00	0.00

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Wastestreams Code
[3] These are intermediate steps. Waste volumes are also shown in their final destinations.

Table 4-14 - Weighted Non Hazardous Waste Liquid Quantities in Gallons Managed in Management Units

Management Units[1]																		
WS Code[2]	SDILF & MLF	SCILF	On-site ST-TK[3]	Off-site ST-TK[3]	On-site TRT-TK[3]	Off-site TRT-TK[3]	FB	POTW	WWTF	NPDES	INC	CK	BIF	LWAK	C	WP	UI, SI, HLAFT, NHLAFT	Other
NWL	655.63	0.00	3,825,413.77	197.19	2,019,960.52	0.00	93,039.32	7,248,788.90	1,640,372.43	20,238.00	14,089.15	12,976.40	0.00	0.00	386,259.91	0.00	0.00	343,760.49
NCL	0.00	0.00	8,730.00	0.00	7,285.80	0.00	0.00	8,545.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,730.00
NSL	0.00	0.00	0.00	0.00	0.00	0.00	984.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	984.26	0.00	0.00	0.00

[1] Management Units as identified in the RCRA 3007 Questionnaire. See the list of acronyms for Section 3 at the beginning of the document.
[2] Wastestreams Code
[3] These are intermediate steps. Waste volumes are also shown in their final destinations.

Table 4-15 presents the unweighted number of Non Hazardous waste liquids wastestreams that identified the shown constituent as being in their wastestreams. The top five constituents identified in Non Hazardous waste liquids are ethylene glycol, zinc and compounds, barium and compounds, vinyl acetate and vinyl acetate-derived polymers, and styrene and styrene-derived polymers and copper and compounds (both had 13 reported occurrences).

Table 4-15 - Constituents Identified in Non Hazardous Waste Liquids

Constituent	Unweighted Number of Non Hazardous Waste Liquids With This constituent			
	NSL	NWL	NCL	Total
Acetone		2		2
Acrylamide and Acrylamide-derived polymers		2		2
Acrylonitrile and Acrylonitrile-derived polymers		5		5
Antimony and Compounds		4		4
Barium and Compounds		15	1	16
Benzene		1		1
Benzyl Alcohol	1			1
Butyl Benzyl Phthalate	1	6		7
Cadmium and Compounds		5	1	6
Chromium and Compounds		11	1	12
Cobalt and Compounds		9		9
Copper and Compounds		12	1	13
Dibutyl Phthalate	1	4		5
Di (2-ethylhexyl) Phthalate		1		1
Ethyl Acetate		2		2
Ethylbenzene	1			1
Ethylene Glycol		24		24
Formaldehyde and Formaldehyde-derived polymers	1	6		7
Lead and Compounds		9	1	10
Methanol	1	3		4

Table 4-15 - Constituents Identified in Non Hazardous Waste Liquids (continued)

Constituent	Unweighted Number of Non Hazardous Waste Liquids With This constituent			
	NSL	NWL	NCL	Total
Methyl Acrylate		1		1
Methyl Ethyl Ketone		4		4
Methyl Isobutyl Ketone	1	2		3
Methyl Methacrylate and Methyl Methacrylate-derived polymers		7		7
Mercury and Compounds		2		2
Molybdenum and Compounds		1		1
Naphthalene	1			1
N-Butyl Alcohol	1	5		6
Nickel and Compounds		5		5
O-Cresol		1		1
O-Xylene		1		1
Phenol		3		3
Selenium and Compounds		1		1
Silver and Compounds		3		3
Styrene and Styrene-derived polymers		13		13
Tin and Compounds		1		1
Toluene	1	5		6
Vanadium and Compounds		1		1
Vinyl Acetate and Vinyl Acetate-derived polymers		14		14
Vinylidene Chloride and Vinylidene Chloride-derived polymers		1		1
Xylene (mixed isomers)	1	7		8
Zinc and Compounds		20	1	21

5.0 DAMAGE CASES

In general, the available sources of information did not provide sufficient information to associate damage incidents to the five wastestreams of interest. The Agency used the key word "paint" to perform the initial search of all databases. Other key words were used as appropriate.

The Agency accessed a number of databases and information sources that provide details on past experiences with paint raw materials and paint wastes that have been handled improperly or have been released to the environment. Documented damage cases may, in some instances, provide information on paint constituents as well as waste constituents, their behavior in the environment and the consequences of their mismanagement. The Agency has completed a report entitled Damage Incident Compendium and Report, dated July 27, 2000, detailing the damage cases related to paint manufacturing wastes and can be found in the docket.

The damage cases are, in most part, a reflection of past waste management practices which are no longer used by industry since the implementation of the current RCRA regulations. Management practices such as in ground solvent pit, buried crushed drums and dumping liquids in trenches are no longer allowed. The results of the 3007 survey reflect this statement. Manufacturers are, by and large, coding and managing wastes as hazardous per the regulations, including wastes with high solvent content. The damage cases provided little information on composition of paints to the wastes themselves. Most reports list the wastes as paint, paint wastes or sludges. These descriptions were not useful in categorizing the wastes into those of interest (solvent cleaning waste, water/caustic cleaning waste, wastewater treatment sludge, emission control dust or sludge and off-specification production waste).

EPA performed the evaluation of damage cases from the following sources:

Environmental Defense Fund Pollution Locator Database

To effectively use the EDF pollution locator database, the user must know the facility name or location for which information is sought. This database cannot be searched by contaminant type or by keywords.

Department of Justice Consent Decree Library

The DOJ Consent Decree Library is closed permanently. Interested parties are directed to a contact person for instructions on obtaining access to specific files.

Emergency Response Notification System (ERNS) Database Search

The ERNS database was accessed via the Right-to-Know Network for the years 1987 through 1997. EPA conducted a search of the incident reports using key word "paint." The years 1994 through 1999

were searched and resulted in over 350 hits. The majority of incidents described appeared to be motor vehicle accidents in which paints were freight.

Accidental Release Information Program (ARIP) Database Search

The ARIP database contains detailed information on releases/spills reported in the ERNS database, obtained from an accidental release survey for the years 1986 through 1995. EPA searched the ARIP database using the CAS numbers for chemicals associated with paints. This search resulted in an overwhelming number of hits. A second search of the ARIP database was performed using the keyword "paint" obtaining only four hits. The results of this search are included in the damage case report.

Right-to-Know Network (RTK) Database

The RTK Database provides access to numerous databases, text files, and conferences on the environment, housing, and sustainable development. EPA searched Standard Industrial Classification code 2851; there were no hits.

The RTK Database contains the following databases, which were found not to contain information relevant to the damage case report:

- FINDS (Facility Index System)
- BRS years in database 1989, 1991, 1993, 1995
- TRIS years in database 1987-1997

The RTK Database also contains a database of civil cases filed by the Department of Justice on behalf of EPA - this database contains cases from 1971 through March 30, 1997. A search on "paint" as the pollutant resulted in 14 hits, which are listed in the damage case report.

EPA's Permit Compliance System (PCS) Database

EPA was able to generate a noncompliance report from this database. However, due to the search criteria, paint specific noncompliance incidents could not be distinguished from other incidents involving chemicals that are also constituents of substances other than paints.

EPA Internet Site Search

A key word search on "paint damage" on EPA home page resulted in 18 hits; however, when reviewed the documents were concerned with lead paint abatement in buildings and were not relevant to the damage case report. A key word search on "paint spill" resulted in over 2000 hits; most of these hits concerned lead paint abatement issues. These "hits" are not included in the damage case report as

EPA determined that the other searches of EPA resources would yield relevant incidents in a more streamlined format.

The EPA Internet site also was used to perform quality control of site names identified through other search tools, e.g.,RODS database, CERCLIS, and the CERCLIS Archive - No Further Remedial Action Planned (NFRAP).

Chemical Emergency Preparedness and Prevention Office (CEPPO) Web Site

The CEPPO Internet web site directed users to the ERNS database (see above).

EPA Brownfields Internet Site

The Brownfields website was searched by keyword "paint." The "hits" at this site concerned lead paint abatement issues.

Department of Defense (DOD) Defense Technical Information Center (DTIC) Database

The DTIC database is current as of FY 1995, and contains information for each installation on, or proposed for listing on, the National Priorities List (NPL) and the majority of installations slated for base closure. This database was searched using information from the CERCLIS database. In addition, a search of facilities in the BRAC program was performed using the key word "paint." EPA found 35 facilities that had "paint" as at least one of its contaminants. Most of the incidents within the DTIC database concern paint disposal in landfills or surface impoundments; however there were a few sites that performed paint manufacturing and are included in the report.

EPA Superfund Internet Site

The Superfund Internet Site was searched using key words "paint spill" and "paint damage". The first search had two hits and the second none. The two hits had previously been identified through another database.

EPA Sector Notebook

This site contained information relevant to ground transportation operations. Specifically, there was a brief section about using non-hazardous paints and using paints until the container is empty in order to reduce hazardous waste. No information specific to spills or damage reports was found.

The Superfund Public Information System (SPIS)

This CD-ROM contains three databases: RODS, CERCLIS, and Archive (NFRAP). Each of these databases is discussed below.

Records of Decision Database

RODS database contains information such as site history, response actions, community participation, technology justification, enforcement activities and remedy. The database searched by EPA was current as of the 2nd quarter of 1999. A total of 89 sites were found where paint or paint wastes have been identified as a source of site contamination. These sites are listed in the damage case report.

Comprehensive Environmental Response Compensation and Liability Information System

CERCLIS contains information on potential and actual Superfund sites. It contains information on hazardous waste sites, site inspections, preliminary assessments and remedial status. The data base cannot be searched by contaminant/material or SIC code. However, CERCLIS can be searched using words and phrases. The following terms were searched on the CERCLIS database:

- solvent cleaning wastes - 2 hits
- water/caustic cleaning wastes - 0 hits
- wastewater treatment sludge and paint - 3 hits
- off-specification -1 hit
- paint waste - 58 hits

The hits were then examined further, in particular the 58 hits on paint waste were entered into the EPA Superfund Advanced Search database as explained below. The damage case report includes the sites found in CERCLIS. The database searched by EPA was current as of the 2nd quarter of 1999.

CERCLIS Archive

The CERCLIS Archive was searched using the key word "paint"; the search produced 121 sites. These sites were removed from the CERCLIS inventory and no further remedial actions are planned. Many of these sites did not go past the Preliminary Assessment (PA) stage. The database does not contain details concerning the reason these sites initially were included in the CERCLIS inventory, nor why they were removed. The 121 sites are listed in the damage case report. The NFRAP database searched by EPA was current as of the 2nd quarter of 1999.

EPA Superfund Advanced Search

The EPA Superfund Advanced Search site was searched using the 58 site names previously identified during the search for the term "paint waste" in the CERCLIS database. EPA reviewed the NPL site narrative and the site description to determine whether the site facts were relevant to the search parameters. This review resulted in identifying 16 sites which are included in the damage case report.

Resource Conservation and Recovery Information System (RCRIS)

RCRIS is a national program management and inventory system of RCRA hazardous waste handlers. RCRIS captures identification and location data for all handlers and a wide range of information on Treatment, Storage and Disposal Facilities (TSDs) regarding permit/closure status, compliance with Federal and State regulations, and cleanup activities. A search of this database using SIC code 2851 did not produce relevant information concerning damage cases associated with paints. The RCRIS database covered the years 1980 through 1999.

Federal Register

EPA performed on-line searches of the Federal Register (FR) for 1996 through 1999. The key word "paint" was used for the search and the majority of hits were for lead-based paint requirements, guidelines and hazard control in buildings. Notices of DOJ consent decrees were reviewed. Notices of availability of Administrative Records for CERCLA response actions were reviewed. Notices of proposed CERCLA Section 122(h)(1) Administrative Cost Recovery Settlements were reviewed. Notices of Proposed CERCLA Administrative de minimis settlements were reviewed. EPA identified three relevant sites, which are listed in the damage case report, that were not identified previously through another database.

Government Accounting Office (GAO) Reports 1996 through 1999

The GAO Internet site, within the "Environment" subject area, was searched by key word "paint" for the years 1996 through 1999. Three reports, delineated below, each contained relevant information about one site. The three sites are included in Section 3.

- Report to Congressional Requesters Environmental Cleanup Costs: NASA Is Making Progress in Identifying Contamination, but More Effort Is Needed. (NSIAD-97-98).

- Superfund: State Voluntary Programs Provide Incentives to Encourage Cleanups (Chapter Report, 04/09/97, RCED-97-66)

- Superfund: Status of Selected Federal Natural Resource Damage Settlements(Letter Report, 11/20/96, RCED-97-10)

A summary of the findings is provided in **Table 5-1**.

Table 5-1 - Summary of Databases Reviewed

Source	Useful Information	Years	Hits	Comments
EDF pollution locator database	N/A	N/A	0	only searchable for specific facilities
DOJ Consent Decree Library	N/A	N/A	0	permanently closed
ERNS Database Search	N/A	1994-1997	over 350	information did not download easily
ARIP Database Search	Yes	1986-1995	4	
RTK Database	Yes	1971-1997	14	
EPA PCS database	No			
EPA Internet site	No		over 2,000	
EPA CEPPO Internet site	No			
EPA Brownfields Internet site	No			
DTIC database	Yes	through FY95	35	military sites
EPA Superfund Internet site	Yes		2	
EPA Sector Notebook	No			
SPIS	Yes			see RODS, CERCLIS, NFRAP
RODS Database	Yes	through 3/99	89	
CERCLIS	Yes	through 3/99	64	
CERCLIS Archive NFRAP	No	through 3/99	121	database contained no explanation of why these sites were deleted from CERCLIS
EPA Superfund Advanced Search	Yes		58	used to perform quality control of RODS, CERCLIS and DTIC sites, and obtain additional information
RCRIS	No			
Federal Register	Yes	1995-1999	3	
GAO Reports 1996 through 1999	Yes	1996-1999	3	

Most of the information found did not specify the source of the waste as being from paint manufacturing; in a lot of cases, the waste was from user operations such as paint booths, storage facilities, etc. The RODS did identify several occurrences directly related to paint manufacturing wastes. In those cases, EPA did include in the damage case report any information on the constituents released to the environment.

Most of the incidents related to paint manufacturing involved disposal of paint wastes in landfills, thermal destruction of wastes in open pits and leaks occurring during manufacturing operations. Soil, surface water and ground water contamination is identified. Contamination includes RCRA metals, organic solvents such as chlorinated aliphatics and aromatic hydrocarbons and toxic constituents associated with certain binder systems such as phthalate, phthalate esters and phenols. Waste management practices identified in the Damage Incident Report, such as open pit burns and full and partially full drum and paint can landfill disposal of liquids are no longer used by the industry.

6.0 REFERENCES

1. Consent Decree as Amended Pursuant to Motions Filed Through June 12, 1997 as Modified by Motions Filed Sept 12, 1997 and Dec 15, 1997, dated March 20, 1998, U.S. District Court
2. U.S. Department of Commerce, Bureau of Census, Economics and Statistics Administration, Current Industrial Reports, Paint and Allied Products, Fourth Quarter Report 1999, MQ325F(99)-4
3. Draft Paint Production Industry Wastes Overview, July 1999, Dynamac Corp.
4. RCRA Section 3007 Survey Response Database
5. Memo, July 11, 2000, from Denault/Banks (Dynamac) to Carver (EPA), Recalculation of probabilities based on latest questionnaire return information

7.0 APPENDICES

Appendix 1: Sampling Methodology and Survey Recipient Selection

Appendix 2: List of Facilities That Received a Questionnaire

Appendix 3: Raw Data for Constituent Selection

APPENDIX 1

SAMPLING METHODOLOGY AND SELECTION OF SURVEY RECIPIENTS

DYNAMAC CORPORATION

May 09, 2000

MEMORANDUM

SUBJECT: Response to Request for 3007 RCRA Questionnaire Information on May 08, 2000 **,** WA 1-13

FROM: Paul Denault, Ken Banks

TO: Chichang Chen

This memo is in response to a request from EPA WAM during a conference call between the EPA and Dynamac that occurred at approximately 10:00 EDT on 5-9-00 and concerned the RCRA 3007 paint manufacturer project. The EPA wished to have information for the rationale behind the categorization process used to distribute the questionnaires to the paint manufacturers of interest.

Several difficulties were apparent when discussing and developing the original sampling methodology. The first and possibly greatest difficulty was the lack of an inclusive database that all concerned parties agreed contained all of the paint manufacturers of the United States. Several databases were evaluated, two in particular, Dun and Bradstreet (D&B) and the American Business List (ABL). After evaluation, the D&B database was chosen. Although the Dunn and Bradstreet database is undoubtedly incomplete, it represented the most comprehensive listing of paint manufacturers that was readily available in digital form and with categories that match reasonably closely with the categories EPA wanted to use to stratify the population.

A second difficulty concerned differences within the paint manufacturing population itself. According to expert judgment by the EPA, there was reason to suspect significant differences in waste management practices between various types (categories) of paint manufacturers. It was also important to the EPA to obtain reliable information for these various categories within the paint industry. The EPA wished to have information that is as precise as possible for the various categories, and EPA wanted to have the best possible chance of capturing a rare waste management practice within the each category while imposing as small a burden as possible on the paint manufacturing industry. Therefore a statistical survey was performed and each category was sampled with a 90% probability of finding a 1 in 20 Waste Management Practice (WMP).

Ultimately, the EPA's goal was to use the sampling effort to do the best job possible in describing the attributes of the paint population that could be completely defined in terms of type of industry and volume of sales. Since a

complete database was unavailable for the paint manufacturing industry, the EPA felt that the goals of the project were more efficiently met by sampling a completely defined population using a categorization procedure. Results from characterizing this well-defined population could then be used to make estimates about the entire paint manufacturing industry. It should be noted that all facilities within the various categories were randomly chosen to insure that no bias was introduced when sending questionnaires. In a few categories, however, all members had to be sampled in order to meet the sampling criteria a 90 percent or better probability of capturing a waste management practice conducted by only 1 in 20 facilities within the category.

Initially, the D&B database was thought to be composed exclusively of paint manufacturers. However, information derived from returned questionnaires has proved this assumption false. Apparently, the D&B database is composed of a significant number of non-manufacturers. However, since the EPA sent out more questionnaires than were required to meet the minimum sampling criteria of the project, the sampling effort was resistant to a certain amount of questionnaires that were not useable (questionnaires sent to a non-manufacturer). Initial estimates based on the number of useable questionnaires returned versus the number of non-useable questionnaires returned for each category indicate that the overall sampling criteria will be met for most categories (9 out of 12). The worst case scenario, based on an estimate derived from the number of useable questionnaires received by the EPA as of 5-5-00, is that three categories will have probabilities of capturing a waste management practice conducted by only 1 in 20 facilities of between 85 and 88% instead of the target 90 percent. These probabilities may improve if outstanding questionnaires in the appropriate categories are received.

There has been some discussion about the issue of sampling bias introduced by sampling completely characterized categories. It should be remembered that the original sampling plan was set up to detect a waste management practice conducted by only 1 in 20 facilities. The argument that bias is introduced by sampling only the categories can only be possible if there are differences in WMP rarity between those facilities categorized and those that were uncategorized due to lack of information. It is very important to realize that it is reasonable to conclude that the total number of facilities excluded due to lack of information from the D&B database consists of a large number of non-paint manufacturers, just as the total number of facilities included due to complete information was composed of a large number of non-manufacturers. Thus, the number of actual paint manufacturers of interest to this project that were included in the categorization process (884) is likely close to the number of actual paint manufacturers of interest to this project within the entire database of 1764 facilities, (which is about 1000, based on the responses to the questionnaires).

To illustrate the improvement in probabilities from categorization, consider 1200 facilities as a high estimate of the total number of paint manufacturers in the United States. Further assume that there are 60 facilities within a particular category (for illustration purposes, called category X). Using the 1 in 20 criteria derived from our sampling methodology, there are only 3 facilities within this category of 60 that are conducting a WMP of frequency 1 in 20. So, there are only 3 facilities within the entire population of 1200 that belong to category X and are practicing a WMP of frequency 1 in 20. This is approximately 0.25 percent of the population of 1200. To capture this WMP (category X, 1 in 20) by sampling the entire population of 1200 would require approximately 635 samples to meet the 90 percent probability requirement. However, because we have categorized, we have the ability to capture this WMP with the same level of probability using 32 samples if samples are randomly chosen from within category X. Thus, stratification was chosen by the EPA to increase the precision of sampling, which in

turn increases the probability of sampling a rare waste management practice in the reduced population size represented by the categories. In other words, without stratification we would have to consider two probabilities:

1. The probability of sampling a particular category (i.e., small, non-TRI, architectural) and
2. The probability of capturing a rare waste management practice within this category (i.e. one in 50 facilities).

It was decided in the various meetings with the EPA that stratification was needed to insure that certain types of facilities were sampled. Otherwise, random sampling of the 1764 total D&B facilities would have produced a data-set composed of a large number of the most numerous facilities (such as small, architectural, non-TRI), would have included facilities that were not of interest to this project, and would have had a high probability of not sampling rare facilities. For example, the chance of not sampling facilities we know are large, architectural, and on the TRI list (only 2) would be very high if we had taken a random sample of the 1764 total D&B facilities. By categorizing we increase our chances in general of sending a sample to facilities that are manufacturers of interest. In other words, using the information we have, we are as certain as possible that the facilities in the sampling plan meet the criteria of our established sampling protocol. Considering the limited number of questionnaires desired by the EPA (approximately 300), it was decided by the EPA that the best alternative given the information available was to try to make the sampling effort as precise as possible. Unless there is a difference in waste management practice between facilities that have a complete SIC code and those that do not (or between those on the D&B database and those that are not), identifying subcategories based on SIC code only targets sampling efforts towards those groups the EPA is interested in sampling with this effort.

Paint Manufacturing Hazardous Waste Listing Determination Support

Work Assignment 1-13

for the

U.S. Environmental Protection Agency
Office of Solid Waste
Contract: 68-W-98-231

Task 6
QRT #3 Final Report, Revision 2

Sampling Scheme for Distributing RCRA Section 3007 Questionnaire to Paint Manufacturing Facilities

July 12, 2000

Prepared For:

U.S. Environmental Protection Agency
Office of Solid Waste
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Sampling Scheme for Distributing RCRA Section 3007 Questionnaire to Paint Manufacturing facilities

1. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is conducting a survey of paint manufacturing facilities to create a database of waste data, both hazardous and non hazardous. The database is to be used to support on-going listing determinations under RCRA. Specifically, EPA is studying five (5) waste streams generated by paint facilities: solvent cleaning wastes, water/caustic cleaning wastes, wastewater treatment sludges, emission control dust/sludge and off-specification production wastes. In order to reduce the burden on the paint industry, EPA is evaluating sampling protocols for the Questionnaire that limit the number to be sent to a representative smaller group of paint manufacturing facilities. The EPA's goal is to reduce the number of respondents while ensuring a high probability that all identified waste streams and all waste management units used by the industry are sampled.

Several sampling protocols are presented in this document that are designed to provide the most amount of information possible using a limited number of questionnaires sent to a large population of companies that manufacture paints or coatings. Scenarios are also provided to determine the coverage provided by different numbers of samples.

2. BACKGROUND

The EPA requested Dynamac to develop sampling protocols that provide the most amount of information possible using a limited number of questionnaires. Since each questionnaire requires a reporting burden of approximately 30 hours, the EPA wishes to use a relatively small sampling effort to reduce the public reporting burden. However, the number of questionnaires must be adequate to provide a representative sample of the target population. To accomplish this task, the EPA requested Dynamac to develop a random sampling scheme for the distribution of the 3007 questionnaires.

A conference call occurred between the EPA investigators and Dynamac on Wednesday, December 1, 1999 to discuss the various approaches for distributing the questionnaires. The EPA was clear that a reduced number of Questionnaires would be necessary in order to meet court mandated schedules and reduce the industry burden. Two databases, both based on SIC numbers, were discussed, Dun &

Bradstreet (D&B) and American Business List (ABL). Dynamac was responsible for choosing the best for the statistical analysis.

During the conference, all agreed that a stratified approach was likely to provide the best overall coverage for various industry subsets. Random sampling of the subsets would provide the unbiased sampling scheme required for the project. The EPA suggested using Toxic Release Inventory data specific to companies reporting under SIC 2851 as a possible method of ensuring specific waste management units are represented.

3. DATA DIVISION AND ANALYTICAL APPROACH

3.1 Selection of Database

Dynamac had previously purchased data from D&B under the previous work assignment. Dynamac requested and received preliminary information from ABL and follow-up information from D&B, relevant to the anticipated search. The information included total number of manufacturers under SIC 2851 as well as an explanation of the proprietary codes each company uses to break down the manufacturers into smaller divisions. D&B collects information by SIC and further breaks down the company identity and description by another four (4) digit code (total of eight digits). Table 3-1 provides the D&B identification scheme for SIC 2851. ABL uses a six (6) digit code to identify each company. The first four digits are the SIC digits. Table 3-2 provides the ABL identification scheme for SIC 2851.

Each manufacturer entry in the D&B database is not necessarily identified by all eight digits; in some cases, the information available is insufficient to classify the manufacturer. In such cases, D&B use 00 designations. There are 1764 facilities listed (July 20, 1999 sort) under 2851 00 00 (total population); there are 982 listed under 2851 01 00 and 2851 02 00 combined. Dynamac does not know how ABL classifies manufacturers with incomplete information. ABL does have a 285198 code which encompasses all manufacturers and is likely used to classify facilities for which incomplete information is on file.

Table 3-1
Dun & Bradstreet Identification System

Identification Number	Description	Identification Number	Description
2851 00 00	Paint, varnishes, lacquers, enamels and allied products		
2851 01 00	**Paint and paint additives**	**2851 02 00**	**Lacquers, varnishes, enamels and other coatings**
2851 01 01	Colors in oil, except artists	**2851 02 01**	**Coating, air curing**
2851 01 02	**lead-in-oil paints**	**2851 02 02**	**Enamels, nec**
2851 01 03	**Marine paints**	**2851 02 03**	**Epoxy coatings**
2851 01 04	Paint driers	2851 02 04	Intaglio ink vehicle
2851 01 05	**Paints, asphalt or bituminous**	2851 02 05	Japans, baking or drying
2851 01 06	**Paints, waterproof**	**2851 02 06**	**Lacquers: bases, dopes, thinner**
2851 01 07	**Paints: oil or alkyd vehicle or water thinned**	2851 02 07	Lithographic varnishes
2851 01 08	**Plastic base paints and varnishes**	**2851 02 08**	**Polyurethane coatings**
2851 01 09	**Undercoatings, paint**	**2851 02 09**	**Shellac (protective coating)**
		2851 02 10	**Stains: varnish, oil or wax**
		2851 02 11	**Varnishes, nec**
		2851 02 12	**Vinyl coatings, strippable**
		2851 02 13	**Wood stains**

bolded categories used in stratification analysis

Table 3-2
American Business List Identification System

Identification Number	Description
2851 01	Paint removers - manufacturers
2851 02	Lacquers - manufacturers
2851 03	Paint - manufacturers
2851 04	Manufacturers - coatings
2851 05	Putty - manufacturers
2851 06	Shellac - manufacturers
2851 07	Fillers (non-metallic) (manufacturers)
2851 08	Furniture finishing materials (manufacturers)
2851 09	Putty (manufacturers)
2851 10	Metallic finishes (manufacturers)
2851 11	Lacquer thinners (manufacturers)
2851 12	Glazing compounds (manufacturers)
2851 13	Stainers - wood (manufacturers)
2851 14	Painters equipment & supplies - manufacturers
2851 98	Paint varnish & allied products (manufacturers)

For purposes of the stratified statistical analysis, Dynamac has segregated the paint manufacturing industry into small, medium and large. The division is based on the Census Bureau's segregation of the industry. Small is $5M or less in sales, medium is between $5-20M and large is everything greater than $20M. Both D&B and ABL provides sales figures. The Census Bureau also divides the manufacturing industry into three main paint categories, Architectural, OEM and Special Purpose. Neither database provides this type of segregation.

To simplify the statistical analysis (i.e. keeping the number of subsets to 12), the manufacturing sector was divided into Architectural and related paint products and OEM and related paint products. Paints, such as traffic marking, exterior structural paints and marine paints, all classified under Special Purpose by the Census Bureau, were included in the Architectural category.

Due to the short time frame available, Dynamac could not purchase each database to determine which provided the best information. It was known, prior to making our decision, that D&B had approximately 1764 "hits" under 2851 (July 20, 1999 sort) while ABL had approximately 2800 "hits (from telecon with ABL)." Since both lists included manufacturers of paint allied products such as putty, thinners, wood fillers, etc. it was not possible to determine the exact number of true paint manufacturers in each database without purchasing the database.

Dynamac had purchased under a previous Work Assignment (WA 13), a copy of the basic D&B database to generate address labels (July 20, 1999 sort). The basic database includes names and addresses of each manufacturer but does not include sales volumes and number of personnel. The available information indicated a total of approximately 982 manufacturers listed under 2851 01 and 2851 02. This number is close to the approximately 1200 listings mentioned in the 1999 Paint Red Book, a database of paint manufacturers and available to Dynamac only in print.

The 1999 Paint Red Book is published by Cygnus Publishing. It is a compilation of paint and coatings formulators in and outside the United States, of ink manufacturers, of raw material suppliers to the aforementioned industries and also provides lists of sales agents, machinery and equipment suppliers and raw materials. Dynamac repeatedly attempted to contact this company to determine if their listing was available in electronic format. Cignus Publishing did not return Dynamac's calls. Under the circumstances, Dynamac could not pursue this option.

The D&B database has four separate major categories under 2851; 01, 02, 03 and 04. Table 3-1 shows the 2851 01(Paint and paint additives) and 2851 02 (Lacquers, varnishes, enamels and other coatings) categories. The 2851 03 category lists Putty, Wood Fillers and Sealers and 2851 04 lists Removers and Cleaners (not detailed in this analysis). Neither of the last two are of interest to this project and were not considered further.

Each major category, 01 and 02, in Table 3-1 includes several obvious non paint products such as paint driers under 01 and lithographic varnishes under 02. However, the entries under 01 closely match Architectural and Special Purpose paint categories used by the Census Bureau while those under 02 closely match the OEM paints. The total number of actual (and usable) paint manufacturers under 2851 01 and 2851 02 is estimated at 884. This number is arrived at by subtracting all the known non paint manufacturers under 2851 01 xx and 2851 02 xx (unbolded categories), all duplicate entries and

all entries that did not have sales information from the population under 2851 01 and 2851 02 (total of entries is 982). Although it is likely that some non paint manufacturers will be part of this population, Dynamac believes that this approach is best to ensure all paint manufacturers that are fully defined are included.

Table 3-2 has the ABL list. There are less divisions available and it is less clear which are Architectural and which are OEM. Code 285198 appears to be a compilation of all the categories. The 03 and 04 divisions include paint and coating manufacturers and may be equivalent to Architectural. The 02 category includes lacquer manufactures and may be equivalent to a portion of the OEM market. However, there is no segregation of enamels, epoxy coatings, polyurethane coatings and vinyl coatings which are often associated with the OEM market.

In Dynamac's technical judgement, the D&B database provided a more detailed and a more easily understood breakdown of the various paint manufacturing types than the ABL database. The 2851 01xx categories under D&B represent fairly closely the architectural paint manufacturers and the 2851 02xx represent the OEM paint manufacturers. Of course, it is necessary to eliminate the non paint manufacturers. The bolded items in Table 3-1 were included in the analysis while the unbolded items were eliminated.

The most inclusive stratification scheme involved dividing the D&B data-base into the groups SIC 2851 01xx (paint and paint additives) and SIC 2851 02xx (laquers, varnishes, enamels, and other coatings) to separate the majority of architectural versus non-architectural manufacturers. Of these groups, 2851-0101, 2851-0104, 2851-0204, 2851-0205 and 2851-0207 were excluded because they did not represent a paint manufacturer of interest to this project. The remaining groups were further categorized based on the total sales volume into the following three classes: small (less than 5 million in annual sales), medium (more than 5 million dollars in annual sales but less than 20 million), and large (more than 20 million dollars in annual sales). Categories were also developed to separate TRI versus non-TRI facilities.

3.2 Use of TRI data

The TRI database has approximately 75 generators listed under 2851 SIC that manage waste streams in a manner of direct interest to the listing determination. The TRI data was supplied to Dynamac by EPA. With EPA approval, Dynamac identified the TRI generators that are also listed in the Dynamac-modified D&B database. A total of 15 facilities listed as generators in the TRI database are also included in the 884 D&B facilities. Since it is known that pertinent information is available from the TRI facilities, a separate subset of TRI facilities was created in both 01 and 02 sets under small, medium

and large facilities. The total number of subsets in the stratified population is 12 as shown in Section 3.3.

3.3 Categories

The following is a list of subsets used in the statistical analysis performed by Dynamac. A total of 884 facilities in the D&B database are included.

1. Facilities that are large, architectural, and TRI
2. Facilities that are medium, architectural and TRI
3. Facilities that are small, architectural, and TRI

4. Facilities that are large, architectural, and non-TRI
5. Facilities that are medium, architectural and non-TRI
6. Facilities that are small, architectural, and non-TRI

7. Facilities that are large, non-architectural, and TRI
8. Facilities that are medium, non-architectural and TRI
9. Facilities that are small, non-architectural, and TRI

10. Facilities that are large, non-architectural, and non-TRI
11 Facilities that are medium, non-architectural and non-TRI
12. Facilities that are small, non-architectural, and non-TRI

The stratification by facility size was performed by obtaining information on sales volume from D&B. Dynamac had requested another sort under 2851 with sales volume and facility addresses; this sort was run by D&B on December 6, 1999.

3.4 Analytical methods

The QRT received by Dynamac requested Dynamac to "determine sampling schemes so that the sampling size will represent a 90% confidence level that the sampling will not miss a waste management activity reported on the questionnaire that 1 in 20, or 1 in 10, or 1 in 5 facilities perform, etc… ." Since confidence limits are used to describe populations based on samples, a distribution model, sample size, and parameter variation, Dynamac believes the EPA investigators are actually asking for the probability of not including a waste management activity based on the population size, the sample size, and the criteria 1 in 20, 1 in 10, etc… A hypergeometric model is appropriate to describe this probability, since the sampling represents a certain number of random samples taken from a discrete distribution

without replacement. In this context, probability is a measure of the likelihood of missing a management type that, for example, 1 in 20 facilities use with a given population size and a given number of samples.

For this report, probabilities are determined as follows: Given N elements consisting of N_1 with property A and N-N_1 with property not-A, what is the probability that a sample of n elements, drawn without replacement, will consist of n_1 with property A and n-n_1 with property not-A? The probability associated with this event is:

$$P(n_1) = \frac{\left(\frac{N}{n_1}\right)\left(\frac{N - N_1}{n - n_1}\right)}{\left(\frac{N}{n}\right)}$$

where $\left(\frac{N_1}{n_1}\right) = \frac{N_1!}{n_1!(N_1 - n_1)!}$

Steel and Torrie (1980).

This formula is used to determine the probability of an event based on the population size N, the sample size n, and the expected likelihood of waste management practice (i.e., 1 in 20, 1 in 10, etc…).

In order to process the large amount of calculations required for this work assignment, Dynamac programmed the hypergeometric probability formula using Splus, a commercial software package. The actual Splus function was called "combination and is coded as follows:

```
> combination
        function(N, R, P)
        {       X <- N * P
                Y <- N - X
                choose(Y, R)/choose(N, R)}
```

The function calculates probabilities as follows:

> combination (N, R, P)

Where
N = Number in category (the population)
R = number of samples (how many questionnaires)

P = proportion for "probability of missing" category (eg. probability of missing 1:20 is equal to 0.05).
As an illustration, in Table 4.3 (Appendix A), Category "Medium, 01, non-TRI", the following values for N, R and P are used (49, 20, 0.05) for calculating the probability of missing a 1:20 event.

4.0 RESULTS

Results are divided into four scenarios based on sampling effort, coverage, and the probabilities of missing particular management activities. Sections 4.1 through 4.4 summarize the scenarios by providing tables of the coverage and probabilities associated with various sampling strategies. All tables identified in Section 4 are found in Appendix A.

Dynamac used a sample size of 250 to calculate the probabilities shown in Tables 4.1, 4.2, 4.3 and 4.5. The EPA had identified a sample size of 200 to 300 as being acceptable considering the schedule constraints and budget available. As detailed in Section 3.4, Dynamac had to show that the recommended sampling scenario would have a 90% expectation of identifying a 1:20 event. The following sampling scenarios confirm that 250 questionnaires, sent to randomly selected facilities, will both meet the EPA requirements and allow for a small amount of non-returns.

4.1 Sampling without stratification

Table 4-1 summarizes the coverage obtained by sending out 250 randomly distributed questionnaires, without stratification, to the 982 manufacturers from the D&B database. As illustrated in the table, a total random allocation will have a probability of missing a waste management activity associated with 1 in 50 facilities of 0.0026 or 0.26 percent. The probability associated with missing a particular waste management practice does not exceed 10 percent until the ratio of waste management activity reaches 1 in approximately 125 facilities. . Appendix A contains a list of randomly chosen facilities for this scenario.

Although it is likely that a particular management practice will not be missed with this sampling scheme, using this approach does not ensure that particular types of paint manufacturer (for example, large 2851 01xx facilities) are sampled equally. Stratified sampling is necessary to accomplish a more equal sampling of the various categories of manufacturers.

For comparison purposes and to ensure completeness of the Report, Dynamac has summarized the probabilities associated with randomly sending out 250 questionnaires to all 2851 xx xx facilities (total 1764) in the D&B database. The data are shown in Table 4-2.

4.2 Sampling with stratification

Note:
During the initial stratification procedure, Dynamac omitted entries from States after Ohio in the alphabet. This omission reduced the population for random sampling to 621 from 884. The first set of questionnaires sent out, a total of 250, did not include any manufacturers from States after Ohio in the alphabet. This omission was rectified in a second round of questionnaire mailings. All recipients in the second round were from States missed in the first round. Care was taken to ensure the probabilities were consistent (90% probability of finding a 1 in 20 rare occurrence). The following provides the various statistical survey options looked at, based on 621 manufacturers (those from States up to and including Ohio). The sampling process for the missed manufacturers from States after Ohio in the alphabet (total of 263) is exactly the same as that used for the first group. Complete details of the second sampling are provided in a memo from Dynamac to EPA dated July 12, 2000, Paint Survey Statistical Methodology, Revision 2; the document is found in the docket. The following details the approaches studied to identify the first 250 recipients (from a sampling frame of 621entries - 884 less 263) of the questionnaire and identifies a recommended approach. The removal of the 263 entries had no effect on the statistical discussions herein, nor on the recommndation.

Table 4-3 summarizes the coverage obtained by sending 250 randomly distributed questionnaires to the aforementioned (12 categories) stratified Dun and Bradstreet database (a population of 621 facilities). For example, if 20 questionnaires are sent to the 49 “medium, 01, non-TRI” facilities, the probability of missing a waste management activity practiced by only 1 in 20 of these facilities is 0.35 or 35 percent.

Using this approach, samples represent different types of manufacturers. Thus, the approach examines the effects of equally sampling particular types of paint manufacturer (for example, large, non-TRI, 2851 01xx facilities) on the probability of missing a particular type of waste management practice. However, notice that the probabilities derived from using this approach now reflect the likelihood of missing a particular type of management practice within the respective categories. Overall, the probability of missing any one type of management practice when considered across all categories is the same as that listed in Table 4-1 and explained in section 4.1. Thus, as the population is made smaller by categorizing, the probability of missing particular types of waste management practices only increases or decreases within categories. Categorization just ensures that each of the 12 defined categories from the entire population of 621 facilities are sampled (984 facilities minus the non paint

manufacturers, the duplicates and those without sales data). However, since some categories exceed the EPA's criteria of 90 percent or greater probability of sampling at least one waste management practice used by 1 in 20 facilities, unequal (proportionally) sampling may be advisable. .

4.3 Samples needed to have at least 90 percent probability of including a 1:20 (if possible) waste management practice

Table 4-4 summarizes the number of questionnaires needed to have a least 90 percent probability of sampling a waste management practice used by only 1 in 20 facilities in each category. A total number of 193 questionnaires, distributed randomly (if possible) within the various categories in the recommended numbers, will be needed to assure 90 percent or greater probability of sending a questionnaire to a facility that uses a 1:20 (or lowest appropriate ratio) waste management practice. Additional probabilities are provided to illustrate the effects of the recommended sampling numbers on higher ratios of waste management practices (i.e. 1:10, 1:5, etc…). Note that the sampling ratio (the number of facilities sent a questionnaire compared to the total number of facilities within a category) generally increases when the total number of facilities within a category is smaller. Although facilities are still chosen randomly, the amount of random samples taken within a category increases the coverage (and, in turn, the likelihood) of encountering a particular type of waste management practice. This results in unequal sampling per category. Thus, when the population size of a category is small, the category must be sampled with proportionally higher coverage to ensure that particular ratio of waste management activity is not missed at the established level of probability.

4.4 Sample numbers per category using a fixed 250 questionnaires and unequal category sampling

Table 4-5 represents the "best coverage" per category based on a total of 250 questionnaires. The number of samples per category is determined using a iterative process that optimizes for the 10 percent likelihood of missing a waste management practice (same as 90 percent probability of including a waste management practice) used by only 1 in 20 facilities (or lowest appropriate ratio) within the respective categories. Consequently, the 250 questionnaires are distributed among the various categories so that there are enough questionnaires sent to each category to ensure at least a 90 percent probability of including a waste management practice used by 1 in 20 facilities (if appropriate) within each category. This approach results in unequal sampling within categories, with smaller categories being sampled at a proportionally higher rate. If the overall goal of sampling is to obtain the most coverage within respective categories, this approach has the greatest overall probability of capturing the majority of the category-based waste management practices.

4.5 Random selection of facilities

A standard random number generator (MicroSoft® Excel 2000) was used to generate random numbers for the various manufacturing categories as well as for the un-categorized data set. Random numbers were associated with various facilities from the D&B data set and the entire data set was sorted consecutively by random numbers. Appendices B through E contain lists of facilities randomly selected for each sampling scenario. The lists are sorted by category (where appropriate) and by consecutive random number. Pertinent contact information is provided for all of the various sampling schemes.

Since a random process was used to choose each facility, each appendix should be considered a complete mailing list for the appropriate sampling method. Thus, it is appropriate to send out questionnaires to the first "*x*" number of facilities, where *x* represents the recommended number of samples for the chosen sampling method. For example, if the desired sampling method is random sampling without stratification (as in Section 4.1), simply send questionnaires to the facilities with random numbers1 through 250 in Appendix B "sampling without stratification." Extra randomly chosen facilities are provided for each sampling method in case there are any problems sending questionnaires to the first *x* number of facilities.

4.6 Additional Discussion of Sampling Scenarios

The stratified sampling scenarios increase the probability that an event within a subset will be sampled. Stratification reduces the population within each subset. Each subset is treated as an independent entity with respect to sampling. To ensure that a 1:20 event is identified within these smaller groups, the number of samples within a specific subset generally increases as a proportion of total number of entities within the subset. As an example, to ensure a 1:20 event is identified in a subset with a population of 3, all entities within that subset are sampled.

The use of N/A in the Appendix A tables reflects either the fact that the subset has no (0) entities or that the number of entities is less than the event being calculated. If a subset has no entities, the probability calculation does not apply. If the number of entities in a subset is 2 and the probability calculation is for a 1:20 event, the calculation does not apply.

5.0 RECOMMENDED SAMPLING STRATEGY

Ultimately, the best strategy for distributing the RCRA 3007 questionnaires depends on the goals of the

project and the statistical methods used to analyze the data generated from the returned questionnaires. For example, if a simple random set of facilities is desired, the sampling methods outlined in Section 4.1 are appropriate. However, if sampling the various categories is important to the EPA, then one of the categorized sampling methods outlined in sections 4.2 through 4.4 are appropriate. If the most coverage using 250 questionnaires and the 12 categories is desired, and random but proportionally unequal sampling methods are not analytically problematic, the methods outlined in Section 4.4 are the most appropriate.

It is Dynamac's recommendation, assuming the EPA wishes to reduce the total number of Questionnaires sent to the paint industry, that the stratified and unequal sampling methodology shown in Table 4.5 and detailed in Section 4.4 be followed. The unstratified methodologies shown in Tables 4.1 and 4.2 do not provide the assurance that all events will be sampled. The methodology shown in Table 4.3 has probabilities in some subsets below the 90% level required. The methodology shown in Table 4.4 does meet all the EPA criteria with a total number of samples of 193. However, should some respondents not complete the Questionnaire or return it on time, the calculated probabilities will no longer be accurate. Dynamac believes the best methodology to use is that described by Table 4.5, best coverage, where an over sampling is performed to overcome the issue identified for Table 4.4. In addition, the recommended methodology samples all of the subsets with less than 20 manufacturers at 100%.

Dynamac further recommends the inclusion of TRI generators as subsets for the statistical sampling program. Including TRI generators as recipients of the Questionnaire ensures that the management units of interest will be covered.

6. REFERENCES

Steel, R.G.D. and J.H. Torrie. 1980. *Principles and Procedures of Statistics: A Biometrical Approach.* McGraw-Hill, Inc. 633 pp.

APPENDIX A

STATISTICAL TABLES

Table 4-1. Probabilities associated with missing particular waste management practices that may be present in the sampled population with the indicated frequencies. Probabilities are based on the all 982 facilities identified in the Dun and Bradstreet database as SIC 2851-01xx or 2851-02xx and assume no further categorization.

Frequency of waste management practice (WMP)	Total population	Approximate number (nearest whole number) of practitioners of a particular waste management practice	Probability of missing the WMP using 250 random samples
1 in 1000	982	1	0.7454
1 in 500	982	2	0.5555
1 in 250	982	4	0.3081
1 in 100	982	10	0.0521
1 in 50	982	20	0.0026
1 in 20	982	49	3.65×10^{-7}
1 in 10	982	98	5.29×10^{-14}
1 in 5	982	196	3.61×10^{-29}
1 in 2	982	491	8.21×10^{-95}

Table 4-2. Probabilities associated with missing particular waste management practices that may be present in the sampled population with the indicated frequencies. Probabilities are based on the total number of facilities identified in the Dun and Bradstreet database as SIC 2851 xxxx (includes 2851 0000, 2851 01xx, and 2851 02xx) and assume no further categorization.

Frequency of waste management practice (WMP)	Total population	Approximate number (nearest whole number) of practitioners of a particular waste management practice	Probability of missing the WMP using 250 random samples
1 in 1000	1764	2	0.7366
1 in 500	1764	4	0.5423
1 in 250	1764	7	0.3424
1 in 100	1764	18	0.0630
1 in 50	1764	35	0.0045
1 in 20	1764	88	9.95×10^{-7}
1 in 10	1764	176	4.40×10^{-13}
1 in 5	1764	353	4.06×10^{-27}
1 in 2	1764	882	5.98×10^{-85}

Table 4-3. Probabilities associated with equally sampling (proportionally) the 12 categories derived from dividing the Dun and Bradstreet data base by SIC code, size, and TRI status. This sampling method is further explained in Section 3.2. Sampling is conducted so that all categories are sampled randomly but equally ("sm" = small, "med" = medium, 01 and 02 correspond to the 5th and 6th digits of the 8 digit SIC code). Number of samples reflects number of questionnaires to be sent to each category (NA = Not applicable, due to sample size i.e., a 1 in 20 ratio does not exist in a population containing only 2 facilities, as in the Large, 01, TRI category).

Category	number in category	proportion of total	number of samples	percent coverage	probability of missing 1:20	probability of missing 1:10	probability of missing 1:5	probability of missing 1:2
Large, 01,TRI	2	0.003	1	40.26	NA	NA	NA	0.50
Medium,01, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Small, 01, TRI	4	0.006	2	40.26	NA	NA	NA	0.17
Large, 01, non-TRI	25	0.041	10	40.26	0.60	0.20	0.06	2.00×10^{-5}
Medium, 01, non- TRI	49	0.079	20	40.26	0.35	0.06	0.002	3.76×10^{-10}
Small, 01, non-TRI	255	0.416	103	40.26	0.0010	1.01×10^{-6}	5.51×10^{-14}	9.73×10^{-48}
Large, 02, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Medium, 02, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Small, 02, TRI	6	0.010	2	40.26	NA	NA	NA	NA
Large, 02, non-TRI	21	0.034	8	40.26	0.62	0.37	0.20	2.21 x 10-4
Medium, 02, non- TRI	34	0.055	14	40.26	0.34	0.19	0.01	4.89 x 10-7
Small, 02, non-TRI	225	0.362	91	40.26	0.003	2.87×10^{-6}	1.93×10^{-12}	6.12×10^{-43}

Table 4-4. Number of samples (questionnaires) needed to have a 90 percent probability of including a 1:20 waste management practice. The 12 categories derived from dividing the Dun and Bradstreet data base by SIC code, size, and TRI status. This sampling method is further explained in Section 3.3. Sampling is conducted so that all categories are sampled randomly and unequally ("sm" = small, "med" = medium, 01 and 02 correspond to the 5th and 6th digits of the 8 digit SIC code). Number of samples reflects the number of questionnaires to be sent to the various categories (NA as defined in Table 4.3).

Category	**number in category**	**proportion of total**	**number of samples**	**percent coverage**	**probability of missing 1:20**	**probability of missing 1:10**	**probability of missing 1:5**	**probability of missing 1:2**
Large, 01, TRI	2	0.003	2	100.00	NA	NA	NA	0.00
Medium, 01, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Small, 01, TRI	4	0.006	3	75.00	NA	NA	NA	0.00
Large, 01, non-TRI	25	0.041	23	92.00	0.08	0.00	0.00	0.00
Medium, 01, non- TRI	49	0.079	34	69.39	0.09	6.57×10^{-3}	3.65×10^{-7}	0.00
Small, 01, non-TRI	255	0.416	41	16.08	0.10	9.80×10^{-3}	4.26×10^{-5}	1.18×10^{-14}
Large, 02, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Medium, 02, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Small, 02, TRI	6	0.100	6	100.00	NA	NA	0.00	0.00
Large, 02, non-TRI	21	0.034	19	90.48	0.10	4.76×10^{-3}	0.00	0.00
Medium, 02, non- TRI	34	0.055	23	67.65	0.10	0.03	6.13×10^{-5}	0.00
Small, 02, non-TRI	225	0.362	42	18.67	0.10	6.53×10^{-3}	2.79×10^{-5}	1.59×10^{-15}

Total = 193

Table 4. 5. Best coverage using 250 questionnaires distributed unequally among the 12 categories derived from dividing the Dun and Bradstreet data base by SIC code, size, and TRI status. This sampling method is further explained in Section 3.4. Sampling is conducted so that all categories are sampled randomly but unequally ("sm" = small, "med" = medium, 01 and 02 correspond to the 5th and 6th digits of the 8 digit SIC code, NA as defined in Table 4.3).

Category	**number in category**	**proportion of total**	**number of samples**	**percent coverage**	**probability of missing 1:20**	**probability of missing 1:10**	**probability of missing 1:5**	**probability of missing 1:2**
Large, 01,TRI	2	0.003	2	100.00	NA	NA	NA	0.00
Medium.,01, TRI	0	0.000	0	0.00	NA	NA	NA	NA
Small, 01,TRI	4	0.006	4	100.00	NA	NA	NA	0.00
Large,01, non-TRI	25	0.041	24	96.00	0.04	0.00	0.00	0.00
Medium, 01, non- TRI	49	0.079	41	83.67	0.02	2.93×10^{-5}	0.00	0.00
Small, 01, non-TRI	255	0.416	63	24.71	0.02	5.46×10^{-4}	7.40×10^{-8}	0.00
Large, 02, TRI	0	0	0	0.00	NA	NA	NA	NA
Medium, 02, TRI	0	0	0	0.00	NA	NA	NA	NA
Small, 02, TRI	6	0.010	6	100.00	NA	NA	0.00	0.00
Large, 02, non-TRI	21	0.034	20	95.24	0.05	0.00	0.00	0.00
Medium, 02, non- TRI	34	0.055	28	82.35	0.03	3.34×10^{-3}	0.00	0.00
Small, 02, non-TRI	225	0.362	62	27.56	0.03	5.78×10^{-4}	6.82×10^{-8}	0.00

APPENDIX B

Contact information for randomly selected facilities using the "Sampling Without Stratification" approach described in Section 4.1

Randomly chosen facilities for "sampling without stratification scheme"
Corresponds to method 4.1 of Dynamac Sampling Strategy
(50 Extra samples are provided in case there are problems with 1-250)

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Scatt Marine Products	P O Box 2601	Peachtree Cty	GA	30269-0601	770-487-9837	28510103	Mr John C Proffitt
2	Kiser Paint Inc	322 North Ave Ne	New Phila	OH	44663-2714	330-343-4526	28510100	Mr William C Wallick
3	Walton Paint Company Inc	P O Box 157	Jamestown	PA	16134-0157	724-932-3101	28510100	Mr Joseph M Walton
4	Resource Connection Inc	P O Box 700	Woodland	WA	98674-0700	360-225-6672	28510200	Mr Michael Engstrom
5	Pioneer Paint Arizona Inc	3755 E 43rd Pl	Tucson	AZ	85713-5403	520-571-1800	28510100	Mr Larry Henderson
6	Brewer Science Inc	2401 Brewer Dr	Rolla	MO	65401-7003	573-364-0300	28510201	Terry Brewer
7	Friendship Paint Manufacturing	508 10th Ave	Clarkfield	MN	56223-1203	320-669-4661	28510107	Mr David Rupp
8	Valspar Corporation	P O Box 2170	High Point	NC	27261-2170	336-887-4600	28510211	Mr John Shagena
9	Doug Thompson	1390 Broadway Ste B321	Placerville	CA	95667-5918	530-642-1266	28510100	Mr Doug Thompson
10	Stonhard Inc	P O Box 308	Maple Shade	NJ	08052-0308	609-779-7500	28510201	Mr Jeffrey M Stork
11	Akzo Nobel Coatings Inc	500 Corporate Cir Ste E	Golden	CO	80401-5632	303-277-1470	28510107	Mr Rick Hunter
12	Adams Manufacturing Co	P O Box 5276	Lubbock	TX	79408-5276	806-763-2944	28510100	Mr Jerry M Adams
13	Barnett Industries Inc	8407 S 77th Ave	Oak Lawn	IL	60455-1738	708-598-3040	28510206	Barrie Barnett
14	Versaflex Inc	P O Box 32226	Kansas City	MO	64171-5226	816-561-9996	28510208	Mr David Serchie
15	Epoxy Plus Inc	P O Box 3338	New Bern	NC	28564-3338	252-634-9988	28510203	Mr Don Roys
16	Jessup Services	2850 Industry St	Oceanside	CA	92054-4812	760-433-8630	28510213	Mr Byron Jessup
17	Klinger Paint Co Inc	5555 Willow Creek Dr SW	Cedar Rapids	IA	52404-4306	319-366-7735	28510100	Mr Dean Kruger
18	Rhino Coat of Concord Inc	2320 Main St	ConcordA	MA	01742-3814	978-371-1137	28510208	Mr Scott W Brown
19	Diamond-Vogel Paint Company	P O Box 247	Burlington	IA	52601-0247	319-754-8408	28510206	Mr Randy Hachmeister
20	United Gilsonite Laboratories	P O Box 70	Scranton	PA	18501-0070	570-344-1202	28510211	Mr Malcolm C Mackinnon
21	Kaupert Chemical & Consulting	P O Box 430	Walterville	OR	97489-0430	541-747-2509	28510203	Andreas Kaupert
22	C E Bradley Laboratories Inc	P O Box 8238	Brattleboro	VT	05304-8238	802-257-7971	28510200	Hisham R Kanaan
23	Bill Vuksanovich Art Stud	3224 N Nordica Ave	Chicago	IL	60634-4505	773-283-2138	28510101	Mr Bill Vuksanovich
24	Davis-Frost Inc	5111 E 36th St N	Tulsa	OK	74115-1903	918-425-0203	28510211	Mr Gerhardt Baker
25	Illumination Partners Llc	3471 Via Lido Ste 213	Newport Beach	CA	92663-3929	949-675-2811	28510201	Mr Claude Florent
26	Ikonos Corporation	2611 SW 3rd AveA	Portland	OR	97201-4952	503-224-4338	28510200	Mr Christophe J Sevrain
27	Duromar Inc	35 Pond Park Rd	Hingham	MA	02043-4350	781-749-6992	28510203	A W Langeland
28	Holwitz John	P O Box 609	Jamul	CA	91935-0609	619-669-7661	28510206	Mr John Holwitz
29	Peter Brendal	8858 Painter Ave Ste B	Whittier	CA	90602-3370	562-696-2368	28510201	Mr Peter Brendal
30	Dicks Art Shoppe	P O Box 103	Comptche	CA	95427-0103	707-937-0415	28510101	Mr Dick Coolidge
31	Truserv Corporation	823 W Blackhawk St	Chicago	IL	60622-2516	312-664-2373	28510211	Mr John Sattelmaier

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
32	Watson Industries Inc	P O Box 11250	Pittsburgh	PA	15238-0250	412-362-8300	28510105	H K Watson III
33	Chuck Toman Artist	1818 N 2nd St	Milwaukee	WI	53212-3707	414-372-3736	28510108	Toman Chuck
34	Masters Magic Products Inc	P O Box 31	Perry	TX	76677-0031	254-896-2022	28510210	Terry Parrish
35	Chemcoat Inc	P O Box 188	Montoursville	PA	17754-0188	570-368-8631	28510100	Mr James M O Brien
36	Quality Coatings Inc	1700 N State St	Chandler	IN	47610-9738	812-925-3314	28510107	Mr Gerald R Lewis
37	The Glidden Company	4261 W White Rd	Oakwood	GA	30566-3625	770-967-2030	28510205	Mr Al Crego
38	Neste Polyester Inc	1720 E Monticello CT	Ontario	CA	91761-7740	909-923-7616	28510203	Mr Greg Steele
39	Euro Tech Services Inc	4411 Bee Ridge Rd Ste 268	Sarasota	FL	34233-2514	941-378-1985	28510212	S Kurijl
40	Valspar Corporation	1630 W Hill St	Louisville	KY	40210-1750	502-774-4411	28510206	Mr Ed Jones
41	Akzo Nobel Coatings Inc	3201 Ne Loop 820 Ste 200	Fort Worth	TX	76137-2434	770-441-8638	28510107	Mr Bob Dubreul
42	Paint Company Inc	70 S Squirrel Rd Ste O	Auburn Hills	MI	48326-3281	248-299-9550	28510100	Mr Jay Mehta
43	Global Industrial Network Inc	15219 NW 60th Ave	Hialeah	FL	33014-2410	305-821-8680	28510208	Mr Stanley S Bostic
44	Permite Corporation Inc	P O Box 33127	Decatur	GA	30033-0127	404-292-4842	28510106	Mr William D Dickinson Jr
45	The Sherwin-Williams Company	370 Boggs Ln	Richmond	KY	40475-2524	606-624-5146	28510200	Mr Chuck Stover
46	Samuel Cabot Incorporated	100 Hale St	Newburyport	MA	01950-3504	978-465-1900	28510213	Mr Samuel Cabot III
47	Akzo Nobel Coatings Inc	P O Box 669	Bloomfield	MI	48303-0669	248-334-7010	28510107	Tony Porter
48	Southern Emulsions Inc	P O Box 2172	Tuscaloosa	AL	35403-2172	205-758-0029	28510100	Mr John L Brown
49	T J Ronan Paint Corp	749 E 135th St	Bronx	NY	10454-3408	718-292-1100	28510100	Mr John A Doran Jr
50	Powder Technology Inc	P O Box 108	Schofield	WI	54476-0108	715-359-4999	28510100	Mr Alan Towle
51	Elfering Enterprises Inc	2128 Raven Trl	West Columbia	SC	29169-3748	803-926-8515	28510212	Mr George Elfering
52	Capla Corp	21 Charles St Ste 201	Westport	CT	06880-5803	203-226-5200	28510103	Mr Leif Ammentorp
53	Anderson Coatings	P O Box 889	Tucson	AZ	85702-0889	520-822-5078	28510200	Aj Pecora
54	C S I Ltd	P O Box 1158	Burlington	IA	52601-1158	319-753-0223	28510100	Mr Stephen Zager
55	Products Research Service Inc	153 N Hollywood Rd	Houma	LA	70364-2805	504-876-6736	28510109	Bobby Tucker
56	Sem Products Inc	P O Box 651475	Charlotte	NC	28265-1475	704-522-1006	28510212	Mr Rick Menze
57	Caldwell Chem Coatings Corp	P O Box 898	Fayetteville	TN	37334-0898	931-433-1571	28510202	Mr John R Caldwell
58	Esgard Inc	Drawer 2698	Scott	LA	70502	318-234-6327	28510105	Mr Robert Sawvell
59	Bennette Paint Mfg Co Ben	2805 Bragg Blvd	Fayetteville	NC	28303-4147	910-677-0200	28510100	Mr Owen Solomon
60	Dampney Company Inc	85 Paris St	Everett	MA	02149-4411	617-389-2805	28510103	Mr Alan W Johnson
61	Prime Colorants Inc	P O Box 427	Franklin	TN	37065-0427	615-794-9551	28510108	Mr Edward Honicker
62	Hawthorne Paint Co Inc	P O Box 157	Hawthorne	NJ	07507-0157	973-423-2335	28510100	Mr Douglas Delgado
63	Flex Coatings Inc	2036 Stillman St	Selma	CA	93662-3024	916-837-6605	28510100	Mr Eldridge Jones
64	Frank L Rouser Inc	315 Myrtle St	Knoxville	TN	37917-7831	423-525-4321	28510100	Mr Frank L Rouser
65	Club Kit Inc	P O Box 60457	St Petersburg	FL	33784-0457	727-323-3820	28510208	Mr William Higman
66	Sta-Dri Company Inc	P O Box 40	Odenton	MD	21113-0040	410-551-9192	28510106	Mr Jason Crist
67	Sunbelt Sports Paint Inc	P O Box 3422	Huntington Bh	CA	92605-3422	909-279-0315	28510100	Mr Marty Trusdale

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
68	C L Hauthaway & Sons Corp	638 Summer St 640	Lynn	MA	01905-2044	781-592-6444	28510208	Mr Leopoldo A Johnson
69	Wellborn-De Corp	4726 Central Ave SW	Albuquerque	NM	87105-1714	505-831-1400	28510100	Tony Keelner
70	Sterling Lacquer Mfg Co	3150 Brannon Ave	Saint Louis	MO	63139-1422	314-776-4450	28510206	Mr Leo Mitchell
71	Frontier Bag Inc	P O Box 200	Grandview	MO	64030-0200	816-765-4811	28510208	Mr Ronald W Gurley
72	Miner La Donna M	P O Box 250	South Beach	OR	97366-0250	541-867-3976	28510100	La D Miner
73	Deft Incorporated	P O Box 2476	Alliance	OH	44601-0476	330-821-5500	28510211	Mr Brent Minger
74	Richards Paint Mfg Co Inc	200 Paint St	Rockledge	FL	32955-5807	407-636-6200	28510100	Mr Edward J Richard Sr
75	B I C Corporation-Vancouver	12714 Ne 95th St	Vancouver	WA	98682-2410	360-944-8465	28510100	Mr James P Harris
76	Warner Industries Inc	23100 Miles Rd	Cleveland	OH	44128-5441	216-663-7200	28510208	Mr Alan C Warner
77	Products Research Service Inc	9018 Scranton St	Houston	TX	77075-1121	713-941-3188	28510103	Shay Campbell
78	All-Tex Inks Inc	13040 Tom White Way Ste F	Norwalk	CA	90650-8904	562-926-8881	28510212	Montri Keyuranggul
79	Carboline Company	350 Hanley Industrial CT	Saint Louis	MO	63144-1510	314-644-1000	28510200	Mr Sherwin L Steinberg
80	Falcon Enterprises Inc	9600 18th St N	St Petersburg	FL	33716-4202	727-579-1233	28510212	Mr Steve Holtje
81	American Marine Coatings Inc	1445 N Northlake Way B	Seattle	WA	98103-8920	206-633-3308	28510203	Mr Scott Church
82	Pinder Polyurethane & Plastics	P O Box 433	East Chicago	IN	46312-0433	219-397-8248	28510208	Mr Walter Tokarz
83	FMI Chemical Inc	158 Hartford Rd	Manchester	CT	06040-5921	860-643-2151	28510100	Mr Harry Fine
84	Mainline Paint Mfg Co	768 Main St	Pawtucket	RI	02860-3630	401-726-3650	28510100	Mr Richard J Main
85	Progressive Coating Inc	455 W 61st St	Shreveport	LA	71106-2510	318-868-1383	28510201	Mr Jerry L Mosley
86	Floor Supply & Coloray Pnt Co	1620 Spectrum Dr	Lawrenceville	GA	30043-5742	770-513-1132	28510100	Mr Frank W Beckworth
87	Fibre Tech Corp	2323 34th Way	Largo	FL	33771-3902	727-539-0844	28510200	Mr Andrew Morris
88	Preservative Paint Co	200 Post Rd	Anchorage	AK	99501-2848		28510100	Mr Rick Greenhow
89	Alvar Inc	RR 1 Box 7a	Washburn	IL	61570-9752	309-248-7523	28510211	Mr Art Lersch Jr
90	Wellborn-De Corp	P O Box 25645	Albuquerque	NM	87125-0645	505-877-5050	28510100	Mr Ed Joyal
91	Rawco Inc	5841 Trailwoods CT	Stone Mtn	GA	30087-2751	770-921-8671	28510201	Mr Robert A Williams
92	Davis Paint Company	P O Box 7589	Kansas City	MO	64116-0289	816-471-4447	28510107	Mr James L Davis
93	Acry-Tech Coatings Inc	3601 Ne 5th Ave	Ft Lauderdale	FL	33334-2214	954-565-6001	28510100	Mr Daniel Hittenberger
94	The Sherwin-Williams Company	3271 Som Center Rd	Cleveland	OH	44139	440-349-0258	28510206	Mr Steve Brazie
95	Bee Chemical Company	2701 E 170th St	Lansing	IL	60438-1107	708-474-7000	28510108	Mr John Harigan
96	H-I-S Paint Manufacturing Co	1801 W Reno Ave	Oklahoma City	OK	73106-3248	405-232-2077	28510106	Mr Joe T Cox
97	Lukken Color Corp	24 Main St	Essex	CT	06426-1100	860-767-0015	28510210	Mr Ivan Mahoney
98	Osmose Inc	980 Ellicott St	Buffalo	NY	14209-2323	716-882-5905	28510200	Mr James R Spengler
99	J W Etc	2205 1st St Ste 103	Simi Valley	CA	93065-1981	805-526-5066	28510211	Mr Robert Williams
100	Tibbetts Newport Corporation	2337 S Birch St	Santa Ana	CA	92707-3402	714-546-6662	28510107	Shil Park
101	One-Liner	103 Stacy Dr	Whitehouse	TX	75791-3755	903-839-5024	28510209	Mr Truett Hux
102	Stevens Paint Corp	P O Box 694	Stony Point	NY	10980-0694	914-786-5000	28510100	Mr James Weil
103	Jodan Technology Inc	P O Box 981	Yorktown Hts	NY	10598-0981	914-962-1206	28510203	Mr Stanley Jasne

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104	Diamond Products Company	P O Box 8001	Marshalltown	IA	50158-8001	515-753-6617	28510106	Blaire Vogel
105	Akzo Nobel Coatings Inc	P O Box 12336	Salem	OR	97309-0336	503-585-2700	28510107	Mr Wayne Brown
106	Karyall-Telday Inc	8221 Clinton Rd	Cleveland	OH	44144-1008	216-281-0470	28510100	Mr James Mindek
107	Ciba Specialty Chemicals Corp	5511 Enterprise Dr	Lansing	MI	48911-4131		28510203	
108	Superior Products Intl II Inc	P O Box 1930	Independence	MO	64055-0930	816-241-1976	28510100	J E Pritchett
109	G C P Inc	P O Box 17336	Seattle	WA	98107-1036	206-781-1162	28510103	Mr Michael Hooper
110	Rudd Company Inc	1141 NW 50th St	Seattle	WA	98107-5120	206-789-1000	28510200	Mr Alan M Park Sr
111	Unichem Coatings Company Inc	Rur Rte 1 BOX 246	New Ringgold	PA	17960-9633	570-943-2600	28510200	Ms Nancy C Elser
112	Star-Lite Paint & Varnish Co	724 E 140th St	Bronx	NY	10454-2405	718-292-6420	28510100	Mr Peter J Gorynski
113	Crown Metro Specialty Products	P O Box 5857	Greenville	SC	29606-5857	864-299-1331	28510200	Mr Ivan Block
114	Valspar Corporation	9308 Industrial Dr Ne	Covington	GA	30014-1489	770-787-0031	28510200	Bobby Smith
115	Capitol Paint Mfg Corp	P O Box 95186	Oklahoma City	OK	73143-5186	405-634-3383	28510107	Mr Stanton Ballew
116	Underwood Industries of NY	P O Box 269	Waverly	NY	14892-0269	607-565-4551	28510211	Mr Richard Carr
117	Floyd Coatings Inc	206 E Pass Rd	Andalusia	AL	36420-3504	334-222-1336	28510100	David Andress
118	Mahoning Paint Corporation	P O Box 1282	Youngstown	OH	44501-1282	330-744-2139	28510100	Mr Charles C Rumberg
119	Axon Aerospace Inc	P O Box 5857	Greenville	SC	29606-5857	864-299-2806	28510100	Mr Ivan E Block
120	Bay Area Industrial Coatings	5705 E Hanna Ave	Tampa	FL	33610-4036	813-626-8741	28510208	Mr Eric V Button
121	Baller Marine Finishes	2411 Belvidere Ave SW	Seattle	WA	98126-2016	206-938-2344	28510103	Ms Nancy Baller
122	Delta Technical Coatings Inc	2550 Pellissier Pl	Whittier	CA	90601-1505	562-695-7969	28510100	Mr Ronald A La Rosa
123	Texas Polymer Products	1795 N Fry Rd Ste 119	Katy	TX	77449-3347	281-579-2773	28510203	Mr Jeff Lowry
124	Quality Tool	P O Box 824	Ducktown	TN	37326-0824	423-496-5600	28510104	Mr Ronald Byrd
125	Reeves Brothers Inc	P O Box 892	Spartanburg	SC	29304-0892	864-576-9210	28510208	Brenda Brown
126	Neste Polyester Inc	5106 Wheeler Ave	Fort Smith	AR	72901-8336	501-646-7865	28510200	Mr Johan Zilliacus
127	Flood Company	3706 Mercantile Ave	Naples	FL	34104-3355	941-436-1990	28510103	Fran Koebert
128	Discovery Engineering Inc	1 Paradise Park Rd	Jacksonville	AR	72076-2365	501-985-1172	28510210	Mac Hogan
129	Ameron International Corp Del	P O Box 192610	Little Rock	AR	72219-2610	501-455-4500	28510200	Mr Tom Brinkman
130	Tnemec Company Inc	6800 Corporate Dr	Kansas City	MO	64120-1323	816-483-3400	28510201	Mr Thomas C Osborne
131	National Paint & Oil Company	3651 Trousdale Dr	Nashville	TN	37204-4518	615-832-6743	28510100	Mr Harry Hessian
132	Paintings By Jeanne Mack	3558 Ruckersville Rd	Elberton	GA	30635-3832	706-283-5959	28510102	Ms Jeanne Mack
133	Bridges Group Inc	P O Box 496	Byron	GA	31008-0496	912-956-5605	28510100	Mr Bruce L Bridges
134	Paradise Encountered Corp	13050 NW 43rd Ave	Opa Locka	FL	33054-4425	305-687-7804	28510107	Mr Arturo Cid
135	Waterlac Coatings Inc	74 Northeastern Blvd	Nashua	NH	03062-3142	603-595-2028	28510200	Mr Edmund Rosa
136	Carson Vicenti Artist	P O Box 874	Dulce	NM	87528-0874	505-759-3434	28510107	Mr Carson Vicenti
137	Scott Miedico	P O Box 565	North Reading	MA	01864-0565	978-664-4960	28510105	Mr Scott Miedico
138	Red Spot Paint & Varnish Co	P O Box 418	Evansville	IN	47703-0418	812-428-9100	28510108	Mr Charles Storms
139	Oak Partners Inc Del	1532 S 50th CT	Chicago	IL	60804-1901	708-656-3740	28510206	Mr James A Hynes

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
140	H & C Inc	2901 4th St SE	Minneapolis	MN	55414-3330	612-379-9248	28510201	Mr Howard Carlson
141	Das Products	2018 S Ash Cir	Mesa	AZ	85202-6555	480-894-9858	28510208	Mr Dave Spice
142	Resin-Tech Corporation	1440 Jamike Ave	Erlanger	KY	41018-1040	606-525-2250	28510203	
143	Vanex Inc	P O Box 987	Mount Vernon	IL	62864-0020	618-244-1413	28510107	Mr James H Clutts
144	Jdex International	P O Box 742222	Houston	TX	77274-2222	281-564-2048	28510100	Dale Knox
145	Davlin Coatings Inc	700 Allston Way	Berkeley	CA	94710-2221	510-848-2863	28510106	Mr Brad De Ruiter
146	Ace Custom Finishing	725 Oakdale St	Waterloo	IN	46793-9478	219-837-7404	28510213	Mr Brett Badman
147	Murmac Paint Mfg Inc	1300 Harvey St	Beloit	WI	53511-4617	608-362-1900	28510100	Mr Charles R Rydberg
148	Pearl Paints North America Inc	15600 Lathrop Ave	Harvey	IL	60426-3768	708-596-2300	28510100	Mr Greg Srabian
149	Sau-Sea Swimming Pool Products	1855 Route 206	Vincentown	NJ	08088-3528	609-859-8500	28510106	Ms Mary Hunter
150	Technical Coatings Corporation	P O Box 1142	Alpharetta	GA	30009-1142	770-740-8123	28510203	Hormuz P Irani
151	Freudenberg-Nok	50 Ammon Dr	Manchester	NH	03103-3308	603-669-4050	28510208	Mr Bill Purslow
152	Textured Coatings of America	2422 E 15th St	Panama City	FL	32405-6348	850-769-0347	28510100	
153	PPG Industries Inc	14523 Harbor Estates Rd	Charlotte	NC	28278-7305	704-588-2254	28510100	Mr Boyd Kurt
154	Kustom Services Inc	7960 Kentucky Dr	Florence	KY	41042-2933	606-282-8400	28510211	Mr Michael E Gerkin
155	Flex Coat Company Inc	P O Box 190	Driftwood	TX	78619-0190	512-858-7742	28510203	Mr Roger Seiders
156	Industrial Coating Specialties	5521 Mitchelldale St	Houston	TX	77092-7217	713-686-3411	28510100	Mr Eugene G Hannusch
157	Anchor Coating of Leesburg	2280 Talley Rd	Leesburg	FL	34748-3316	352-728-0777	28510100	Mr Gary Tutor
158	Big Sky Paint Mfg Heating & AC	505 Main St SW	Ronan	MT	59864-2602	406-676-0700	28510100	Mr Francis C Snell
159	S P Kish Industries Inc	Drawer C	Charlotte	MI	48813-0802	517-543-2650	28510203	Mr Robert Kish
160	H C Chern Corporation	478 Lindbergh Ave	Livermore	CA	94550-9553	925-606-6868	28510200	Mr Harry Chern
161	Construction Polymers Intl Llc	524 S 1st St	Ann Arbor	MI	48103-4948	734-213-5278	28510200	Mr Dirk Benthien
162	Rockhill Inc	6111 Jet Port Industrial	Tampa	FL	33634-5114	813-880-7127	28510200	Mr Larry Rockhill
163	Carbit Paint Company Inc	927 W Blackhawk St	Chicago	IL	60622-2519	312-280-2300	28510100	Mr James S Westerman
164	Dan Cytron Co	637 Strand St APT B	Santa Monica	CA	90405-2473	310-396-2432	28510107	Mr Dan Cytron
165	Gerald Lupuz	585 Explorer St	Brea	CA	92821-3111	714-255-1290	28510201	Mr Gerald Lapuz
166	Pacific West Chemical Corp	P O Box 183	Corte Madera	CA	94976-0183	415-924-4420	28510208	Ms Mary Jones
167	Rust-Oleum Corporation	11 E Hawthorn Pkwy	Vernon Hills	IL	60061-1420	847-367-7700	28510106	Mr Michael D Tellor
168	Toledo Paint & Chemical Co	P O Box 324	Toledo	OH	43697-0324	419-244-3726	28510100	Mr David C Peters
169	Wood Coatings Research Group	6008 B High Point Rd	High Point	NC	27260	336-841-0264	28510200	Mr Ronald Obee
170	Behr Holdings Corporation	P O Box 1287	Santa Ana	CA	92702-1287	714-545-7101	28510100	Mr John V Croul
171	Adams Industrial Coatings	1391 Down River Dr B	Woodland	WA	98674-9546	360-225-9191	28510100	Mr George Adams
172	Contract Coatings Corp	706 E Main St	Stockton	CA	95202-3131	209-465-2634	28510100	Mr Arlen Williams
173	Zenith Chemical Works Inc	P O Box 127	Addison	IL	60101-0127	630-543-5161	28510213	Mr James C McInnes
174	Tradewinds Ecology Intl	1374 1/2 E Colorado St	Glendale	CA	91205-1475	618-500-1921	28510100	Mr Laszlo V Bayer

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175	Xms Mfg Co	7308 Associate Ave	Cleveland	OH	44144-1101	216-631-0514	28510203	Mr Richard Breuler
176	William Zinsser & Co Inc	173 Belmont Dr	Somerset	NJ	08873-1218	732-469-8100	28510209	Mr Robert Senior
177	Urethane Cntrs Sup Consulting	3010 W Lincoln St	Phoenix	AZ	85009-5705	602-269-9711	28510208	Mr Scott Wright
178	Monarch Paint Company	22151 Katy Fwy	Katy	TX	77450-1740	281-395-3600	28510100	Mr Brian Cope
179	William Dorsey Studio	309 S Montgomery St	Ojai	CA	93023-2731	805-646-5464	28510101	Mr William Dorsey
180	Triarch Industries Inc	4816 Campbell Rd	Houston	TX	77041-9111	713-690-9977	28510201	Mr David Prince
181	The Nelson Paint Co of Oregon	P O Box 2040	Iron Mountain	MI	49802-2040	906-774-5566	28510106	Ms Barbara N Louys
182	Vista Paint Corporation	2020 E Orangethorpe Ave	Fullerton	CA	92831-5327	714-680-3800	28510100	Mr Eddie R Fischer
183	Perma Building Products Inc	260 Lambert St Ste M	Oxnard	CA	93030-1041	805-981-7878	28510100	Mr Byron Goodrich
184	National Coating Mfg Inc	403 E Main St	Ada	OK	74820-5607	580-332-8751	28510201	Mr Jerry Wilcher
185	Vinyl Chem International Inc	7360 Varna Ave	N Hollywood	CA	91605-4008	310-390-2994	28510212	A C Macdonald
186	Vinatronics Inc	5217 E Broadway Ave	Spokane	WA	99212-0935	509-533-1519	28510212	
187	Janco Chemical Corp	1235 5th St	Berkeley	CA	94710-1305	510-527-9770	28510213	Mr Glenn A Kjelstrom
188	National Chemical & Plastics	6605 Edenville Rd	Baltimore	MD	21209	410-486-7643	28510200	Mr Herbert H Yatovitz
189	Stricker Paint Products Inc	P O Box 457	Novi	MI	48376-0457	248-349-0793	28510100	Kim A Stricker
190	Perma Flake Corp	P O Box 4653	Greenville	MS	38704-4653	662-334-9852	28510106	Mr James H Davis
191	Brandhursts Art	6021 Dustin Dr	Fort Worth	TX	76148-3661	817-428-1594	28510101	Mr Bill Brandhursts
192	Innovative Marine Coatings	15870 Lake Candlewood Dr	Fort Myers	FL	33908-1735	941-466-5670	28510103	Mr Edward S Donlin
193	Valspar Corporation	1215 Nelson Blvd	Rockford	IL	61104-4774	815-987-3700	28510100	Mr Stephen Knier
194	Opsec Advantage Inc	P O Box 10155	Lancaster	PA	17605-0155	717-293-4110	28510208	Mr Michael Brennan
195	Thermo Cote Inc	P O Box 247	Paterson	NJ	07513	973-345-6206	28510201	Mr Larry Kersen
196	Waterlox Coatings Corp	9808 Meech Ave	Cleveland	OH	44105-4155	216-641-4877	28510107	Mr John W Hawkins
197	Creations Unlimited Inc	8815 Emmott Rd Ste 300	Houston	TX	77040-3521	713-937-7422	28510208	Mr Herb Warpole
198	Lanning Chemical Company Inc	3000 Griffiths Ave	Louisville	KY	40212-2170	502-776-8330	28510206	Mr George Lanning
199	William Zinsser & Co Inc	480 Frelinghuysen Ave	Newark	NJ	07114-1419	973-824-9000	28510109	Mr Robert Bergfeld
200	Highland Estates Ltd Partnr	1500 Harlan Ln	Lake Forest	IL	60045-3896	847-295-5992	28510208	Mr George N Goldman
201	National Coatings Inc	120 Industrial Dr	Festus	MO	63028-4132	636-937-8600	28510211	Mr Bruce Wagner
202	Xymax Coatings Inc	1058 Edgewood Rd	New Kensingtn	PA	15068-5312		28510100	Mr Tom Jakabovits
203	United Vinyl Products Corp	20625 4th Ave SW	Seattle	WA	98166-4227	206-878-3620	28510212	Mr Benjamin M Amende
204	Parker Coatings Inc	P O Box 10886	Green Bay	WI	54307-0886	920-494-9676	28510203	Mr Donald Podraza
205	John C Dolph Company	P O Box 267	Monmouth Jct	NJ	08852-0267	732-329-2333	28510211	Mr John D Mayes

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206	CPT Inc	2023 N Atl Ave Ste 251	Cocoa Beach	FL	32931	407-799-0046	28510209	Mr James Emory
207	Wasser High-Tech Coatings Inc	8041 S 228th St	Kent	WA	98032-3207	253-850-2967	28510103	Mr Bill Brinton Sr
208	Rohm and Haas Company	8245 Tournament Dr	Memphis	TN	38125-8898	901-748-3225	28510107	Mr Jimmy Johnson
209	Dasua Paint USA Inc	10760 SW 188th St	Miami	FL	33157-6778	305-971-9011	28510100	Mr Daniel Davila
210	Lava-Liner Ltd	98 Main St 418	Bel Tiburon	CA	94920-2517	415-435-7746	28510200	Ms Diana Sabur
211	Fairfield Resins	P O Box 1223	Fairfield	IA	52556-0021	515-472-5760	28510203	Ms Kay Michener
212	Dudick Inc	1818 Miller Pkwy	Streetsboro	OH	44241-5067	330-562-1970	28510200	Mr Thomas M Dudick
213	Rabco Incorporated	P O Box 548	Moorestown	NJ	08057-0548	609-235-5116	28510212	Mr Peter De Luca
214	H C Epoxy Co	862 E 19th St	Tucson	AZ	85719-6615	520-624-7929	28510203	Mr Henry Clark Sr
215	Scheib Earl of Missouri Inc	1940 E Trafficway St	Springfield	MO	65802-2217	417-862-0750	28510100	Mr Jeff Pearl
216	Tri-Star Environmental Inc	122 N York Rd	Elmhurst	IL	60126-2856	630-530-5808	28510100	Mr Mike Napadow
217	De Santis C Paint Mfg Co Inc	4101 E 116th St	Cleveland	OH	44105-5459	216-883-8422	28510100	Ms Madeline De Santis
218	Samax Enterprise Inc	62-70 Woolsey St	Irvington	NJ	07111-4012	973-371-8999	28510206	Pessy Fleischman
219	Duncan Enterprises	5673 E Shields Ave	Fresno	CA	93727-7819	559-291-4444	28510101	Mr Larry R Duncan
220	Delta Industrial Coatings Inc	P O Box 444	Arlington	TN	38002-0444	901-867-9000	28510206	Tuley Lynch
221	Custom Finishes Inc	5021 Highway 14	Brighton	TN	38011-6937	901-476-5846	28510100	Mr Gary Yeager
222	F M J Holdings Inc	P O Box 1005	Delaware	OH	43015-7105	740-369-2150	28510100	Mr Michael J Smith
223	Janeway-Bennet Paint Inc	4620 Easton Dr	Bakersfield	CA	93309-1032	661-322-3514	28510100	Mr Lonnie Shepard
224	PPG Industries Inc	P O Box 36336	Louisville	KY	40233-6336	502-361-2681	28510201	Mr Lou Komis
225	Truserv Corporation	201 Jandus Rd	Cary	IL	60013-2861	847-639-5383	28510211	Mr Bob Simmons
226	PPG Industries Inc	1495 E Pearce Blvd	Wentzville	MO	63385-1931	636-332-5630	28510107	Mr Mark Rottler
227	Bender Wholesale Distributors	P O Box 1407	Elkhart	IN	46515-1407	219-264-4409	28510200	Mr Paul Bender
228	National Industrial Coating	840 Industrial Dr	Bensenville	IL	60106-1307	630-860-7070	28510200	Mr Michael J Lauesen
229	Eastern Chem-Lac Corporation	P O Box 266	Malden	MA	02148-0003	781-322-8181	28510206	Mr Burton R Liebman
230	Valspar Corporation	701 S Shiloh Rd	Garland	TX	75042-7812	972-276-5181	28510100	Mr Tom White
231	Ferro Corporation	6101 W Snowville Rd	Cleveland	OH	44141-3237	216-641-8580	28510200	Mr Dave Hamman
232	Bridges Smith & Co Inc	826 S 8th St 830	Louisville	KY	40203-2053	502-585-2724	28510101	Mr Paul Schmidt
233	Farwest Paint Mfg Co	P O Box 68726	Tukwila	WA	98168-0726	206-244-8844	28510100	Mr Paul E Sheehan
234	Eco Chemical Inc	2601 Elliott Ave Ste 4173	Seattle	WA	98121-1385	206-448-7930	28510200	Mr Jerry Bermes
235	Merrifield Paint Company Inc	47 Inwood Rd	Rocky Hill	CT	06067-3412	860-529-1583	28510100	Ms Beverly Merrifield
236	Design Cote Corporation	P O Box 410	Westminster	MA	01473-0410	978-874-0547	28510201	Mr Frederic Day

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
237	International Coatings Inc	2925 Lucy Ln	Franklin Park	IL	60131-2218	847-451-0279	28510203	Mr Mike Kramer
238	Parker Paint Manufacturing Co	7100 SW Nyberg Rd	Tualatin	OR	97062-8220	503-692-4104	28510100	Mr Gary Edwards
239	Wattyl Paint Corporation	P O Box 270000	Tampa	FL	33688	813-961-1234	28510100	Given Garcia
240	Var-Chem Products Inc	P O Box 2103	Clifton	NJ	07015-2103	973-546-2304	28510211	Mr Dominic Verillo
241	Rowe Bisonite Inc	470 Niagara Pkwy	N Tonawanda	NY	14120-7009	716-693-6130	28510100	Mr James Cornell
242	Creative Coatings Inc	2115 E 5th St	Tyler	TX	75701-3515	903-593-2855	28510100	Dale Turner
243	Seymour of Sycamore Inc	917 Crosby Ave	Sycamore	IL	60178-1343	815-895-9101	28510107	Ms Nancy S Heatley
244	Doug Thompson	2110 Smith Flat Rd	Placerville	CA	95667-5037		28510100	
245	Bridges Smith & Co Inc	P O Box 1147	Louisville	KY	40201-1147	502-584-4173	28510107	Mr Paul J Schmidt
246	Red Spot Westland Inc	550 Edwin St	Westland	MI	48186-3801	734-729-7400	28510100	Mr Charles D Storms
247	Crescent Hardwood Supply	1165 Constance St	New Orleans	LA	70130-4151	504-523-4972	28510211	Mr John Troendle
248	Polyplus Corporation	2120 E Lambert Rd Ste A	La Habra	CA	90631-5701	562-697-0888	28510200	Ms Ruth Kerr
249	Walter Wurdack Inc	4977 Fyler Ave	Saint Louis	MO	63139-1111	314-351-6600	28510200	Mr William D Wurdack Jr
250	Kop-Coat Inc	436 7th Ave Ste 1850	Pittsburgh	PA	15219-1828	412-227-2700	28510103	Mr Charles G Pauli
251	Capital Coating & Chemical	3014 Shallowford Rd Ne	Atlanta	GA	30341-3629	770-457-1164	28510107	Adel A Filsoof
252	Southwest Industries Inc	P O Box 77 0332	Pompano Beach	FL	33077	954-979-8799	28510100	Mr William Singer
253	Chemical Coatings Inc	P O Box 669	Hudson	NC	28638-0669	828-728-8266	28510200	Mr Clay B Bollinger
254	Rust-Oleum Corporation	1326 W 37th Pl	Tulsa	OK	74107-5600	918-446-6399	28510108	Mr Brian Raines
255	Nelson Paint Company of Ala	P O Box 2040	Iron Mountain	MI	49802-2040	906-774-5566	28510100	Ms Barbara N Louys
256	Frazee Industries Inc	P O Box 2471	San Diego	CA	92102-2017	619-276-9500	28510106	Mr Edmund W Lanctot
257	Charles M Shaffer	1205 Heathshire Dr	Dayton	OH	45459-2325	937-433-0870	28510206	Mr Charles M Shaffer
258	Wattyl (us) Limited	P O Box 308	Edgewater	FL	32132-0308	904-428-6461	28510107	Mr Christian Bosset
259	The P D George Company	P O Box 66756	Saint Louis	MO	63166-6756	314-621-5700	28510107	Mr Thomas F George
260	Gemini Coatings Inc	P O Box 170699	Dallas	TX	75217-0699	214-391-2171	28510206	Mr Larry Hunt
261	Insl-X Products Corp	P O Box 694	Stony Point	NY	10980-0694	914-786-5000	28510100	Mr James Weil
262	Tight Coat International	5421 Dorsey Evergreen Rd	Fulton	MS	38843-6943	662-862-5921	28510208	Robin Gray
263	Vinatronics Inc	5685 Utah Ave S	Seattle	WA	98134-2436	206-762-7410	28510212	Ms Suzanne E Murray
264	Continental Indus Coatings	P O Box 1624	Gretna	LA	70054-1624	504-392-4993	28510100	Mr Ivan Lagos
265	Professional Coatings Inc	1807 3rd Ave SE	Cullman	AL	35055-5466	256-739-1611	28510200	Mr Wesley Floyd
266	Sun Polymers Inc	P O Box 12687	Fort Wayne	IN	46864-2687	219-426-1220	28510200	Mr Charles Lee
267	The B F Goodrich Company	425 Fenton Ln	West Chicago	IL	60185-2676	708-293-0073	28510211	Mr Al Kogler

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
268	B-B Paint Corporation	P O Box 90078	Burton	MI	48509-0078	810-239-8609	28510107	Mr Bharat RAO
269	Y Slip USA Corp	2075 Sunnydale Blvd Ste B	Clearwater	FL	33765-1240	727-462-0401	28510200	Mr Francis R Makers
270	Sentry Paint Technologies	237 Mill St	Darby	PA	19023-2016	610-522-1900	28510100	Mr Joseph Breskman
271	Raven Lining Systems Inc	1024 N Lansing Ave	Tulsa	OK	74106-5358	918-584-2810	28510203	J S Nance
272	Van Patten Lyle Co Inc	321 W 135th St	Los Angeles	CA	90061-1001	323-321-8090	28510202	Mr Lyle Van Patten
273	Industrial Finishing Products	820 Remsen Ave	Brooklyn	NY	11236-1623	718-342-4871	28510108	Mr Andrew Galgano
274	Old West Art	15 Francisco Dr	Santa Barbara	CA	93105-1915	805-682-3101	28510102	Mr Gerald J Frey
275	Architectural Surfaces Inc	123 Columbia CT Ste 201	Chaska	MN	55318-2303	612-448-5300	28510200	Mr Steven Anderson
276	Morton International Inc	2460 N 4th St	Wytheville	VA	24382-4418	540-228-1500	28510107	Mr Chuck Lanigan
277	Diall Chemical Company Inc	6649 Amory CT Unit 3	Winter Park	FL	32792-7439	407-672-0850	28510100	Ms Claudine M King
278	Silicone Color Technology Inc	707 Boyd Blvd	La Porte	IN	46350-4416	219-324-4411	28510100	Brian Sauers
279	Mansfield Paint Co Inc	P O Box 998	Mansfield	OH	44901-0998	419-522-9611	28510107	Ms Ann K Bargahiser
280	Lenmar Inc	P O Box 308	Edgewater	FL	32132-0308	410-947-2300	28510200	Mr Christian Bosset
281	Edcoat Limited Partnership	30350 Edison Rd	New Carlisle	IN	46552-9728	219-654-9105	28510100	Edcoat P Inc
282	Gra Services International	5020 E 2nd St	Edmond	OK	73034-7545	405-330-2395	28510203	Mr Doug Reeves
283	Spartan Lacquer & Paint Corp	9255 Imperial Hwy	Downey	CA	90242-2810	562-923-4219	28510202	Mr Robert Boyce
284	Kalcor Coatings Company	37721 Stevens Blvd	Willoughby	OH	44094-6231	440-946-4700	28510100	Mr Newton Zucker
285	Bruning Paint Company	601 S Haven St	Baltimore	MD	21224-4347	410-342-3636	28510100	Mr Doug S Ramer
286	Empire State Varnish Co Inc	38 Varick St	Brooklyn	NY	11222-3817	718-388-5450	28510211	Mr Richard M Stark
287	Chemline Incorporated	1 Steelcote Sq	Saint Louis	MO	63103-2937	314-664-2230	28510200	Mr John R Pantanella
288	Wesley Lacquer Corp	95 4th St	Brooklyn	NY	11231-4809	718-625-6358	28510206	Mr Martin Stone
289	Decoart Inc	P O Box 297	Stanford	KY	40484-0297	606-365-3193	28510100	Mr Stanley Clifford
290	Picco Coatings Co Inc	11601 Mckinley St	Houston	TX	77038-3314	281-447-8877	28510202	Mr Gary Phillips
291	Benjamin Moore & Co	2501 W North Ave	Melrose Park	IL	60160-1121	708-343-3100	28510211	M Kolind
292	Stroblite Co Inc	430 W 14th St Rm 507	New York	NY	10014-1015	212-929-3778	28510100	Mr Oliver Shatts
293	Camger Chemical Systems Inc	364 Main St	Norfolk	MA	02056-1249	508-528-5787	28510206	Ms Theresa Iannuzzi
294	Polyspec Corporation	6614 Gant Rd	Houston	TX	77066-1912	281-397-0033	28510200	Mr Milton W Ellisor Jr
295	Decorative Industries Inc	P O Box 138	Sloatsburg	NY	10974-0138	914-753-2796	28510202	Mr Carmine M Zaccaria
296	Triple J Specialty Inc	Drawer 688	Edna	TX	77957-0688	361-782-7654	28510203	Mr James Hunt
297	Universal Chem & Coatings Del	1975 Fox Ln	Elgin	IL	60123-7839	847-931-1700	28510201	Yenson E Chin
298	Amiantite America Inc	124 E 40th St Rm 404	New York	NY	10016-1723	212-338-0577	28510100	Mr Isaac Ainetchi

Random#	COMPANY	ADDRESS	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
299	Zarco Industries Inc	3115 W 36th St	Chicago	IL	60632-2303	773-927-8570	28510100	Zarem Jeffrey I
300	The Glidden Company	225 Metro Center Blvd	Warwick	RI	02886-1748	401-732-8999	28510100	Mr Frank Spirito

APPENDIX C

Random samples for equally sampling the 12 categories derived from dividing the D & B Database by SIC Code, size and TRI Status described in Section 4.2

Random samples for equally sampling the 12 categories derived from dividing the D & B Database by SIC Code, size, and TRI status as in Section 4.2

Category SMALL, 2851-01, NONTRI, total 255, sample 103 plus 7 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Dan Cytron Co	637 Strand St APT B	Santa Monica	CA	90405-2473	310-396-2432	28510107	Mr Dan Cytron
2	Nelson Paint Company of Ala	1 Nelson Dr	Iron Mountain	MI	49802-4561	906-774-5566	28510100	Ms Barbara N Louys
3	Mercury Paint Corp	5017 Farragut Rd	Brooklyn	NY	11203-6712	718-451-0103	28510100	Mr John Van
4	Innovative Marine Coatings	15870 Lake Candlewood Dr	Fort Myers	FL	33908-1735	941-466-5670	28510103	Mr Edward S Donlin
5	Imperial Research & Mfg	192 Center St	Cape Canaveral	FL	32920-3728	321-783-8474	28510103	Mr James Morris
6	Deako Coating & Chemical Inc	2540 NW 29th Ave Ste 105	Miami	FL	33142-6438	305-634-5162	28510107	Mr Humberto Martos
7	PCI Group Inc	2153 E Cedar St Ste 6	Tempe	AZ	85281-7411	480-303-0557	28510103	Mr Matt J Thometz Jr
8	Dunn-Edwards Corporation	225 Menaul Blvd NW	Albuquerque	NM	87107-1354	505-344-5008	28510100	Mr Salomon Marquez
9	Elf Atochem North America Inc	128 Old Brickyard Ln	Kensington	CT	06037-1437	860-828-3593	28510107	Mr Richard Hanns
10	Mid-States Paint & Chem Co	9315 Watson Industrial PA	Saint Louis	MO	63126-1520	314-961-6464	28510103	Mr Raymond F Simpson
11	Eastwoods Tennis Surface Inc	1275 N Lance Ln	Anaheim	CA	92806-1812	714-630-7944	28510105	Mr Harold Eastwood
12	Surface Protection Industries	757 N La Brea Ave	Los Angeles	CA	90038-3338	323-936-5168	28510100	Mr Robert C Davidson Jr
13	US Specialty Coatings Inc	3905 Green Industrial Way	Atlanta	GA	30341-1913	770-457-5237	28510107	Hormuz Irani
14	Invinca-Shield Inc	658 Lake Dr	Altamonte Springs	FL	32701-5412	407-331-5640	28510100	Mr Arthur Seligman
15	Dux Paints & Chemicals Inc	18 Mill St	Lodi	NJ	07644-2604	973-473-2376	28510100	Mr Robert Landzettel
16	PPG Industries Inc	14523 Harbor Estates Rd	Charlotte	NC	28278-7305	704-588-2254	28510100	Mr Boyd Kurt
17	Albert C Wieck	465 Tarpon Dr	Southold	NY	11971-1406	631-477-1079	28510103	Mr Albert C Wieck
18	Scheib Earl of Missouri Inc	1940 E Trafficway St	Springfield	MO	65802-2217	417-862-0750	28510100	Mr Jeff Pearl
19	Tool World Inc	300 W Norton Ave	Eustis	FL	32726-4763	352-357-8282	28510100	Mr William F Wolcott
20	Progressive Ink Company Inc	2302 Tripaldi Way	Hayward	CA	94545-5021	510-887-0398	28510106	Mr Kyle Krause
21	Plastic Engineering Inc	56188 Elder Rd	Mishawaka	IN	46545-7320	219-259-6166	28510100	Mr Raymond Schoenfelder
22	Hempel Coatings USA Inc	Foot of Curie Ave	Wallington	NJ	07057	201-939-2801	28510103	Mr Joel Benetti
23	Frazee Industries Inc	4545 Camino De La Plz	San Ysidro	CA	92173-3103	619-428-6151	28510103	Mr Robert Delacroix
24	Maxine L Hale	2130 N Sahuara Ave	Tucson	AZ	85712-3006	520-296-5602	28510106	Ms Maxine L Hale
25	Akzo Nobel Coatings Inc	1431 Progress Ave	High Point	NC	27260-8322	336-841-5111	28510100	RAD Darby
26	Jennison Industries Inc	860 Washington St	Burlington	IA	52601-5150	319-753-0309	28510100	Mr Bob Crawford
27	Diall Chemical Company Inc	6649 Amory CT Unit 3	Winter Park	FL	32792-7439	407-672-0850	28510100	Ms Claudine M King
28	Classic Coatings Corporation	5751 N Robert Rd	Prescott Valley	AZ	86314-4233	520-775-5564	28510100	Mr Michael Ketchner

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
29	Champion Paint Mfg Co Inc	1743 W Farms Rd	Bronx	NY	10460-6000	718-542-8470	28510100	Sidney Marshak
30	Bel-Mar Paint Corporation	2790 W 3rd CT	Hialeah	FL	33010-1414	305-887-6554	28510100	Mr Rafael Behmoiras
31	Sentry Paint Technologies	906 E Main St	Louisville	KY	40206-1626	502-587-7476	28510103	Pat Harper
32	Alternative Materials Tech	520 Parrott St	San Jose	CA	95112-4120	408-295-0104	28510100	
33	William Zinsser & Co Inc	480 Frelinghuysen Ave	Newark	NJ	07114-1419	973-824-9000	28510109	Mr Robert Bergfeld
34	Musgrove Enterprises Llc	2020 W McDowell Rd	Phoenix	AZ	85009-3013	602-253-4660	28510105	Mr Dave Musgrove
35	Central Valley Chemical Corp	8561 Thys CT	Sacramento	CA	95828-1035	916-383-2304	28510100	Mr Thomas Barber
36	Centri Coatings & Systems Corp	1010 Gentry St	Kansas City	MO	64116-4111	816-221-1146	28510103	Mr Gerald Frizelle
37	Friendship Paint Manufacturing	508 10th Ave	Clarkfield	MN	56223-1203	320-669-4661	28510107	Mr David Rupp
38	Specialty Coatings & Chemicals	7360 Varna Ave	North Hollywood	CA	91605-4008	818-983-0055	28510108	Alaistair C Macdonald
39	Jay Bee Paint Co Inc	3218 Brannon Ave	Saint Louis	MO	63139-1423	314-664-0600	28510103	Mr Foster Becker
40	Dampney Company Inc	85 Paris St	Everett	MA	02149-4411	617-389-2805	28510103	Mr Alan W Johnson
41	Pioneer Paint Arizona Inc	3755 E 43rd Pl	Tucson	AZ	85713-5403	520-571-1800	28510100	Mr Larry Henderson
42	Sunbelt Sports Paint Inc	355 N Sheridan St Ste 110	Corona	CA	92880-2026	909-279-0315	28510100	Mr Marty Trusdale
43	Scatt Marine Products	301 Dividend Dr	Peachtree City	GA	30269-1907	770-487-9837	28510103	Mr John C Proffitt
44	Canfield Barrere Studios	1654 State Rt 76	Truchas	NM	87578	505-689-2660	28510107	Ms Kate Bureir
45	Continental Indus Coatings	118 Derrick Rd	Belle Chasse	LA	70037-1110	504-392-4993	28510103	Mr Ivan Lagos
46	Vanex Inc	1700 Shawnee	Mount Vernon	IL	62864	618-244-1413	28510107	Mr James H Clutts
47	Rohm and Haas Company	25500 Whitesell St	Hayward	CA	94545-3615	510-786-0100	28510107	Mr Kevin Fulini
48	Therma Cell Technologies Inc	303 S Hibbert	Mesa	AZ	85210-1603	480-834-7884	28510100	Mr John Pidorenko
49	Hudson Color Concentrates Inc	5 Executive Dr	Hudson	NH	03051-4903	603-598-9916	28510100	Mr Lloyd Watt
50	Cortlant P Briggs	27 Main St	Ossining	NY	10562-4616	914-941-4572	28510103	Cortlant P Briggs
51	Akzo Nobel Coatings Inc	4041 Seaboard Rd	Orlando	FL	32808-3859	407-578-5221	28510107	Mr Micheal Kleyneenberg
52	The Glidden Company	340r Vanderbilt Ave	Norwood	MA	02062-5008	781-551-8555	28510100	Mr George Kalich
53	Quality Coatings Inc	1700 N State St	Chandler	IN	47610-9738	812-925-3314	28510107	Mr Gerald R Lewis
54	All Purpose Marine Paints Inc	58 Van Dyke St	Brooklyn	NY	11231-1529	718-625-2141	28510103	Ole Klevedahl
55	Permite Corporation Inc	5239 Brer Rabbit Rd	Stone Mountain	GA	30083-1317	404-292-4842	28510106	Mr William D Dickinson Jr
56	Bridges Smith & Co Inc	118 E Main St Ste 122	Louisville	KY	40202-1342	502-584-4173	28510107	Mr Paul J Schmidt
57	Behr Process Corporation	270 State St	Chicago Heights	IL	60411-1263	708-757-6350	28510100	Mr John V Croul
58	Sawyer Finn Company Inc	1600 Genessee St Ste 555	Kansas City	MO	64102-1085	816-421-3321	28510100	Mr Rich Orr
59	Nationwide Research Corp	2806 Cheek Rd	Durham	NC	27704-5341	919-683-1202	28510103	Mr James A Drum
60	Kirby George Jr Paint Co Inc	163 Mount Vernon St	New Bedford	MA	02740-4610	508-997-9008	28510103	Mr George Kirby III
61	Dupaco Paint Inc	1330 E 37th St N	Wichita	KS	67219-3521	316-838-8661	28510100	Ms Betty M Dutcher

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
62	Ingels Inc	104 Best Industrial Dr	Jonesboro	AR	72401	870-935-9977	28510100	Mr Marlin R Thyer
63	Paint Company Inc	70 S Squirrel Rd Ste O	Auburn Hills	MI	48326-3281	248-299-9550	28510100	Mr Jay Mehta
64	Potter Paint Co of Indiana	508 S Green St	Cambridge City	IN	47327-1645	765-478-4501	28510103	Mr Jay W Potter
65	Silicone Color Technology Inc	707 Boyd Blvd	La Porte	IN	46350-4416	219-324-4411	28510100	Mr Brian Sauers
66	Atlas Chemical Co	4801 NW 77th Ave	Miami	FL	33166-5522	305-592-3500	28510106	Mr John Pidorenko
67	Seaboard Asphalt Products Co	3601 Fairfield Rd	Baltimore	MD	21226-1516	410-355-0330	28510105	Mr Richard Campbell
68	Mautz Paint Co	4438 Center Ter	Rockford	IL	61108-3907	815-227-4512	28510100	Mr Bernard Mautz Jr
69	Warlick Paint Company Inc	945 Monroe St	Statesville	NC	28677-6800	704-873-2244	28510100	Mr William C Warlick
70	Oliver Paint Mfg Co	3357 Torrey Rd	Flint	MI	48507-3251	810-233-7204	28510100	Mr James J Reid
71	Alternative Materials Tech	875 Stillwater Rd Ste 300	West Sacramento	CA	95605-1624	916-371-6811	28510100	Mr Ed Lopez
72	Arrowhead Paint Products Inc	24 S 39th Ave W	Duluth	MN	55807-2842	218-628-2819	28510103	Mr Thomas L Lavato
73	OEM Paints Inc	510 Corporate Dr	Escondido	CA	92029-1525	760-747-2100	28510100	Mr Carl Weaver
74	New York Bell Paint Corp	1425 Blondell Ave	Bronx	NY	10461-2614	718-892-1334	28510100	Mr Joseph Lubell
75	Giovannella	1870 Alpha St	South Pasadena	CA	91030-4217	323-254-4598	28510107	Ms Joan Corregal
76	Merrifield Paint Company Inc	47 Inwood Rd	Rocky Hill	CT	06067-3412	860-529-1583	28510100	Ms Beverly Merrifield
77	United Paint Manufacturing Co	2465 S Industrial Park AV	Tempe	AZ	85282-1822	480-966-8999	28510103	Terry Hahn
78	Potter Paint Co Inc	21 Crawford St	Cortland	NY	13045-3202	607-753-6754	28510103	Mr Peter A Potter
79	FMI Chemical Inc	158 Hartford Rd	Manchester	CT	06040-5921	860-643-2151	28510100	Mr Harry Fine
80	A M S Coating Systems Inc	16457 Highway 7	Hutchinson	MN	55350-5602	320-587-4321	28510100	Mr Barry Schaffer
81	Floyd Coatings Inc	206 E Pass Rd	Andalusia	AL	36420-3504	334-222-1336	28510100	David Andress
82	Monarch Paint Company	2675 N Causeway Blvd	Mandeville	LA	70471-6435	504-892-2228	28510103	Mr James Awalt
83	Carbit Paint Company (inc)	2942 W North Ave	Chicago	IL	60647-5142	773-278-7177	28510100	Mr Lewis Rivera
84	Nautical Marine Paint Corp	1525 US Highway 1	North Brunswick	NJ	08902-2013	732-247-9755	28510103	Mr Michael Schnurr
85	Performance Industries Inc	51 Tucker St	Trenton	NJ	08618-4705	609-392-1450	28510106	Mr Stewart Azarchi
86	Amiantite America Inc	124 E 40th St Rm 404	New York	NY	10016-1723	212-338-0577	28510100	Mr Isaac Ainetchi
87	Flood Company	3706 Mercantile Ave	Naples	FL	34104-3355	941-436-1990	28510103	Fran Koebert
88	Structural Coatings & Chem	5645 Cogswell Rd	Wayne	MI	48184-1544	734-729-8080	28510105	Mr John Stricker
89	The Glidden Company	2400 Pass Rd	Gulfport	MS	39501-4909	228-868-9496	28510106	Mr Keith Hogue
90	De Santis C Paint Mfg Co Inc	4101 E 116th St	Cleveland	OH	44105-5459	216-883-8422	28510100	Ms Madeline De Santis
91	Bond Paint & Chemicals Inc	118 NW 5th St	Fort Lauderdale	FL	33301-3212	954-763-4231	28510106	Mr Vladimir Yarosh
92	Surface Protection Industries	3360 E Pico Blvd	Los Angeles	CA	90023-3729	323-269-9231	28510100	Mr Ron Todar
93	Union Chemical Industries	1320 NW 23rd Ave	Fort Lauderdale	FL	33311-5244	954-581-6060	28510100	Mr Richard Devick
94	Products Research Service Inc	153 N Hollywood Rd	Houma	LA	70364-2805	504-876-6736	28510109	Bobby Tucker
95	Dmg Products Inc	3706 Carmel Ave	Irvine	CA	92606-1718	949-559-0637	28510106	Mr Mike Butin

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
96	Indian River Paint Co Inc	2865 Kirby Ave Ne 123&4	Palm Bay	FL	32905-3425	321-729-0696	28510100	Mr Craig Farrior
97	Vista Paint Corporation	10717 South St	Cerritos	CA	90703-8062	562-866-1200	28510100	Mr Bill Brier
98	TI-Kromatic Paints Inc	2492 Doswell Ave	Saint Paul	MN	55108-1519	651-644-4477	28510109	Mr Fletcher S Mc Cracken
99	Illinois Tool Works Inc	8501 Delport Dr	Saint Louis	MO	63114-5905	314-423-0100	28510103	Mr Richard S Poole
100	Ream-Steckbeck Paint Co Inc	525 N 13th St	Decatur	IN	46733-1202	219-724-3030	28510100	Mr Nick Wilson
101	Pearl Paints North America Inc	15600 Lathrop Ave	Harvey	IL	60426-3768	708-596-2300	28510100	Mr Greg Srabian
102	Michigan Indus Finishes Corp	9045 Vincent St	Detroit	MI	48211-1560	313-925-0030	28510100	Mr Norman Solomon
103	Esgard Inc	515 Debonnaire Rd	Scott	LA	70583-5209	337-234-6327	28510105	Mr Robert Sawvell
104	Rappahannock Coatings Inc	174 Passaic St	Garfield	NJ	07026-1355	973-473-0050	28510103	Mr Arthur Clemente
105	International Oil Corporation	301 21st St S	Birmingham	AL	35210-1639	205-956-1112	28510105	Mr John Moore
106	Dmg Products Inc	1732 W Slauson Ave	Los Angeles	CA	90047-1119	323-292-0637	28510106	Mr Michael Butin
107	Cintech Indus Coatings Inc	2217 Langdon Farm Rd	Cincinnati	OH	45237-4712	513-631-4270	28510100	T P Foy
108	General Polymers West Not Inc	12355 Gladstone Ave	Sylmar	CA	91342-5319	818-365-9261	28510100	Mr Thomas Davidson
109	Designer Coatings Inc	64 Maple St	Beacon	NY	12508-2009	914-838-1391	28510100	Mr Jay Doyle
110	Pride Paint Inc	1524 Willingham Dr	Atlanta	GA	30344-4831	404-761-7524	28510100	Mr Jimmy Hyde

Category **MEDIUM, 2851-01, NONTRI, total 49, sample 20 plus 5 spares**

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	National Coatings Inc	RR 150 Box East	Galesburg	IL	61401	309-342-4184	28510100	Mr James W Hillhouse
2	Bridges Group Inc	216 Hwy 49 S	Byron	GA	31008	912-956-5605	28510100	Mr Bruce L Bridges
3	Kelley Technical Coatings Inc	1445 S 15th St	Louisville	KY	40210-1837	502-636-2561	28510103	Mr John R Kelley Jr
4	Carbit Paint Company Inc	927 W Blackhawk St	Chicago	IL	60622-2519	312-280-2300	28510100	Mr James S Westerman
5	The Sophir Company	2702 Douglas St	Omaha	NE	68131-2622	402-345-3536	28510100	Mr Martin Sophir
6	Seibert-Oxidermo Inc	16255 Wahrman St	Romulus	MI	48174-9725	734-942-0110	28510100	Mr Douglas Church
7	Perry & Derrick Co	2510 Highland Ave	Cincinnati	OH	45212-2319	513-351-5800	28510103	Mr Mark E Derrick
8	Ceram-Traz Corporation	325 Hwy 81	Osseo	MN	55369	612-424-2044	28510103	Mr Lyle Sommers
9	Davis Paint Company	1311 Iron St	Kansas City	MO	64116-4010	816-471-4447	28510107	Mr James L Davis
10	The Continental Products Co	25031 Tungsten Rd	Cleveland	OH	44117-1239	216-531-0710	28510100	Ms Miriam Strebeck
11	Masterchem Industries Inc	3135 Highway M	Imperial	MO	63052-2834	636-942-2510	28510100	Mr Robert W Caldwell
12	Premier Coatings Inc	2250 Arthur Ave	Elk Grove Village	IL	60007-6011	847-439-4200	28510100	Mr Christian Bosset
13	Peerless Coatings Inc	1611 22nd St SE	Cullman	AL	35055-5465	256-734-5000	28510100	Mr Raymond Burleson
14	Anvil Paints & Coatings Inc	1255 Starkey Rd	Largo	FL	33771-3109	727-535-1411	28510103	Mr Thomas Healey
15	C D I Dispersions Inc	27 Haynes Ave	Newark	NJ	07114-1313	973-824-1806	28510100	Mr David E Schmedes
16	General Coatings Technologies	24 Woodward Ave	Ridgewood	NY	11385-1022	718-821-1232	28510103	Mr Michael Ghitelman
17	United Paint and Chemical Corp	24671 Telegraph Rd	Southfield	MI	48034-3035	248-353-3035	28510103	Mr John G Piceu Jr
18	Repco Lite Paints Inc	473 W 17th St	Holland	MI	49423-3443	616-396-1275	28510100	Mr David Altena
19	Finish Technologies Inc	4205 Martin Rd	Walled Lake	MI	48390-4119	248-360-8899	28510100	W K Gardner

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
20	Stevens Paint Corp	50 Holt Dr	Stony Point	NY	10980-1904	914-786-5000	28510100	Mr James Weil
21	Mercury Paint Corp	4808 Farragut Rd	Brooklyn	NY	11203-6612	718-469-8787	28510100	Mr Daniel Berman
22	Fine Line Paint Corporation	12234 Los Nietos Rd	Santa Fe Springs	CA	90670-2910	562-946-6421	28510100	Mr John Teets
23	Patriot Paint Company Inc	201 S Middle St	Portland	IN	47371-1728	219-726-6633	28510100	Mr Michael Humphrey
24	Red Spot Westland Inc	550 Edwin St	Westland	MI	48186-3801	734-729-7400	28510103	Mr Charles D Storms
25	Dyco Paints Inc	5850 Ulmerton Rd	Clearwater	FL	33760-3940	727-536-6560	28510100	Maxie E Quinn

Category LARGE, 2851-01, NONTRI, total 25, sample 10 plus 5 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Rohm and Haas Auto Coating	2701 E 170th St	Lansing	IL	60438-1107	708-474-7000	28510103	Mr John Harigan
2	Delta Technical Coatings Inc	2550 Pellissier Pl	Whittier	CA	90601-1505	562-695-7969	28510100	Mr Ronald A La Rosa
3	The Glidden Company	925 Euclid Ave Ste 800	Cleveland	OH	44115-1408	216-344-8000	28510100	Mr Denis Wright
4	Vista Paint Corporation	2020 E Orangethorpe Ave	Fullerton	CA	92831-5327	714-680-3800	28510100	Mr Eddie R Fischer
5	Mc Cormick Paint Works Co	2355 Lewis Ave	Rockville	MD	20851-2335	301-770-3235	28510100	Mr Thomas P Mc Cormick Jr
6	Southwest Industries Inc	5197 NW 15th St Ste 124	Pompano Beach	FL	33063-3767	954-979-8799	28510100	Mr William Singer
7	Bruning Paint Company	601 S Haven St	Baltimore	MD	21224-4347	410-342-3636	28510100	Mr Doug S Ramer
8	Spraylat Corporation	716 S Columbus Ave	Mount Vernon	NY	10550-4795	914-699-3030	28510100	Mr James E Borner
9	Williams Paint Holdings Inc	1105 N Market St Ste 1014	Wilmington	DE	19801-1216	302-427-9352	28510100	Mr Martin O Brien
10	Behr Holdings Corporation	3400 W Segerstrom Ave	Santa Ana	CA	92704-6405	714-545-7101	28510103	Mr John V Croul
11	Red Spot Paint & Varnish Co	1107 E Louisiana St	Evansville	IN	47711-4747	812-428-9100	28510108	Mr Charles Storms
12	California Products Corp	169 Waverly St	Cambridge	MA	02139-4246	617-547-5300	28510100	Mr Joseph S Junkin
13	Seymour of Sycamore Inc	917 Crosby Ave	Sycamore	IL	60178-1343	815-895-9101	28510107	Ms Nancy S Heatley
14	Cardinal Industrial Finishes	1329 Potrero Ave	El Monte	CA	91733-3088	626-444-9274	28510100	Mr Stanley W Ekstrom
15	Decoart Inc	Jct Hwy 27 & 150	Stanford	KY	40484	606-365-3193	28510100	Mr Stanley Clifford

Category SMALL, 2851-01, TRI, total 4, sample 2 plus 1 spare

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Valspar Corporation	1215 Nelson Blvd	Rockford	IL	61104-4773	815-987-3700	28510100	Mr Stephen Knier
2	Benjamin Moore & Co	134 Lister Ave	Newark	NJ	07105-4524	973-344-1200	28510100	Mr Glenn Cooper
3	Ponderosa Paint Manufacturing	4631 W Aeronca St	Boise	ID	83705-6504	208-344-8683	28510100	Loren Ellis

Category MEDIUM, 2851-01, TRI, total 0, sample 0

Category LARGE, 2851-01, TRI, total 2, sample 1 plus 1 spare

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	The P D George Company	5200 N 2nd St	Saint Louis	MO	63147-3122	314-621-5700	28510107	Mr Thomas F George
2	Frazee Industries Inc	6625 Miramar Rd	San Diego	CA	92121-2508	619-276-9500	28510103	Mr Edmund W Lanctot

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
Category	**SMALL, 2851-02, NON-TRI, total 225, sample 91 plus 9 spares**							
Random#	**COMPANY**	**ADDR**	**CITY**	**ST**	**ZIP**	**FULLPHONE**	**SIC**	**CEO NAME**
1	Hydrocote Company (inc)	61 Berry St	Somerset	NJ	08873-3506	732-828-7448	28510200	Mr Eric Kasner
2	Tnemec Company Inc	1775 Corporate Dr Ste 120	Norcross	GA	30093-2950	770-931-7600	28510201	Mr Tom Osborne
3	Midstate Urethane	602 Edmonds St	Ansley	NE	68814	308-935-1837	28510208	Dale Dobesh
4	Touch Up Llc	23410 Civic Center Way	Malibu	CA	90265-5909	310-456-1736	28510202	Ms Carolina Kozak
5	Its So Easy Ltd	1031a Church St	Matawan	NJ	07747	732-583-0311	28510202	Ms Gloria Abraskin
6	Jellico Chemical Company Inc	829 S 26th St	Louisville	KY	40211-1212	502-772-2547	28510200	Mr James R Lanning
7	Benjamin Moore & Co	3325 Garfield Ave	Los Angeles	CA	90040-3101	323-722-3484	28510211	Mr Ron Widner
8	International Coatings Inc	2925 Lucy Ln	Franklin Park	IL	60131-2218	847-451-0279	28510201	Mr Mike Kramer
9	Industrial Technology Inc	Bridge St	Margaretville	NY	12455	914-586-2226	28510201	Mr Robert Greenburg
10	Professional Coatings Inc	1807 3rd Ave SE	Cullman	AL	35055-5466	256-739-1611	28510200	Mr Wesley Floyd
11	Lilly Industries Inc	2171 NC 18 US Hwy 64	Morganton	NC	28655	828-758-0700	28510200	Mr Roger Widner
12	Janco Chemical Corp	1235 5th St	Berkeley	CA	94710-1305	510-527-9770	28510213	Mr Glenn A Kjelstrom
13	Sentry Paint Technologies	1600 Hulman St	Terre Haute	IN	47802-2522	812-232-6097	28510201	Mr John Van Etten
14	Deft Incorporated	411 E Keystone	Alliance	OH	44601	330-821-5500	28510201	Mr Brent Minger
15	Nesco Mfg Inc	1510 W Drake Dr	Tempe	AZ	85283-4346	480-756-6675	28510208	Mr Steven R Coultrap
16	Carboline Company	900 Opelousas St	Lake Charles	LA	70601-2274	318-433-0605	28510209	Mr Tom Yadamac
17	Fioris Industries Inc	3239 Monier Cir Ste 5	Rancho Cordova	CA	95742-6833	916-635-1270	28510203	Mr Leo Fiori
18	Caribbean Paint Company Inc	5295 NW 79th Ave	Miami	FL	33166-4715	305-594-4500	28510202	Mr George Sixto
19	CPT Inc	2023 N Atl Ave Ste 251	Cocoa Beach	FL	32931	321-799-0046	28510209	Mr James Emory
20	Versaflex Inc	22 N 6th St	Kansas City	KS	66101-3404	913-321-9000	28510208	
21	Ace Custom Finishing	725 Oakdale St	Waterloo	IN	46793-9478	219-837-7404	28510213	Mr Brett Badman
22	Metamorphic Material Llc	29 Kripes Rd	East Granby	CT	06026-9669	860-653-2803	28510200	Mr Jay Martin
23	Illumination Partners Llc	12927 Sunshine Ave	Santa Fe Springs	CA	90670-4732	949-675-2811	28510201	Mr Duncan Crookstone
24	Ameron International Corp Del	7186 E Avenue T	Littlerock	CA	93543-1703	661-533-6450	28510200	Porfide Torrez
25	Professional Coatings Labs	152 Bliss Rd	Longmeadow	MA	01106-1408	413-567-8542	28510211	Mr Hugh Naggar
26	Var-Chem Products Inc	300 Kuller Rd	Clifton	NJ	07011-2861	973-546-2304	28510211	Mr Dominic Verillo
27	Chemline Incorporated	1 Steelcote Sq	Saint Louis	MO	63103-2937	314-664-2230	28510200	Mr John R Pantanella
28	Decorative Industries Inc	174 Orange Tpke	Sloatsburg	NY	10974-1508	914-753-2796	28510202	Mr Carmine M Zaccaria
29	Akzo Nobel Coatings Inc	1200 E McNichols Rd	Detroit	MI	48203-2874	313-883-3935	28510213	Mr Jerry Rayford
30	Epmar Corporation	13210 Barton Cir	Whittier	CA	90605-3254	562-946-8781	28510201	Mr George Krause
31	Mid Amrica Protective Coatings	1395 Louis Ave	Elk Grove Village	IL	60007-2309	847-593-3239	28510201	Mr Joseph A Mancini
32	Custom Powder Inc	10650 County Road 81	Osseo	MN	55369-4075	612-493-5686	28510200	Mr Scott W Matson
33	Superior Products & Coatings	26700 Fairfield Ave	Warren	MI	48089-4527	810-558-5599	28510201	Mr James Allen
34	Idaho Protective Coatings	1869 E Meadowgrass St	Meridian	ID	83642-7314	208-887-9682	28510208	Mr Tom Young

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
35	Simtec Coatings	16666 Smoketree St Bldg A	Hesperia	CA	92345-6177	760-244-2774	28510201	Mr Simon De Vries
36	National Coatings Inc	120 Industrial Dr	Festus	MO	63028-4132	636-937-8600	28510211	Mr Bruce Wagner
37	Triple G Coatings Inc	1714 Bannard St	Riverton	NJ	08077-1807	856-829-1575	28510203	Mr Harry W Howard
38	Permanent Coatings Inc	8405 Florida Blvd	Denham Springs	LA	70726-7914	225-791-9005	28510200	Mr Kenneth E Phillips
39	American Powder Coating Inc	1980 S Carboy Rd	Mount Prospect	IL	60056-5709	847-437-4343	28510202	Marcial Sabarre
40	H & C Inc	2901 4th St SE	Minneapolis	MN	55414-3330	612-379-9248	28510201	Mr Howard Carlson
41	Mmi Products	800 Whitney St	Brighton	MI	48116-1221	810-227-3036	28510212	Mr Greg Blostica
42	The Sherwin-Williams Company	12090 Sage Point CT	Reno	NV	89506-8992	775-971-5100	28510201	Mr John Garrett
43	Rabco Incorporated	126 Cottage Ave	Moorestown	NJ	08057-1008	856-235-5116	28510212	Mr Peter De Luca
44	Fence Factory	845 E Ventura Blvd	Oxnard	CA	93030-1704	805-988-9964	28510212	Mr John Beck
45	Pacific West Chemical Corp	337 Summit Dr	Corte Madera	CA	94925-1343	415-924-4420	28510208	Ms Mary Jones
46	Veron Coating Systems Inc	1458 N 26th Ave	Phoenix	AZ	85009-3625	602-484-7300	28510200	Mr Joseph R Hook
47	Neste Polyester Inc	1720 E Monticello CT	Ontario	CA	91761-7740	909-923-7616	28510203	Mr Greg Steele
48	Clearview Coatings Inc	180 Fairground St Ne	Marietta	GA	30060-1533	770-928-0225	28510200	Mr Mark N Hobart
49	Paint-Chem Inc	244 E Pomona Ave	Monrovia	CA	91016-4640	626-358-1151	28510201	Ashir Afshar
50	Turret Punch Co Inc	10050 6th St	Rancho Cucamonga	CA	91730-5747	909-980-3113	28510200	Ms June Peterson
51	Atlas Putty Products Co	18600 Graphic CT	Tinley Park	IL	60477-6254	708-429-5858	28510300	Mr Jack Payton
52	Four Seasons Chemical Inc	600 W Seminary St	Charlotte	MI	48813-1876	517-543-2733	28510203	Mr Robert Kish
53	Flagg Supply Inc	2591 Palomas Dr	Walled Lake	MI	48390-2053	248-960-3620	28510208	Ms Katie Flagg
54	Eron Enterprises Ltd	5320 N Elston Ave	Chicago	IL	60630-1611	773-286-2990	28510200	Eron Donato
55	Key Laboratories Inc	1900 13th Ave N	Saint Petersburg	FL	33713-5738	727-896-6696	28510201	Mr Robert Mercado
56	Crosslink Powder Coatings Inc	5182 126th Ave N	Clearwater	FL	33760-4615	727-572-4474	28510200	Kerry Nelson
57	Discovery Engineering Inc	1 Paradise Park Rd	Jacksonville	AR	72076-2365	501-985-1172	28510210	Mac Hogan
58	Innovative Engineering of Mich	1541 W Round Lake Rd	Dewitt	MI	48820-9737	517-669-1591	28510208	Daryl A Reed
59	Essential Protective Coatings	540 W Industrial Lake Dr	Lincoln	NE	68528-1573	402-441-9333	28510209	Terry Rasmussen
60	Thermaflex Inc	2316 Dundee Rd	Louisville	KY	40205-2045	502-456-1519	28510203	Ms Janet Hundley
61	Crest Chemical Industries Ltd	1066 Industry Rd	New Lenox	IL	60451-2673	815-485-2138	28510200	Mr Richard Sleckman
62	Industrial Rubber Products	4045 Sinton Rd	Colorado Springs	CO	80907-5040	719-636-5286	28510208	Mr Joseph Barach
63	C A I Inc	7 Martel Way	Georgetown	MA	01833-2224	978-352-4510	28510200	Mr Vincent Sartorelli
64	Ron Coblentz Finishing Touch	6701 S Kohler Rd	Apple Creek	OH	44606-9733	330-857-0338	28510210	Mr Ron Coblentz
65	R J McGlennon Company Inc	198 Utah St	San Francisco	CA	94103-4826	415-552-0311	28510201	Mr Richard J Mc Glennon
66	Precision Technical Coatings	1764 NW 57th St	Ocala	FL	34475-3032	352-622-4464	28510200	Mr Mike Emmerich
67	Pro Tech Coatings Inc	3201 E 3rd Ave	Tampa	FL	33605-5711	813-248-1477	28510203	Dale Quade
68	The B F Goodrich Company	425 Fenton Ln	West Chicago	IL	60185-2676	708-293-0073	28510211	Mr Al Kogler
69	Das Products	2018 S Ash Cir	Mesa	AZ	85202-6555	480-894-9858	28510208	Mr Dave Spice
70	US Colors and Coatings Inc	1180 Lyon Rd	Batavia	IL	60510-1365	630-879-8898	28510202	Mr Donald Templeman Sr
71	Thompson Enamel Inc	650 Colfax Ave	Bellevue	KY	41073-1621	606-291-3800	28510202	Mr Guido Mahren
72	Polyurethane Products Corp	100 104 W Interstate Rd	Addison	IL	60101	630-543-6700	28510208	Govind Lakshman

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
73	Walltech International Corp	1751 Northgate Blvd	Sarasota	FL	34234-2138	941-359-3709	28510200	Ms Linda Fogazzi
74	Walter Wurdack Inc	4977 Fyler Ave	Saint Louis	MO	63139-1111	314-351-6600	28510200	Mr William D Wurdack Jr
75	Bynum Enterprise Inc	7775 Pleasant Grove Rd	Albertville	AL	35950-3751	256-891-0335	28510213	Mr Rick Bynum
76	A-Line Products Corporation	2955 Bellevue St	Detroit	MI	48207-3502	313-571-8300	28510200	Mr Alger E Laura
77	Plasma-Coating Corp	15331 S Avalon Blvd	Gardena	CA	90248-2304	310-532-3064	28510200	Mr Robert Byrem
78	Aqua Borne Coating Systems	805 Dixon Rd	Jonesboro	GA	30238-3177	770-477-6688	28510203	Mr Frank T Lynch
79	Dipn Strip	2141 S Platte River Dr	Denver	CO	80223-4015	303-935-8115	28510201	Mr Rusty Schuyler
80	Zenith Chemical Works Inc	133 W Interstate Rd	Addison	IL	60101-4511	630-543-5161	28510213	Mr James Macinnes
81	Raven Lining Systems Inc	2000 L St NW Ste 200	Washington	DC	20036-4924	202-416-1795	28510203	Mr Charles E Floyd
82	Miles Ceramic Color	2112 S Grand Ave	Santa Ana	CA	92705-5205	714-556-1329	28510200	Mr Alan Miles
83	American Industrial	106 W 7th St	Altamont	KS	67330-9230	316-784-2611	28510201	Mr John Copp
84	Harrison Distributors Inc	312 Fields Ave	Aberdeen	NC	28315-8610	910-944-1255	28510203	Mr Ferd L Harrison Jr
85	Global Industrial Network Inc	15219 NW 60th Ave	Hialeah	FL	33014-2410	305-821-8680	28510208	Mr Stanley S Bostic
86	Ryan Marselis	1530 S Gilbert Rd 2	Mesa	AZ	85204-6008	480-633-2624	28510212	Mr Ryan Marselis
87	American Paint & Chem Co Inc	17871 U S Highway 31 N	Vinemont	AL	35179	256-739-5691	28510201	Kelton Whaley
88	Eco Resins Corporation	1021 N Lombard Rd Unit 7	Lombard	IL	60148-1238	630-268-9990	28510201	Hasu Kamdar
89	Gerald Lupuz	585 Explorer St	Brea	CA	92821-3111	714-255-1290	28510201	Mr Gerald Lapuz
90	Valspar Corporation	9308 Industrial Dr Ne	Covington	GA	30014-1489	770-787-0031	28510200	Bobby Smith
91	Fiber Art Ltd Inc	264 W 40th St Ste 6970	New York	NY	10018-1512	212-750-5446	28510200	Mr Michael Goldberg
92	Dan Eckert	6201 Rosedale Rd	Lansing	MI	48911-5615	517-272-7957	28510208	Mr Dan Eckert
93	Professional Coatings Inc	27010 Highway 107	Cabot	AR	72023-9647	501-988-5798	28510208	Mr Steve Mitchell
94	Hsc Industrial Coatings Inc	1711 N Hwy 7	Pleasant Hill	MO	64080-9436	816-540-2786	28510200	Gene Land
95	Jessup Services	2850 Industry St	Oceanside	CA	92054-4812	760-433-8630	28510213	Mr Byron Jessup
96	Jodan Technology Inc	1500 Front St	Yorktown Heights	NY	10598-4638	914-962-1206	28510203	Mr Stanley Jasne
97	Hartin Paint & Filler Corp	Broad & 14th St	Carlstadt	NJ	07072	201-438-3300	28510200	Mr Richard Gottesman
98	Khi Coil Processing Inc	45 Enterprise Dr	Vassar	MI	48768-9505	517-823-0201	28510208	Mr Tom Herman
99	Bender Wholesale Distributors	2911 Moose Trl	Elkhart	IN	46514-8230	219-264-4409	28510201	Mr Paul Bender
100	Ciba Specialty Chemicals Corp	5511 Enterprise Dr	Lansing	MI	48911-4131		28510203	

Category MEDIUM, 2851-02, NON-TRI, total 34, sample 14 plus 6 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Bayou Well Works Inc	12710 Leisure Rd	Baton Rouge	LA	70807-1416	225-775-3018	28510203	Mr Tom Moncla
2	S P Kish Industries Inc	600 W Seminary St	Charlotte	MI	48813-1876	517-543-2650	28510203	Mr Robert Kish
3	Duckback Products Inc	2644 Hegan Ln	Chico	CA	95928-9572	530-343-3261	28510210	Mr Patrick K Wever
4	Kustom Blending Inc	7960 Kentucky Dr Ste 5	Florence	KY	41042-2933	606-282-8400	28510211	Mr Michael E Gerkin
5	Garland Floor Co	4500 Willow Pkwy	Cleveland	OH	44125-1042	216-883-4100	28510203	Mr Jonathon K Wise
6	Rad-Cure Corp	9 Audrey Pl	Fairfield	NJ	07004-3401	973-808-1002	28510201	Mr Harry S Katz

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
7	Egyptian Lacquer Mfg Co Inc	555 Sagamore Pkwy S	Lafayette	IN	47905-4737	765-447-2136	28510201	Mr Louis A Ruckgaber Jr
8	Lymtal International Inc	4150 S Lapeer Rd	Orion	MI	48359-1865	248-373-8100	28510208	Mr Francis M Lymburner
9	Thermo Cote Inc	790 21st Ave	Paterson	NJ	07513-1018	973-345-6206	28510201	Mr Larry Kersen
10	Architectural Surfaces Inc	123 Columbia CT Ste 201	Chaska	MN	55318-2303	612-448-5300	28510200	Mr Steven Anderson
11	C L Hauthaway & Sons Corp	638 Summer St 640	Lynn	MA	01905-2044	781-592-6444	28510208	Mr Leopoldo A Johnson
12	Dozier & Gay Indus Coatings	3529 Enterprise Way	Green Cove Springs	FL	32043-9334	904-284-8777	28510200	Mr Tom Slade
13	Crest-Hood Foam Company Inc	122 Parker St	Newburyport	MA	01950-4008	978-462-5400	28510208	Mr Duane W Potter
14	Covar Corp	252 Wright St	Newark	NJ	07114-2631	973-242-5868	28510211	Mr Jeffrey Simons
15	U S Polymers Inc	300 E Primm St	Saint Louis	MO	63111-3603	314-638-1632	28510200	Mr Roger Heitland
16	Harco Chemical Coating Inc	208 Dupont St	Brooklyn	NY	11222-1241	718-389-3777	28510208	Mr Herbert Wallenstein
17	Fibre Tech Corp	2323 34th Way	Largo	FL	33771-3902	727-539-0844	28510200	Mr Andrew Morris
18	Lenmar Inc	4701 Odonnell St	Baltimore	MD	21224-5303	410-534-3300	28510200	Mr Christian Bosset
19	American Porcelain Enamel Co	1285 E Keating Ave	Muskegon	MI	49442-6020	231-726-4756	28510202	Mr Robert Long Jr
20	Dur-A-Flex Inc	95 Goodwin St	East Hartford	CT	06108-1146	860-528-9838	28510203	Mr Robert Smith

Category LARGE, 2851-02, NON-TRI, total 21, sample 8 plus 4 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Brewer Science Inc	2401 Brewer Dr	Rolla	MO	65401-7003	573-364-0300	28510201	Terry Brewer
2	TCI Inc	610 Dixon Dr	Ellaville	GA	31806	912-937-5411	28510201	Mr Tom Slade
3	Tnemec Company Inc	6800 Corporate Dr	Kansas City	MO	64120-1323	816-483-3400	28510201	Mr Thomas C Osborne
4	Technical Coatings Co	360 US Highway 206 4000	Flanders	NJ	07836-9577	973-252-2500	28510200	Mr Robert J Hodgson
5	Davis-Frost Inc	1209 Tyler St Ne	Minneapolis	MN	55413-1529	612-789-8871	28510211	Mr Calvin C Henning
6	Atlas Products Inc	2124 Valley Dr	Des Moines	IA	50321-1173	515-288-0231	28510211	Mr Lyle Middleton
7	Frontier Bag Inc	5720 E 150th St	Kansas City	MO	64146	816-765-4811	28510208	Mr Ronald W Gurley
8	Specialty Coatings Company	2526 Delta Ln	Elk Grove Village	IL	60007-6305	847-766-3555	28510200	Mr Seymour Neems
9	John C Dolph Company	320 New Rd	Monmouth Junction	NJ	08852-2312	732-329-2333	28510211	Mr John D Mayes
10	Akzo Nobel Courtaulds US Inc	2 Manhattanville Rd	Purchase	NY	10577-2113	914-642-8000	28510200	Sipko Huismans
11	Carboline Company	350 Hanley Industrial CT	Saint Louis	MO	63144-1510	314-644-1000	28510200	Mr Sherwin L Steinberg
12	Osmose Inc	980 Ellicott St	Buffalo	NY	14209-2323	716-882-5905	28510200	Mr James R Spengler Jr

Category SMALL, 2851-02, TRI, total 6, sample 2 plus 2 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Benjamin Moore & Co	4831 Bulls Bay Hwy	Jacksonville	FL	32219-3234	904-786-9141	28510201	Mr Scott Haynes
2	Valspar Corporation	202 W Jacobs Ave	Fort Wayne	IN	46808-2464	219-484-9011	28510201	Mr John Kadlec
3	PPG Industries Inc	6804 Enterprise Dr	Louisville	KY	40214-4305	502-361-2681	28510201	Mr Lou Komis
4	Valspar Corporation	1647 English Rd	High Point	NC	27262-7203	336-887-4600	28510211	Mr John Shagena

Category **MEDIUM, 2851-02, TRI, total 0, sample 0**

Category **LARGE, 2851-02, TRI, total 0, sample 0**

APPENDIX D

Random samples for number of questionnaires needed to have a 90 percent probability of including a 1:20 waste practice when sampling the 12 categories derived from the D & B Database as in Section 4.3

Category SMALL, 2851-01, NONTRI, total 255, sample 41 plus 9 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Acrylux Paint Manufacturing Co	6010 Powerline Rd	Fort Lauderdale	FL	33309-2014	954-772-0300	28510103	Mr William Riedesel
2	Ingels Inc	104 Best Industrial Dr	Jonesboro	AR	72401	870-935-9977	28510100	Mr Marlin R Thyer
3	Seaboard Asphalt Products Co	3601 Fairfield Rd	Baltimore	MD	21226-1516	410-355-0330	28510105	Mr Richard Campbell
4	Kwal-Howells Inc	6200 Cors Blvd NW Ste G01	Albuquerque	NM	87120	505-898-6094	28510100	Javiar Alverado
5	Centri Coatings & Systems Corp	1010 Gentry St	Kansas City	MO	64116-4111	816-221-1146	28510103	Mr Gerald Frizelle
6	Arrowhead Paint Products Inc	24 S 39th Ave W	Duluth	MN	55807-2842	218-628-2819	28510103	Mr Thomas L Lavato
7	Surface Protection Industries	3360 E Pico Blvd	Los Angeles	CA	90023-3729	323-269-9231	28510100	Mr Ron Todar
8	Hawthorne Paint Co Inc	66 5th Ave	Hawthorne	NJ	07506-2140	973-423-2335	28510100	Mr Douglas Delgado
9	Quality Coatings Inc	1700 N State St	Chandler	IN	47610-9738	812-925-3314	28510107	Mr Gerald R Lewis
10	Alternative Materials Tech	875 Stillwater Rd Ste 300	West Sacramento	CA	95605-1624	916-371-6811	28510100	Mr Ed Lopez
11	Seaside Inc	902 Palo Verde Ave	Long Beach	CA	90815-4662	562-430-7287	28510103	Mr Joel Friedland
12	TI-Kromatic Paints Inc	2492 Doswell Ave	Saint Paul	MN	55108-1519	651-644-4477	28510109	Mr Fletcher S Mc Cracken
13	New Nautical Coatings Inc	2181 34th Way	Largo	FL	33771-3952	727-523-8053	28510103	Mr John B Norrie
14	Union Chemical Industries	1320 NW 23rd Ave	Fort Lauderdale	FL	33311-5244	954-581-6060	28510100	Mr Richard Devick
15	Invinca-Shield Inc	658 Lake Dr	Altamonte Springs	FL	32701-5412	407-331-5640	28510100	Mr Arthur Seligman
16	W H E B Corporation	1950 NW 15th St	Pompano Beach	FL	33069-1602	954-979-3200	28510100	Mr William Beermann
17	Okp Inc	10 Patriots Dr	Lexington	MA	02420-3504	781-862-5480	28510100	Mr Harry Hall III
18	Indian River Paint Co Inc	2865 Kirby Ave Ne 123&4	Palm Bay	FL	32905-3425	321-729-0696	28510100	Mr Craig Farrior
19	Mautz Paint Co	4438 Center Ter	Rockford	IL	61108-3907	815-227-4512	28510100	Mr Bernard Mautz Jr
20	Fannco Inc	1010 S Nova Rd	Ormond Beach	FL	32174-7341	904-677-8020	28510100	Ms Nancy M Fanning
21	Klinger Paint Co Inc	333 5th Ave SE	Cedar Rapids	IA	52401-1801	319-366-7165	28510100	Mr Robert Klinger
22	Valspar Corporation	1004 W 10th St	Azusa	CA	91702-1701	626-334-8251	28510103	Mr Leo Mansueto
23	Floyd Coatings Inc	206 E Pass Rd	Andalusia	AL	36420-3504	334-222-1336	28510100	David Andress
24	Merrifield Paint Company Inc	47 Inwood Rd	Rocky Hill	CT	06067-3412	860-529-1583	28510100	Ms Beverly Merrifield
25	Imperial Research & Mfg	192 Center St	Cape Canaveral	FL	32920-3728	321-799-8541	28510103	Mr Edward Hradsky
26	Sawyer Finn Company Inc	1600 Genessee St Ste 555	Kansas City	MO	64102-1085	816-421-3321	28510100	Mr Rich Orr
27	General Polymers West Not Inc	12355 Gladstone Ave	Sylmar	CA	91342-5319	818-365-9261	28510100	Mr Thomas Davidson
28	Dan Cytron Co	637 Strand St APT B	Santa Monica	CA	90405-2473	310-396-2432	28510107	Mr Dan Cytron
29	Wattyl Paint Corporation	6110 Gunn Hwy	Tampa	FL	33625-4014	813-961-1234	28510100	Given Garcia
30	A M S Coating Systems Inc	16457 Highway 7	Hutchinson	MN	55350-5602	320-587-4321	28510100	Mr Barry Schaffer
31	Rappahannock Coatings Inc	174 Passaic St	Garfield	NJ	07026-1355	973-473-0050	28510103	Mr Arthur Clemente
32	Akzo Nobel Coatings Inc	30 Brush St	Pontiac	MI	48341-2212	248-334-7010	28510107	Tony Porter
33	Jim Paints	Howell Rd Hwy Rdwy Hwy Rd	Saint Stephens	AL	36569	334-246-9303	28510106	Mr James W Long
34	I V C Industrial Coatings Inc	560 W Centennial Blvd	Casa Grande	AZ	85222-8110	520-421-9440	28510100	Mr Mark Hewitt
35	M A Bruder & Sons Inc	630 N 3rd St	Terre Haute	IN	47807-2643	812-234-6621	28510100	Mr Bryan Deal
36	Potter Paint Co of Indiana	508 S Green St	Cambridge City	IN	47327-1645	765-478-4501	28510103	Mr Jay W Potter
37	S & W Coatings Inc	4242 Old Hartsville Rd	Scottsville	KY	42164-8620	270-622-7100	28510100	Mr Harry Woodward

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
38	Color Match Exterior Inc	2200 McFarland 400 Blvd	Alpharetta	GA	30004-5600	770-664-8001	28510100	Mr James H Moore
39	Anchor Coatings of Leesburg	2280 Talley Rd	Leesburg	FL	34748-3316	352-728-0777	28510103	Mr Gary Tutor
40	The Glidden Company	340r Vanderbilt Ave	Norwood	MA	02062-5008	781-551-8555	28510100	Mr George Kalich
41	Carbit Paint Company (inc)	2942 W North Ave	Chicago	IL	60647-5142	773-278-7177	28510100	Mr Lewis Rivera
42	Esgard Inc	515 Debonnaire Rd	Scott	LA	70583-5209	337-234-6327	28510105	Mr Robert Sawvell
43	Industrial Finishing Products	820 Remsen Ave	Brooklyn	NY	11236-1623	718-342-4871	28510108	Mr Andrew Galgano
44	Therma Cell Technologies Inc	303 S Hibbert	Mesa	AZ	85210-1603	480-834-7884	28510100	Mr John Pidorenko
45	Pioneer Paint Arizona Inc	3755 E 43rd Pl	Tucson	AZ	85713-5403	520-571-1800	28510100	Mr Larry Henderson
46	Jaegle Industries Inc	4730 N Route 130	Pennsauken	NJ	08109-2117	856-665-0110	28510103	Mr Carl Tudor Jr
47	Oliver Paint Mfg Co	3357 Torrey Rd	Flint	MI	48507-3251	810-233-7204	28510100	Mr James J Reid
48	Floor Supply & Coloray Pnt Co	1620 Spectrum Dr	Lawrenceville	GA	30043-5742	770-513-1132	28510103	Mr Frank W Beckworth
49	Tri-Star Environmental Inc	122 N York Rd	Elmhurst	IL	60126-2856	630-530-5808	28510100	Mr Mike Napadow
50	Suncoast Spray Roof Coating	600 27th St S	Saint Petersburg	FL	33712-1657	727-327-5294	28510100	Mr Larry Mc Gettigan

Category MEDIUM, 2851-01, NONTRI, total 49, sample 34 plus 6 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Helen Inc	6450 Hanna Lake Ave SE	Caledonia	MI	49316-8365	616-698-8102	28510107	Mr Michael Mc Allister
2	Akron Paint & Varnish Inc	1390 Firestone Pkwy	Akron	OH	44301-1624	330-773-8911	28510103	Mr David Venarge
3	Kelley Technical Coatings Inc	1445 S 15th St	Louisville	KY	40210-1837	502-636-2561	28510103	Mr John R Kelley Jr
4	Davies Imperial Coatings Inc	1275 State St	Hammond	IN	46320-1633	219-933-0877	28510100	Mr Donn T Davies
5	Palmer Paint Products Inc	1291 Rochester Rd	Troy	MI	48083-2879	248-588-4500	28510103	Mr Lawrence R Beddow
6	Masterchem Industries Inc	3135 Highway M	Imperial	MO	63052-2834	636-942-2510	28510100	Mr Robert W Caldwell
7	Textured Coatings of America	2422 E 15th St	Panama City	FL	32405-6348	850-769-0347	28510103	Mr Stuart M Haines
8	Ultra Additives Inc	460 Straight St	Paterson	NJ	07501-2932	973-279-1306	28510100	Mr Ted D Amico
9	Sun Coatings Inc	12290 73rd CT	Largo	FL	33773-3040	727-531-4100	28510100	Mr Raymond T Hyer
10	Repco Lite Paints Inc	473 W 17th St	Holland	MI	49423-3443	616-396-1275	28510100	Mr David Altena
11	Lasting Paints Inc	200-212 S Franklintown Rd	Baltimore	MD	21223	410-947-6300	28510100	Mr Marvin Sklar
12	Richards Paint Mfg Co Inc	200 Paint St	Rockledge	FL	32955-5807	321-636-6200	28510100	Mr Edward J Richard Sr
13	Patriot Paint Company Inc	201 S Middle St	Portland	IN	47371-1728	219-726-6633	28510100	Mr Michael Humphrey
14	Cal-Tone Paints Inc	223 S West St	Raleigh	NC	27603-1835	919-829-0280	28510107	M M Croom
15	Nautical Marine Paint Corp	4802 Farragut Rd	Brooklyn	NY	11203-6612	718-462-7000	28510100	Mr Michael Schnurr
16	Marcus Paint Company	235 E Market St	Louisville	KY	40202-1217	502-584-0303	28510100	Merritt E Marcus
17	Davis Paint Company	1311 Iron St	Kansas City	MO	64116-4010	816-471-4447	28510107	Mr James L Davis
18	Mercury Paint Corp	4808 Farragut Rd	Brooklyn	NY	11203-6612	718-469-8787	28510100	Mr Daniel Berman
19	Dyco Paints Inc	5850 Ulmerton Rd	Clearwater	FL	33760-3940	727-536-6560	28510100	Maxie E Quinn
20	Johnson Paints Inc	2131 Andrea Ln	Fort Myers	FL	33912-1903	941-489-2332	28510100	Mr Sam Johnson
21	Premier Coatings Inc	2250 Arthur Ave	Elk Grove Village	IL	60007-6011	847-439-4200	28510100	Mr Christian Bosset

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
22	Strathmore Products Inc	1970 W Fayette St	Syracuse	NY	13204-1740	315-488-5401	28510100	Mr William Udovich Sr
23	Paragon Paint & Varnish Corp	549 46th Ave	Long Island City	NY	11101-5214	718-729-7420	28510100	Ms Selma Rattner
24	Carbit Paint Company Inc	927 W Blackhawk St	Chicago	IL	60622-2519	312-280-2300	28510100	Mr James S Westerman
25	Stevens Paint Corp	50 Holt Dr	Stony Point	NY	10980-1904	914-786-5000	28510100	Mr James Weil
26	National Coatings Inc	RR 150 Box East	Galesburg	IL	61401	309-342-4184	28510100	Mr James W Hillhouse
27	Bridges Group Inc	216 Hwy 49 S	Byron	GA	31008	912-956-5605	28510100	Mr Bruce L Bridges
28	The Sophir Company	2702 Douglas St	Omaha	NE	68131-2622	402-345-3536	28510100	Mr Martin Sophir
29	Edcoat Limited Partnership	30350 Edison Rd	New Carlisle	IN	46552-9728	219-654-9105	28510100	Edcoat P Inc
30	General Coatings Technologies	24 Woodward Ave	Ridgewood	NY	11385-1022	718-821-1232	28510103	Mr Michael Ghitelman
31	United Paint and Chemical Corp	24671 Telegraph Rd	Southfield	MI	48034-3035	248-353-3035	28510103	Mr John G Piceu Jr
32	Ceram-Traz Corporation	325 Hwy 81	Osseo	MN	55369	612-424-2044	28510103	Mr Lyle Sommers
33	H & S Coatings Inc	16400 Garfield Ave	Paramount	CA	90723-5302	562-531-0131	28510100	Mr Greg Smith
34	Graham Paint & Varnish Co Inc	4800 S Richmond St	Chicago	IL	60632-2022	773-376-7676	28510103	Mr Harry True
35	L & H Paint Products Inc	1200 Putman Ave	Yuba City	CA	95991-7203	530-751-8656	28510100	Mr Richard M Levine
36	Techstar Industries Inc	848 Prairie Ln	Marshfield	MO	65706-9110	417-859-2275	28510100	Mr Rick Jones
37	Sheboygan Pnt of Cedartown Ga	608 Canal St	Cedartown	GA	30125-6334	770-748-8426	28510100	Mr Steve Nelesen
38	Perry & Derrick Co	2510 Highland Ave	Cincinnati	OH	45212-2319	513-351-5800	28510103	Mr Mark E Derrick
39	Red Spot Westland Inc	550 Edwin St	Westland	MI	48186-3801	734-729-7400	28510103	Mr Charles D Storms
40	Coatings & Chemicals Corp	521 Santa Rosa Dr	Des Plaines	IL	60018-2601	847-759-0000	28510103	Kanti Gandhi

Category LARGE, 2851-01, NONTRI, total 25, sample 23 plus 2 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Scott Paint Corp	7839 Fruitville Rd	Sarasota	FL	34240-9280	941-371-0015	28510100	
2	Decoart Inc	Jct Hwy 27 & 150	Stanford	KY	40484	606-365-3193	28510100	Mr Stanley Clifford
3	Blatz Paint Company Inc	319 S Shelby St	Louisville	KY	40202-1064	502-584-8364	28510100	Mr Fairleigh Lussky
4	Spectra-Tone Paint Corporation	1595 E San Bernardino Ave	San Bernardino	CA	92408-2946	909-478-3485	28510100	Mr James E Dabbs
5	Mc Cormick Paint Works Co	2355 Lewis Ave	Rockville	MD	20851-2335	301-770-3235	28510100	Mr Thomas P Mc Cormick Jr
6	Aervoe Pacific Company Inc	1198 Sawmill Rd	Gardnerville	NV	89410-6119	775-782-0100	28510103	Mr David Williams
7	Wattyl Paint Corporation	5275 Peachtree Industrial	Atlanta	GA	30341-2626	770-455-7000	28510107	Christian Bosset
8	Norton & Son of California	5928 Garfield Ave	Los Angeles	CA	90040-3607	323-685-7220	28510108	Mr Edward F Norton Jr
9	Bruning Paint Company	601 S Haven St	Baltimore	MD	21224-4347	410-342-3636	28510100	Mr Doug S Ramer
10	Smiland Paint Company	620 Lamar St	Los Angeles	CA	90031-2513	323-222-7000	28510107	Mr Bronko M Smiland
11	Behr Holdings Corporation	3400 W Segerstrom Ave	Santa Ana	CA	92704-6405	714-545-7101	28510103	Mr John V Croul
12	Seymour of Sycamore Inc	917 Crosby Ave	Sycamore	IL	60178-1343	815-895-9101	28510107	Ms Nancy S Heatley
13	Vogel Paint & Wax Company Inc	1110 Albany Pl SE	Orange City	IA	51041-1982	712-737-8880	28510100	Mr Franklin Vogel
14	Delta Technical Coatings Inc	2550 Pellissier Pl	Whittier	CA	90601-1505	562-695-7969	28510100	Mr Ronald A La Rosa
15	Cardinal Industrial Finishes	1329 Potrero Ave	El Monte	CA	91733-3088	626-444-9274	28510100	Mr Stanley W Ekstrom

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
16	California Products Corp	169 Waverly St	Cambridge	MA	02139-4246	617-547-5300	28510100	Mr Joseph S Junkin
17	Vista Paint Corporation	2020 E Orangethorpe Ave	Fullerton	CA	92831-5327	714-680-3800	28510100	Mr Eddie R Fischer
18	Rohm and Haas Auto Coating	2701 E 170th St	Lansing	IL	60438-1107	708-474-7000	28510103	Mr John Harigan
19	Spraylat Corporation	716 S Columbus Ave	Mount Vernon	NY	10550-4795	914-699-3030	28510100	Mr James E Borner
20	Southwest Industries Inc	5197 NW 15th St Ste 124	Pompano Beach	FL	33063-3767	954-979-8799	28510100	Mr William Singer
21	Red Spot Paint & Varnish Co	1107 E Louisiana St	Evansville	IN	47711-4747	812-428-9100	28510108	Mr Charles Storms
22	Rust-Oleum Corporation	11 E Hawthorn Pkwy	Vernon Hills	IL	60061-1420	847-367-7700	28510103	Mr Michael D Tellor
23	Williams Paint Holdings Inc	1105 N Market St Ste 1014	Wilmington	DE	19801-1216	302-427-9352	28510100	Mr Martin O Brien
24	The Glidden Company	925 Euclid Ave Ste 800	Cleveland	OH	44115-1408	216-344-8000	28510100	Mr Denis Wright
25	Williams US Holdings Inc	1105 N Market St Ste 1014	Wilmington	DE	19801-1216	302-427-9259	28510100	Mr Martin O Brien

Category SMALL, 2851-01, TRI, total 4, sample 3 plus 1 spare

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Valspar Corporation	1215 Nelson Blvd	Rockford	IL	61104-4773	815-987-3700	28510100	Mr Stephen Knier
2	Benjamin Moore & Co	134 Lister Ave	Newark	NJ	07105-4524	973-344-1200	28510100	Mr Glenn Cooper
3	Benjamin Moore & Co	49 Sumner St	Milford	MA	01757-1656	508-473-8900	28510103	Mr Van A Stogner
4	Ponderosa Paint Manufacturing	4631 W Aeronca St	Boise	ID	83705-6504	208-344-8683	28510100	Loren Ellis

Category MEDIUM, 2851-01, TRI, total 0, sample 0

Category LARGE, 2851-01, TRI, total 2, sample 2

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	The P D George Company	5200 N 2nd St	Saint Louis	MO	63147-3122	314-621-5700	28510107	Mr Thomas F George
2	Frazee Industries Inc	6625 Miramar Rd	San Diego	CA	92121-2508	619-276-9500	28510103	Mr Edmund W Lanctot

Category SMALL, 2851-02, NON-TRI, total 225, sample 42 plus 6 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Keystone Materials Inc	2020 W Beaver St	Jacksonville	FL	32209-7533	904-353-4700	28510200	Mr Thad Layne
2	The Sherwin-Williams Company	370 Boggs Ln	Richmond	KY	40475-2524	606-624-5146	28510200	Mr Chuck Stover
3	Global Industrial Network Inc	15219 NW 60th Ave	Hialeah	FL	33014-2410	305-821-8680	28510208	Mr Stanley S Bostic
4	Dipn Strip	2141 S Platte River Dr	Denver	CO	80223-4015	303-935-8115	28510201	Mr Rusty Schuyler
5	Jet Coatings	1531 Esperanza St	Los Angeles	CA	90023-3929	323-265-0423	28510200	Mr James Taylor
6	Full Seal Spraying	63 Tom Vittitow Ln	Bardstown	KY	40004-8882	502-348-3948	28510201	Mr James Fuller
7	Harrison Distributors Inc	312 Fields Ave	Aberdeen	NC	28315-8610	910-944-1255	28510203	Mr Ferd L Harrison Jr
8	Hsc Industrial Coatings Inc	1711 N Hwy 7	Pleasant Hill	MO	64080-9436	816-540-2786	28510200	Gene Land
9	Zenith Chemical Works Inc	133 W Interstate Rd	Addison	IL	60101-4511	630-543-5161	28510213	Mr James Macinnes

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
10	Professional Coatings Inc	27010 Highway 107	Cabot	AR	72023-9647	501-988-5798	28510208	Mr Steve Mitchell
11	A-Line Products Corporation	2955 Bellevue St	Detroit	MI	48207-3502	313-571-8300	28510200	Mr Alger E Laura
12	Carboline Company	900 Opelousas St	Lake Charles	LA	70601-2274	318-433-0605	28510209	Mr Tom Yadamac
13	CPT Inc	2023 N Atl Ave Ste 251	Cocoa Beach	FL	32931	321-799-0046	28510209	Mr James Emory
14	Wilson Imperial Company	115 Chestnut St	Newark	NJ	07105-1189	973-589-6050	28510201	Mr Joseph B Smock
15	Polyurethane Products Corp	100 104 W Interstate Rd	Addison	IL	60101	630-543-6700	28510208	Govind Lakshman
16	Crescent Hardwood Supply	1165 Constance St	New Orleans	LA	70130-4151	504-523-4972	28510211	Mr John Troendle
17	Protex-A-Cote Inc	27 Haynes Ave	Newark	NJ	07114-1313	973-824-2400	28510201	Mr Robert E Schaefer
18	Resin-Tech Corporation	1440 Jamike Ave	Erlanger	KY	41018-1040	606-525-2250	28510203	Kim E Bowling
19	Das Products	2018 S Ash Cir	Mesa	AZ	85202-6555	480-894-9858	28510208	Mr Dave Spice
20	Khi Coil Processing Inc	45 Enterprise Dr	Vassar	MI	48768-9505	517-823-0201	28510208	Mr Tom Herman
21	Wood Coatings Research Group	6008 B High Point Rd	High Point	NC	27260	336-841-0264	28510200	Mr Ronald Obee
22	Paint-Chem Inc	244 E Pomona Ave	Monrovia	CA	91016-4640	626-358-1151	28510201	Ashir Afshar
23	Veron Coating Systems Inc	1458 N 26th Ave	Phoenix	AZ	85009-3625	602-484-7300	28510200	Mr Joseph R Hook
24	H C Chem Corporation	478 Lindbergh Ave	Livermore	CA	94550-9553	925-606-6868	28510200	Mr Harry Chern
25	Sentry Paint Technologies	1600 Hulman St	Terre Haute	IN	47802-2522	812-232-6097	28510201	Mr John Van Etten
26	Triple G Coatings Inc	1714 Bannard St	Riverton	NJ	08077-1807	856-829-1575	28510203	Mr Harry W Howard
27	Rawco Inc	5841 Trailwoods CT	Stone Mountain	GA	30087-2751	770-921-8671	28510201	Mr Robert A Williams
28	BASF Corporation	26701 Telegraph Rd	Southfield	MI	48034-2442	248-827-4670	28510200	Mr Frank McKulka
29	Flexabar Corporation	1969 Rutgers University B	Lakewood	NJ	08701-4538	732-901-6500	28510212	Mr Richard J Guglielmo Sr
30	Eco Resins Corporation	1021 N Lombard Rd Unit 7	Lombard	IL	60148-1238	630-268-9990	28510201	Hasu Kamdar
31	Dynamis Inc	415 E Venice Ave	Venice	FL	34292-2632	941-488-3999	28510200	Mr John Caramanian
32	Cast Coat Inc	354 West St	West Bridgewater	MA	02379-1439	508-587-4502	28510203	Mr Robert Lothrop
33	Pacific West Chemical Corp	337 Summit Dr	Corte Madera	CA	94925-1343	415-924-4420	28510208	Ms Mary Jones
34	Crow River Industrial Coatings	860 Norway Dr E	Annandale	MN	55302-9421	320-274-3059	28510200	Mr Robert M Johnson
35	Nesco Mfg Inc	1510 W Drake Dr	Tempe	AZ	85283-4346	480-756-6675	28510208	Mr Steven R Coultrap
36	Permanent Coatings Inc	8405 Florida Blvd	Denham Springs	LA	70726-7914	225-791-9005	28510200	Mr Kenneth E Phillips
37	Empire State Varnish Co Inc	38 Varick St	Brooklyn	NY	11222-3817	718-388-5450	28510211	Mr Richard M Stark
38	Pro Tech Coatings Inc	3201 E 3rd Ave	Tampa	FL	33605-5711	813-248-1477	28510203	Dale Quade
39	Garco Shellac Co Inc	1461 Schenectady Ave	Brooklyn	NY	11203-6533	718-287-3330	28510201	Aradion Skutelsky
40	Custom Powder Inc	10650 County Road 81	Osseo	MN	55369-4075	612-493-5686	28510200	Mr Scott W Matson
41	Norfolk Corporation	145 Enterprise Dr	Marshfield	MA	02050-2132	781-328-6700	28510201	Mr Matthew R Steele
42	Manufctring Cnsulting Chemists	708 W Mill St Ste F	San Bernardino	CA	92410-3364	909-381-1833	28510201	Mr John J Wauchope
43	Van Technologies Inc	5791 Bergquist Rd	Duluth	MN	55804-9666	218-525-9424	28510200	Mr Lawrence C Van Iseghem
44	Gerald Lupuz	585 Explorer St	Brea	CA	92821-3111	714-255-1290	28510201	Mr Gerald Lapuz

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
45	Versaflex Inc	22 N 6th St	Kansas City	KS	66101-3404	913-321-9000	28510208	
46	Lakins Coatings Inc	10160 NW South River Dr	Miami	FL	33178-1324	305-885-3101	28510200	Mr Charles Lakins
47	L R W Coatings Inc	253 Pecan Leaf Ln	Flomaton	AL	36441-4519	334-296-0307	28510200	Mr Gary A Wiggins
48	Thermaflex Inc	2316 Dundee Rd	Louisville	KY	40205-2045	502-456-1519	28510203	Ms Janet Hundley
49	Aqua Borne Coating Systems	805 Dixon Rd	Jonesboro	GA	30238-3177	770-477-6688	28510203	Mr Frank T Lynch
50	Uv Coatings Ltd	140 Sheldon Rd	Berea	OH	44017-1268	440-234-8444	28510203	Mr Gerald Forstner

Category MEDIUM, 2851-02, NON-TRI, total 34, sample 23 plus 7 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Atlas Coatings Corp	820 E 140th St	Bronx	NY	10454-1904	718-402-2000	28510201	Mr Stephen Landau
2	American Porcelain Enamel Co	1285 E Keating Ave	Muskegon	MI	49442-6020	231-726-4756	28510202	Mr Robert Long Jr
3	Chemical Coatings Inc	3194 Hickory Blvd	Hudson	NC	28638-2661	828-728-8266	28510200	Mr Clay B Bollinger
4	Lymtal International Inc	4150 S Lapeer Rd	Orion	MI	48359-1865	248-373-8100	28510208	Mr Francis M Lymburner
5	S P Kish Industries Inc	600 W Seminary St	Charlotte	MI	48813-1876	517-543-2650	28510203	Mr Robert Kish
6	Rad-Cure Corp	9 Audrey Pl	Fairfield	NJ	07004-3401	973-808-1002	28510201	Mr Harry S Katz
7	Universal Chem & Coatings Del	1975 Fox Ln	Elgin	IL	60123-7839	847-931-1700	28510201	Yenson E Chin
8	U S Polymers Inc	300 E Primm St	Saint Louis	MO	63111-3603	314-638-1632	28510200	Mr Roger Heitland
9	Crest-Hood Foam Company Inc	122 Parker St	Newburyport	MA	01950-4008	978-462-5400	28510208	Mr Duane W Potter
10	Garland Floor Co	4500 Willow Pkwy	Cleveland	OH	44125-1042	216-883-4100	28510203	Mr Jonathon K Wise
11	Highland Estates Ltd Partnr	1500 Harlan Ln	Lake Forest	IL	60045-3896	847-295-5992	28510208	Mr George N Goldman
12	Technical Coatings Corporation	3085 Trotters Pkwy	Alpharetta	GA	30004-7703	770-740-8123	28510203	Hormuz P Irani
13	Performance Coatings Inc	360 Lake Mendocino Dr	Ukiah	CA	95482-9497	707-462-3023	28510213	Ms Barbara Clausen
14	National Industrial Coating	840 Industrial Dr	Bensenville	IL	60106-1307	630-860-7070	28510200	Mr Michael J Lauesen
15	Miracle Cover	19941 Beach Blvd	Huntington Beach	CA	92648-3705	714-374-5783	28510300	Mr Paul D Jordan
16	Epoxylite Corporation	9400 Toledo Way	Irvine	CA	92618-1804	949-951-3231	28510203	Mr Peter R Dorsa
17	Bayou Well Works Inc	12710 Leisure Rd	Baton Rouge	LA	70807-1416	225-775-3018	28510203	Mr Tom Moncla
18	Sem Products Inc	651 Michael Wylie Dr	Charlotte	NC	28217-1546	704-522-1006	28510201	Mr Donald J Scranton
19	Progressive Coating Inc	455 W 61st St	Shreveport	LA	71106-2510	318-868-1383	28510201	Mr Jerry L Mosley
20	Fibre Tech Corp	2323 34th Way	Largo	FL	33771-3902	727-539-0844	28510200	Mr Andrew Morris
21	Architectural Surfaces Inc	123 Columbia CT Ste 201	Chaska	MN	55318-2303	612-448-5300	28510200	Mr Steven Anderson
22	Covar Corp	252 Wright St	Newark	NJ	07114-2631	973-242-5868	28510211	Mr Jeffrey Simons
23	Kustom Blending Inc	7960 Kentucky Dr Ste 5	Florence	KY	41042-2933	606-282-8400	28510211	Mr Michael E Gerkin
24	Lenmar Inc	4701 Odonnell St	Baltimore	MD	21224-5303	410-534-3300	28510200	Mr Christian Bosset

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
25	Mantrose-Haeuser Co Inc	1175 Post Rd E	Westport	CT	06880-5431	203-454-1800	28510200	Mr Robert Senior
26	Harco Chemical Coating Inc	208 Dupont St	Brooklyn	NY	11222-1241	718-389-3777	28510208	Mr Herbert Wallenstein
27	Gj Nikolas Co Inc	12 Pinecrest Dr	Fairmont	NC	28340-9571	910-628-8909	28510200	Mr George Nikolas
28	Dur-A-Flex Inc	95 Goodwin St	East Hartford	CT	06108-1146	860-528-9838	28510203	Mr Robert Smith
29	Duckback Products Inc	2644 Hegan Ln	Chico	CA	95928-9572	530-343-3261	28510210	Mr Patrick K Wever
30	Egyptian Lacquer Mfg Co Inc	555 Sagamore Pkwy S	Lafayette	IN	47905-4737	765-447-2136	28510201	Mr Louis A Ruckgaber Jr

Category LARGE, 2851-02, NON-TRI, total 21, sample 19 plus 2 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Frontier Bag Inc	5720 E 150th St	Kansas City	MO	64146	816-765-4811	28510208	Mr Ronald W Gurley
2	John C Dolph Company	320 New Rd	Monmouth Junction	NJ	08852-2312	732-329-2333	28510211	Mr John D Mayes
3	Tevco Inc	110 Pomponio Ave	South Plainfield	NJ	07080-1900	908-754-7306	28510202	Mr Eric Wimmer
4	Atlas Products Inc	2124 Valley Dr	Des Moines	IA	50321-1173	515-288-0231	28510211	Mr Lyle Middleton
5	Brewer Science Inc	2401 Brewer Dr	Rolla	MO	65401-7003	573-364-0300	28510201	Terry Brewer
6	Specialty Coatings Company	2526 Delta Ln	Elk Grove Village	IL	60007-6305	847-766-3555	28510200	Mr Seymour Neems
7	Mohawk Finishing Products Inc	4715 State Highway 30	Amsterdam	NY	12010-7431	518-843-1380	28510201	Mr Thomas C Sullivan
8	Davis-Frost Inc	1209 Tyler St Ne	Minneapolis	MN	55413-1529	612-789-8871	28510211	Mr Calvin C Henning
9	William Zinsser & Co Inc	173 Belmont Dr	Somerset	NJ	08873-1218	732-469-8100	28510209	Mr Robert Senior
10	Deft Incorporated	17451 Von Karman Ave	Irvine	CA	92614-6205	949-474-0400	28510201	Mr William A Desmond
11	Neste Polyester Inc	5106 Wheeler Ave	Fort Smith	AR	72901-8336	501-646-7865	28510200	Mr Johan Zilliacus
12	Samuel Cabot Incorporated	100 Hale St	Newburyport	MA	01950-3504	978-465-1900	28510201	Mr Samuel Cabot III
13	TCI Inc	610 Dixon Dr	Ellaville	GA	31806	912-937-5411	28510201	Mr Tom Slade
14	Testor Corporation	620 Buckbee St	Rockford	IL	61104-4835	815-962-6654	28510201	Mr David J Miller
15	Technical Coatings Co	360 US Highway 206 4000	Flanders	NJ	07836-9577	973-252-2500	28510200	Mr Robert J Hodgson
16	Carboline Company	350 Hanley Industrial CT	Saint Louis	MO	63144-1510	314-644-1000	28510200	Mr Sherwin L Steinberg
17	Tnemec Company Inc	6800 Corporate Dr	Kansas City	MO	64120-1323	816-483-3400	28510201	Mr Thomas C Osborne
18	Flecto Company Inc	1000 45th St	Oakland	CA	94608-3314	510-655-2470	28510200	Mr James A Karman
19	Stoncor Group Inc	1 Park Ave	Maple Shade	NJ	08052	856-779-7500	28510201	Mr Jeffrey M Stork
20	Osmose Inc	980 Ellicott St	Buffalo	NY	14209-2323	716-882-5905	28510200	Mr James R Spengler Jr
21	Akzo Nobel Courtaulds US Inc	2 Manhattanville Rd	Purchase	NY	10577-2113	914-642-8000	28510200	Sipko Huismans

Category SMALL, 2851-02, TRI, total 6, sample 6

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Benjamin Moore & Co	4831 Bulls Bay Hwy	Jacksonville	FL	32219-3234	904-786-9141	28510201	Mr Scott Haynes
2	Valspar Corporation	202 W Jacobs Ave	Fort Wayne	IN	46808-2464	219-484-9011	28510201	Mr John Kadlec
3	PPG Industries Inc	6804 Enterprise Dr	Louisville	KY	40214-4305	502-361-2681	28510201	Mr Lou Komis

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
4	PPG Industries Inc	1020 Olympic Dr	Batavia	IL	60510-1329	630-879-5100	28510210	Mr Glenn Pulson
5	Benjamin Moore & Co	2501 W North Ave	Melrose Park	IL	60160-1121	708-343-3100	28510211	Mr Jerry Dean
6	Valspar Corporation	1647 English Rd	High Point	NC	27262-7203	336-887-4600	28510211	Mr John Shagena

Category MEDIUM, 2851-02, TRI, total 0, sample 0

Category LARGE, 2851-02, TRI, total 0, sample 0

APPENDIX E

Random samples for the best coverage from unequally sampling the 12 categories derived from dividing the D & B Database by SIC Code, size, and TRI status as in Section 4.4

Category SMALL, 2851-01, NONTRI, total 255, sample 63 plus 2 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Mid-States Paint & Chem Co	9315 Watson Industrial PA	Saint Louis	MO	63126-1520	314-961-6464	28510103	Mr Raymond F Simpson
2	Eastwoods Tennis Surface Inc	1275 N Lance Ln	Anaheim	CA	92806-1812	714-630-7944	28510105	Mr Harold Eastwood
3	Surface Protection Industries	757 N La Brea Ave	Los Angeles	CA	90038-3338	323-936-5168	28510100	Mr Robert C Davidson Jr
4	US Specialty Coatings Inc	3905 Green Industrial Way	Atlanta	GA	30341-1913	770-457-5237	28510107	Hormuz Irani
5	Invinca-Shield Inc	658 Lake Dr	Altamonte Springs	FL	32701-5412	407-331-5640	28510100	Mr Arthur Seligman
6	Dux Paints & Chemicals Inc	18 Mill St	Lodi	NJ	07644-2604	973-473-2376	28510100	Mr Robert Landzettel
7	PPG Industries Inc	14523 Harbor Estates Rd	Charlotte	NC	28278-7305	704-588-2254	28510100	Mr Boyd Kurt
8	Albert C Wieck	465 Tarpon Dr	Southold	NY	11971-1406	631-477-1079	28510103	Mr Albert C Wieck
9	Scheib Earl of Missouri Inc	1940 E Trafficway St	Springfield	MO	65802-2217	417-862-0750	28510100	Mr Jeff Pearl
10	Tool World Inc	300 W Norton Ave	Eustis	FL	32726-4763	352-357-8282	28510100	Mr William F Wolcott
11	Progressive Ink Company Inc	2302 Tripaldi Way	Hayward	CA	94545-5021	510-887-0398	28510106	Mr Kyle Krause
12	Plastic Engineering Inc	56188 Elder Rd	Mishawaka	IN	46545-7320	219-259-6166	28510100	Mr Raymond Schoenfelde
13	Hempel Coatings USA Inc	Foot of Curie Ave	Wallington	NJ	07057	201-939-2801	28510103	Mr Joel Benetti
14	Frazee Industries Inc	4545 Camino De La Plz	San Ysidro	CA	92173-3103	619-428-6151	28510103	Mr Robert Delacroix
15	Maxine L Hale	2130 N Sahuara Ave	Tucson	AZ	85712-3006	520-296-5602	28510106	Ms Maxine L Hale
16	Akzo Nobel Coatings Inc	1431 Progress Ave	High Point	NC	27260-8322	336-841-5111	28510100	RAD Darby
17	Jennison Industries Inc	860 Washington St	Burlington	IA	52601-5150	319-753-0309	28510100	Mr Bob Crawford
18	Diall Chemical Company Inc	6649 Amory CT Unit 3	Winter Park	FL	32792-7439	407-672-0850	28510100	Ms Claudine M King
19	Classic Coatings Corporation	5751 N Robert Rd	Prescott Valley	AZ	86314-4233	520-775-5564	28510100	Mr Michael Ketchner
20	Champion Paint Mfg Co Inc	1743 W Farms Rd	Bronx	NY	10460-6000	718-542-8470	28510100	Sidney Marshak
21	Bel-Mar Paint Corporation	2790 W 3rd CT	Hialeah	FL	33010-1414	305-887-6554	28510100	Mr Rafael Behmoiras
22	Sentry Paint Technologies	906 E Main St	Louisville	KY	40206-1626	502-587-7476	28510103	Pat Harper
23	Alternative Materials Tech	520 Parrott St	San Jose	CA	95112-4120	408-295-0104	28510100	
24	William Zinsser & Co Inc	480 Frelinghuysen Ave	Newark	NJ	07114-1419	973-824-9000	28510109	Mr Robert Bergfeld
25	Musgrove Enterprises Llc	2020 W McDowell Rd	Phoenix	AZ	85009-3013	602-253-4660	28510105	Mr Dave Musgrove
26	Central Valley Chemical Corp	8561 Thys CT	Sacramento	CA	95828-1035	916-383-2304	28510100	Mr Thomas Barber
27	Centri Coatings & Systems Corp	1010 Gentry St	Kansas City	MO	64116-4111	816-221-1146	28510103	Mr Gerald Frizelle
28	Friendship Paint Manufacturing	508 10th Ave	Clarkfield	MN	56223-1203	320-669-4661	28510107	Mr David Rupp
29	Specialty Coatings & Chemicals	7360 Varna Ave	North Hollywood	CA	91605-4008	818-983-0055	28510108	Alaistair C Macdonald
30	Jay Bee Paint Co Inc	3218 Brannon Ave	Saint Louis	MO	63139-1423	314-664-0600	28510103	Mr Foster Becker
31	Dampney Company Inc	85 Paris St	Everett	MA	02149-4411	617-389-2805	28510103	Mr Alan W Johnson
32	Pioneer Paint Arizona Inc	3755 E 43rd Pl	Tucson	AZ	85713-5403	520-571-1800	28510100	Mr Larry Henderson
33	Sunbelt Sports Paint Inc	355 N Sheridan St Ste 110	Corona	CA	92880-2026	909-279-0315	28510100	Mr Marty Trusdale
34	Scatt Marine Products	301 Dividend Dr	Peachtree City	GA	30269-1907	770-487-9837	28510103	Mr John C Proffitt
35	Canfield Barrere Studios	1654 State Rt 76	Truchas	NM	87578	505-689-2660	28510107	Ms Kate Bureir
36	Continental Indus Coatings	118 Derrick Rd	Belle Chasse	LA	70037-1110	504-392-4993	28510103	Mr Ivan Lagos
37	Vanex Inc	1700 Shawnee	Mount Vernon	IL	62864	618-244-1413	28510107	Mr James H Clutts

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
38	Rohm and Haas Company	25500 Whitesell St	Hayward	CA	94545-3615	510-786-0100	28510107	Mr Kevin Fulini
39	Therma Cell Technologies Inc	303 S Hibbert	Mesa	AZ	85210-1603	480-834-7884	28510100	Mr John Pidorenko
40	Hudson Color Concentrates Inc	5 Executive Dr	Hudson	NH	03051-4903	603-598-9916	28510100	Mr Lloyd Watt
41	Cortlant P Briggs	27 Main St	Ossining	NY	10562-4616	914-941-4572	28510103	Cortlant P Briggs
42	Akzo Nobel Coatings Inc	4041 Seaboard Rd	Orlando	FL	32808-3859	407-578-5221	28510107	Mr Micheal Kleyneenberg
43	The Glidden Company	340r Vanderbilt Ave	Norwood	MA	02062-5008	781-551-8555	28510100	Mr George Kalich
44	Quality Coatings Inc	1700 N State St	Chandler	IN	47610-9738	812-925-3314	28510107	Mr Gerald R Lewis
45	All Purpose Marine Paints Inc	58 Van Dyke St	Brooklyn	NY	11231-1529	718-625-2141	28510103	Ole Klevedahl
46	Permite Corporation Inc	5239 Brer Rabbit Rd	Stone Mountain	GA	30083-1317	404-292-4842	28510106	Mr William D Dickinson Jr
47	Bridges Smith & Co Inc	118 E Main St Ste 122	Louisville	KY	40202-1342	502-584-4173	28510107	Mr Paul J Schmidt
48	Behr Process Corporation	270 State St	Chicago Heights	IL	60411-1263	708-757-6350	28510100	Mr John V Croul
49	Sawyer Finn Company Inc	1600 Genessee St Ste 555	Kansas City	MO	64102-1085	816-421-3321	28510100	Mr Rich Orr
50	Nationwide Research Corp	2806 Cheek Rd	Durham	NC	27704-5341	919-683-1202	28510103	Mr James A Drum
51	Kirby George Jr Paint Co Inc	163 Mount Vernon St	New Bedford	MA	02740-4610	508-997-9008	28510103	Mr George Kirby III
52	Dupaco Paint Inc	1330 E 37th St N	Wichita	KS	67219-3521	316-838-8661	28510100	Ms Betty M Dutcher
53	Ingels Inc	104 Best Industrial Dr	Jonesboro	AR	72401	870-935-9977	28510100	Mr Marlin R Thyer
54	Dan Cytron Co	637 Strand St APT B	Santa Monica	CA	90405-2473	310-396-2432	28510107	Mr Dan Cytron
55	Nelson Paint Company of Ala	1 Nelson Dr	Iron Mountain	MI	49802-4561	906-774-5566	28510100	Ms Barbara N Louys
56	Mercury Paint Corp	5017 Farragut Rd	Brooklyn	NY	11203-6712	718-451-0103	28510100	Mr John Van
57	Innovative Marine Coatings	15870 Lake Candlewood Dr	Fort Myers	FL	33908-1735	941-466-5670	28510103	Mr Edward S Donlin
58	Imperial Research & Mfg	192 Center St	Cape Canaveral	FL	32920-3728	321-783-8474	28510103	Mr James Morris
59	Deako Coating & Chemical Inc	2540 NW 29th Ave Ste 105	Miami	FL	33142-6438	305-634-5162	28510107	Mr Humberto Martos
60	PCI Group Inc	2153 E Cedar St Ste 6	Tempe	AZ	85281-7411	480-303-0557	28510103	Mr Matt J Thometz Jr
61	Dunn-Edwards Corporation	225 Menaul Blvd NW	Albuquerque	NM	87107-1354	505-344-5008	28510100	Mr Salomon Marquez
62	Elf Atochem North America Inc	128 Old Brickyard Ln	Kensington	CT	06037-1437	860-828-3593	28510107	Mr Richard Hanns
63	Mid-States Paint & Chem Co	9315 Watson Industrial PA	Saint Louis	MO	63126-1520	314-961-6464	28510103	Mr Raymond F Simpson
64	De Santis C Paint Mfg Co Inc	4101 E 116th St	Cleveland	OH	44105-5459	216-883-8422	28510100	Ms Madeline De Santis
65	Bond Paint & Chemicals Inc	118 NW 5th St	Fort Lauderdale	FL	33301-3212	954-763-4231	28510106	Mr Vladimir Yarosh

Category MEDIUM, 2851-01, NONTRI, total 49, sample 41 plus 4 spares

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Helen Inc	6450 Hanna Lake Ave SE	Caledonia	MI	49316-8365	616-698-8102	28510107	Mr Michael Mc Allister
2	Akron Paint & Varnish Inc	1390 Firestone Pkwy	Akron	OH	44301-1624	330-773-8911	28510103	Mr David Venarge
3	Kelley Technical Coatings Inc	1445 S 15th St	Louisville	KY	40210-1837	502-636-2561	28510103	Mr John R Kelley Jr
4	Davies Imperial Coatings Inc	1275 State St	Hammond	IN	46320-1633	219-933-0877	28510100	Mr Donn T Davies
5	Palmer Paint Products Inc	1291 Rochester Rd	Troy	MI	48083-2879	248-588-4500	28510103	Mr Lawrence R Beddow
6	Masterchem Industries Inc	3135 Highway M	Imperial	MO	63052-2834	636-942-2510	28510100	Mr Robert W Caldwell
7	Textured Coatings of America	2422 E 15th St	Panama City	FL	32405-6348	850-769-0347	28510103	Mr Stuart M Haines

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
8	Ultra Additives Inc	460 Straight St	Paterson	NJ	07501-2932	973-279-1306	28510100	Mr Ted D Amico
9	Sun Coatings Inc	12290 73rd CT	Largo	FL	33773-3040	727-531-4100	28510100	Mr Raymond T Hyer
10	Repco Lite Paints Inc	473 W 17th St	Holland	MI	49423-3443	616-396-1275	28510100	Mr David Altena
11	Lasting Paints Inc	200-212 S Franklintown Rd	Baltimore	MD	21223	410-947-6300	28510100	Mr Marvin Sklar
12	Richards Paint Mfg Co Inc	200 Paint St	Rockledge	FL	32955-5807	321-636-6200	28510100	Mr Edward J Richard Sr
13	Patriot Paint Company Inc	201 S Middle St	Portland	IN	47371-1728	219-726-6633	28510100	Mr Michael Humphrey
14	Cal-Tone Paints Inc	223 S West St	Raleigh	NC	27603-1835	919-829-0280	28510107	M M Croom
15	Nautical Marine Paint Corp	4802 Farragut Rd	Brooklyn	NY	11203-6612	718-462-7000	28510100	Mr Michael Schnurr
16	Marcus Paint Company	235 E Market St	Louisville	KY	40202-1217	502-584-0303	28510100	Merritt E Marcus
17	Davis Paint Company	1311 Iron St	Kansas City	MO	64116-4010	816-471-4447	28510107	Mr James L Davis
18	Mercury Paint Corp	4808 Farragut Rd	Brooklyn	NY	11203-6612	718-469-8787	28510100	Mr Daniel Berman
19	Dyco Paints Inc	5850 Ulmerton Rd	Clearwater	FL	33760-3940	727-536-6560	28510100	Maxie E Quinn
20	Johnson Paints Inc	2131 Andrea Ln	Fort Myers	FL	33912-1903	941-489-2332	28510100	Mr Sam Johnson
21	Premier Coatings Inc	2250 Arthur Ave	Elk Grove Village	IL	60007-6011	847-439-4200	28510100	Mr Christian Bosset
22	Strathmore Products Inc	1970 W Fayette St	Syracuse	NY	13204-1740	315-488-5401	28510100	Mr William Udovich Sr
23	Paragon Paint & Varnish Corp	549 46th Ave	Long Island City	NY	11101-5214	718-729-7420	28510100	Ms Selma Rattner
24	Carbit Paint Company Inc	927 W Blackhawk St	Chicago	IL	60622-2519	312-280-2300	28510100	Mr James S Westerman
25	Stevens Paint Corp	50 Holt Dr	Stony Point	NY	10980-1904	914-786-5000	28510100	Mr James Weil
26	National Coatings Inc	RR 150 Box East	Galesburg	IL	61401	309-342-4184	28510100	Mr James W Hillhouse
27	Bridges Group Inc	216 Hwy 49 S	Byron	GA	31008	912-956-5605	28510100	Mr Bruce L Bridges
28	The Sophir Company	2702 Douglas St	Omaha	NE	68131-2622	402-345-3536	28510100	Mr Martin Sophir
29	Edcoat Limited Partnership	30350 Edison Rd	New Carlisle	IN	46552-9728	219-654-9105	28510100	Edcoat P Inc
30	General Coatings Technologies	24 Woodward Ave	Ridgewood	NY	11385-1022	718-821-1232	28510103	Mr Michael Ghitelman
31	United Paint and Chemical Corp	24671 Telegraph Rd	Southfield	MI	48034-3035	248-353-3035	28510103	Mr John G Piceu Jr
32	Ceram-Traz Corporation	325 Hwy 81	Osseo	MN	55369	612-424-2044	28510103	Mr Lyle Sommers
33	H & S Coatings Inc	16400 Garfield Ave	Paramount	CA	90723-5302	562-531-0131	28510100	Mr Greg Smith
34	Graham Paint & Varnish Co Inc	4800 S Richmond St	Chicago	IL	60632-2022	773-376-7676	28510103	Mr Harry True
35	L & H Paint Products Inc	1200 Putman Ave	Yuba City	CA	95991-7203	530-751-8656	28510100	Mr Richard M Levine
36	Techstar Industries Inc	848 Prairie Ln	Marshfield	MO	65706-9110	417-859-2275	28510100	Mr Rick Jones
37	Sheboygan Pnt of Cedartown Ga	608 Canal St	Cedartown	GA	30125-6334	770-748-8426	28510100	Mr Steve Nelesen
38	Perry & Derrick Co	2510 Highland Ave	Cincinnati	OH	45212-2319	513-351-5800	28510103	Mr Mark E Derrick
39	Red Spot Westland Inc	550 Edwin St	Westland	MI	48186-3801	734-729-7400	28510103	Mr Charles D Storms
40	Coatings & Chemicals Corp	521 Santa Rosa Dr	Des Plaines	IL	60018-2601	847-759-0000	28510103	Kanti Gandhi
41	Anvil Paints & Coatings Inc	1255 Starkey Rd	Largo	FL	33771-3109	727-535-1411	28510103	Mr Thomas Healey
42	C D I Dispersions, Inc.	27 Haynes Ave.	Newark	NJ	07114-1313	973-824-1806	28510100	Mr David E Schmedes
43	Coatings Resources Corp	5582 McFadden Ave	Huntington Beach	CA	92649-1318	714-894-5252	28510100	Mr Edwin Laird
44	Colorado Paint Company	4747 Holly St	Denver	CO	80216-6409	303-388-9265	28510100	Mr Kevin Valis
45	Fine Line Paint Corporation	12234 Los Nietos Rd	Sante Fe Springs	CA	90670-2910	562-946-6421	28510100	Mr John Teets

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME

Category LARGE, 2851-01, NONTRI, total 25, sample 24 plus 1 spare

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Scott Paint Corp	7839 Fruitville Rd	Sarasota	FL	34240-9280	941-371-0015	28510100	
2	Decoart Inc	Jct Hwy 27 & 150	Stanford	KY	40484	606-365-3193	28510100	Mr Stanley Clifford
3	Blatz Paint Company Inc	319 S Shelby St	Louisville	KY	40202-1064	502-584-8364	28510100	Mr Fairleigh Lussky
4	Spectra-Tone Paint Corporation	1595 E San Bernardino Ave	San Bernardino	CA	92408-2946	909-478-3485	28510100	Mr James E Dabbs
5	Mc Cormick Paint Works Co	2355 Lewis Ave	Rockville	MD	20851-2335	301-770-3235	28510100	Mr Thomas P Mc Cormick J
6	Aervoe Pacific Company Inc	1198 Sawmill Rd	Gardnerville	NV	89410-6119	775-782-0100	28510103	Mr David Williams
7	Wattyl Paint Corporation	5275 Peachtree Industrial	Atlanta	GA	30341-2626	770-455-7000	28510107	Christian Bosset
8	Norton & Son of California	5928 Garfield Ave	Los Angeles	CA	90040-3607	323-685-7220	28510108	Mr Edward F Norton Jr
9	Bruning Paint Company	601 S Haven St	Baltimore	MD	21224-4347	410-342-3636	28510100	Mr Doug S Ramer
10	Smiland Paint Company	620 Lamar St	Los Angeles	CA	90031-2513	323-222-7000	28510107	Mr Bronko M Smiland
11	Behr Holdings Corporation	3400 W Segerstrom Ave	Santa Ana	CA	92704-6405	714-545-7101	28510103	Mr John V Croul
12	Seymour of Sycamore Inc	917 Crosby Ave	Sycamore	IL	60178-1343	815-895-9101	28510107	Ms Nancy S Heatley
13	Vogel Paint & Wax Company Inc	1110 Albany Pl SE	Orange City	IA	51041-1982	712-737-8880	28510100	Mr Franklin Vogel
14	Delta Technical Coatings Inc	2550 Pellissier Pl	Whittier	CA	90601-1505	562-695-7969	28510100	Mr Ronald A La Rosa
15	Cardinal Industrial Finishes	1329 Potrero Ave	El Monte	CA	91733-3088	626-444-9274	28510100	Mr Stanley W Ekstrom
16	California Products Corp	169 Waverly St	Cambridge	MA	02139-4246	617-547-5300	28510100	Mr Joseph S Junkin
17	Vista Paint Corporation	2020 E Orangethorpe Ave	Fullerton	CA	92831-5327	714-680-3800	28510100	Mr Eddie R Fischer
18	Rohm and Haas Auto Coating	2701 E 170th St	Lansing	IL	60438-1107	708-474-7000	28510103	Mr John Harigan
19	Spraylat Corporation	716 S Columbus Ave	Mount Vernon	NY	10550-4795	914-699-3030	28510100	Mr James E Borner
20	Southwest Industries Inc	5197 NW 15th St Ste 124	Pompano Beach	FL	33063-3767	954-979-8799	28510100	Mr William Singer
21	Red Spot Paint & Varnish Co	1107 E Louisiana St	Evansville	IN	47711-4747	812-428-9100	28510108	Mr Charles Storms
22	Rust-Oleum Corporation	11 E Hawthorn Pkwy	Vernon Hills	IL	60061-1420	847-367-7700	28510103	Mr Michael D Tellor
23	Williams Paint Holdings Inc	1105 N Market St Ste 1014	Wilmington	DE	19801-1216	302-427-9352	28510100	Mr Martin O Brien
24	The Glidden Company	925 Euclid Ave Ste 800	Cleveland	OH	44115-1408	216-344-8000	28510100	Mr Denis Wright
25	Williams US Holdings Inc	1105 N Market St Ste 1014	Wilmington	DE	19801-1216	302-427-9259	28510100	Mr Martin O Brien

Category SMALL, 2851-01, TRI, total 4, sample 4

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Valspar Corporation	1215 Nelson Blvd	Rockford	IL	61104-4773	815-987-3700	28510100	Mr Stephen Knier
2	Benjamin Moore & Co	134 Lister Ave	Newark	NJ	07105-4524	973-344-1200	28510100	Mr Glenn Cooper
3	Benjamin Moore & Co	49 Sumner St	Milford	MA	01757-1656	508-473-8900	28510103	Mr Van A Stogner
4	Ponderosa Paint Manufacturing	4631 W Aeronca St	Boise	ID	83705-6504	208-344-8683	28510100	Loren Ellis

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
Category	**MEDIUM, 2851-01, TRI, total 0, sample 0**							
Category	**LARGE, 2851-01, TRI, total 2, sample 2**							
Random#	**COMPANY**	**ADDR**	**CITY**	**ST**	**ZIP**	**FULLPHONE**	**SIC**	**CEO NAME**
1	The P D George Company	5200 N 2nd St	Saint Louis	MO	63147-3122	314-621-5700	28510107	Mr Thomas F George
2	Frazee Industries Inc	6625 Miramar Rd	San Diego	CA	92121-2508	619-276-9500	28510103	Mr Edmund W Lanctot
Category	**SMALL, 2851-02, NON-TRI, total 225, sample 62 plus 3 spares**							
Random#	**COMPANY**	**ADDR**	**CITY**	**ST**	**ZIP**	**FULLPHONE**	**SIC**	**CEO NAME**
1	Professional Coatings Inc	1807 3rd Ave SE	Cullman	AL	35055-5466	256-739-1611	28510200	Mr Wesley Floyd
2	Lilly Industries Inc	2171 NC 18 US Hwy 64	Morganton	NC	28655	828-758-0700	28510200	Mr Roger Widner
3	Janco Chemical Corp	1235 5th St	Berkeley	CA	94710-1305	510-527-9770	28510213	Mr Glenn A Kjelstrom
4	Sentry Paint Technologies	1600 Hulman St	Terre Haute	IN	47802-2522	812-232-6097	28510201	Mr John Van Etten
5	Deft Incorporated	411 E Keystone	Alliance	OH	44601	330-821-5500	28510201	Mr Brent Minger
6	Nesco Mfg Inc	1510 W Drake Dr	Tempe	AZ	85283-4346	480-756-6675	28510208	Mr Steven R Coultrap
7	Carboline Company	900 Opelousas St	Lake Charles	LA	70601-2274	318-433-0605	28510209	Mr Tom Yadamac
8	Fioris Industries Inc	3239 Monier Cir Ste 5	Rancho Cordova	CA	95742-6833	916-635-1270	28510203	Mr Leo Fiori
9	Caribbean Paint Company Inc	5295 NW 79th Ave	Miami	FL	33166-4715	305-594-4500	28510202	Mr George Sixto
10	CPT Inc	2023 N Atl Ave Ste 251	Cocoa Beach	FL	32931	321-799-0046	28510209	Mr James Emory
11	Versaflex Inc	22 N 6th St	Kansas City	KS	66101-3404	913-321-9000	28510208	
12	Ace Custom Finishing	725 Oakdale St	Waterloo	IN	46793-9478	219-837-7404	28510213	Mr Brett Badman
13	Metamorphic Material Llc	29 Kripes Rd	East Granby	CT	06026-9669	860-653-2803	28510200	Mr Jay Martin
14	Illumination Partners Llc	12927 Sunshine Ave	Santa Fe Springs	CA	90670-4732	949-675-2811	28510201	Mr Duncan Crookstone
15	Ameron International Corp Del	7186 E Avenue T	Littlerock	CA	93543-1703	661-533-6450	28510200	Porfide Torrez
16	Professional Coatings Labs	152 Bliss Rd	Longmeadow	MA	01106-1408	413-567-8542	28510211	Mr Hugh Naggar
17	Var-Chem Products Inc	300 Kuller Rd	Clifton	NJ	07011-2861	973-546-2304	28510211	Mr Dominic Verillo
18	Chemline Incorporated	1 Steelcote Sq	Saint Louis	MO	63103-2937	314-664-2230	28510200	Mr John R Pantanella
19	Decorative Industries Inc	174 Orange Tpke	Sloatsburg	NY	10974-1508	914-753-2796	28510202	Mr Carmine M Zaccaria
20	Akzo Nobel Coatings Inc	1200 E McNichols Rd	Detroit	MI	48203-2874	313-883-3935	28510213	Mr Jerry Rayford
21	Epmar Corporation	13210 Barton Cir	Whittier	CA	90605-3254	562-946-8781	28510201	Mr George Krause
22	Mid Amrica Protective Coatings	1395 Louis Ave	Elk Grove Village	IL	60007-2309	847-593-3239	28510201	Mr Joseph A Mancini
23	Custom Powder Inc	10650 County Road 81	Osseo	MN	55369-4075	612-493-5686	28510200	Mr Scott W Matson
24	Superior Products & Coatings	26700 Fairfield Ave	Warren	MI	48089-4527	810-558-5599	28510201	Mr James Allen
25	Idaho Protective Coatings	1869 E Meadowgrass St	Meridian	ID	83642-7314	208-887-9682	28510208	Mr Tom Young
26	Simtec Coatings	16666 Smoketree St Bldg A	Hesperia	CA	92345-6177	760-244-2774	28510201	Mr Simon De Vries
27	National Coatings Inc	120 Industrial Dr	Festus	MO	63028-4132	636-937-8600	28510211	Mr Bruce Wagner

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
28	Triple G Coatings Inc	1714 Bannard St	Riverton	NJ	08077-1807	856-829-1575	28510203	Mr Harry W Howard
29	Permanent Coatings Inc	8405 Florida Blvd	Denham Springs	LA	70726-7914	225-791-9005	28510200	Mr Kenneth E Phillips
30	American Powder Coating Inc	1980 S Carboy Rd	Mount Prospect	IL	60056-5709	847-437-4343	28510202	Marcial Sabarre
31	H & C Inc	2901 4th St SE	Minneapolis	MN	55414-3330	612-379-9248	28510201	Mr Howard Carlson
32	Mmi Products	800 Whitney St	Brighton	MI	48116-1221	810-227-3036	28510212	Mr Greg Blostica
33	The Sherwin-Williams Company	12090 Sage Point CT	Reno	NV	89506-8992	775-971-5100	28510201	Mr John Garrett
34	Rabco Incorporated	126 Cottage Ave	Moorestown	NJ	08057-1008	856-235-5116	28510212	Mr Peter De Luca
35	Fence Factory	845 E Ventura Blvd	Oxnard	CA	93030-1704	805-988-9964	28510212	Mr John Beck
36	Pacific West Chemical Corp	337 Summit Dr	Corte Madera	CA	94925-1343	415-924-4420	28510208	Ms Mary Jones
37	Veron Coating Systems Inc	1458 N 26th Ave	Phoenix	AZ	85009-3625	602-484-7300	28510200	Mr Joseph R Hook
38	Neste Polyester Inc	1720 E Monticello CT	Ontario	CA	91761-7740	909-923-7616	28510203	Mr Greg Steele
39	Clearview Coatings Inc	180 Fairground St Ne	Marietta	GA	30060-1533	770-928-0225	28510200	Mr Mark N Hobart
40	Paint-Chem Inc	244 E Pomona Ave	Monrovia	CA	91016-4640	626-358-1151	28510201	Ashir Afshar
41	Turret Punch Co Inc	10050 6th St	Rancho Cucamonga	CA	91730-5747	909-980-3113	28510200	Ms June Peterson
42	Atlas Putty Products Co	18600 Graphic CT	Tinley Park	IL	60477-6254	708-429-5858	28510300	Mr Jack Payton
43	Four Seasons Chemical Inc	600 W Seminary St	Charlotte	MI	48813-1876	517-543-2733	28510203	Mr Robert Kish
44	Flagg Supply Inc	2591 Palomas Dr	Walled Lake	MI	48390-2053	248-960-3620	28510208	Ms Katie Flagg
45	Eron Enterprises Ltd	5320 N Elston Ave	Chicago	IL	60630-1611	773-286-2990	28510200	Eron Donato
46	Key Laboratories Inc	1900 13th Ave N	Saint Petersburg	FL	33713-5738	727-896-6696	28510201	Mr Robert Mercado
47	Crosslink Powder Coatings Inc	5182 126th Ave N	Clearwater	FL	33760-4615	727-572-4474	28510200	Kerry Nelson
48	Discovery Engineering Inc	1 Paradise Park Rd	Jacksonville	AR	72076-2365	501-985-1172	28510210	Mac Hogan
49	Innovative Engineering of Mich	1541 W Round Lake Rd	Dewitt	MI	48820-9737	517-669-1591	28510208	Daryl A Reed
50	Essential Protective Coatings	540 W Industrial Lake Dr	Lincoln	NE	68528-1573	402-441-9333	28510209	Terry Rasmussen
51	Thermaflex Inc	2316 Dundee Rd	Louisville	KY	40205-2045	502-456-1519	28510203	Ms Janet Hundley
52	Crest Chemical Industries Ltd	1066 Industry Rd	New Lenox	IL	60451-2673	815-485-2138	28510200	Mr Richard Sleckman
53	Industrial Rubber Products	4045 Sinton Rd	Colorado Springs	CO	80907-5040	719-636-5286	28510208	Mr Joseph Barach
54	C A I Inc	7 Martel Way	Georgetown	MA	01833-2224	978-352-4510	28510200	Mr Vincent Sartorelli
55	Ron Coblentz Finishing Touch	6701 S Kohler Rd	Apple Creek	OH	44606-9733	330-857-0338	28510210	Mr Ron Coblentz
56	R J McGlennon Company Inc	198 Utah St	San Francisco	CA	94103-4826	415-552-0311	28510201	Mr Richard J Mc Glennon
57	Precision Technical Coatings	1764 NW 57th St	Ocala	FL	34475-3032	352-622-4464	28510200	Mr Mike Emmerich
58	Professional Coatings Inc	27010 Highway 107	Cabot	AR	72023-9647	501-988-5798	28510208	Mr Steve Mitchell
59	Hsc Industrial Coatings Inc	1711 N Hwy 7	Pleasant Hill	MO	64080-9436	816-540-2786	28510200	Gene Land
60	Jessup Services	2850 Industry St	Oceanside	CA	92054-4812	760-433-8630	28510213	Mr Byron Jessup
61	Jodan Technology Inc	1500 Front St	Yorktown Heights	NY	10598-4638	914-962-1206	28510203	Mr Stanley Jasne
62	Hartin Paint & Filler Corp	Broad & 14th St	Carlstadt	NJ	07072	201-438-3300	28510200	Mr Richard Gottesman
63	Khi Coil Processing Inc	45 Enterprise Dr	Vassar	MI	48768-9505	517-823-0201	28510208	Mr Tom Herman
64	Bender Wholesale Distributors	2911 Moose Trl	Elkhart	IN	46514-8230	219-264-4409	28510201	Mr Paul Bender
65	Ciba Specialty Chemicals Corp	5511 Enterprise Dr	Lansing	MI	48911-4131		28510203	

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
Category	**MEDIUM, 2851-02, NON-TRI, total 34, sample 28 plus 2 spares**							
Random#	**COMPANY**	**ADDR**	**CITY**	**ST**	**ZIP**	**FULLPHONE**	**SIC**	**CEO NAME**
1	Progressive Coating Inc	455 W 61st St	Shreveport	LA	71106-2510	318-868-1383	28510201	Mr Jerry L Mosley
2	S P Kish Industries Inc	600 W Seminary St	Charlotte	MI	48813-1876	517-543-2650	28510203	Mr Robert Kish
3	Kustom Blending Inc	7960 Kentucky Dr Ste 5	Florence	KY	41042-2933	606-282-8400	28510211	Mr Michael E Gerkin
4	Gj Nikolas Co Inc	12 Pinecrest Dr	Fairmont	NC	28340-9571	910-628-8909	28510200	Mr George Nikolas
5	Fibre Tech Corp	2323 34th Way	Largo	FL	33771-3902	727-539-0844	28510200	Mr Andrew Morris
6	Dozier & Gay Indus Coatings	3529 Enterprise Way	Green Cove Springs	FL	32043-9334	904-284-8777	28510200	Mr Tom Slade
7	Architectural Surfaces Inc	123 Columbia CT Ste 201	Chaska	MN	55318-2303	612-448-5300	28510200	Mr Steven Anderson
8	Harco Chemical Coating Inc	208 Dupont St	Brooklyn	NY	11222-1241	718-389-3777	28510208	Mr Herbert Wallenstein
9	Duckback Products Inc	2644 Hegan Ln	Chico	CA	95928-9572	530-343-3261	28510210	Mr Patrick K Wever
10	Rad-Cure Corp	9 Audrey Pl	Fairfield	NJ	07004-3401	973-808-1002	28510201	Mr Harry S Katz
11	Technical Coatings Corporation	3085 Trotters Pkwy	Alpharetta	GA	30004-7703	770-740-8123	28510203	Hormuz P Irani
12	Universal Chem & Coatings Del	1975 Fox Ln	Elgin	IL	60123-7839	847-931-1700	28510201	Yenson E Chin
13	Lymtal International Inc	4150 S Lapeer Rd	Orion	MI	48359-1865	248-373-8100	28510208	Mr Francis M Lymburner
14	Covar Corp	252 Wright St	Newark	NJ	07114-2631	973-242-5868	28510211	Mr Jeffrey Simons
15	Performance Coatings Inc	360 Lake Mendocino Dr	Ukiah	CA	95482-9497	707-462-3023	28510213	Ms Barbara Clausen
16	Chemical Coatings Inc	3194 Hickory Blvd	Hudson	NC	28638-2661	828-728-8266	28510200	Mr Clay B Bollinger
17	Sem Products Inc	651 Michael Wylie Dr	Charlotte	NC	28217-1546	704-522-1006	28510201	Mr Donald J Scranton
18	Garland Floor Co	4500 Willow Pkwy	Cleveland	OH	44125-1042	216-883-4100	28510203	Mr Jonathon K Wise
19	Atlas Coatings Corp	820 E 140th St	Bronx	NY	10454-1904	718-402-2000	28510201	Mr Stephen Landau
20	Thermo Cote Inc	790 21st Ave	Paterson	NJ	07513-1018	973-345-6206	28510201	Mr Larry Kersen
21	Bayou Well Works Inc	12710 Leisure Rd	Baton Rouge	LA	70807-1416	225-775-3018	28510203	Mr Tom Moncla
22	Dur-A-Flex Inc	95 Goodwin St	East Hartford	CT	06108-1146	860-528-9838	28510203	Mr Robert Smith
23	Egyptian Lacquer Mfg Co Inc	555 Sagamore Pkwy S	Lafayette	IN	47905-4737	765-447-2136	28510201	Mr Louis A Ruckgaber Jr
24	C L Hauthaway & Sons Corp	638 Summer St 640	Lynn	MA	01905-2044	781-592-6444	28510208	Mr Leopoldo A Johnson
25	Miracle Cover	19941 Beach Blvd	Huntington Beach	CA	92648-3705	714-374-5783	28510300	Mr Paul D Jordan
26	Highland Estates Ltd Partnr	1500 Harlan Ln	Lake Forest	IL	60045-3896	847-295-5992	28510208	Mr George N Goldman
27	National Industrial Coating	840 Industrial Dr	Bensenville	IL	60106-1307	630-860-7070	28510200	Mr Michael J Lauesen
28	Mantrose-Haeuser Co Inc	1175 Post Rd E	Westport	CT	06880-5431	203-454-1800	28510200	Mr Robert Senior
29	Lenmar Inc	4701 Odonnell St	Baltimore	MD	21224-5303	410-534-3300	28510200	Mr Christian Bosset
30	Epoxylite Corporation	9400 Toledo Way	Irvine	CA	92618-1804	949-951-3231	28510203	Mr Peter R Dorsa

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
Category	**LARGE, 2851-02, NON-TRI, total 21, sample 20 plus 1 spare**							
Random#	**COMPANY**	**ADDR**	**CITY**	**ST**	**ZIP**	**FULLPHONE**	**SIC**	**CEO NAME**

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Frontier Bag Inc	5720 E 150th St	Kansas City	MO	64146	816-765-4811	28510208	Mr Ronald W Gurley
2	John C Dolph Company	320 New Rd	Monmouth Junction	NJ	08852-2312	732-329-2333	28510211	Mr John D Mayes
3	Tevco Inc	110 Pomponio Ave	South Plainfield	NJ	07080-1900	908-754-7306	28510202	Mr Eric Wimmer
4	Atlas Products Inc	2124 Valley Dr	Des Moines	IA	50321-1173	515-288-0231	28510211	Mr Lyle Middleton
5	Brewer Science Inc	2401 Brewer Dr	Rolla	MO	65401-7003	573-364-0300	28510201	Terry Brewer
6	Specialty Coatings Company	2526 Delta Ln	Elk Grove Village	IL	60007-6305	847-766-3555	28510200	Mr Seymour Neems
7	Mohawk Finishing Products Inc	4715 State Highway 30	Amsterdam	NY	12010-7431	518-843-1380	28510201	Mr Thomas C Sullivan
8	Davis-Frost Inc	1209 Tyler St Ne	Minneapolis	MN	55413-1529	612-789-8871	28510211	Mr Calvin C Henning
9	William Zinsser & Co Inc	173 Belmont Dr	Somerset	NJ	08873-1218	732-469-8100	28510209	Mr Robert Senior
10	Deft Incorporated	17451 Von Karman Ave	Irvine	CA	92614-6205	949-474-0400	28510201	Mr William A Desmond
11	Neste Polyester Inc	5106 Wheeler Ave	Fort Smith	AR	72901-8336	501-646-7865	28510200	Mr Johan Zilliacus
12	Samuel Cabot Incorporated	100 Hale St	Newburyport	MA	01950-3504	978-465-1900	28510201	Mr Samuel Cabot III
13	TCI Inc	610 Dixon Dr	Ellaville	GA	31806	912-937-5411	28510201	Mr Tom Slade
14	Testor Corporation	620 Buckbee St	Rockford	IL	61104-4835	815-962-6654	28510201	Mr David J Miller
15	Technical Coatings Co	360 US Highway 206 4000	Flanders	NJ	07836-9577	973-252-2500	28510200	Mr Robert J Hodgson
16	Carboline Company	350 Hanley Industrial CT	Saint Louis	MO	63144-1510	314-644-1000	28510200	Mr Sherwin L Steinberg
17	Tnemec Company Inc	6800 Corporate Dr	Kansas City	MO	64120-1323	816-483-3400	28510201	Mr Thomas C Osborne
18	Flecto Company Inc	1000 45th St	Oakland	CA	94608-3314	510-655-2470	28510200	Mr James A Karman
19	Stoncor Group Inc	1 Park Ave	Maple Shade	NJ	08052	856-779-7500	28510201	Mr Jeffrey M Stork
20	Osmose Inc	980 Ellicott St	Buffalo	NY	14209-2323	716-882-5905	28510200	Mr James R Spengler Jr
21	Akzo Nobel Courtaulds US Inc	2 Manhattanville Rd	Purchase	NY	10577-2113	914-642-8000	28510200	Sipko Huismans

Category SMALL, 2851-02, TRI, total 6, sample 6

Random#	COMPANY	ADDR	CITY	ST	ZIP	FULLPHONE	SIC	CEO NAME
1	Benjamin Moore & Co	4831 Bulls Bay Hwy	Jacksonville	FL	32219-3234	904-786-9141	28510201	Mr Scott Haynes
2	Valspar Corporation	202 W Jacobs Ave	Fort Wayne	IN	46808-2464	219-484-9011	28510201	Mr John Kadlec
3	PPG Industries Inc	6804 Enterprise Dr	Louisville	KY	40214-4305	502-361-2681	28510201	Mr Lou Komis
4	PPG Industries Inc	1020 Olympic Dr	Batavia	IL	60510-1329	630-879-5100	28510210	Mr Glenn Pulson
5	Benjamin Moore & Co	2501 W North Ave	Melrose Park	IL	60160-1121	708-343-3100	28510211	Mr Jerry Dean
6	Valspar Corporation	1647 English Rd	High Point	NC	27262-7203	336-887-4600	28510211	Mr John Shagena

Category MEDIUM, 2851-02, TRI, total 0, sample 0

Category LARGE, 2851-02, TRI, total 0, sample 0

APPENDIX 2

LIST OF FACILITIES THAT RECEIVED A QUESTIONNAIRE

List of Facilities Receiving Questionnaire

Ace Custom Finishing	725 Oakdale St	Waterloo, IN 46793-9478
ACR Holding Co Inc	19009 E Cataldo Ave	Greenacres, WA 99016-9423
Aervoe Pacific Company Inc	1198 Sawmill Rd	Gardnerville, NV 89410-6119
Akron Paint & Varnish Inc	1390 Firestone Pkwy	Akron, OH 44301-1624
Akzo Nobel Coatings Inc	1431 Progress Ave	High Point, NC 27260-8322
Akzo Nobel Coatings Inc	4041 Seaboard Rd	Orlando, FL 32808-3859
Akzo Nobel Coatings Inc	1200 E McNichols Rd	Detroit, MI 48203-2874
Akzo Nobel Coatings Inc	1660 Cross St SE	Salem, OR 97302-1318
Albert C Wieck	465 Tarpon Dr	Southold, NY 11971-1406
All Purpose Marine Paints Inc	58 Van Dyke St	Brooklyn, NY 11231-1529
Alternative Materials Tech	520 Parrott St	San Jose, CA 95112-4120
American Coatings Inc	10625 Mahaffey Rd	Tomball, TX 77375-6980
American Powder Coating Inc	1980 S Carboy Rd	Mount Prospect, IL 60056-5709
Ameron International Corp Del	7186 E Avenue T	Littlerock, CA 93543-1703
Anvil Paints & Coatings Inc	1255 Starkey Rd	Largo, FL 33771-3109
Architectural Surfaces Inc	123 Columbia CT Ste 201	Chaska, MN 55318-2303
Atlas Coatings Corp	820 E 140th St	Bronx, NY 10454-1904
Atlas Products Inc	2124 Valley Dr	Des Moines, IA 50321-1173
Atlas Putty Products Co	18600 Graphic CT	Tinley Park, IL 60477-6254
Axon Aerospace Inc	315 Echelon Rd	Greenville, SC 29605-5234
Bayou Well Works Inc	12710 Leisure Rd	Baton Rouge, LA 70807-1416
Behr Holdings Corporation	3400 W Segerstrom Ave	Santa Ana, CA 92704-6405
Behr Process Corporation	270 State St	Chicago Heights, IL 60411-1263
Bel-Mar Paint Corporation	2790 W 3rd CT	Hialeah, FL 33010-1414
Benjamin Moore & Co	134 Lister Ave	Newark, NJ 07105-4524
Benjamin Moore & Co	49 Sumner St	Milford, MA 01757-1656
Benjamin Moore & Co	4831 Bulls Bay Hwy	Jacksonville, FL 32219-3234
Benjamin Moore & Co	2501 W North Ave	Melrose Park, IL 60160-1121
Bennette Paint Mfg Co	401 Industry Dr	Hampton, VA 23661-1312
Blatz Paint Company Inc	319 S Shelby St	Louisville, KY 40202-1064
Bond Paint & Chemicals Inc	118 NW 5th St	Fort Lauderdale, FL 33301-3212
Brewer Science Inc	2401 Brewer Dr	Rolla, MO 65401-7003
Bridges Group Inc	216 Hwy 49 S	Byron, GA 31008
Bridges Smith & Co Inc	118 E Main St Ste 122	Louisville, KY 40202-1342
Bruning Paint Company	601 S Haven St	Baltimore, MD 21224-4347
C A I Inc	7 Martel Way	Georgetown, MA 01833-2224
C D I Dispersions, Inc.	27 Haynes Ave.	Newark, NJ 07114-1313
C L Hauthaway & Sons Corp	638 Summer St 640	Lynn, MA 01905-2044
Cactus Paint Manufacturing Co	3911 I 20 E	Big Spring, TX 79720
Caldwell Chem Coatings Corp	29 Ardmore Hwy	Fayetteville, TN 37334-3754
California Products Corp	169 Waverly St	Cambridge, MA 02139-4246
Caltex Protective Coatings	4713 Macro	San Antonio, TX 78218-5422
Cal-Tone Paints Inc	223 S West St	Raleigh, NC 27603-1835
Canfield Barrere Studios	1654 State Rt 76	Truchas, NM 87578
Carbit Paint Company Inc	927 W Blackhawk St	Chicago, IL 60622-2519

Carboline Company	900 Opelousas St	Lake Charles, LA 70601-2274
Carboline Company	350 Hanley Industrial CT	Saint Louis, MO 63144-1510
Cardinal Industrial Finishes	1329 Potrero Ave	El Monte, CA 91733-3088
Caribbean Paint Company Inc	5295 NW 79th Ave	Miami, FL 33166-4715
Carroll Coatings Company	150 Ernest St	Providence, RI 02905-4610
Central Valley Chemical Corp	8561 Thys CT	Sacramento, CA 95828-1035
Centri Coatings & Systems Corp	1010 Gentry St	Kansas City, MO 64116-4111
Ceram-Traz Corporation	325 Hwy 81	Osseo, MN 55369
Champion Paint Mfg Co Inc	1743 W Farms Rd	Bronx, NY 10460-6000
Chemcoat Inc	2790 Canfields Ln	Montoursville, PA 17754
Chemical Coatings Inc	3194 Hickory Blvd	Hudson, NC 28638-2661
Chemline Incorporated	1 Steelcote Sq	Saint Louis, MO 63103-2937
Classic Coatings Corporation	5751 N Robert Rd	Prescott Valley, AZ 86314-4233
Clearview Coatings Inc	180 Fairground St Ne	Marietta, GA 30060-1533
Coating Development Group Inc	Schiller & Allen St	Philadelphia, PA 19134
Coatings & Chemicals Corp	521 Santa Rosa Dr	Des Plaines, IL 60018-2601
Columbia Paint & Coatings	3901 E Broadway Ave	Spokane, WA 99202-4526
Columbia Paint Corp	641 Jackson Ave 647	Huntington, WV 25704-2615
Continental Indus Coatings	118 Derrick Rd	Belle Chasse, LA 70037-1110
Corban Corporation	RR 248	Bath, PA 18014
Cortlant P Briggs	27 Main St	Ossining, NY 10562-4616
Covar Corp	252 Wright St	Newark, NJ 07114-2631
CPT Inc	2023 N Atl Ave Ste 251	Cocoa Beach, FL 32931
Crest Chemical Industries Ltd	1066 Industry Rd	New Lenox, IL 60451-2673
Crosslink Powder Coatings Inc	5182 126th Ave N	Clearwater, FL 33760-4615
Custom Aerosol Products Inc	RR 1	Mc Kinney, TX 75070-9801
Custom Powder Inc	10650 County Road 81	Osseo, MN 55369-4075
Dampney Company Inc	85 Paris St	Everett, MA 02149-4411
Dan Cytron Co	637 Strand St APT B	Santa Monica, CA 90405-2473
Davies Imperial Coatings Inc	1275 State St	Hammond, IN 46320-1633
Davis Paint Company	1311 Iron St	Kansas City, MO 64116-4010
Davis-Frost Inc	1209 Tyler St Ne	Minneapolis, MN 55413-1529
De Santis C Paint Mfg Co Inc	4101 E 116th St	Cleveland, OH 44105-5459
Deako Coating & Chemical Inc	2540 NW 29th Ave Ste 105	Miami, FL 33142-6438
Decoart Inc	Jct Hwy 27 & 150	Stanford, KY 40484
Decorative Industries Inc	174 Orange Tpke	Sloatsburg, NY 10974-1508
Deft Incorporated	411 E Keystone	Alliance, OH 44601
Deft Incorporated	17451 Von Karman Ave	Irvine, CA 92614-6205
Delta Technical Coatings Inc	2550 Pellissier Pl	Whittier, CA 90601-1505
Diall Chemical Company Inc	6649 Amory CT Unit 3	Winter Park, FL 32792-7439
Discovery Engineering Inc	1 Paradise Park Rd	Jacksonville, AR 72076-2365
Dozier & Gay Indus Coatings	3529 Enterprise Way	Green Cove Springs, FL 32043-9334
Duckback Products Inc	2644 Hegan Ln	Chico, CA 95928-9572
Dunn-Edwards Corporation	225 Menaul Blvd NW	Albuquerque, NM 87107-1354
Dupaco Paint Inc	1330 E 37th St N	Wichita, KS 67219-3521
Dur-A-Flex Inc	95 Goodwin St	East Hartford, CT 06108-1146
Dux Paints & Chemicals Inc	18 Mill St	Lodi, NJ 07644-2604
Dyco Paints Inc	5850 Ulmerton Rd	Clearwater, FL 33760-3940

Eco Chemical Inc	2601 Elliott Ave Ste 4173	Seattle, WA 98121-3312
Edcoat Limited Partnership	30350 Edison Rd	New Carlisle, IN 46552-9728
Egyptian Lacquer Mfg Co Inc	555 Sagamore Pkwy S	Lafayette, IN 47905-4737
Elf Atochem North America Inc	128 Old Brickyard Ln	Kensington, CT 06037-1437
Epmar Corporation	13210 Barton Cir	Whittier, CA 90605-3254
Eron Enterprises Ltd	5320 N Elston Ave	Chicago, IL 60630-1611
Essential Protective Coatings	540 W Industrial Lake Dr	Lincoln, NE 68528-1573
Farwest Paint Mfg Co	4522 S 133rd St	Tukwila, WA 98168-3251
Fence Factory	845 E Ventura Blvd	Oxnard, CA 93030-1704
Fibre Tech Corp	2323 34th Way	Largo, FL 33771-3902
Fioris Industries Inc	3239 Monier Cir Ste 5	Rancho Cordova, CA 95742-6833
Flagg Supply Inc	2591 Palomas Dr	Walled Lake, MI 48390-2053
Flecto Company Inc	1000 45th St	Oakland, CA 94608-3314
Four Seasons Chemical Inc	600 W Seminary St	Charlotte, MI 48813-1876
Frazee Industries Inc	4545 Camino De La Plz	San Ysidro, CA 92173-3103
Frazee Industries Inc	6625 Miramar Rd	San Diego, CA 92121-2508
Friendship Paint Manufacturing	508 10th Ave	Clarkfield, MN 56223-1203
Frontier Bag Inc	5720 E 150th St	Kansas City, MO 64146
G & W Enterprises Inc	1800 Park Place Ave	Fort Worth, TX 76110-1381
Garland Floor Co	4500 Willow Pkwy	Cleveland, OH 44125-1042
Gemini Industries Inc	2300 SW Holloway St	El Reno, OK 73036-5773
General Coatings Technologies	24 Woodward Ave	Ridgewood, NY 11385-1022
General Polymer Inc	59 Foundry St	Central Falls, RI 02863-2317
Gj Nikolas Co Inc	12 Pinecrest Dr	Fairmont, NC 28340-9571
Graham Paint & Varnish Co Inc	4800 S Richmond St	Chicago, IL 60632-2022
H & C Inc	2901 4th St SE	Minneapolis, MN 55414-3330
H & S Coatings Inc	16400 Garfield Ave	Paramount, CA 90723-5302
H B H Prestain Inc	1223 E Arlington Rd	Arlington, VT 05250-8620
Harco Chemical Coating Inc	208 Dupont St	Brooklyn, NY 11222-1241
Hartin Paint & Filler Corp	Broad & 14th St	Carlstadt, NJ 07072
Helen Inc	6450 Hanna Lake Ave SE	Caledonia, MI 49316-8365
Hempel Coatings USA Inc	Foot of Curie Ave	Wallington, NJ 07057
Highland Estates Ltd Partnr	1500 Harlan Ln	Lake Forest, IL 60045-3896
H-I-S Paint Manufacturing Co	1801 W Reno Ave	Oklahoma City, OK 73106-3217
Hsc Industrial Coatings Inc	1711 N Hwy 7	Pleasant Hill, MO 64080-9436
Hudson Color Concentrates Inc	5 Executive Dr	Hudson, NH 03051-4903
Idaho Protective Coatings	1869 E Meadowgrass St	Meridian, ID 83642-7314
Illumination Partners Llc	12927 Sunshine Ave	Santa Fe Springs, CA 90670-4732
Imperial Research & Mfg	192 Center St	Cape Canaveral, FL 32920-3728
Industrial Rubber Products	4045 Sinton Rd	Colorado Springs, CO 80907-5040
Ingels Inc	104 Best Industrial Dr	Jonesboro, AR 72401
Innovative Engineering of Mich	1541 W Round Lake Rd	Dewitt, MI 48820-9737
Innovative Marine Coatings	15870 Lake Candlewood Dr	Fort Myers, FL 33908-1735
International Paint Inc	6001 Antoine Dr	Houston, TX 77091-3503
Invinca-Shield Inc	658 Lake Dr	Altamonte Springs, FL 32701-5412
Janco Chemical Corp	1235 5th St	Berkeley, CA 94710-1305
Jay Bee Paint Co Inc	3218 Brannon Ave	Saint Louis, MO 63139-1423
Jennison Industries Inc	860 Washington St	Burlington, IA 52601-5150

Jessup Services	2850 Industry St	Oceanside, CA 92054-4812
Jodan Technology Inc	1500 Front St	Yorktown Heights, NY 10598-4638
John C Dolph Company	320 New Rd	Monmouth Junction, NJ 08852-2312
Johnson Paints Inc	2131 Andrea Ln	Fort Myers, FL 33912-1903
Jurgen Industries	14700 172nd Dr SE 1	Monroe, WA 98272-1033
Kelley Technical Coatings Inc	1445 S 15th St	Louisville, KY 40210-1837
Key Laboratories Inc	1900 13th Ave N	Saint Petersburg, FL 33713-5738
Khi Coil Processing Inc	45 Enterprise Dr	Vassar, MI 48768-9505
Kirby George Jr Paint Co Inc	163 Mount Vernon St	New Bedford, MA 02740-4610
Kop-Coat Inc	436 7th Ave Ste 1850	Pittsburgh, PA 15219-1828
Kustom Blending Inc	7960 Kentucky Dr Ste 5	Florence, KY 41042-2933
L & H Paint Products Inc	1200 Putman Ave	Yuba City, CA 95991-7203
Lasting Paints Inc	200-212 S Franklintown Rd	Baltimore, MD 21223
Lymtal International Inc	4150 S Lapeer Rd	Orion, MI 48359-1865
Mainline Paint Mfg Co	768 Main St	Pawtucket, RI 02860-3630
Mantrose-Haeuser Co Inc	1175 Post Rd E	Westport, CT 06880-5431
Marcus Paint Company	235 E Market St	Louisville, KY 40202-1217
Masterchem Industries Inc	3135 Highway M	Imperial, MO 63052-2834
Mautz Paint Co	939 E Washington Ave	Madison, WI 53703-2937
Maxine L Hale	2130 N Sahuara Ave	Tucson, AZ 85712-3006
Mc Cormick Paint Works Co	2355 Lewis Ave	Rockville, MD 20851-2335
Mercury Paint Corp	5017 Farragut Rd	Brooklyn, NY 11203-6712
Mercury Paint Corp	4808 Farragut Rd	Brooklyn, NY 11203-6612
Mercz Art	12007 E 19th Ave	Spokane, WA 99206-5706
Metamorphic Material Llc	29 Kripes Rd	East Granby, CT 06026-9669
Mid America Protective Coatings	1395 Louis Ave	Elk Grove Village, IL 60007-2309
Mid-States Paint & Chem Co	9315 Watson Industrial PA	Saint Louis, MO 63126-1520
Miracle Cover	19941 Beach Blvd	Huntington Beach, CA 92648-3705
Mmi Products	800 Whitney St	Brighton, MI 48116-1221
Mohawk Finishing Products Inc	4715 State Highway 30	Amsterdam, NY 12010-7431
Monarch Paint Company	31 Buick St	San Angelo, TX 76901-4731
Monarch Paint Company	11230 Jones Rd W	Houston, TX 77065-3617
Mouton Enterprises	2890 W Cedar St	Beaumont, TX 77702-2525
Murmac Paint Mfg Inc	1300 Harvey St	Beloit, WI 53511-4617
Musgrove Enterprises Llc	2020 W McDowell Rd	Phoenix, AZ 85009-3013
N Josten & Co Inc	4905 N 32nd St	Milwaukee, WI 53209-5425
National Coatings Inc	RR 150 Box East	Galesburg, IL 61401
National Coatings Inc	120 Industrial Dr	Festus, MO 63028-4132
National Industrial Coating	840 Industrial Dr	Bensenville, IL 60106-1307
Nationwide Research Corp	2806 Cheek Rd	Durham, NC 27704-5341
Nautical Marine Paint Corp	4802 Farragut Rd	Brooklyn, NY 11203-6612
Nelson Paint Company of Ala	1 Nelson Dr	Iron Mountain, MI 49802-4561
Nesco Mfg Inc	1510 W Drake Dr	Tempe, AZ 85283-4346
Neste Polyester Inc	1720 E Monticello CT	Ontario, CA 91761-7740
Neste Polyester Inc	5106 Wheeler Ave	Fort Smith, AR 72901-8336
Norton & Son of California	5928 Garfield Ave	Los Angeles, CA 90040-3607
Opsec Advantage Inc	1809 Olde Homestead Ln	Lancaster, PA 17601-5837
Osmose Inc	980 Ellicott St	Buffalo, NY 14209-2323

Pacific West Chemical Corp	337 Summit Dr	Corte Madera, CA 94925-1343
Paint-Chem Inc	244 E Pomona Ave	Monrovia, CA 91016-4640
Palmer Paint Products Inc	1291 Rochester Rd	Troy, MI 48083-2879
Parker Paint Manufacturing Co	3003 S Tacoma Way	Tacoma, WA 98409-4720
Patriot Paint Company Inc	201 S Middle St	Portland, IN 47371-1728
PCI Group Inc	2153 E Cedar St Ste 6	Tempe, AZ 85281-7411
Performance Coatings Inc	360 Lake Mendocino Dr	Ukiah, CA 95482-9497
Permanent Coatings Inc	8405 Florida Blvd	Denham Springs, LA 70726-7914
Permite Corporation Inc	5239 Brer Rabbit Rd	Stone Mountain, GA 30083-1317
Perry & Derrick Co	2510 Highland Ave	Cincinnati, OH 45212-2319
Pierce & Stevens Corp	RR 113	Kimberton, PA 19442
Pioneer Paint Arizona Inc	3755 E 43rd Pl	Tucson, AZ 85713-5403
Plastic Engineering Inc	56188 Elder Rd	Mishawaka, IN 46545-7320
Ponderosa Paint Manufacturing	4631 W Aeronca St	Boise, ID 83705-6504
PPG Industries Inc	14523 Harbor Estates Rd	Charlotte, NC 28278-7305
PPG Industries Inc	6804 Enterprise Dr	Louisville, KY 40214-4305
PPG Industries Inc	1020 Olympic Dr	Batavia, IL 60510-1329
PPG Industries Inc	1 PPG Pl	Pittsburgh, PA 15272-0001
PPG Industries Inc	125 Colfax St	Springdale, PA 15144-1506
Precision Technical Coatings	1764 NW 57th St	Ocala, FL 34475-3032
Premier Coatings Inc	2250 Arthur Ave	Elk Grove Village, IL 60007-6011
Professional Coatings Inc	1807 3rd Ave SE	Cullman, AL 35055-5466
Professional Coatings Inc	27010 Highway 107	Cabot, AR 72023-9647
Professional Coatings Labs	152 Bliss Rd	Longmeadow, MA 01106-1408
Progressive Coating Inc	455 W 61st St	Shreveport, LA 71106-2510
Progressive Ink Company Inc	2302 Tripaldi Way	Hayward, CA 94545-5021
Quality Coatings Inc	1700 N State St	Chandler, IN 47610-9738
R J McGlennon Company Inc	198 Utah St	San Francisco, CA 94103-4826
Rabco Incorporated	126 Cottage Ave	Moorestown, NJ 08057-1008
Rad-Cure Corp	9 Audrey Pl	Fairfield, NJ 07004-3401
Red Spot Paint & Varnish Co	1107 E Louisiana St	Evansville, IN 47711-4747
Red Spot Westland Inc	550 Edwin St	Westland, MI 48186-3801
Repco Lite Paints Inc	473 W 17th St	Holland, MI 49423-3443
Rhino Linings Northwest	5838 Ne Columbia Blvd	Portland, OR 97218-1251
Richards Paint Mfg Co Inc	200 Paint St	Rockledge, FL 32955-5807
Rohm and Haas Auto Coating	2701 E 170th St	Lansing, IL 60438-1107
Rohm and Haas Company	25500 Whitesell St	Hayward, CA 94545-3615
Ron Coblentz Finishing Touch	6701 S Kohler Rd	Apple Creek, OH 44606-9733
Rust-Oleum Corporation	11 E Hawthorn Pkwy	Vernon Hills, IL 60061-1420
S P Kish Industries Inc	600 W Seminary St	Charlotte, MI 48813-1876
Sampson Coatings Inc	1900 Ellen Rd	Richmond, VA 23230-4213
Samuel Cabot Incorporated	100 Hale St	Newburyport, MA 01950-3504
Sawyer Finn Company Inc	1600 Genessee St Ste 555	Kansas City, MO 64102-1085
Scatt Marine Products	301 Dividend Dr	Peachtree City, GA 30269-1907
Scheib Earl of Missouri Inc	1940 E Trafficway St	Springfield, MO 65802-2217
Scott Paint Corp	7839 Fruitville Rd	Sarasota, FL 34240-9280
Sem Products Inc	651 Michael Wylie Dr	Charlotte, NC 28217-1546
Sentry Paint Technologies	906 E Main St	Louisville, KY 40206-1626

Sentry Paint Technologies	1600 Hulman St	Terre Haute, IN 47802-2522
Seymour of Sycamore Inc	917 Crosby Ave	Sycamore, IL 60178-1343
Sheboygan Pnt of Cedartown Ga	608 Canal St	Cedartown, GA 30125-6334
Simtec Coatings	16666 Smoketree St Bldg A	Hesperia, CA 92345-6177
Smiland Paint Company	620 Lamar St	Los Angeles, CA 90031-2513
Southwest Industries Inc	5197 NW 15th St Ste 124	Pompano Beach, FL 33063-3767
Specialty Coatings & Chemicals	7360 Varna Ave	North Hollywood, CA 91605-4008
Specialty Coatings Company	2526 Delta Ln	Elk Grove Village, IL 60007-6305
Spectra-Tone Paint Corporation	1595 E San Bernardino Ave	San Bernardino, CA 92408-2946
Spraylat Corporation	716 S Columbus Ave	Mount Vernon, NY 10550-4795
Stevens Paint Corp	50 Holt Dr	Stony Point, NY 10980-1904
Stoncor Group Inc	1 Park Ave	Maple Shade, NJ 08052
Strathmore Products Inc	1970 W Fayette St	Syracuse, NY 13204-1740
Sun Coatings Inc	12290 73rd CT	Largo, FL 33773-3040
Sunbelt Sports Paint Inc	355 N Sheridan St Ste 110	Corona, CA 92880-2026
Superior Paint Paddles In	201 Bateman Dr Ste 15	Central Point, OR 97502-3277
Superior Products & Coatings	26700 Fairfield Ave	Warren, MI 48089-4527
Surface Protection Industries	757 N La Brea Ave	Los Angeles, CA 90038-3338
TCI Inc	610 Dixon Dr	Ellaville, GA 31806
Technical Coatings Co	360 US Highway 206 4000	Flanders, NJ 07836-9577
Technical Coatings Corporation	3085 Trotters Pkwy	Alpharetta, GA 30004-7703
Technical Indus Sls Ltd Partnr	18574 S Highway 99e	Oregon City, OR 97045-3317
Techstar Industries Inc	848 Prairie Ln	Marshfield, MO 65706-9110
Testor Corporation	620 Buckbee St	Rockford, IL 61104-4835
Tevco Inc	110 Pomponio Ave	South Plainfield, NJ 07080-1900
Textured Coatings of America	2422 E 15th St	Panama City, FL 32405-6348
The Glidden Company	340r Vanderbilt Ave	Norwood, MA 02062-5008
The Glidden Company	925 Euclid Ave Ste 800	Cleveland, OH 44115-1408
The P D George Company	5200 N 2nd St	Saint Louis, MO 63147-3122
The Sherwin-Williams Company	12090 Sage Point CT	Reno, NV 89506-8992
The Sophir Company	2702 Douglas St	Omaha, NE 68131-2622
Therma Cell Technologies Inc	303 S Hibbert	Mesa, AZ 85210-1603
Thermaflex Inc	2316 Dundee Rd	Louisville, KY 40205-2045
Thermo Cote Inc	790 21st Ave	Paterson, NJ 07513-1018
Tnemec Company Inc	6800 Corporate Dr	Kansas City, MO 64120-1323
Tool World Inc	300 W Norton Ave	Eustis, FL 32726-4763
Trimite Powders Inc	5680 N Blackstock Rd	Spartanburg, SC 29303-6300
Triple G Coatings Inc	1714 Bannard St	Riverton, NJ 08077-1807
Triple R Enterprises Inc	3434 Martin Way E Ste C	Olympia, WA 98506-5066
Turret Punch Co Inc	10050 6th St	Rancho Cucamonga, CA 91730-5747
Ultra Additives Inc	460 Straight St	Paterson, NJ 07501-2932
United Gilsonite Laboratories	1396 Jefferson Ave	Scranton, PA 18509-2415
United Paint and Chemical Corp	24671 Telegraph Rd	Southfield, MI 48034-3035
Universal Chem & Coatings Del	1975 Fox Ln	Elgin, IL 60123-7839
US Specialty Coatings Inc	3905 Green Industrial Way	Atlanta, GA 30341-1913
Valspar Corporation	1215 Nelson Blvd	Rockford, IL 61104-4773
Valspar Corporation	202 W Jacobs Ave	Fort Wayne, IN 46808-2464
Valspar Corporation	1647 English Rd	High Point, NC 27262-7203

Valspar Corporation	701 S Shiloh Rd	Garland, TX 75042-7812
Valspar Corporation	95 Quaker Oats Dr	Jackson, TN 38301-5077
Valspar Corporation	2000 Westhall St	Pittsburgh, PA 15233-1018
Vanex Inc	1700 Shawnee	Mount Vernon, IL 62864
Var-Chem Products Inc	300 Kuller Rd	Clifton, NJ 07011-2861
Veron Coating Systems Inc	1458 N 26th Ave	Phoenix, AZ 85009-3625
Versaflex Inc	22 N 6th St	Kansas City, KS 66101-3404
Vinatronics Inc	5685 Utah Ave S	Seattle, WA 98134-2436
Vista Paint Corporation	2020 E Orangethorpe Ave	Fullerton, CA 92831-5327
Vogel Paint & Wax Company Inc	1110 Albany Pl SE	Orange City, IA 51041-1982
Wattyl Paint Corporation	5275 Peachtree Industrial	Atlanta, GA 30341-2626
William Zinsser & Co Inc	480 Frelinghuysen Ave	Newark, NJ 07114-1419
William Zinsser & Co Inc	173 Belmont Dr	Somerset, NJ 08873-1218
Williams Paint Holdings Inc	1105 N Market St Ste 1014	Wilmington, DE 19801-1216

APPENDIX 3

RAW DATA FOR CONSTITUENT SELECTION

CONSTITUENTS ON RAW MATERIALS DATABASE THAT WERE REPORTED BY PAINT (SIC 2851) FACILITIES ON TRI

Chemical Name		On-Site	Solid/Stab	WWT	LF/Surf Imp	TOT	TC/Testing	PPG HW-P	TRI Totals	5-5 facilities

Phase I in boxes Phase II shaded

E-benzene ✓	solvent	340	0	26,421	2550	9	F003	P		
Styrene ✓	binder	0	0	1000	0			P	188,637	
2,4 Dimethylphenol ✓	biocide	0	0	5	0				44,685	
P-Cresol		0	0	0	0	0	F004		11,257	
Acrylonitrile ✓	binder	0	0	0	0	0			10	
Allyl Alcohol	solvent	0	0	0	0	0			573	
Ethylene Glycol ✓	solvent	0	8821	68,867	61,465	139153				
Vinyl Acetate ✓	sol./binder	0	0	504	447	951			58,611	
Methyl Isobutyl Ketone ✓	solvent	310	2	5023	352	6685	F003	P		
M-Xylene	solvent	0	0	0	0	0	F003		1086	
M-Cresol	solvent	0	0	0	0	0	D024/F004		7505	1
Toluene ✓	solvent	410	0	25,601	1800	27811		P		
Phenol ✓	biocide	0	0	0	13,950	13950				
Di2ethylhexylphthalate ✓	solvent	1800	0	0	0	1800				
1,4 Dioxane	solvent	0	0	0	0	0				
Tetrachloroethane	solvent	0	0	1600	0	1600	D039/F002		0	12
Xylene-mixed isomers ✓	solvent	1900	0	58,598	24,440	84938	F003	P		
Formaldehyde ✓	biocide	0	0	0	0	0			12,570	
Methanol ✓	sol./biocide	0	0	3900	250	4150	F003			
N-Butyl Alcohol ✓	solvent	1400	0	2411	605	4416	F003	P		
Benzene ✓	solvent	0	0	0	0	0	D018/F005		460	44
1,1,1 Trichloroethane	solvent	0	0	0	0	0	F001		8126	
Lead&cpds. ✓	pigment	4498	0	0	500	4998	D008	P		
Nickel&cpds. ✓	pigment	0	0	0	0	0		P	138	
Silver&cpds. ✓	pig./biocide	0	0	0	0	0	D011	P	250	7
Antimony&cpds. ✓	pigment	0	0	0	1480	1480			30	
Barium&cpds. ✓	pigment	1900	31,000	0	6387	39287	D005	P		
Chromium&cpds. ✓	pigment	0	1010	0	9703	11622	D007	P		
Copper & cpds. ✓	pig./biocide	250	0	0	119	369			964	
Zinc&cpds. ✓	pig/biocide	1000	31,758	1063	42,485	76306			68,262	
Methylene Chloride ✓	solvent	0	0	6808	0	6806				
Vinylidene Chloride	solvent	0	0	0	0	0			1135	
Methyl Ethyl Ketone ✓	solvent	0	0	21,166	215	21381	D035/F005	P		
Trichloroethene ✓	solvent	0	0	1500	0	1500	D040/F002		24,464	6
Acrylamide	binder	0	0	0	0	0			0	
Methyl Methacrylate ✓	binder	0	0	4614	0	4614				
Dibutyl Phthalate ✓	solvent	0	0	0	1902	1902				
Phthalic Anhydride		0	0	45	18,014	18059				
Napthalene ✓	solvent	0	0	5	0	5		P	103,132	
O-Xylene	solvent	0	0	0	0	0	F003		740	
O-Cresol ✓	solvent	0	0	0	0	0	D023/F004		0	3
Nitrobenzene		0	0	0	0	0	D036/F004		1000	3
Cadmium ✓	pigment	0	0	0	0	0	D006	P		55
Cyanide		0	0	0	0	0			0	
Mercury ✓	pigment	0	0	0	0	0	D009	P	0	33

Table 3-4. TRI Constituents without Benchmarks

Constituent	*CAS*
1,1-DICHLORO-1-FLUOROETHANE	1717006
1,2,4-TRIMETHYLBENZENE	95636
ALUMINUM OXIDE (FIBROUS FORMS)	1344281
BENZOYL PEROXIDE	94360
BUTYL ACRYLATE	141322
CHROMIUM	7440473
CUMENE HYDROPEROXIDE	80159
DIGLYCIDYL RESORCINOL ETHER	101906
DIMETHYL PHTHALATE	131113
SEC-BUTYL ALCOHOL	78922

HIGHLIGHTED:

18 X not on the 1997 TRI data 4 X no, on the 1997 TRI data.

3 (X) compounds

Total 73 + 41 = 114

73 w/ physical & chemical properties those we can model!

Raw Material Database Constituents With Human Health Benchmarks

Bolded and underlined constituents have physical/chemical characteristics and methods for analysis.

**-indicates that there is no SW-846 method available for analysis

Constituent	CASRN	Class	Cancer Class	Oral CSF (mg/kg/d)-1	Reference	Inhal URF (ug/m3)-1	Reference	Inhalation CSF (mg/kg/day)-1	Reference	RfD (mg/kg/d)	Reference	RfC (mg/m3)	Reference
1,2,4-trichlorobenzene	120-82-1	biocides	D (IRIS)							1.00E-02	IRIS	2.00E-01	HEAST
1-methoxy-2-propanol	107-98-2	solvents								7.00E-01	HEAST	2.00E+00	IRIS
2,2'-Methylenebis(3,4,6-trichlorophenol)	70-30-4	biocides								3.00E-04	IRIS		
2,4,6-trichlorophenol	88-06-2	biocides	B2 (IRIS)	1.10E-02	IRIS	3.10E-06	IRIS	1.00E-02	HEAST				
2-Butoxy ethanol	111-76-2	solvents								7.00E-02	ATSDR	2.00E-02	HEAST
2-Ethoxyethanol **	110-80-5	solvents								4.00E-01	HEAST	2.00E-01	IRIS
2-ethoxyethyl acetate	111-15-9	solvents								3.00E-01	HEAST	3.00E-01	air char
2-Nitropropane	79-46-9	solvents	B2 (HEAST)			2.70E-03	HEAST	9.40E+00	HEAST			2.00E-02	IRIS
3 (3,4 Dichlorophenyl)-1,1-dimethylurea	330-54-1	biocides								2.00E-03	IRIS		
Acetone	67-64-1	solvents	D (IRIS)							1.00E-01	IRIS	3.10E+01	ATSDR
aluminum	7429-90-5	pigment								2.00E+00	ATSDR		
antimony	7440-36-0	pigment								4.00E-04	IRIS		
barium	7440-39-3	pigment	D (IRIS)							7.00E-02	IRIS	5.00E-04	HEAST
Benzyl alcohol	100-51-6	biocides								3.00E-01	HEAST		
butyl benzyl phthalate	85-68-7	solvents	C (IRIS)							2.00E-01	IRIS		
cadmium	7440-43-9	pigment	B1 (IRIS)	1.50E+01	CalEPA 1997	1.80E-03	IRIS			5.00E-04	IRIS	1.00E-02	CalEPA
chloroform	67-66-3	biocides	B2 (IRIS)	6.10E-03	IRIS	2.30E-05	IRIS	8.10E-02	HEAST	1.00E-02	IRIS	1.00E-01	ATSDR
chromium (III)	16065-83-1	pigment	D (IRIS)							1.50E+00	IRIS		
chromium (VI)	18540-29-9	pigment	A (IRIS)			1.20E-02	IRIS	4.10E+01	HEAST	3.00E-03	IRIS	1.00E-04	IRIS
cobalt	7440-48-4	pigment								6.00E-02	NCEA	1.00E-05	air char
Copper	7440-50-8	pigment	D (IRIS)								see notes	2.00E-05	CalEPA
Cumene-**	98 82 8	solvents	D (IRIS)							1.00E-01	IRIS	4.00E-01	IRIS
cyanide	57-12-5	pigment	D (IRIS)							2.00E-02	IRIS		
Cyclohexanone	108-94-1	solvents								5.00E+00	IRIS		
diethyl phthalate	84-66-2	solvents	D (IRIS)							8.00E-01	IRIS		
Diethylene glycol monobutyl ether	112-34-5	solvents										2.00E-02	HEAST
Dioxane	123-91-	solvents	B2 (IRIS)	1.10E-02	IRIS	7.70E-06	CalEPA					8.00E-01	air char

Constituent	CASRN	Class	Cancer Class	Oral CSF (mg/kg/d)-1	Reference	Inhal URF (ug/m3) 1	Reference	Inhalation CSF (mg/kg/day)-1	Reference	RfD (mg/kg/d)	Reference	RfC (mg/m3)	Reference
o-Phenylphenol	90-43-7	biocides	C (HEAST)	1.90E-03	HEAST								
ortho-cresol	95-48-7	solvents	C (IRIS)							5.00E-02	IRIS		
p-chloro-meta-cresol	59-50-7	biocides								2.00E+00	HEAST		
Pentachlorophenol	87-86-5	biocides	B2 (IRIS)	1.20E-01	IRIS	5.10E-06	CalEPA			3.00E-02	IRIS	1.00E-01	CalEPA
Phenol	108-95-2	biocides	D (IRIS)							6.00E-01	IRIS	6.00E-01	CalEPA
Phenylmercuric acetate **	62-38-4	biocides								8.00E-05	IRIS		
Propylene glycol **	57-55-6	solvents								2.00E+01	HEAST		
selenium	7782-49-2	pigment	D (IRIS)							5.00E-03	IRIS	8.00E-05	CalEPA
silver	7440-22-4	pigment	D (IRIS)							5.00E-03	IRIS	2.00E-02	CalEPA
strontium	7440-24-6	pigment								6.00E-01	IRIS		
Tetrachloroethylene	127-18-4	solvents		5.20E-02	SF	5.80E-07	SF	2.00E-03	SF	1.00E-02	IRIS	3.00E-01	ATSDR
Tetrachloroisophthalonitrile	1897-45-6	biocides	B2 (HEAST)	1.10E-02	HEAST					1.50E-02	IRIS		
tin	7440-31-5	pigment								6.00E-01	HEAST		
Toluene	108-88-3	solvents	D (IRIS)							2.00E-01	IRIS	4.00E-01	IRIS
Tributyltin oxide	56-35-9	biocides	D (IRIS)							3.00E-04	IRIS		
Trichloroethylene	79-01-6	solvents		1.10E-02	NCEA	1.70E-06	NCEA	6.00E-03	NCEA			6.00E-01	CalEPA 1999
vanadium	7440-62-2	pigment								7.00E-03	HEAST	7.00E-05	air char
Xylene	1330-20-7	solvents	D (IRIS)							2.00E+00	IRIS	4.00E-01	ATSDR
zinc	7440-66-6	pigment	D (IRIS)							3.00E-01	IRIS	9.00E-04	CalEPA

Constituent	CASRN	Carc Class	Oral CSF (mg/kg/d)-1	Reference	Inhal URF (ug/m3)-1	Reference	Inhalation CSF (mg/kg/day)-1	Reference	RfD (mg/kg/d)	Reference	RfC (mg/m3)	Reference
N,n-dimethylformamide	68-12-2								1.00E-01	HEAST	3.00E-02	IRIS
Nitrobenzene	98-95-3	D (IRIS)							5.00E-04	IRIS	2.00E-03	HEAST
O-xylene	95-47-6								2.00E+00	HEAST	1.00E-01	ATSDR
P-cresol	106-44-5	C (IRIS)							5.00E-03	HEAST		
P-xylene	106-42-3								1.00E+00	ATSDR	4.00E-01	ATSDR
Phosphoric Acid	7664-38-2										1.00E-02	IRIS
Phthalic Anhydride	85-44-9								2.00E+00	IRIS	1.20E-01	HEAST
Propargyl Alcohol	107-19-7								2.00E-03	IRIS		
Propylene	115-07-1										3.00E+00	CalEPA, 1999
Propylene Oxide-**	75-56-9	B2 (IRIS)	2.40E-01	IRIS	3.70E-06	IRIS	1.30E-02	HEAST			3.00E-02	IRIS
Styrene	100-42-5								2.00E-01	IRIS	1.00E+00	IRIS
Toluene Diisocyanate (Mixed Isomers)	26471-62-5										7.00E-03	IRIS
Toluene-2,4-diisocyanate	584-84-9		3.90E-02	CalEPA, 1999	1.10E-05	CalEPA, 1999						
Toluene-2,6-diisocyanate	91-08-7		3.90E-02	CalEPA, 1999	1.10E-05	CalEPA, 1999						
Triethylamine-**	121-44-8										7.00E-03	IRIS
Vinyl Acetate	108-05-4								1.00E+00	HEAST	2.00E-01	IRIS
Vinylidene Chloride	75-35-4	C (IRIS)	6.00E-01	IRIS	5.00E-05	IRIS	2.00E-01	HEAST	9.00E-03	IRIS	2.00E-02	CalEPA, 1997

Total 11

✓ 64

+) 11 ** w/out SW-846 method

75

114 − 75 = 39 w/out properties

114 − 75 = 39

✓ not on the 1997

18 × not on the 1997 TRI data

3 ⊗ Compounds not on the 1997 TRI data

**

4 × not on the 1997 TRI data

Tab[illegible] 3: TRI Data for Total Constituent Releases For SIC 2851, by WM[illegible] (lb/y).

← on-site → I II III

42 + 3 metal compounds
7 ** w/HBN and properties but no SW-846 method
19 ✱ w/HBN but no properties
22 X w/out HBN ?
✓✓ We can model

Cas #	Chemical Name	Fugative or Non-point Air Emissions	Stack or Point Air Emissions	Discharges to Receiving Streams or Water Bodies	Underground Injection onsite to Class I Wells	Underground Injection onsite to Class II_V Wells	RCRA Subtitle C Landfills	Other Landfills	Surface Impoundment	Land Treatment/ Application Farming
100414	ETHYLBENZENE ✓✓	150,156	203,366	17	0	0	0	340	0	0
100425	STYRENE ✓✓	66,343	89,059	0	0	0	0	0	0	0
101779	"4,4'-METHYLENEDIANILINE " ✱	5	255	0	0	0	0	0	0	0
X 101906	DIGLYCIDYL RESORCINOL ETHER	5	5	0	0	0	0	0	0	0
105679	"2,4-DIMETHYLPHENOL " ✓✓	950	1,250	0	0	0	0	0	0	0
106423	P-XYLENE ✱	1,926	5,120	0	0	0	0	0	0	0
106445	P-CRESOL ✓✓	410	240	0	0	0	0	0	0	0
106514	QUINONE	0	0	0	0	0	0	0	0	0
107131	ACRYLONITRILE ✓✓	39	187	0	0	0	0	0	0	0
107186	ALLYL ALCOHOL ✓✓	0	5	0	0	0	0	0	0	0
107197	PROPARGYL ALCOHOL ✱	250	250	0	0	0	0	0	0	0
107211	ETHYLENE GLYCOL ✓✓	82,397	37,512	26	0	0	0	0	0	9,285
108054	VINYL ACETATE ✓✓	4,985	48,260	0	0	0	0	0	0	0
108101	METHYL ISOBUTYL KETONE ✓✓	210,303	361,145	16	0	0	0	310	0	0
108316	MALEIC ANHYDRIDE ✱	500	1,288	0	0	0	0	0	0	0
108383	M XYLENE ✓✓	1,272	814	0	0	0	0	0	0	0
108394	M-CRESOL ✓✓	1,875	1,230	0	0	0	0	0	0	0
108883	TOLUENE ✓✓	951,233	850,491	33	0	0	0	410	0	0
108952	PHENOL ✓✓	12,526	13,196	0	0	0	0	0	0	0
X 109864	2-METHOXYETHANOL	189	0	0	0	0	0	0	0	0
110543	N-HEXANE **	43,980	86,814	0	0	0	0	0	0	0
X 110827	CYCLOHEXANE ✓	15,437	1,880	2	0	0	0	96	0	0
111422	DIETHANOLAMINE ✱	750	1	0	0	0	0	0	0	0
115071	PROPYLENE ✱	0	0	0	0	0	0	0	0	0
1163195	DECABROMODIPHENYL OXIDE ✱	187	111	0	0	0	0	1,500	0	0
117817	DI(2-ETHYL HEXYL) PHTHALATE ✓✓	4,969	1,280	2	0	0	0	1,800	0	0
121448	TRIETHYLAMINE **	1,871	2,638	0	0	0	0	0	0	0
123911	"1,4-DIOXA[illegible] ✓✓	0	0	0	0	0	0	0	0	0
127184	TETRACHLOROETHYLENE ✓✓	760	3,550	5	0	0	0	0	0	0
X 131113	DIMETHYL P[illegible]HALATE	6	5	0	0	0	0	0	0	0

Table B-3. TRI Data for Total Constituent Releases For SIC 2851, by WMU (Lb/Yr).

Cas #	Chemical Name	Fugative or Non-point Air Emissions	Stack or Point Air Emissions	Discharges to Receiving Streams or Water Bodies	Underground Injection onsite to Class I Wells	Underground Injection onsite to Class II_V Wells	RCRA Subtitle C Landfills	Other Landfills	Surface Impoundment	Land Treatment/ Application Farming
1319773	CRESOL (MIXED ISOMERS)	1,000	980	0	0	0	0	0	0	0
1330207	XYLENE (MIXED ISOMERS)	1,191,789	1,192,339	57	0	0	0	1,900	0	0
133073	FOLPET	0	37	10	0	0	0	0	0	0
1344281	ALUMINUM OXIDE (FIBROUS FORMS)	0	0	0	0	0	0	0	0	0
140885	ETHYL ACRYLATE	992	3,714	0	0	0	0	0	0	0
141322	BUTYL ACRYLATE	2,268	9,661	0	0	0	0	0	0	0
1717006	"1,1-DICHLORO-1-FLUOROETHANE "	1,341	0	0	0	0	0	0	0	0
1897456	CHLOROTHALONIL	0	10	0	0	0	0	0	0	0
2155706	TRIBUTYLTIN METHACRYLATE	5	5	0	0	0	0	0	0	0
26471625	TOLUENE DIISOCYANATE (MIXED ISOMERS)	1,055	250	0	0	0	0	0	0	0
4080313	"1-(3-CHLOROALLYL)-3,5,7-TRIAZA-1-AZONIAADAMANTANE CHLORIDE "	175	214	21	0	0	0	0	0	672
50000	FORMALDEHYDE	550	2,581	1	0	0	0	0	0	0
55406536	3-IODO-2-PROPYNYL BUTYLCARBAMATE	2,957	439	21	0	0	0	0	0	295
584849	"TOLUENE-2,4-DIISOCYANATE "	250	250	0	0	0	0	0	0	0
67561	METHANOL	171,561	174,563	5	0	0	0	0	0	0
67630	"ISOPROPYL ALCOHOL "	4,101	250	0	0	0	0	0	0	0
68122	"N,N-DIMETHYLFORMAMIDE "	3,027	1,235	0	0	0	0	0	0	0
71363	N-BUTYL ALCOHOL	377,885	152,742	41	0	0	250	1,400	0	0
71432	BENZENE	250	0	0	0	0	0	0	0	0
71556	"1,1,1-TRICHLOROETHANE "	3,4	3,474	0	0	0	0	0	0	0
7429905	ALUMINUM (FUME OR DUST)		1,153	0	0	0	0	140	0	0
7439921	LEAD		50	0	0	0	0	0	0	0
7440020	NICKEL		250	0	0	0	0	0	0	0
7440224	SILVER		250	0	0	0	0	0	0	0

Table D-3. TRI Data for Total Constituent Releases For SIC 2851, by WMU Type (lb/y).

Cas #	Chemical Name	Fugative or Non-point Air Emissions	Stack or Point Air Emissions	Discharges to Receiving Streams or Water Bodies	Underground Injection onsite to Class I Wells	Underground Injection onsite to Class II_V Wells	RCRA Subtitle C Landfills	Other Landfills	Surface Impoundment	Land Treatment/ Application Farming
7440360	ANTIMONY	30	0	0	0	0	0	0	0	0
7440393	BARIUM	218	2	0	0	0	0	0	0	0
7440473	CHROMIUM	250	0	0	0	0	0	0	0	0
7440508	COPPER	0	964	0	0	0	0	0	0	0
7440666	ZINC (FUME OR DUST)	20,615	1,984	0	0	0	0	0	0	0
75092	DICHLOROMETHANE	66,769	78,781	5	0	0	0	0	0	0
75354	VINYLIDENE CHLORIDE	6	29	0	0	0	0	0	0	0
75569	PROPYLENE OXIDE	0	250	0	0	0	0	0	0	0
75650	TERT-BUTYL ALCOHOL	5	250	0	0	0	0	0	0	0
7632000	SODIUM NITRITE	0	0	0	0	0	0	0	0	0
7647010	"HYDROCHLORIC ACID (1995 AND AFTER, ACID AEROSOLS ONLY) "	1,949	750	0	0	0	0	0	0	0
7664382	PHOSPHORIC ACID	3,495	804	0	0	0	250	0	0	0
7664417	AMMONIA	2,652	13,950	0	0	0	750	0	0	0
7726956	BROMINE	0	0	0	0	0	0	0	0	0
77736	DICYCLOPENTADIENE	2,639	1,793	0	0	0	0	0	0	0
78922	SEC-BUTYL ALCOHOL	19,278	6,312	0	0	0	0	0	0	0
78933	METHYL ETHYL KETONE	808,872	1,142,816	24	0	0	0	1,000	0	0
79016	TRICHLOROETHYLENE	1,004	5,747	0	0	0	0	0	0	0
79061	ACRYLAMIDE	0	0	0	0	0	0	0	0	0
79107	ACRYLIC ACID	261	1,126	0	0	0	0	0	0	0
80057	"4,4'-ISOPROPYLIDENEDIPHENOL "	3,189	3,939	0	0	0	0	0	0	0
80159	CUMENE HYDROPEROXIDE	0	0	0	0	0	0	0	0	0
80626	METHYL METHACRYLATE	4,977	42,152	0	0	0	0	0	0	0
84742	DIBUTYL PHTHALATE	776	957	0	0	0	0	0	0	0
85449	PHTHALIC ANHYDRIDE	4,356	23,658	173	0	0	0	0	0	0
872504	N-METHYL-2-PYRROLIDONE	11,659	18,061	0	0	0	0	47	0	0
91087	"TOLUENE 2,6 DIISOCYANATE "		0	0	0	0	0	0	0	0
91203	NAPHTHALENE	22,882	9,911	2	0	0	0	0	0	0

Table . . TRI Data for Total Constituent Releases For SIC 2851, by WMU ', (lb/y).

Cas #	Chemical Name	Fugative or Non-point Air Emissions	Stack or Point Air Emissions	Discharges to Receiving Streams or Water Bodies	Underground Injection onsite to Class I Wells	Underground Injection onsite to Class II_V Wells	RCRA Subtitle C Landfills	Other Landfills	Surface Impoundment	Land Treatment/ Application Farming
92524	BIPHENYL	0	0	0	0	0	0	0	0	0
94360	BENZOYL PEROXIDE	0	5	0	0	0	0	0	0	0
95476	O-XYLENE	466	280	0	0	0	0	0	0	0
95487	O-CRESOL	0	0	0	0	0	0	0	0	0
95636	"1,2,4-TRIMETHYLBENZENE "	107,104	63,113	16	0	0	0	78	0	0
96333	METHYL ACRYLATE	41	1,736	0	0	0	0	0	0	0
98828	CUMENE	3,368	3,426	0	0	0	0	0	0	0
98953	NITROBENZENE	250	250	0	0	0	0	0	0	0
N010	ANTIMONY COMPOUNDS	70	311	0	0	0	0	0	0	0
N040	BARIUM COMPOUNDS	1,416	2,325	75	0	0	0	1,900	0	0
N078	CADMIUM COMPOUNDS	0	0	0	0	0	0	0	0	0
N090	CHROMIUM COMPOUNDS	3,912	1,165	9	0	0	0	0	0	0
N096	COBALT COMPOUNDS	8	14	0	0	0	0	0	0	0
N100	COPPER COMPOUNDS	2,541	125	2	0	0	0	0	250	0
N106	CYANIDE COMPOUNDS	0	0	0	0	0	0	0	0	0
N120	DIISOCYANATES	3,905	1,663	0	0	0	0	0	0	0
N230	CERTAIN GLYCOL ETHERS	282,889	154,551	31	0	0	750	180	0	1,566
N420	LEAD COMPOUNDS	1,278	1,089	15	0	0	0	0	0	0
N450	MANGANESE COMPOUNDS	5	14	0	0	0	0	0	0	0
N458	MERCURY COMPOUNDS	0	0	0	0	0	0	0	0	0
N495	NICKEL COMPOUNDS	118	20	0	0	0	0	0	0	0
N583	POLYCHLORINATED ALKANES	0	0	0	0	0	0	0	0	0
N982	ZINC COMPOUNDS	20,715	6,452	384	0	0	0	1,000	0	41

Table [illegible]. TRI Data for Total Constituent Releases For SIC 2851, by WMO [illegible], (lb/y).

Cas #	Chemical Name	Other Disposal	On-Site Total	POTW	Storage Only	Solvents/ Organics Recovery	Metals Recovery	Other Reuse or Recovery	Acid Regeneration	Solidification/ Stabilization
100414	ETHYLBENZENE	0	353,879	1249	596	951,404	0	793	0	0
100425	STYRENE	0	156,402	[illegible]	0	200	0	0	0	0
101779	"4,4'-METHYLENEDIANILINE "	0	[illegible]	[illegible]	0	0	0	0	0	0
101906	DIGLYCIDYL RESORCINOL ETHER	0	[illegible]	[illegible]	0	0	0	0	0	0
105679	"2,4-DIMETHYLPHENOL "	0	[illegible]	[illegible]	0	0	0	0	0	0
106423	P-XYLENE	0	[illegible]	[illegible]	0	0	0	0	0	0
106445	P-CRESOL	0	[illegible]	[illegible]	0	0	0	0	0	0
106514	QUINONE	0	[illegible]	[illegible]	0	0	0	0	0	0
107131	ACRYLONITRILE	0	[illegible]	[illegible]	0	0	0	0	0	0
107186	ALLYL ALCOHOL	0	[illegible]	[illegible]	0	0	0	0	0	0
107197	PROPARGYL ALCOHOL	0	[illegible]	[illegible]	0	0	0	0	0	0
107211	ETHYLENE GLYCOL	5	129,225	256,170	0	9,322	0	14,207	0	8,821
108054	VINYL ACETATE	0	53,245	[illegible]	0	0	0	0	0	0
108101	METHYL ISOBUTYL KETONE	0	57,177	[illegible]	173	554,646	0	932	0	2
108316	MALEIC ANHYDRIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
108383	M-XYLENE	0	[illegible]	[illegible]	0	0	0	0	0	0
108394	M-CRESOL	0	[illegible]	[illegible]	0	0	0	0	0	0
108883	TOLUENE	0	[illegible]	[illegible]	8,236	4,415,117	0	21,146	0	0
108952	PHENOL	0	[illegible]	[illegible]	0	795	0	0	0	0
109864	2-METHOXYETHANOL	0	[illegible]	[illegible]	0	0	0	0	0	0
110543	N-HEXANE	0	[illegible]	[illegible]	0	96,254	0	0	0	0
110827	CYCLOHEXANE	0	[illegible]	[illegible]	0	1,076	0	0	0	0
111422	DIETHANOLAMINE	0	[illegible]	[illegible]	0	0	0	0	0	0
115071	PROPYLENE	0	[illegible]	[illegible]	0	0	0	0	0	0
1163195	DECABROMODIPHENYL OXIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
117817	DI(2-ETHYLHEXYL) PHTHALATE	0	[illegible]	[illegible]	0	1,442	0	0	0	0
121448	TRIETHYLAMINE	0	[illegible]	[illegible]	0	1,850	0	0	0	0
123911	"1,4-DIOXANE	0	[illegible]	[illegible]	0	0	0	0	0	0
127184	TETRACHLOROETHYLENE	0	[illegible]	[illegible]	0	4,875	0	0	0	0
131113	DIMETHYL PHTHALATE	0	[illegible]	[illegible]	0	0	0	0	0	0

Table 6 ... (RI Data for Total Constituent Releases For SIC 2851, by WM[illegible]y, [illegible]/y).

Cas #	Chemical Name	Other Disposal	On-Site Total	Off-Site Total	Storage Only	Solvents/Organics Recovery	Metals Recovery	Other Reuse or Recovery	Acid Regeneration	Solidification/ Stabilization
1319773	CRESOL (MIXED ISOMERS)	0	[illegible]	[illegible]	0	0	0	0	0	0
1330207	XYLENE (MIXED ISOMERS)	250	[illegible]	[illegible]	41,673	7,940,637	0	45,502	0	0
133073	FOLPET	0	[illegible]	[illegible]	0	0	0	0	0	0
1344281	ALUMINUM OXIDE (FIBROUS FORMS)	0	[illegible]	[illegible]	0	0	0	0	0	0
140885	ETHYL ACRYLATE	0	[illegible]	[illegible]	0	0	0	0	0	0
141322	BUTYL ACRYLATE	0	[illegible]	[illegible]	0	0	0	0	0	0
1717006	"1,1-DICHLORO-1-FLUOROETHANE "	0	[illegible]	[illegible]	0	0	0	0	0	0
1897456	CHLOROTHALONIL	0	[illegible]	[illegible]	0	0	0	0	0	0
2155706	TRIBUTYLTIN METHACRYLATE	0	[illegible]	[illegible]	0	0	0	0	0	0
26471625	TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	[illegible]	[illegible]	0	0	0	0	0	0
4080313	"1-(3-CHLOROALLYL)-3,5,7-TRIAZA-1-AZONIAADAMANTANE CHLORIDE "	0	[illegible]	[illegible]	0	0	0	0	0	0
50000	FORMALDEHYDE	0	[illegible]	[illegible]	0	0	0	0	0	0
55406536	3-IODO-2-PROPYNYL BUTYLCARBAMATE	0	[illegible]	[illegible]	0	0	0	0	0	0
584849	"TOLUENE-2,4-DIISOCYANATE "	0	[illegible]	[illegible]	0	0	0	0	0	0
67561	METHANOL	0	[illegible]	[illegible]	0	83,274	0	0	0	0
67630	"ISOPROPYL ALCOHOL "	0	[illegible]	[illegible]	0	0	0	0	0	0
68122	"N,N-DIMETHYLFORMAMIDE "	0	[illegible]	[illegible]	0	0	0	0	0	0
71363	N-BUTYL ALCOHOL	0	[illegible]	[illegible]	3,040	500,574	0	254	0	0
71432	BENZENE	0	[illegible]	[illegible]	0	0	0	0	0	0
71556	"1,1,1-TRICHLOROETHANE "	0	[illegible]	[illegible]	0	0	0	0	0	0
7429905	ALUMINUM (FUME OR DUST)	[illegible]	[illegible]	[illegible]	0	0	3,702	0	0	0
7439921	LEAD	[illegible]	[illegible]	[illegible]	0	0	0	0	0	0
7440020	NICKEL	[illegible]	[illegible]	[illegible]	0	0	0	0	0	0
7440224	SILVER	[illegible]	[illegible]	[illegible]	0	0	0	0	0	0

Table [illegible] TRI Data for Total Constituent Releases For SIC 2851, by WMC (y/y).

Cas #	Chemical Name	Other Disposal	On-Site	Off-Site	Storage Only	Solvents/ Organics Recovery	Metals Recovery	Other Reuse or Recovery	Acid Regeneration	Solidification/ Stabilization
7440360	ANTIMONY	0	[illegible]	[illegible]	0	0	0	0	0	0
7440393	BARIUM	0	[illegible]	[illegible]	0	0	0	0	0	0
7440473	CHROMIUM	0	[illegible]	[illegible]	0	0	0	0	0	0
7440508	COPPER	0	[illegible]	[illegible]	0	0	0	0	0	0
7440666	ZINC (FUME OR DUST)	1,176	[illegible]	[illegible]	0	7,692	0	0	0	0
75092	DICHLOROMETHANE	0	[illegible]	[illegible]	0	14,797	0	0	0	0
75354	VINYLIDENE CHLORIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
75569	PROPYLENE OXIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
75650	TERT-BUTYL ALCOHOL	0	[illegible]	[illegible]	0	1,760	0	0	0	0
7632000	SODIUM NITRITE	0	[illegible]	[illegible]	0	0	0	0	0	0
7647010	"HYDROCHLORIC ACID (1995 AND AFTER, ACID AEROSOLS ONLY) "	0	[illegible]	[illegible]	0	0	0	0	0	0
7664382	PHOSPHORIC ACID	0	[illegible]	[illegible]	0	0	0	0	0	0
7664417	AMMONIA	0	[illegible]	[illegible]	0	0	0	0	0	249
7726956	BROMINE	0	[illegible]	[illegible]	0	0	0	0	0	0
77736	DICYCLOPENTADIENE	0	[illegible]	[illegible]	0	0	0	0	0	0
78922	SEC-BUTYL ALCOHOL	0	[illegible]	[illegible]	0	17,766	0	200	0	0
78933	METHYL ETHYL KETONE	0	[illegible]	[illegible]	13,991	4,886,166	0	12,045	0	0
79016	TRICHLOROETHYLENE	0	[illegible]	[illegible]	0	2,495	0	0	0	0
79061	ACRYLAMIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
79107	ACRYLIC ACID	0	[illegible]	[illegible]	0	0	0	0	0	0
80057	"4,4'-ISOPROPYLIDENEDIPHENOL "	0	[illegible]	[illegible]	0	0	0	0	0	0
80159	CUMENE HYDROPEROXIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
80626	METHYL METHACRYLATE	0	[illegible]	[illegible]	0	0	0	0	0	0
84742	DIBUTYL PHTHALATE	0	[illegible]	[illegible]	0	0	0	647	0	0
85449	PHTHALIC ANHYDRIDE	0	[illegible]	[illegible]	0	0	0	0	0	0
872504	N-METHYL-2-PYRROLIDONE	0	[illegible]	[illegible]	0	8,675	0	216	0	108
91087	"TOLUENE-2,6-DIISOCYANATE "	0	[illegible]	[illegible]	0	0	0	0	0	0
91203	NAPHTHALENE	0	[illegible]	[illegible]	0	11,124	0	0	0	0

Table TRI Data for Total Constituent Releases For SIC 2851, by WMD, lb/y). off-site →

Cas #	Chemical Name	Other Disposal	On-Site Total	Off-Site Total	Storage Only	Solvents/Organics Recovery	Metals Recovery	Other Reuse or Recovery	Acid Regeneration	Solidification/ Stabilization
92524	BIPHENYL	0	0	0	0	0	0	0	0	0
94360	BENZOYL PEROXIDE	0	0	0	0	0	0	0	0	0
95476	O-XYLENE	0	0	0	0	0	0	0	0	0
95487	O-CRESOL	0	0	0	0	0	0	0	0	0
95636	"1,2,4-TRIMETHYLBENZENE "	0	170	169	2,900	161,432	0	0	0	4
96333	METHYL ACRYLATE	0	0	0	0	0	0	0	0	0
98828	CUMENE	0	0	0	0	24,042	0	0	0	0
98953	NITROBENZENE	0	0	0	0	0	0	0	0	0
N010	ANTIMONY COMPOUNDS	0	0	0	0	0	0	0	0	0
N040	BARIUM COMPOUNDS	0	0	0	0	81	0	148	0	31,000
N078	CADMIUM COMPOUNDS	0	0	0	0	0	0	0	0	0
N090	CHROMIUM COMPOUNDS	0	0	0	0	0	0	0	0	1,919
N096	COBALT COMPOUNDS	0	0	0	0	0	0	0	0	0
N100	COPPER COMPOUNDS	0	0	0	0	81	0	0	0	0
N106	CYANIDE COMPOUNDS	0	0	0	0	0	0	0	0	0
N120	DIISOCYANATES	0	0	0	0	0	0	0	0	0
N230	CERTAIN GLYCOL ETHERS	0	0	0	42,000	517,830	0	6,127	0	6,913
N420	LEAD COMPOUNDS	0	0	0	0	670	0	0	0	4,498
N450	MANGANESE COMPOUNDS	0	0	0	0	0	0	84	0	220
N458	MERCURY COMPOUNDS	0	0	0	0	0	0	0	0	0
N495	NICKEL COMPOUNDS	0	0	0	0	0	0	0	0	0
N583	POLYCHLORINATED ALKANES	0	0	0	0	0	0	0	0	0
N982	ZINC COMPOUNDS	1,0	29,0	8,2	0	16,975	0	2,802	0	31,758

Table C-5. TRI Data for Total Constituent Releases For SIC 2851, by WMU (lb/y).

		VI	VII	VIII	IX	X
Cas #	Chemical Name	Solidification/ Stabilization - Metals and Metal Compounds only	Incineration/ Thermal Treatment	Incineration/ Insignificant Fuel Value	Energy Recovery	Wastewater Treatment (Excluding POTW)	Wastewater Treatment (Excluding POTW) - Metals and Metal Compounds only	Other Waste Treatment
100414	ETHYLBENZENE	0	286,923	1,604	2,390,493	26,421	354	23,639
100425	STYRENE	0	24,176	0	271,716	1,000	0	813
101779	"4,4'-METHYLENEDIANILINE "	0	0	0	23	0	0	0
101906	DIGLYCIDYL RESORCINOL ETHER	0	0	0	2,650	0	0	0
105679	"2,4-DIMETHYLPHENOL "	0	14,300	0	26,000	5	0	0
106423	P-XYLENE	0	0	0	4,211	0	0	0
106445	P-CRESOL	0	0	0	0	0	0	0
106514	QUINONE	0	0	0	0	0	0	0
107131	ACRYLONITRILE	0	0	39	0	0	0	750
107186	ALLYL ALCOHOL	0	0	0	0	0	0	568
107197	PROPARGYL ALCOHOL	0	0	0	0	0	0	0
107211	ETHYLENE GLYCOL	0	24,955	64	164,664	68,867	0	10,617
108054	VINYL ACETATE	0	911	0	3,094	504	0	0
108101	METHYL ISOBUTYL KETONE	0	158,099	614	2,501,828	5,923	280	77,332
108316	MALEIC ANHYDRIDE	0	0	0	550	0	0	0
108383	M-XYLENE	0	0	0	0	0	0	0
108394	M-CRESOL	0	0	0	0	0	0	0
108883	TOLUENE	0	597,976	149,447	5,994,239	25,601	25	145,170
108952	PHENOL	0	53,710	1,143	68,119	13,950	0	0
109864	2-METHOXYETHANOL	0	0	0	580	0	0	0
110543	N-HEXANE	0	965	0	27,016	0	0	0
110827	CYCLOHEXANE	0	1,900	0	2,192	0	0	0
111422	DIETHANOLAMINE	0	1	0	0	0	0	0
115071	PROPYLENE	0	0	0	0	0	0	0
1163195	DECABROMODIPHENYL OXIDE	0	330	0	0	0	0	0
117817	DI(2-ETHYLHEXYL) PHTHALATE	0	2,659	3,110	308	0	0	74
121448	TRIETHYLAMINE	0	3,120	0	1,105	251	0	1,547
123911	"1,4-DIOXANE "	0	0	0	0	0	0	0
127184	TETRACHLOROETHYLENE	0	51,250	0	250	1,600	0	0
131113	DIMETHYL PHTHALATE	0	0	0	12,973	0	0	0

Table B-3. TRI Data for Total Constituent Releases For SIC 2851, by WMU Ty. ,lb/y).

Cas #	Chemical Name	Solicification/ Stabilization - Metals and Metal Compounds only	Incineration/ Thermal Treatment	Incineration/ Insignificant Fuel Value	Energy Recovery	Wastewater Treatment (Excluding PCTW)	Wastewater Treatment (Excluding PCTW) - Metals and Metal Compounds only	Other Waste Treatment
1319773	CRESOL (MIXED ISOMERS)	0	90,205	0	113,130	920	0	0
1330207	XYLENE (MIXED ISOMERS)	0	1,164,715	60,793	12,244,273	58,598	10	200,821
133073	FOLPET	0	0	368	0	0	0	0
1344281	ALUMINUM OXIDE (FIBROUS FORMS)	0	0	0	0	0	0	0
140885	ETHYL ACRYLATE	0	5	120	420	250	0	250
141322	BUTYL ACRYLATE	0	5	576	4,575	500	0	7,472
1717006	"1,1-DICHLORO-1-FLUOROETHANE "	0	0	0	0	0	0	0
1897456	CHLOROTHALONIL	0	0	1,251	0	3,292	0	1,250
2155706	TRIBUTYLTIN METHACRYLATE	0	0	0	296	0	0	0
26471625	TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	255	0	250	0	0	0
4080313	"1 (3 CHLOROALLYL) 3,5,7 TRIAZA 1-AZONIAADAMANTANE CHLORIDE "	0	0	2	0	0	0	2,467
50000	FORMALDEHYDE	0	34	0	8,190	0	0	15
55406536	3-IODO-2-PROPYNYL BUTYL CARBAMATE	0	0	1,549	7,222	1,645	0	722
584849	"TOLUENE-2,4-DIISOCYANATE "	0	0	0	0	0	0	0
67561	METHANOL	0	100,257	1,032	557,665	3,900	0	2,314
67630	"ISOPROPYL ALCOHOL "	0	0	0	0	0	0	0
68122	"N,N-DIMETHYLFORMAMIDE "	0	160	0	11,407	0	0	0
71363	N-BUTYL ALCOHOL	0	118,062	2,085	941,031	2,411	0	85,773
71432	BENZENE	0	0	0	0	0	0	0
71556	"1,1,1-TRICHLOROETHANE "	0	0	1,000	250	0	0	0
7429905	ALUMINUM (FUME OR DUST)	0	0	6,493	2,443	0	0	7,850
7439921	LEAD	0	0	750	0	0	0	0
7440020	NICKEL	0	0	750	0	0	0	0
7440224	SILVER	0	0	0	0	0	0	0

Table B-5. TRI Data for Total Constituent Releases For SIC 2851, by WMU Type (lb/y).

Cas #	Chemical Name	Solidification/ Stabilization - Metals and Metal Compounds only	Incineration/ Thermal Treatment	Incineration/ Insignificant Fuel Value	Energy Recovery	Wastewater Treatment (Excluding POTW)	Wastewater Treatment (Excluding POTW) - Metals and Metal Compounds only	Other Waste Treatment
7440360	ANTIMONY	0	0	0	0	0	0	0
7440393	BARIUM	0	0	0	0	0	0	0
7440473	CHROMIUM	0	0	0	0	0	0	0
7440508	COPPER	0	0	0	0	0	0	0
7440666	ZINC (FUME OR DUST)	0	0	9,907	4,536	0	0	11,127
75092	DICHLOROMETHANE	0	14,005	16,457	60,093	6,808	0	0
75354	VINYLIDENE CHLORIDE	0	0	1,100	0	0	0	0
75569	PROPYLENE OXIDE	0	0	0	0	0	0	250
75650	TERT-BUTYL ALCOHOL	0	0	0	0	0	0	0
7632000	SODIUM NITRITE	0	0	0	0	0	0	0
7647010	"HYDROCHLORIC ACID (1995 AND AFTER, ACID AEROSOLS ONLY)"	0	0	0	0	641,000	0	0
7664382	PHOSPHORIC ACID	0	0	0	0	1	0	1,039
7664417	AMMONIA	0	0	2,372	0	467	0	0
7726956	BROMINE	0	0	0	0	0	0	0
77736	DICYCLOPENTADIENE	0	0	0	0	0	0	0
78922	SEC-BUTYL ALCOHOL	0	11,884	0	36,798	1,255	0	4,897
78933	METHYL ETHYL KETONE	0	580,923	18,933	6,437,002	21,166	535	140,088
79016	TRICHLOROETHYLENE	0	14,250	0	250	1,500	0	0
79061	ACRYLAMIDE	0	0	0	0	0	0	0
79107	ACRYLIC ACID	0	1,000	0	250	0	0	6,006
80057	"4,4'-ISOPROPYLIDENEDIPHENOL"	0	0	0	38,218	0	0	22,578
80159	CUMENE HYDROPEROXIDE	0	0	0	0	0	0	0
80626	METHYL METHACRYLATE	0	4,950	0	11,159	4,614	0	82
84742	DIBUTYL PHTHALATE	0	5,015	0	43,077	0	0	1,146
85449	PHTHALIC ANHYDRIDE	0	2,560	203	499	45	0	17,568
872504	N-METHYL-2-PYRROLIDONE	0	35,390	1,711	173,855	4,950	0	83
91087	"TOLUENE-2,6-DIISOCYANATE"	0	0	0	0	0	0	0
91203	NAPHTHALENE	0	3,190	397	45,853	5	0	9,770

Table B-3: TRI Data for Total Constituent Releases For SIC 2851, by WMU Type (lb/y).

Cas #	Chemical Name	Solidification/ Stabilization - Metals and Metal Compounds only	Incineration/ Thermal Treatment	Incineration/ Insignificant Fuel Value	Energy Recovery	Wastewater Treatment (Excluding POTW)	Wastewater Treatment (Excluding POTW) - Metals and Metal Compounds only	Other Waste Treatment
92524	BIPHENYL	0	0	0	0	0	0	0
94360	BENZOYL PEROXIDE	0	0	0	0	0	0	750
95476	O-XYLENE	0	0	0	0	0	0	0
95487	O-CRESOL	0	0	0	0	0	0	0
95636	"1,2,4-TRIMETHYLBENZENE "	0	47,270	1,255	821,689	1,799	30	21,607
96333	METHYL ACRYLATE	0	0	0	0	0	0	0
98828	CUMENE	0	4,149	0	61,648	5	15	2,764
98953	NITROBENZENE	0	0	0	0	0	0	0
N010	ANTIMONY COMPOUNDS	0	0	90	76	0	15	0
N040	BARIUM COMPOUNDS	0	1,403	4,971	1,050	751	10	0
N078	CADMIUM COMPOUNDS	0	0	0	0	0	0	0
N090	CHROMIUM COMPOUNDS	4,376	1,283	11,565	13,061	33	116	3
N096	COBALT COMPOUNDS	0	0	125	112	0	0	13
N100	COPPER COMPOUNDS	260	86	21,796	28,908	0	0	213
N106	CYANIDE COMPOUNDS	0	0	0	0	0	0	0
N120	DIISOCYANATES	0	8,090	5,373	197,271	250	0	485
N230	CERTAIN GLYCOL ETHERS	0	286,279	61,793	3,275,880	24,023	0	329,533
N420	LEAD COMPOUNDS	0	260	21,529	12,420	265	195	16,522
N450	MANGANESE COMPOUNDS	760	0	250	0	0	0	0
N458	MERCURY COMPOUNDS	0	0	0	0	0	0	0
N495	NICKEL COMPOUNDS	0	84	823	123	0	0	0
N500	POLYCHLORINATED ALKANES	0	0	0	0	0	0	0
N982	ZINC COMPOUNDS	1,435	2,467	34,088	20,740	1,063	1,680	10,368

Table B-3: TRI Data for Total Constituent Releases For SIC 2851, by WMU Type (lb/y).

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Cas #	Chemical Name	Underground Injection	Landfill/ Disposal Surface Impoundment	Land Treatment	Other Land Disposal	Other Off-Site Management	Transfer to Waste Broker - Energy Recovery	Transfer to Waste Broker - Recycling
100414	ETHYLBENZENE	0	2,550	0	0	38	464,987	0
100425	STYRENE	1,962	0	0	0	0	4,974	0
101779	"4,4'-METHYLENEDIANILINE "	0	750	0	0	0	0	0
101906	DIGLYCIDYL RESORCINOL ETHER	0	0	0	0	0	0	0
105679	"2,4-DIMETHYLPHENOL "	0	0	0	0	0	1,930	0
106423	P-XYLENE	0	0	0	0	0	0	0
106445	P-CRESOL	0	0	0	0	0	1,930	0
106514	QUINONE	0	0	0	0	0	0	0
107131	ACRYLONITRILE	0	0	0	0	0	0	0
107186	ALLYL ALCOHOL	0	0	0	0	0	0	0
107197	PROPARGYL ALCOHOL	0	0	0	0	0	0	0
107211	ETHYLENE GLYCOL	0	61,465	0	32,760	37	0	0
108054	VINYL ACETATE	0	447	0	410	0	0	0
108101	METHYL ISOBUTYL KETONE	0	352	0	0	187	6,888,667	1,372
108316	MALEIC ANHYDRIDE	104	250	0	0	0	0	0
108383	M-XYLENE	0	0	0	0	0	0	0
108394	M-CRESOL	0	0	0	0	0	4,400	0
108883	TOLUENE	0	1,800	0	0	31,099	1,681,186	3,802
108952	PHENOL	7,100	0	0	0	0	35,045	0
109864	2-METHOXYETHANOL	0	0	0	0	0	0	0
110543	N-HEXANE	0	0	0	0	0	815	0
110827	CYCLOHEXANE	0	0	0	0	0	0	0
111422	DIETHANOLAMINE	0	0	0	0	0	0	0
115071	PROPYLENE	0	0	0	0	0	0	0
1163195	DECABROMODIPHENYL OXIDE	0	0	0	0	0	0	0
117817	DI(2-ETHYLHEXYL) PHTHALATE	0	0	0	0	0	3,100	0
121448	TRIETHYLAMINE	0	15	0	0	0	0	0
123911	"1,4-DIOXANE "	0	0	0	0	0	0	0
127184	TETRACHLOROETHYLENE	0	0	0	0	0	3,432	0
131113	DIMETHYL PHTHALATE	0	0	0	0	0	0	0

Table B-3: TRI Data for Total Constituent Releases For SIC 2851, by WMU Type (lb/y).

Cas #	Chemical Name	Underground Injection	Landfill/ Disposal Surface Impoundment	Land Treatment	Other Land Disposal	Other Off-Site Management	Transfer to Waste Broker - Energy Recovery	Transfer to Waste Broker - Recycling
1319773	CRESOL (MIXED ISOMERS)	0	0	0	0	0	36,300	0
1330207	XYLENE (MIXED ISOMERS)	21,261	24,440	0	0	14,809	7,339,863	13,962
133073	FOLPET	0	1,941	0	0	0	0	0
1344281	ALUMINUM OXIDE (FIBROUS FORMS)	0	0	0	0	0	0	0
140885	ETHYL ACRYLATE	0	0	0	0	0	722	0
141322	BUTYL ACRYLATE	0	0	0	0	0	158	0
1717006	"1,1-DICHLORO-1-FLUOROETHANE "	0	0	0	0	0	0	0
1897456	CHLOROTHALONIL	0	0	0	450	0	0	0
2155706	TRIBUTYLTIN METHACRYLATE	0	0	0	0	0	0	0
26471625	TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	0	0	0	0	0	0
4080313	"1-(3-CHLOROALLYL)-3,5,7-TRIAZA-1-AZONIAADAMANTANE CHLORIDE "	0	4,804	0	0	0	0	0
50000	FORMALDEHYDE	1,200	0	0	0	0	0	0
55406536	3-IODO-2-PROPYNYL BUTYLCARBAMATE	0	5,047	0	310	0	0	0
584849	"TOLUENE-2,4-DIISOCYANATE "	0	0	0	0	0	0	0
67561	METHANOL	0	250	0	0	0	397,141	0
67630	"ISOPROPYL ALCOHOL "	0	0	0	0	0	0	0
68122	"N,N-DIMETHYLFORMAMIDE "	0	0	0	0	0	0	0
71363	N-BUTYL ALCOHOL	0	605	0	0	0	1,405,109	0
71432	BENZENE	0	0	0	0	0	0	0
71556	"1,1,1-TRICHLOROETHANE "	0	0	0	0	0	0	0
7429905	ALUMINUM (FUME OR DUST)	0	0	0	0	0	0	0
7439921	LEAD	0	500	0	0	0	0	0
7440020	NICKEL	0	0	0	0	0	0	0
7440224	SILVER	0	0	0	0	0	0	0

Table B-3: TRI Data for Total Constituent Releases For SIC 2851, by WMU (lb/y).

Cas #	Chemical Name	Underground Injection	Landfill/ Disposal Surface Impoundment	Land Treatment	Other Land Disposal	Other Off-Site Management	Transfer to Waste Broker - Energy Recovery	Transfer to Waste Broker - Recycling
7440360	ANTIMONY	0	0	0	0	0	0	0
7440393	BARIUM	0	0	0	0	0	110,500	0
7440473	CHROMIUM	0	255	0	0	0	0	0
7440508	COPPER	0	0	0	0	0	0	0
7440666	ZINC (FUME OR DUST)	0	9,723	0	0	0	1,000	0
75092	DICHLOROMETHANE	0	0	0	0	0	0	250
75354	VINYLIDENE CHLORIDE	0	0	0	0	0	0	0
75569	PROPYLENE OXIDE	0	0	0	0	0	0	0
75650	TERT-BUTYL ALCOHOL	0	0	0	0	0	0	0
7632000	SODIUM NITRITE	0	0	0	0	0	0	0
7647010	"HYDROCHLORIC ACID (1995 AND AFTER, ACID AEROSOLS ONLY) "	0	0	0	0	0	0	0
7664382	PHOSPHORIC ACID	0	250	0	0	0	0	0
7664417	AMMONIA	0	461	0	2,200	0	0	0
7726956	BROMINE	0	0	0	0	0	0	0
77736	DICYCLOPENTADIENE	0	0	0	0	0	0	0
78922	SEC-BUTYL ALCOHOL	0	251	0	0	0	0	0
78933	METHYL ETHYL KETONE	0	215	0	0	9,530	3,823,082	1,613
79016	TRICHLOROETHYLENE	0	0	0	0	0	1,218	0
79061	ACRYLAMIDE	0	0	0	0	0	0	0
79107	ACRYLIC ACID	0	0	0	0	0	0	0
80057	"4,4'-ISOPROPYLIDENEDIPHENOL "	0	19,204	0	0	0	22,060	0
80159	CUMENE HYDROPEROXIDE	0	0	0	0	0	0	0
80626	METHYL METHACRYLATE	0	0	0	0	0	1,158	0
84742	DIBUTYL PHTHALATE	0	1,902	0	0	0	0	0
85449	PHTHALIC ANHYDRIDE	106	18,014	0	5,858	0	0	0
872504	N-METHYL-2-PYRROLIDONE	0	527	0	0	0	34,265	0
91087	"TOLUENE-2,6-DIISOCYANATE "	0	0	0	0	0	0	0
91203	NAPHTHALENE	0	0	0	0	0	0	0

Table [illegible]. TRI Data for Total Constituent Releases For SIC 2851, by WM[illegible] (lb/y).

Cas #	Chemical Name	Underground Injection	Landfill/ Disposal Surface Impoundment	Land Treatment	Other Land Disposal	Other Off-Site Management	Transfer to Waste Broker - Energy Recovery	Transfer to Waste Broker - Recycling
92524	BIPHENYL	0	0	0	0	0	0	0
94360	BENZOYL PEROXIDE	0	70	0	0	0	0	0
95476	O-XYLENE	0	0	0	0	0	0	0
95487	O-CRESOL	0	0	0	0	0	0	0
95636	"1,2,4-TRIMETHYLBENZENE "	0	251	0	0	15	50,711	0
96333	METHYL ACRYLATE	0	0	0	0	0	316	0
98828	CUMENE	0	250	0	0	2	505	0
98953	NITROBENZENE	0	0	0	0	0	0	0
N010	ANTIMONY COMPOUNDS	0	1,480	0	0	0	0	0
N040	BARIUM COMPOUNDS	0	6,387	0	0	0	0	0
N078	CADMIUM COMPOUNDS	0	0	0	0	0	0	0
N090	CHROMIUM COMPOUNDS	0	9,703	0	0	23,453	252	0
N096	COBALT COMPOUNDS	0	590	0	0	0	0	0
N100	COPPER COMPOUNDS	0	3,277	0	119	0	250	0
N106	CYANIDE COMPOUNDS	0	0	0	0	0	0	0
N120	DIISOCYANATES	0	0	0	0	0	2,219	0
N230	CERTAIN GLYCOL ETHERS	0	52,671	0	33,000	4,426	352,022	0
N420	LEAD COMPOUNDS	0	5,669	0	0	0	93	0
N450	MANGANESE COMPOUNDS	0	2,228	0	0	0	0	0
N458	MERCURY COMPOUNDS	0	0	0	0	0	0	0
N495	NICKEL COMPOUNDS	0	250	0	0	0	0	0
N583	POLYCHLORINATED ALKANES	0	0	0	0	0	0	0
N982	ZINC COMPOUNDS	0	42,485	0	9,125	346	2,029	335

Table 6-3: TRI Data for Total Constituent Releases For SIC 2851, by WMD [illegible], (lb/y).

Cas #	Chemical Name	Transfer to Waste Broker - Disposal	Transfer to Waste Broker - Waste Treatment	Unknown	[illegible]
100414	ETHYLBENZENE	0	0	153	[illegible]
100425	STYRENE	0	0	0	[illegible]
101779	"4,4'-METHYLENEDIANILINE "	0	0	0	[illegible]
101906	DIGLYCIDYL RESORCINOL ETHER	0	0	0	[illegible]
105679	"2,4 DIMETHYLPHENOL "	0	0	0	[illegible]
106423	P-XYLENE	0	0	0	[illegible]
106445	P-CRESOL	0	0	0	[illegible]
106514	QUINONE	0	0	0	[illegible]
107131	ACRYLONITRILE	0	0	0	[illegible]
107186	ALLYL ALCOHOL	0	0	0	[illegible]
107197	PROPARGYL ALCOHOL	0	0	0	[illegible]
107211	ETHYLENE GLYCOL	0	0	260	[illegible]
108054	VINYL ACETATE	0	0	0	[illegible]
108101	METHYL ISOBUTYL KETONE	0	0	99	[illegible]
108316	MALEIC ANHYDRIDE	0	0	0	[illegible]
108383	M-XYLENE	0	0	0	[illegible]
108394	M-CRESOL	0	0	0	[illegible]
108883	TOLUENE	8,332	470	1,444	[illegible]
108952	PHENOL	0	0	0	[illegible]
109864	2-METHOXYETHANOL	0	0	0	[illegible]
110543	N-HEXANE	51	0	0	[illegible]
110827	CYCLOHEXANE	0	0	4	[illegible]
111422	DIETHANOLAMINE	0	0	0	[illegible]
115071	PROPYLENE	0	0	0	[illegible]
1163195	DECABROMODIPHENYL OXIDE	0	0	523	[illegible]
117817	DI(2-ETHYLHEXYL) PHTHALATE	0	0	1	[illegible]
121448	TRIETHYLAMINE	0	0	0	[illegible]
123911	"1,4-DIOXANE "	0	0	0	[illegible]
127184	TETRACHLOROETHYLENE	0	0	0	[illegible]
131113	DIMETHYL PHTHALATE	0	0	0	[illegible]

Table B-3: TRI Data for Total Constituent Releases For SIC 2851, by WMU Type (lb/y).

Cas #	Chemical Name	Transfer to Waste Broker - Disposal	Transfer to Waste Broker - Waste Treatment	Unknown	On-site Total
1319773	CRESOL (MIXED ISOMERS)	0	0	0	[illegible]
1330207	XYLENE (MIXED ISOMERS)	6,772	4,002	1,660	[illegible]
133073	FOLPET	0	0	395	[illegible]
1344281	ALUMINUM OXIDE (FIBROUS FORMS)	0	0	0	[illegible]
140885	ETHYL ACRYLATE	0	0	0	[illegible]
141322	BUTYL ACRYLATE	0	0	0	[illegible]
1717006	"1,1-DICHLORO-1-FLUOROETHANE "	0	0	0	[illegible]
1897456	CHLOROTHALONIL	0	0	0	[illegible]
2155706	TRIBUTYLTIN METHACRYLATE	0	0	0	[illegible]
26471625	TOLUENE DIISOCYANATE (MIXED ISOMERS)	5	0	0	[illegible]
4080313	"1-(3-CHLOROALLYL)-3,5,7-TRIAZA 1-AZONIAADAMANTANE CHLORIDE "	0	0	0	[illegible]
50000	FORMALDEHYDE	0	0	0	[illegible]
55406536	3-IODO-2-PROPYNYL BUTYLCARBAMATE	0	0	0	[illegible]
584849	"TOLUENE-2,4-DIISOCYANATE "	0	0	0	[illegible]
67561	METHANOL	0	0	0	[illegible]
67630	"ISOPROPYL ALCOHOL "	0	0	0	[illegible]
68122	"N,N-DIMETHYLFORMAMIDE "	0	0	0	[illegible]
71363	N-BUTYL ALCOHOL	1,773	0	62	[illegible]
71432	BENZENE	0	0	0	[illegible]
71556	"1,1,1-TRICHLOROETHANE "	0	0	0	[illegible]
7429905	ALUMINUM (FUME OR DUST)	0	0	0	[illegible]
7439921	LEAD	0	0	0	[illegible]
7440020	NICKEL	0	0	0	[illegible]
7440224	SILVER	0	0	0	[illegible]

Table ... TRI Data for Total Constituent Releases For SIC 2851, by WMU ..., (lb/y).

Cas #	Chemical Name	Transfer to Waste Broker - Disposal	Transfer to Waste Broker - Waste Treatment	Unknown	On-Site - Total
7440360	ANTIMONY	0	0	0	[illegible]
7440393	BARIUM	0	0	0	[illegible]
7440473	CHROMIUM	0	0	0	[illegible]
7440508	COPPER	0	0	1,320	[illegible]
7440666	ZINC (FUME OR DUST)	0	502	0	[illegible]
75092	DICHLOROMETHANE	0	0	5,426	[illegible]
75354	VINYLIDENE CHLORIDE	0	0	0	[illegible]
75569	PROPYLENE OXIDE	0	0	0	[illegible]
75650	TERT-BUTYL ALCOHOL	0	0	0	[illegible]
7632000	SODIUM NITRITE	0	0	0	[illegible]
7647010	"HYDROCHLORIC ACID (1995 AND AFTER, ACID AEROSOLS ONLY) "	0	0	0	[illegible]
7664382	PHOSPHORIC ACID	0	0	0	[illegible]
7664417	AMMONIA	0	250	0	[illegible]
7726956	BROMINE	0	0	0	[illegible]
77736	DICYCLOPENTADIENE	0	0	0	[illegible]
78922	SEC-BUTYL ALCOHOL	0	0	478	[illegible]
78933	METHYL ETHYL KETONE	9,661	0	296	[illegible]
79016	TRICHLOROETHYLENE	0	0	0	[illegible]
79061	ACRYLAMIDE	0	0	0	[illegible]
79107	ACRYLIC ACID	0	0	0	[illegible]
80057	"4,4'-ISOPROPYLIDENEDIPHENOL "	0	0	0	[illegible]
80159	CUMENE HYDROPEROXIDE	0	0	0	[illegible]
80626	METHYL METHACRYLATE	0	0	0	[illegible]
84742	DIBUTYL PHTHALATE	0	0	0	[illegible]
85449	PHTHALIC ANHYDRIDE	0	0	0	[illegible]
872504	N-METHYL-2-PYRROLIDONE	0	0	1	[illegible]
91087	"TOLUENE-2,6-DIISOCYANATE "	0	0	0	[illegible]
91203	NAPHTHALENE	0	0	0	[illegible]

Table B-3: TRI Data for Total Constituent Releases For SIC 2851, by WMU (y, ,lb/y).

Cas #	Chemical Name	Transfer to Waste Eroker - Disposal	Transfer to Waste Eroker - Waste Treatment	Unknown	[illegible]
92524	BIPHENYL	0	0	0	
94360	BENZOYL PEROXIDE	0	0	0	
95476	O-XYLENE	0	0	0	
95487	O-CRESOL	0	0	0	
95636	"1,2,4-TRIMETHYLBENZENE "	5	0	2	
96333	METHYL ACRYLATE	0	0	0	
98828	CUMENE	0	0	0	
98953	NITROBENZENE	0	750	0	
N010	ANTIMONY COMPOUNDS	102	0	2,887	
N040	BARIUM COMPOUNDS	435	0	8,283	
N078	CADMIUM COMPOUNDS	0	0	0	
N090	CHROMIUM COMPOUNDS	1,132	11,921	21,661	
N096	COBALT COMPOUNDS	152	0	1,453	
N100	COPPER COMPOUNDS	41	0	7,781	
N106	CYANIDE COMPOUNDS	0	0	0	
N120	DIISOCYANATES	5	25,225	0	
N230	CERTAIN GLYCOL ETHERS	8,811	13,294	2,601	
N420	LEAD COMPOUNDS	4,450	37,093	16,250	
N450	MANGANESE COMPOUNDS	0	0	0	
N458	MERCURY COMPOUNDS	0	0	0	
N495	NICKEL COMPOUNDS	168	0	0	
N583	POLYCHLORINATED ALKANES	0	0	0	
N982	ZINC COMPOUNDS	2,056	0	88,567	