



Hazardous Waste Generation and Management in Illinois

This report has been prepared in accordance with Section 20.1
of the Illinois Environmental Protection Act.



Executive Summary

Section 20.1 of the Illinois Environmental Protection Act requires the Illinois EPA to annually compile and report data relating to hazardous waste generation, treatment, storage, and disposal in Illinois. This material is intended to help the general public better understand certain aspects of hazardous waste. It is not intended as a comprehensive review nor is it a substitute for the interpretation of any federal or state law, or any related regulations. It cannot impose any legally binding requirements on the Illinois EPA, the US EPA, or the regulated community. It is not intended to modify or affect in any way existing statutory or regulatory requirements or Agency policies.

The hazardous waste program in the State of Illinois is a state implementation of portions of the Federal Resource Conservation and Recovery Act (RCRA). This act was signed into law in 1976, and consisted of amendments to the Solid Waste Disposal Act of 1956. Regulations implementing RCRA became effective on November 8, 1980. Revisions to RCRA, referred to as the Hazardous and Solid Waste Amendments (HSWA) were made in 1984 as more information has become available about the amount and types of waste we generate.

The intent of the hazardous waste program is to provide a cradle-to-grave management scheme for hazardous wastes to ensure that these wastes are not mismanaged in a manner that will impact human health or the environment.

The regulations pertaining to the proper management of hazardous waste are found in 35 Ill. Adm. Code, Parts 700-739. These can be viewed at the Pollution Control Board's Environmental Regulations page.

For a waste to be considered a hazardous waste, it must first meet the definition of solid waste. Importantly, solid waste is not limited to wastes that are physically solid, but also include liquids, semi-solids, and contained gases. For the most part, this includes any discarded material that is abandoned, inherently waste-like, or recycled in certain ways, however, there are many exceptions. A detailed solid waste definitions and descriptions of exceptions can be found in the regulations at Part 721 in Section 721.102.

It is the responsibility of all solid waste generators to determine whether their waste is hazardous. In short, a solid waste is considered a hazardous waste if it is ignitable, corrosive, reactive, and toxic. The procedure for this is called a "hazardous waste determination" and is outlined in Part 722 of the regulations at Section 722.111.

Hazardous Waste Trends in Illinois (Calendar Year 2021)

Entities Reporting

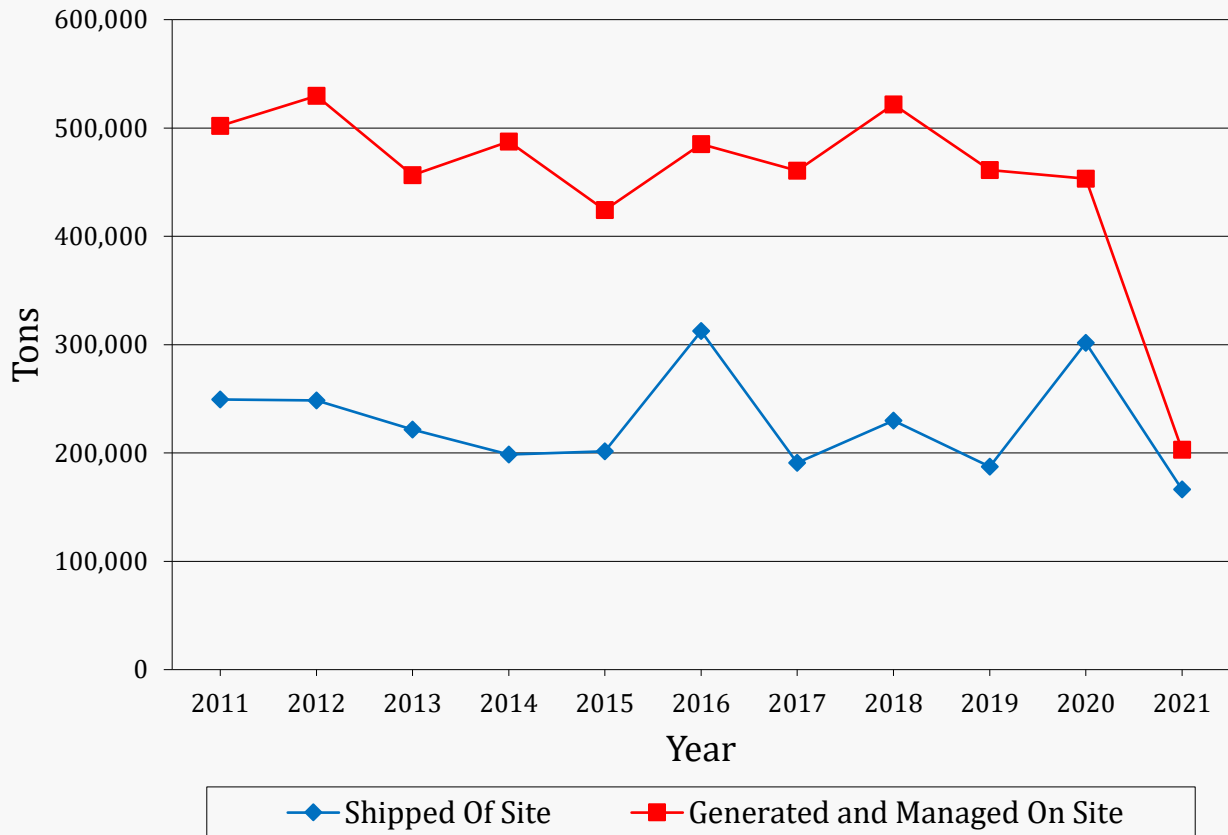
Hazardous waste generators and treatment, storage, and disposal facilities (TSDFs) each have certain reporting requirements applicable to their activities. Each generator is required to annually report to the Illinois EPA (1) if it, in any calendar month, generates 1000 kilograms (2,200 lbs.) or more of hazardous waste or 100 kilograms (220 lbs.) or more of acutely hazardous waste; and (2) where it shipped the waste. Entities that generate this quantity of waste are considered Large Quantity Generators (LQG). Some LQGs only generate this volume of waste in a single year because of a specific one-time event. Such LQGs are not required to continue to report as an LQG if they subsequently do not generate the requisite volume of hazardous waste once normal operations resume. Any generator that manages its own waste on-site must also report its onsite management activities. TSDFs that manage hazardous waste from other sites must report all waste received.

The specific list of entities that must report changes each year, as some businesses close or discontinue certain practices and other businesses open or add certain practices. Facilities that no longer generate or manage hazardous wastes report as “nonregulated” the first year after ceasing regulated operations. Those entities are not required to report operations related to hazardous waste again unless hazardous waste is generated or managed in the future.

For calendar year 2021, the number of LQGs and TSDFs that submitted hazardous waste reports totaled 772.

Waste Generation and Handling

Hazardous waste generated in Illinois is managed at one of three types of locations: at the site of generation, at a commercial TSD in Illinois, or at a commercial TSD out-of-state. Most hazardous waste generated in Illinois is managed on site. Over the past decade, the total quantity of hazardous waste generated in Illinois has decreased. At the same time, the quantity of hazardous waste managed onsite has been relatively stable, most of which has been handled at one injection well. The graph below depicts the total quantity of hazardous waste generated in Illinois and a proportional illustration of how that waste was subsequently handled.



Hazardous Waste Shipped Off-site by Management Method Management Method

Generators may ship their waste off site to be managed at facilities throughout the country, and by different management methods. The following table describes the quantity of hazardous waste shipped off-site by management method.

Management Method	Total Tons
Metals recovery	28,229
Mercury recovery	12
Solvents recovery	12,717
Other recovery or reclamation for reuse	2,833
Incineration	22,471
Open burning/open detonation	8
Energy recovery	28,759
Fuel blending	13,093
Chemical treatment	16,714
Biological treatment	<1
Physical treatment Only	64
Stabilization	29,882
Combination of chemical, biological, and/or physical treatment	2,784
Neutralization only	530
Other treatment	3,427
Surface impoundment that will be closed as landfill	<1
Land treatment or application	79
Landfill (with prior treatment and/or stabilization)	8,805
Deepwell or underground injection	1,830
Discharge to sewer/POTW or NPDES	7,031
Storage, bulking and/or transfer off site	6,967

Hazardous Waste Generation and Treatment in Illinois

Entities that generate hazardous waste in Illinois report the type and quantity of waste generated, as well as the quantity of hazardous waste managed at the site of generation. TSDFs in Illinois report the types and quantities of hazardous waste received, and whether that waste was stored or treated. Stored or treated waste may have been generated in Illinois or out-of-state. There are no facilities in Illinois that dispose of hazardous waste generated at another location. Below is a chart reflecting the types and quantities, in tons, of hazardous waste generated, stored, treated, and disposed of in Illinois.

Waste category	Generated	Stored off-site	Treated off-site	Managed on-site
Mixed Media/Debris/Devices	14,815	80	3,494	7
Inorganic Liquids	237,653	487	23,913	204,885
Organic Liquids	50,394	10,474	43,138	282
Inorganic Solids	50,972	266	14,439	<1
Organic Solids	5,682	10	6,512	2
Inorganic Sludges	10,348	21	79,779	0
Organic Sludges	9,648	3	303	0
Total	379,511	11,342	171,579	205,177

Hazardous Waste Treatment, Storage, and Disposal Sites in Illinois

The table below includes the unique Illinois EPA identification number assigned to each site and the most recently reported organization name and address for each entity that is a permitted TSDF.

Facility ID	Facility Name	Facility Address	Activity
0438020002	*Argonne National Laboratory	9700 S. Cass Avenue BLDG 306 Argonne, IL 60439	Storage and Treatment
0311260001	Beaver Oil Co, Inc.	6037 Lenzi Avenue Hodgkins, IL 60525	Storage
2018000002	Clean Harbors Pecatonica LLC	6125 N. Pecatonica Road Pecatonica, IL 61063	Storage
0316000053	Clean Harbors RSC LLC	1445 W. 42 nd Street Chicago, IL 60609	Storage and Treatment
1818995004	Dyno Nobel, Inc.	5570 Route 3 North Wolf Lake, IL 62998	Treatment
0311110001	Envirite of Illinois, Inc.	16435 South Center Avenue Harvey, IL 60426	Storage and Treatment
0630600005	Equistar Chemicals LP	8805 N. Tabler Road Morris, IL 60450	Storage
0890105010	*Fermi National Accelerator Lab	Wilson Road PO Box 500 Batavia, IL 60510	Storage
0974455001	Fluorecycle INC	27780 W. Concrete Drive Ingleside, IL 60041	Storage
1998620011	General Dynamics- OTS, TR	11582 Skyline Dr. Marion, IL 62959	Storage and Treatment
1998620013	General Dynamics- OTS, A13	6000 W. Ogden Road Marion, IL 62959	Storage
1278540002	Honeywell International INC	2768 N. US 45 Road PO Box 430 Metropolis, IL 62960	Storage
0338080002	Marathon Petroleum Co, LP	100 Marathon Avenue PO Box 1200 Robinson, IL 62454	Land Disposal and Storage
0630600004	Nouryon Surface Chemistry LLC	8005 N. Tabler Road Morris, IL 60450	Storage
1438120003	Peoria Disposal Co.	4349 E. Southport Road Peoria, IL 61615	Land Disposal, Storage, and Treatment
0310690006	Safety-Kleen Systems INC	633 E. 138 th Street Dolton, IL 60419	Storage and Treatment
0314380001	Safety-Kleen Systems INC	1500 E. Villa Street Elgin, IL 60120	Storage and Treatment
0198270009	Safety-Kleen Systems INC	500 W. Anthony Drive Urbana, IL 61802	Storage and Treatment
1630250007	Safety-Kleen Systems INC	20 Tucker Drive Caseyville, IL 62232	Storage
0198270008	*University of Illinois Main Campus	101 S. Gregory Street Urbana, IL 61801	Storage and Treatment
1631210009	Veolia Technical Solutions LLC	7 Mobile Avenue Sauget, IL 62201	Incineration and Storage

* non-commercial site

On-Site Hazardous Waste Management Method

Each year, a significant portion of the hazardous waste generated is managed by a few companies that inject wastes into deep wells. The next largest management method is waste treatment and recycling. Most wastes managed in this manner are exempt from RCRA regulations and reporting. The following table reflects the on-site waste management methods in Illinois.

Management Method	Quantity managed On-site (tons)
Fuel Blending	7
Wastewater Treatment	904
Deepwell/Underground Injection	204,170
Solvents Recovery	94
Incineration	3

Off-Site Hazardous Waste Management Method

The following table reflects the off-site waste management methods in Illinois. Stored or treated waste may have been generated in Illinois or out-of-state.

Management Method	Quantity managed off-site (tons)
Energy Recovery	224
Fuel Blending	4,872
Incineration	24,175
Metals Recovery	69,053
Sludge Treatment/Stabilization/Encapsulation	29,740
Solvents Recovery	24,028
Storage and/or Transfer	11,342
Wastewater Treatment	19,487

Commercial TSDF Waste Management

There are several commercial TSDFs in Illinois that manage hazardous waste received from off-site generators. These hazardous wastes may be from generators in Illinois or generators located out-of-state.

There are currently three primary methods of hazardous waste management utilized by commercial TSDFs in Illinois: treatment and recycling, incineration, and storage and transfer. Most hazardous waste managed in Illinois is handled at treatment and recycling facilities. Incineration is the second most common management method, followed by transfer. Until 2008, landfilling was the second most common management method. However, currently there are no permitted hazardous waste disposal sites in Illinois. The graph below reflects the total quantity of hazardous waste managed at commercial TSDFs in Illinois.

Treatment and recycling (include energy recovery, fuel blending, metals recovery, sludge treatment, solvents recovery, wastewater treatment).

