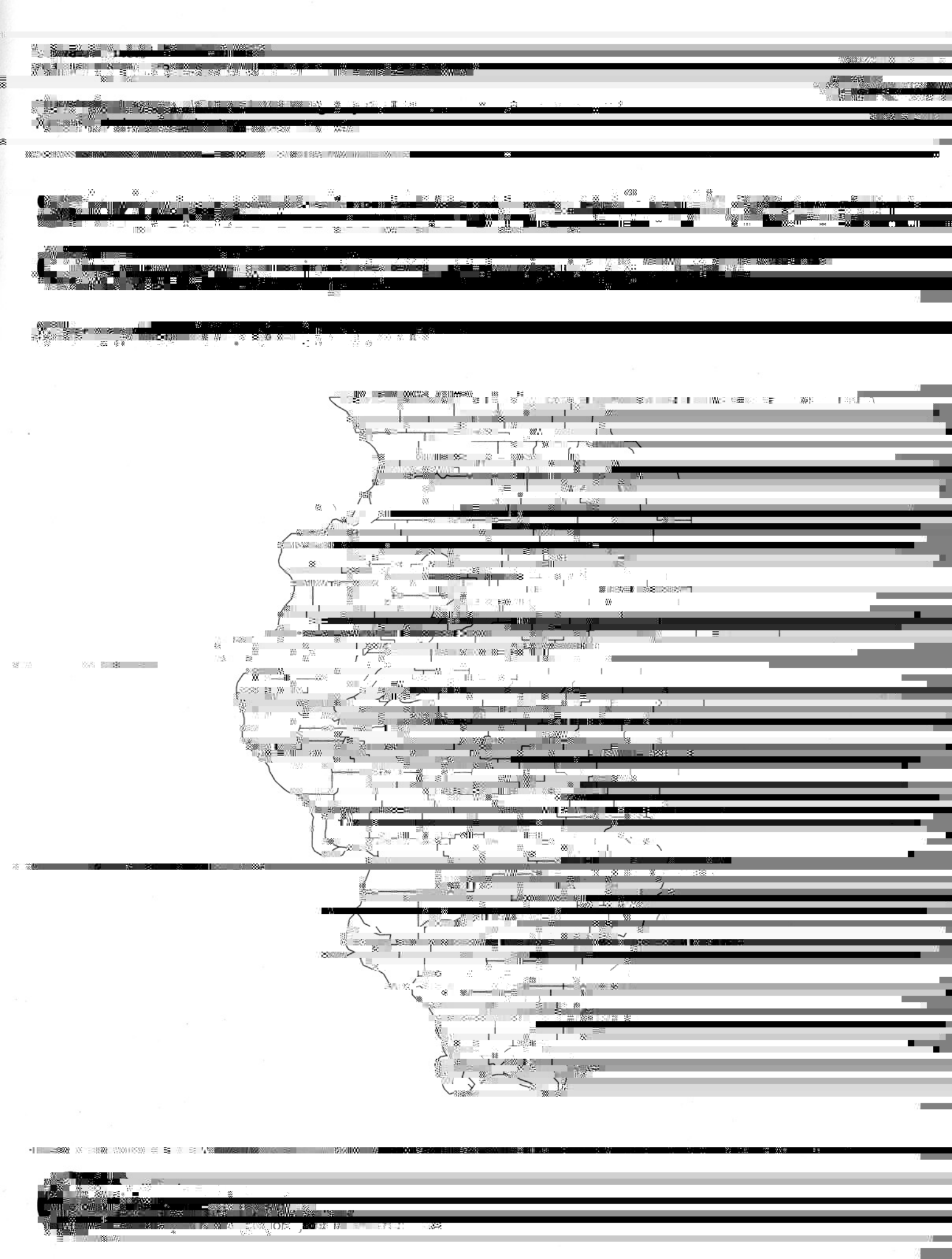


## EXECUTIVE SUMMARY

Under the federal Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), affected companies must report "on- and off-site disposal or other releases" to the environment of more than 650 toxic chemicals. The *16th Annual Toxic Chemical Report* documents reported releases of toxic chemicals in Illinois for calendar year 2002, the most recent data available.

In 2002, 1,285 facilities in Illinois reported toxic chemical releases of 133,180,128 pounds, which is the 12th largest amount among states. The most common type of release was air emissions, accounting for approximately 42 percent of reported releases. The top five Illinois counties for reported toxic releases were: 1. Peoria 2. Cook 3. Madison 4. Montgomery 5. Macon.

Total releases in 2002 increased slightly from 131,841,117 pounds reported for 2001. However, there have been substantial reductions in Illinois and nationally since reporting began in 1988. Although it is difficult to compare annual data because of changes to the reporting requirements over the years, the downward trend in releases is apparent. For example, using a 1988 baseline, which only includes the chemicals and industries that were subject to reporting in 1988, releases in Illinois have declined from nearly 140 million pounds in 1988 to about 50 million pounds in 2002. This is a 64 percent decrease.

Using a 1998 baseline, which includes chemicals and industries added to the reporting requirements from 1988 through 1998, releases declined from approximately 165 million pounds in 1998 to 130 million pounds annually in 2002. This amounts to a 21 percent decrease.

In assessing this data, it is important to understand what counts as a "release" under EPCRA. For example, toxic chemicals that are treated in certain ways, recycled, or used to make energy are not counted as released to the environment.

It is also important to understand the limitations of this data. For example, although EPCRA captures most of the toxic chemicals currently being used by covered industry sectors, it does not cover all chemicals or all sectors. For example, facilities that do not meet the reporting threshold levels are not required to report, and the toxic release data does not include emissions from mobile sources nor releases of pesticides, volatile organic compounds, and fertilizers from many other non-industrial sources.

In addition, release estimates alone are not sufficient to determine human exposure or to calculate potential adverse effects on human health and the environment. Additional information is necessary to assess exposure and risk, although toxic release data can be used to identify areas of potential concern.

# TABLE OF CONTENTS

# INTRODUCTION

## About the Toxics Release Inventory (TRI)

In 1986, Congress created the Emergency Planning and Community Right-to-Know Act

“Underground Injection” - Underground injection is the subsurface emplacement of fluids through wells. TRI chemicals associated with manufacturing, the petroleum industry, mining, commercial and service industries, and federal and municipal government-related activities may be injected into Class I, II, III, IV, or V wells, if they do not endanger underground sources of drinking water, public health, or the environment.

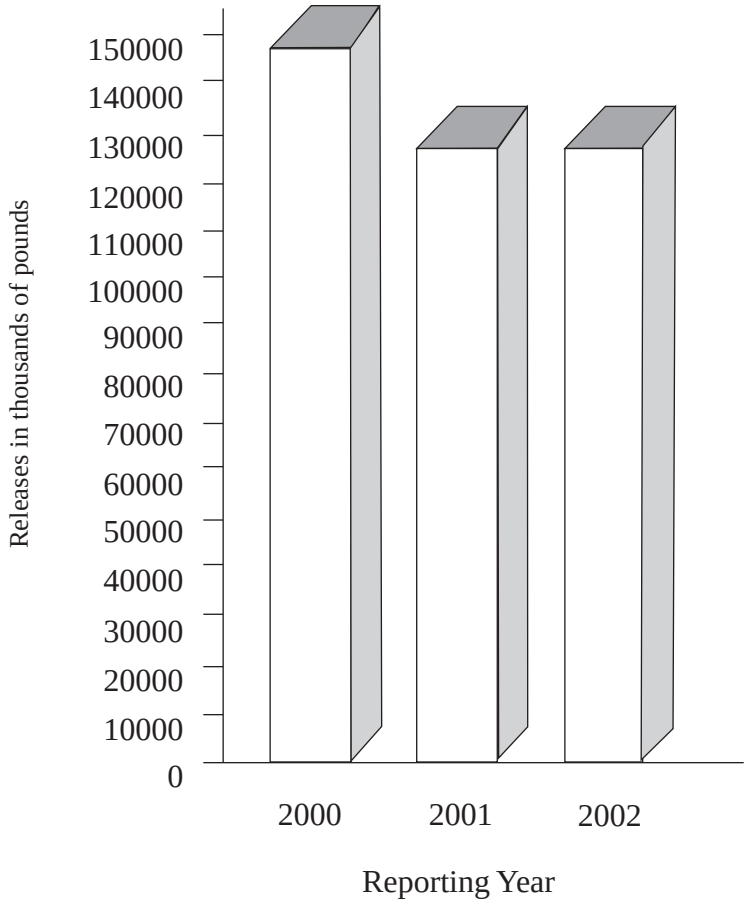
“RCRA Subtitle C Landfill” - The amount of toxic chemicals released to a landfill permitted under Subtitle C of the federal Resource Conservation and Recovery Act (RCRA).

“Other Land Releases” – Releases to land occur within the boundaries of the reporting facility. Releases to land include disposal in landfills (in which wastes are buried), land treatment/application farming (in which a waste containing a listed chemical is applied to or incorporated into soil), surface impoundments (which are uncovered holding areas used to volatilize and/or settle waste materials), and other land disposal methods (such as waste piles) or releases to land (such as spills or leak). Beginning with the 1996 reporting year, facilities separately report amounts released to RCRA subtitle C landfills from amounts released to other on-site landfills.

**Limitations on Use of Information**

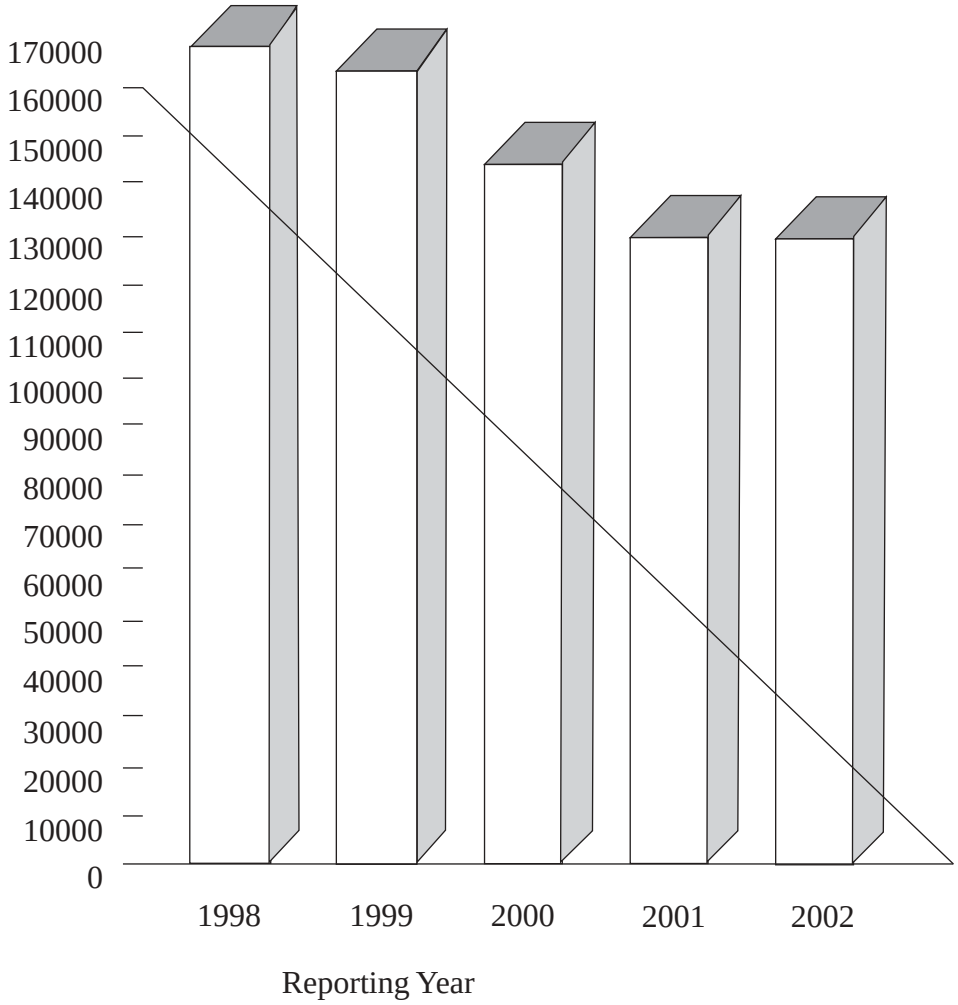
TRI reports reflect releases, transfers and waste management activities of chemicals, not exposures of the public to those chemicals. Release estimates alone are not sufficient to determine exposure or to calculate potential adverse effects on human health and the environment. Although additional information is necessary to assess exposure and risk, TRI data can be used to identify areas of potential concern. TRI, in conjunction with other information, can be used as a starting point in evaluating exposures that may result from releases and other waste management activities of toxic chemicals. The determination of potential risk depends upon many factors, including the toxicity of the chemical, the fate of the chemical after it is released, the

**Table 2: 2000-2002 On- and Off-Site Disposal and Other Reported TRI Releases for Illinois. (2000 Baseline)***



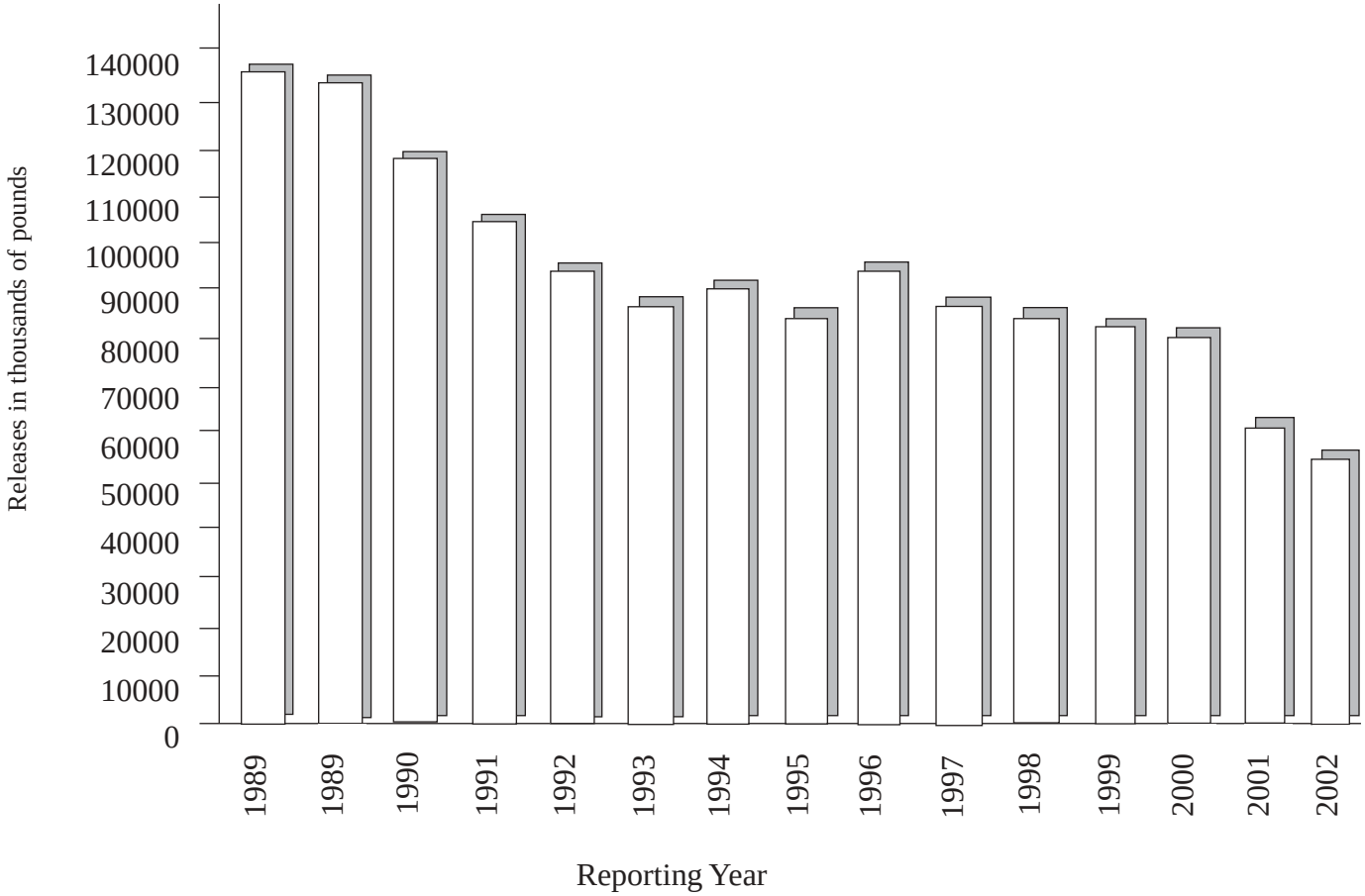

*Excludes lead and lead compounds because reporting thresholds were lowered with the 2001reporting year.

**Table 3: 1998-2002 On- and Off-Site Disposal and Other Reported TRI Releases for Illinois (1998 Baseline)***




*Excludes all PBT (persistent, bioaccumulative and toxic) chemicals and vanadium and vanadium compounds. Some PBT chemicals were added and others had their reporting thresholds lowered beginning with the 2000-reporting year. Vanadium's reporting definition was changed and vanadium compounds were added to the list for 2000.

**Table 4: 1988-2002 On- and Off-Site Disposal and Other Reported TRI Releases for Illinois (1998 Baseline)***




*Excludes aluminum oxide, ammonia, hydrochloric acid, sulfuric acid, PBT chemicals, vanadium and vanadium compounds and other chemicals added to the TRI list after 1988. Excludes reporting from industries added to the reporting requirements beginning with the 1998 reporting year (metal mining, coal mining, electrical utilities, chemical wholesale distributors, petroleum bulk terminals/bulk storage, hazardous waste treatment facilities and solvent recovery facilities.)

**2002 TOXIC CHEMICAL RELEASES**

## Table 6: Top 20 Facilities
## Total On-site and Off-site Disposal or Other Reported Releases (in pounds) of TRI chemicals
## 2002 - Illinois

| | Facility | City | County or Parish or County Equivalent | Zip | Total On Site Disposal or Other Releases | Total Off Site Disposal or Other Releases | Total On & Off Site Disposal or Other Releases |
|---|---|---|---|---|---|---|---|
| 1 | **PEORIA DISPOSAL COMPANY #1** | PEORIA | PEORIA | 61615 | 20822432 | 10 | 20822442 |
| 2 | **AMEREN ENERGY GENERATING COFFEEN POWER STATION** | COFFEEN | MONTGOMERY | 62017 | 7482004 | 151719 | 7633723 |
| 3 | **KEYSTONE STEEL & WIRE COMPANY** | PEORIA | PEORIA | 61641 | 675832 | 6609663 | 7285495 |
| 4 | **CLEAN HARBORS SERVICES INC.** | CHICAGO | COOK | 60617 | 250 | 6113456 | 6113706 |
| 5 | **GRANITE CITY STEEL** | GRANITE CITY | MADISON | 62040 | 4699131 | 1268840 | 5967971 |
| 6 | **AMEREN ENERGY RESOURCES GENERATING COMPANY** | BARTONVILLE | PEORIA | 61607 | 3129022 | 0 | 3129022 |
| 7 | **TEEPAK LLC** | DANVILLE | VERMILION | 61832 | 3113500 | 0 | 3113500 |
| 8 | **IBP INC.** | HILLSDALE | ROCK ISLAND | 61257 | 3040635 | 30325 | 3070960 |
| 9 | **AMEREN ENERGY GENERATING NEWTON POWER STATION** | NEWTON | JASPER | 62448 | 3066417 | 0 | 3066417 |
| 10 | **FREEMAN UNITED COAL MINING COMPANY, CROWN 3 MINE** | FARMERSVILLE | MONTGOMERY | 62533 | 2148272 | 0 | 2148272 |
| 11 | **DYNEGY MIDWEST GENERATION INC., BALDWIN ENERGY COMPLEX** | BALDWIN | RANDOLPH | 62217 | 2119944 | 64 | 2120008 |
| 12 | **ENVIRITE OF ILLINOIS INC** | HARVEY | COOK | 60426 | 200 | 2076324 | 2076524 |
| 13 | **BIG RIVER ZINC CORPORATION** | SAUGET | ST CLAIR | 62201 | 165461 | 1898625 | 2064086 |



13G RIVER ZINC COEXCEL i 144.84 0 TD 0 11 0089 Tw ( ) Ti 9.72 -1.32 TD 0157 2.96 Tf 0 0341 Tc 0 Tw (97OK) Ti 29.4 0BEARDSTOW TD 0 71.40 0089 Tw ( )

## Table 7: Top 20 Industries

**Total On-**

# Table 8: Top 20 Chemicals
## Total On-site and Off-site Disposal or Other Reported Releases (in pounds) of TRI Chemicals
## 2002 - Illinois

| | Chemical | Total On-site Disposal or Other Releases | Total Off-site Disposal or Other Releases | Total On- & Off-site Disposal or Other Releases |
|---|---|---|---|---|
| 1 | ZINC COMPOUNDS | 22947032 | 11980507 | 34927540 |
| 2 | HYDROCHLORIC ACID (1995 & AFTER 'ACID AEROSOLS' ONLY) | 13835516 | 0 | 13835516 |
| 3 | BARIUM COMPOUNDS | 7277963 | 3525725 | 10803688 |
| 4 | MANGANESE COMPOUNDS | 5995219 | 3271433 | 9266652 |
| 5 | NITRATE COMPOUNDS | 7125198 | 507093 | 7632291 |
| 6 | N-HEXANE | 7446627 | 3555 | 7450182 |
| 7 | CHROMIUM COMPOUNDS (EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION) | 650511.3 | 5717041 | 6367552 |
| 8 | SULFURIC ACID (1994 & AFTER 'ACID AEROSOLS' ONLY) | 4779262 | 0 | 4779262 |
| 9 | LEAD COMPOUNDS | 1778593 | 2048922 | 3827515 |
| 10 | CARBON DISULFIDE | 3016506 | 286 | 3016792 |
| 11 | HYDROGEN FLUORIDE | 2896670 | 6269 | 2902939 |
| 12 | METHANOL | 2679062 | 10994 | 2690056 |
| 13 | STYRENE | 2099074 | 496137 | 2595211 |
| 14 | AMMONIA | 2469113 | 62899 | 2532012 |
| 15 | TOLUENE | 2354334 | 59761 | 2414095 |
| 16 | | | | |

# APPENDIX A - FORM R

*(Note: Due to the length of the instructions for completing Form R, only the form for RY2001 is included in Appendix A.)*

Form Approved OMB Number: 2070-0093
Approval Expires: 01/31/2006

(IMPORTANT: Type or print; read instructions before completing form)



# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also Known as Title III of the Superfund Amendments and Reauthorization Act

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center
P. O. Box 1513
Lanham, MD 20703-1513
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE
(See instructions in Appendix F)

Enter "X" here if this is a revision

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

**Attach substantiation forms)**

☐ **No (Do not answer 2.2; Go to Section 3)**

**2.2** Is this copy Sanitized Unsanitized

(Answer only if "YES" in 2.1)

# FORM R

# FORM R

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| |
| Toxic Chemical, Category or Generic Name |
| |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (continued)

| | | NA | A. **Total Release** (pounds/year*) (enter range code ** or estimate ) | B. **Basis of Estimate** (enter code) |
|---|---|---|---|---|
| **5.4.1** | Underground Injection onsite to Class I Wells | ☐ | | |
| **5.4.2** | Underground Injection onsite to Class II-V Wells | ☐ | | |
| **5.5** | Disposal to land onsite | | | |
| **5.5.1A** | RCRA Subtitle C landfills | ☐ | | |
| **5.5.1B** | Other landfills | ☐ | | |
| **5.5.2** | Land treatment/application farming | ☐ | | |
| **5.5.3A** | RCRA Subtitle C surface impoundments | ☐ | | |
| **5.5.3B** | Other surface impoundments | ☐ | | |
| **5.5.4** | Other disposal | ☐ | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| **6.1.A.1** **Total Transfers** (pounds/year*) (enter range code ** or estimate) | **6.1.A.2** **Basis of Estimate** (enter code) |
|---|---|
| | |

**6.1.B** ____ POTW Name

POTW Address

City | State | County | Zip

**6.1.B** ____ POTW Name

POTW Address

City | State | County | Zip

If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 6.1 page number in this box ☐ (example: 1,2,3, etc.)

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

**6.2.** ____ Off-Site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Off-Site Address

City | State | County | Zip | Country (Non-US)

Is location under control of reporting facility or parent company? ☐ Yes ☐ No



* For Dioxin or Dioxin-like compounds, report in grams/year
** Range Codes: A=1-10 pounds: B=1-499 pounds; C=500 - 999 pounds.

# FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (CONTINUED)

| A. Total Transfers (pounds/year*) (enter range code**or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

6.2 ____ Off-Site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Off-Site Address

City | State | County | Zip | Country (Non-US)

Is location under control of reporting facility or parent company? Yes ☐ No ☐

| A. Total Transfers (pounds/year*) (enter range code**or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

### SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☐ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ | 7A.1c | 7A.1d: % | 7A.1e: Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ | 7A.2c | 7A.2d: % | 7A.2e: Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ | 7A.3c | 7A.3d: % | 7A.3e: Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ | 7A.4c | 7A.4d: % | 7A.4e: Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ | 7A.5c | 7A.5d: % | 7A.5e: Yes ☐ No ☐ |

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box ☐
and indicate the Part II, Section 6.2/7 page number in this box: ☐ (example: 1,2,3,etc.)



*For Dioxin or Dioxin-like compounds, report in grams/year

**Range Codes: A=1 - 10 pounds; B=11 - 499 pounds C= 500-999 pounds.

# FORM R

PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| |
| Toxic Chemical, Category or Generic Name |
| |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☐ Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☐ Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

## SECTION 8. SOURCE REDUCTION AND RECYLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| **8.1** | | | | | |
| **8.1a** | Total on-site disposal to Class I Underground InjectionWells, RCRA Subtitle C landfills, and other landfills | | | | |
| **8.1b** | Total other on-site disposal or other releases | | | | |
| **8.1c** | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | | | | |
| **8.1d** | Total other off-site disposal or other releases | | | | |
| **8.2** | Quantity used for energy recovery onsite | | | | |
| **8.3** | Quantity used for energy recovery offsite | | | | |
| **8.4** | Quantity recycled onsite | | | | |
| **8.5** | Quantity recycled offsite | | | | |
| **8.6** | Quantity treated onsite | | | | |
| **8.7** | Quantity treated offsite | | | | |
| **8.8** | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)* | | | | |
| **8.9** | Production ratio or activity index | | | | |
| **8.10** | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| **8.10.1** | | **a.** | **b.** | **c.** |
| **8.10.2** | | **a.** | **b.** | **c.** |
| **8.10.3** | | **a.** | **b.** | **c.** |
| **8.10.4** | | **a.** | **b.** | **c.** |

| | | | |
|---|---|---|---|
| **8.11** | Is additional information on source reduction, recycling , or pollution control activities included with this report? (Check one box) | Yes ☐ | No ☐ |



*For Dioxin or Dioxin-like compounds, report in grams/year