

# HAZARDOUS MATERIALS MANAGEMENT IN NEW YORK CITY

2023 Annual Report









October 1, 2023

I am pleased to present the New York City Department of Environmental Protection's (DEP) 2023 Hazardous Materials Management Annual Report. You will find data from reporting year 2022 and fiscal year 2023 as required by Local Laws 26 and 92, also known as the "Community Right-to-Know Laws," as well as information about DEP's comprehensive Right-to-Know Program. Community Right-to-Know Laws require facilities to report information about hazardous substances they store, use, and process. Having a database of this information protects community members, facility workers, emergency response personnel, and the environment, in the event of an accidental or other release of hazardous substances.

In the past fiscal year, DEP performed 4,112 inspections of facilities that store hazardous substances to ensure compliance under the Right-to-Know Law.

To learn more about DEP's Right-to-Know Program, please visit our website at [nyc.gov/dep/tier2filing](https://nyc.gov/dep/tier2filing), or contact the Right-to-Know Program by email at [deptier2@dep.nyc.gov](mailto:deptier2@dep.nyc.gov), by phone at 718-595-4659 or write to us at:

Right-to-Know Program  
New York City Department of Environmental Protection  
59-17 Junction Boulevard  
Flushing, New York, 11373-5108.

We all need to work together to keep our communities safe. So if you see or hear about materials that could be hazardous, please contact 311.

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Rohit T. Aggarwala". The signature is fluid and cursive.

Rohit T. Aggarwala  
Commissioner  
NYC Chief Climate Officer



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# INTRODUCTION

In 1987, the New York City Hazardous Materials Emergency Response Law, or “Spill Bill,” was ratified by New York State. The law recognizes the need to protect human health and the environment against the accidental or threatened release of hazardous substances, and gives the New York City Department of Environmental Protection (DEP) the authority to respond to such releases.

Local Law 26 of 1988, the Community Right-to-Know (RTK) Law, requires the City to effectively regulate the storage, use, and handling of hazardous substances. As part of the law, DEP oversees the use and storage of hazardous substances that pose a threat to public health and the environment in the city through its Right-to-Know Program.

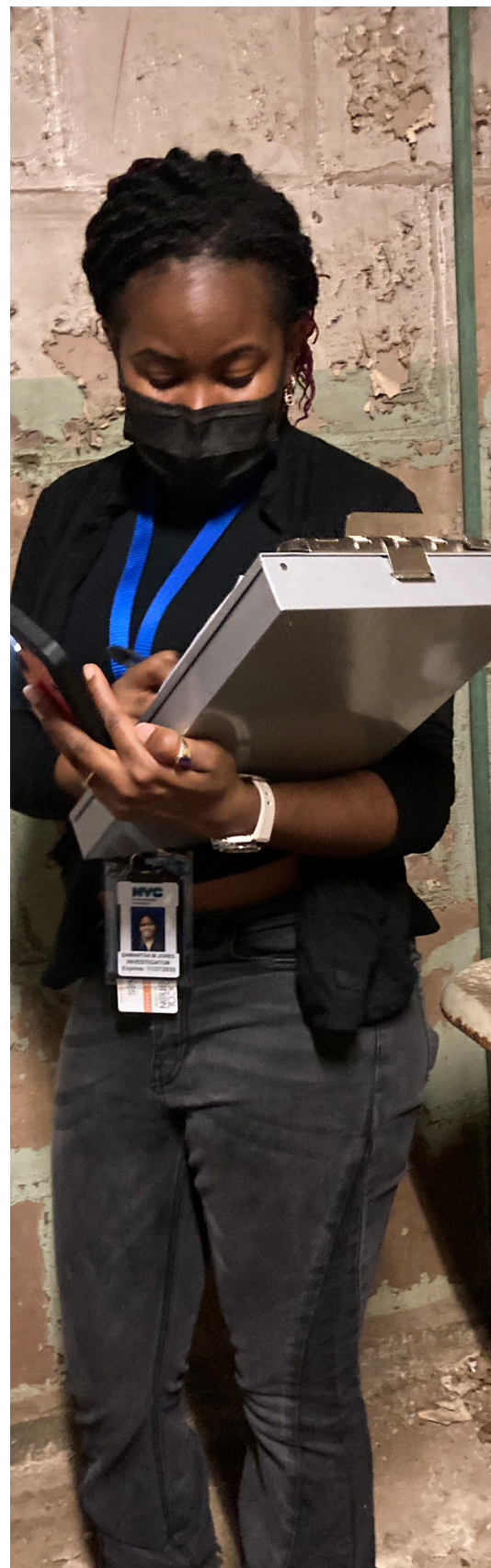
The RTK Program manages the reporting and storage of hazardous substances by requiring businesses and facilities to annually file a report detailing the quantity, location, and chemical nature of every hazardous substance stored within their facilities throughout the five boroughs. The program also grants DEP the authority to enforce action by issuing Commissioner’s Orders and Notices of Violation to help ensure safety and stability in regulation of hazardous substance and compliance under the Spill Bill and RTK Law. The RTK is comprised of Industrial Hygienist who possess the formal education and technical expertise to enforce Local Law 26 of 88. The reported information gathered from facilities is tallied and stored in the Citywide Facility Inventory Database (CFID) that is readily made available to city, state, and federal agencies during emergency responses.

The goal of the Right-to-Know Program and the Citywide Facility Inventory Database is to enhance preparedness and to minimize the number of hazardous substance releases that may put emergency responders and the public at risk. These hazardous substances or materials are also referred to as HazMat.

DEP’s Bureau of Police and Security’s Division of Emergency Response and Technical Assessment (DERTA) is the group within DEP authorized to implement and enforce the Right-to-Know Law. DERTA is a specially trained emergency response unit that responds to hazardous substance releases. The HazMat responders are comprised of chemists and engineers who possess the formal education, technical and tactical expertise required to effectively carry out emergency responses collectively by enforcing the Spill Bill and the Right-to-Know Law.

All the information for DERTA’s HazMat responses is archived in an agency-wide response database. The database consists of detailed information regarding the location of an incident, the incident description, the types of chemicals involved, and the emergency response action taken for remediation.

DEP has prepared the New York City Hazardous Materials Management 2023 Annual Report according to §24-715 of Local Law 26 of 1988.



# ANALYSIS OF THE CITYWIDE FACILITY INVENTORY DATABASE (CFID)

## Citywide Facility Inventory Database

On or before March 1 of each year, facilities that store hazardous substances are required under the Right-to-Know Law to file their inventory through DEP’s Right-to-Know Program. Facility Inventory Forms (FIF) are submitted to provide detailed quantitative information for substances stored during each fiscal year. DEP collects and archives the reported information in the Citywide Facility Inventory Database (CFID). The CFID data is collected under both the New York City Community Right-to-Know Law (RTK) and Title III of the Superfund Amendments and Reauthorization Act (SARA).

The CFID currently contains 12,535 reporting facilities within New York City. During reporting year 2022, 222 new facilities entered the database 164 facilities became exempt from filing, and 261 went out of business.

DERTA’s Tier II online system, simplifies the Right-to-Know Program filing process.

The comprehensive information collected by the Right-To-Know Program includes:

- Facility Inventory Forms
- Safety Data Sheet (SDS) for each reportable chemical
- Risk Management Plans (RMPs), if required
- Site Plans indicating storage location
- Notice of accidental spills and releases
- Extremely Hazardous Substance/Regulated Toxic Substance Reports
- Name(s) of emergency coordinators at extremely hazardous substance facilities.

The information contained within the CFID is often used by the New York City Police Department, the Fire Department of New York, and the New York City Office of Emergency Management. After a

## Facilities in CFID Reporting Hazardous Substances by Community Board

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	178	336	649	464	360
2	138	235	314	376	188
3	65	112	214	145	170
4	148	84	463	165	
5	96	248	1292	249	
6	101	179	446	97	
7	96	190	220	361	
8	109	81	304	134	
9	114	72	108	164	
10	122	115	101	145	
11	149	142	136	123	
12	206	163	183	292	
13		133		242	
14		122		92	
15		137			
16		71			
17		166			
18		230			
<b>Total by Borough</b>	<b>1522</b>	<b>2816</b>	<b>4430</b>	<b>3049</b>	<b>718</b>

**Total Number Of Facilities In CFID -12,535**



comprehensive review process, DEP may provide information deemed suitable based upon internal policy, to elected officials, the public, and the city's Local Emergency Planning Committee to further increase safety awareness.

### Extremely Hazardous Substances (Top 20)

Of the 4,956 hazardous substances regulated by the New York City Community Right-to-Know law, only 590 are considered to be Extremely Hazardous Substances (EHS). The EPA developed a list of 476 chemicals that are considered EHS based on the toxicity exhibited by their potential to cause death or serious health effects. Each substance was assigned a Threshold Planning Quantity by EPA that triggers the need to report under §302 of SARA Title III. The EHS list and its threshold planning quantities are intended to help communities focus on the substances and facilities of the most immediate concern for the protection of public safety, and for emergency planning and response.

It is important to note that the use of EHS can be an integral part of a business. For example, the telecommunications industry in New York City uses an EHS, sulfuric acid contained in batteries which comprise the back-up power systems necessary in the case of electrical power failure. There is no community exposure to sulfuric acid in this case unless there is an accidental release. A community may be exposed to chemicals utilized by businesses that provide services we all use on a regular basis.

Facilities that use and store EHS at or above the Threshold Planning Quantity are required to submit a Risk Management Plan (RMP) to DEP.

The table below depicts the 20 most frequently reported Extremely Hazardous Substances in New York City. A facility can report an EHS more than once, therefore the frequency column in the table indicates the number of times a substance is reported not the number of facilities.

### Most Frequently Reported Extremely Hazardous Substances - Top 20

Rank	CAS Number	Chemical Name	Frequency Reported
1	7664939	Sulfuric Acid	8206
2	50000	FORMALDEHYDE	1102
3	108952	PHENOL	443
4	7722841	Hydrogen Peroxide	434
5	7664393	HYDROFLUORIC ACID	282
6	7664417	AMMONIA	262
7	26628228	SODIUM AZIDE	242
8	108054	VINYL ACETATE	205
9	67663	CHLOROFORM	195
10	7697372	NITRIC ACID	163
11	123319	HYDROQUINONE	137
12	79061	ACRYLAMIDE	118
13	75569	Propylene Oxide	81
14	151508	POTASSIUM CYANIDE	76
15	79210	PEROXYACETIC ACID	64
16	62533	ANILINE	61
17	7487947	MERCURIC CHLORIDE	59
18	7647010	HYDROCHLORIC ACID	57
19	143339	SODIUM CYANIDE	56
20	108918	CYCLOHEXYLAMINE	54

### Top Five Industries Reporting to RTK by Borough

The “North American Industry Classification System,” or NAICS code, is a number assigned by the Federal government to businesses, which identifies the industrial category to which any given business belongs.

More than half of all facilities in the CFID are industries that are identified by the following five NAICS Codes:

- 517210 - Cellular and Other Wireless Telecommunications,
- 811111 - General Automotive Repair,
- 811121 - Automotive Body, Paint and Interior Repair & Maintenance,
- 812320 - Dry Cleaning Services, and
- 517110 - Wired Telecommunications Carriers.

The number of NAICS facilities in the CFID is shown in the table below.

The number of facilities in the CFID with these NAICS codes is shown in the table below. The total number of reporting facilities in CFID is 12,535. The table below indicates that the 8,716 facilities in the top five reporting industries encompass 70% of the CFID.

Cellular and Other Wireless Telecommunications (57%) and General Automotive Repair (23%) are the top two industries filing with the Right-to-Know Program, followed by Wired Telecommunications Carriers. Automotive Body, Paint and interior Repair & Maintenance, and Dry Cleaning Services.

Approximately 32% of the 8,716 facilities comprising the top five NAICS codes are located in Manhattan and most of them are Cellular and Other Wireless Telecommunications. Queens contains the second highest number of facilities in these categories with 25% and Brooklyn contains the third highest number of facilities in these categories with 24%. The Bronx and Staten Island have 13% and 6% of the facilities in these NAICS codes respectively.

### Top Five Industries in CFID Reporting to RTK by Borough

NAICS Code	Facility Type	Borough					Total by NAICS	Percent of CFID
		Bronx	Brooklyn	Manhattan	Queens	Staten Island		
517210	Cellular and Other Wireless Telecommunications	564	1,127	2,029	1040	251	5,011	57%
811111	General Automotive Repair	363	603	83	742	171	1,962	23%
811121	Automotive Body, Paint and Interior Repair & Maintenance	136	182	16	237	60	631	7%
812320	Dry Cleaning Services	63	95	63	111	30	362	4%
517110	Wired Telecommunications Carriers	28	49	607	54	12	750	9%
<b>Total Number of Facilities</b>		<b>1,154</b>	<b>2,056</b>	<b>2,798</b>	<b>2,184</b>	<b>524</b>		
<b>Borough as percent of City</b>		<b>13%</b>	<b>24%</b>	<b>32%</b>	<b>25%</b>	<b>6%</b>		
<b>Total</b>							<b>8,716</b>	<b>100%</b>



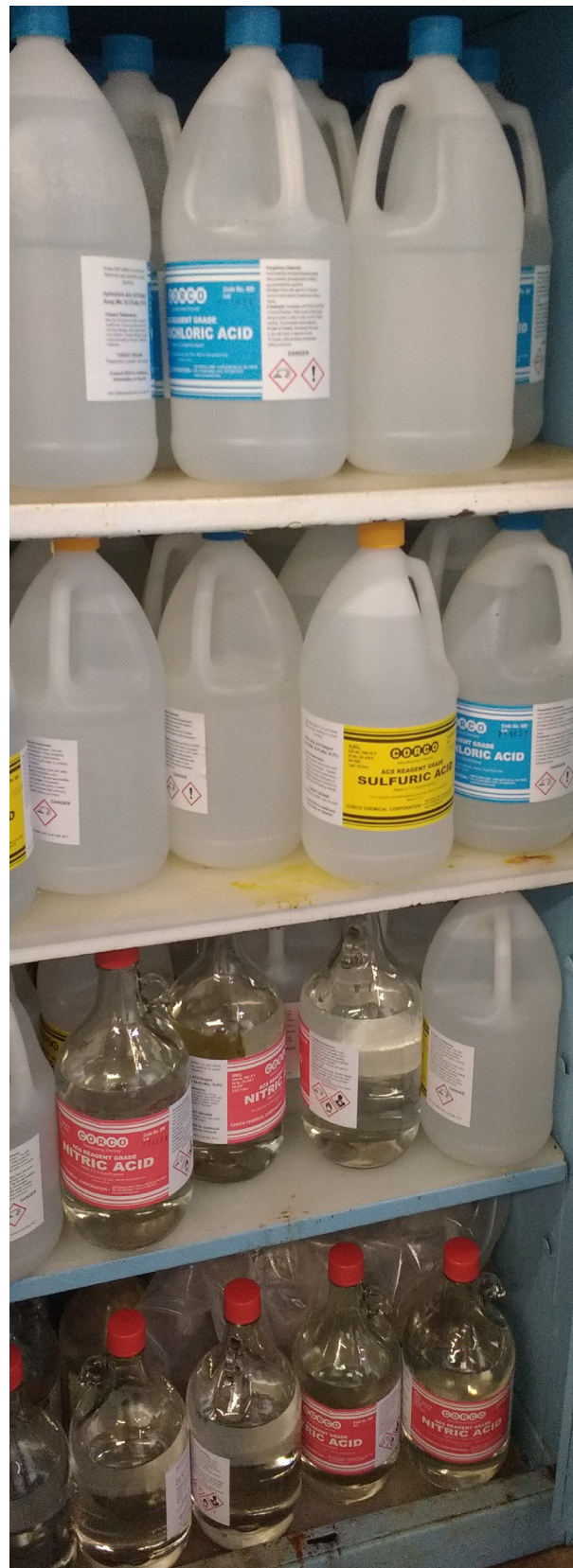
# FACILITY RIGHT-TO-KNOW (RTK) INSPECTIONS

With a total of 12,535 facilities reporting annually, the Right-to-Know program grants DEP the jurisdiction to enforce the Right-to-Know Law by conducting facility inspections on a regular basis throughout the city. The inspections involve a full site inventory analysis that includes an assessment in the proper storage and segregation of hazardous substances by class. Class is usually related to chemical compatibility and hazardous characteristics such as corrosivity, flammability and toxicity. Scheduled inspections performed by DERTA personnel confirm the quantities of hazardous substances reported by the facility in the Citywide Facility Inventory Database (CFID).

If the facility is located in a flood zone, in addition to the safe storage principles, its also mandated: the facility stores chemicals in locations less likely to be flooded; elevate chemicals off the ground when possible; lock and secure storage cabinets to fixed structures; keep caps and lids on all chemical containers tightly closed to prevent water from entering containers in case of flooding; keep the number and quantity of stored chemicals to a reasonable minimum; use concrete or fixed solid structures as secondary containment; securely anchor above-ground storage tanks and all tanks (including underground) be tightly capped and vented, and other openings that are not liquid-tight must be extended above the 100-year floodplain level. Storing and processing of water reactive chemicals or any chemical that may become flammable, explosive, or pose other environmental danger in case of flooding are prohibited in the 100-year floodplain.

There are many facilities that are required to comply with the RTK Law, and they may not be aware of that requirement. DERTA locates new facilities by searching for specific trades using phone directories or lists of facilities compiled by specific North American Industry Classification System that may be procured from information groups. Oftentimes, citizen complaints to 311 may lead DERTA to businesses that are required to file but have not done so. In those cases, an inspection of the facility is performed and the business is given an allotted time to file under the RTK law. New facilities are also identified by performing "survey" inspections. These are inspections performed on businesses that are not in the CFID but are adjacent to or on the same block as the routine facility inspections.

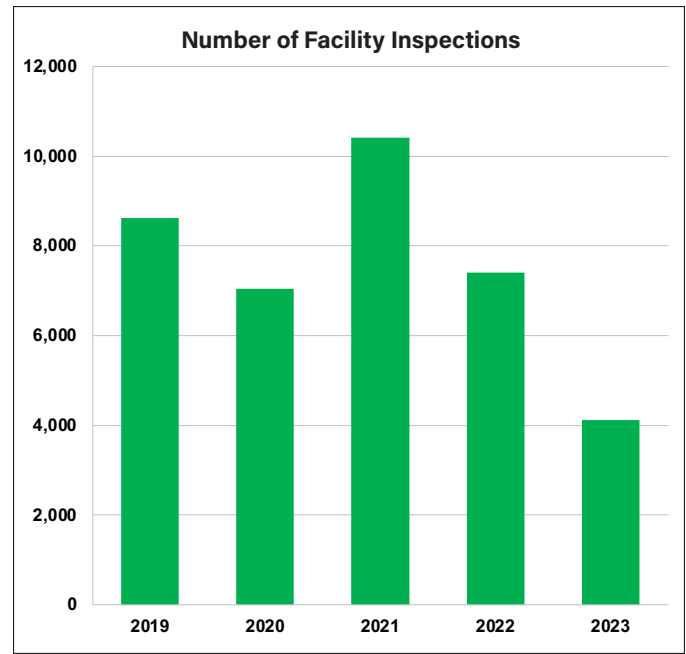
During an emergency response, DERTA also conducts immediate (unscheduled), RTK inspections of facilities responsible for hazardous substance releases involving odors or spills. These inspections may result in the finding of hazardous substances that have been unreported by the facility. Such findings require the facilities to file under the RTK Law. In addition these findings allow DERTA to issue a Commissioner's Order and a Notice of Violation if the facility does not comply with the order.



## Facilities Inspected for Fiscal Years 2019-2023

In Fiscal Year 2023, DERTA completed 3,631 facility inspections and 481 Con Edison transformer inspections with a grand total of 4,112 inspections completed.

The table below indicates the number of DERTA inspections performed in Fiscal Year 2023. Due to significant inspector employee attrition the number of completed inspections was below the year to year average in Fiscal Year 2023. New hiring during Fiscal Year 2024 will allow DERTA to increase its number of inspections to be conducted.



## Facility Inspections Completed in FY 2023

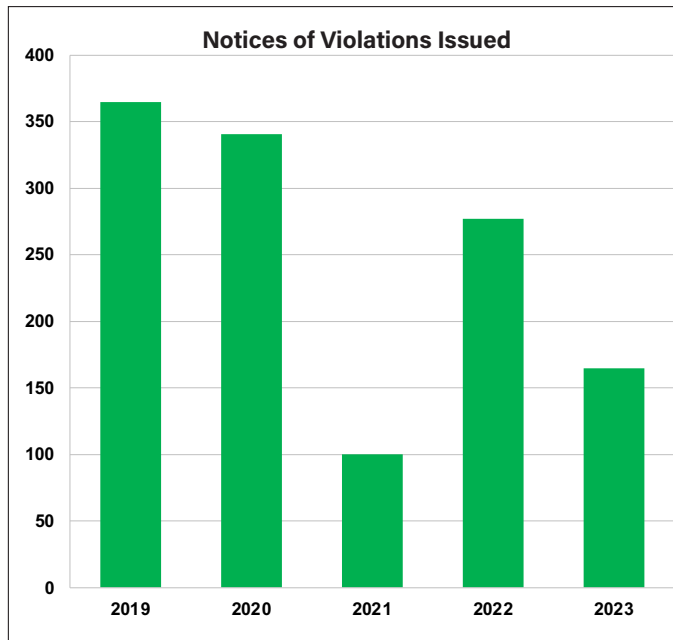
Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	95	151	44	147	166
2	97	41	46	183	64
3	55	14	10	29	27
4	78	30	63	49	
5	34	144	245	59	
6	75	65	105	47	
7	19	76	11	108	
8	32	7	69	18	
9	56	7	10	95	
10	55	32	2	47	
11	86	51	17	14	
12	94	80	10	154	
13		40		90	
14		16		15	
15		27			
16		14			
17		54			
18		62			
<b>Total by Borough</b>	<b>776</b>	<b>911</b>	<b>632</b>	<b>1055</b>	<b>257</b>



## Notices of Violations Issued

The Right-to-Know Program is authorized to issue Notices of Violation to facilities for failure to submit completed Facility Inventory Forms, improper labeling of hazardous substance containers, failure to submit Safety Data Sheets (SDS), and failure to submit a Risk Management Plan. The majority of violations this year were issued for failure to submit a Facility Inventory Form. DERTA issued 165 Notices of Violation to facilities for non-compliance with reporting requirements.

The table and graph show the number of violations issued for Fiscal Years 2019-2023.



## Notices Of Violation Issued for Fiscal Year 2019 - 2023

Type of Violations	Number Of Violations Issued				
	2019	2020	2021	2022	2023
Failure to File FIF	362	331	97	275	161
Failure to submit SDS	0	0	0	0	4
Failure to provide copies of FIF & SDS to emergency responders	0	4	0	0	0
Failure to Meet Labeling Requirement	0	4	1	0	0
Failure to Grant Access	3	1	3	1	0
Failure to File RMP	0	1		1	0
<b>Total Violations</b>	<b>365</b>	<b>341</b>	<b>101</b>	<b>277</b>	<b>165</b>

# RISK MANAGEMENT PLANS

According to Local Law 92 of 1993, any facility that stores Extremely Hazardous Substances (EHS) or regulated toxic substances listed under this law in quantities exceeding federally determined thresholds are required to file a Risk Management Plan (RMP). As per federal law these facilities must submit a new RMP every five years. Currently, there are 370 registered in the RTK Program active RMP facilities operating within the five boroughs. Since the enactment of this law, many facilities have significantly reduced their inventories of EHS to levels below reportable thresholds limits, resulting in reduced risks to facility workers, emergency response personnel, and the community.

For the 2022 reporting year, 14 new RMPs have been received, 35 facilities have reported updates to their plans, 149 affidavits have been received indicating that no change has been made to their facility's RMP and 5 inspections were completed.

On March 1 of each year, a facility must submit either an affidavit stating there have been no changes from the previous calendar year, or they must provide an updated RMP. The table below indicates facilities that have filed an RMP.

## Facility Risk Management Plans

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	7	9	45	20	9
2	5	16	3	11	8
3	4	3	3	1	5
4	2	2	30	3	
5	3	10	35	5	
6	1	2	15	4	
7	1	8	9	15	
8	2	2	6	2	
9	1	1	2	1	
10	4	2		3	
11	3	2	3	1	
12	1	2	5	6	
13		1		5	
14		3		5	
15		4			
16		2			
17		2			
18		5			
<b>Total by Borough</b>	<b>34</b>	<b>76</b>	<b>156</b>	<b>82</b>	<b>22</b>



# EMERGENCY RESPONSE



## Emergency Response Activities

DERTA's HazMat Emergency Response originated in DEP's Bureau of Science and Technology in the 1970s. The team consists of specially trained responders known as HazMat Specialists.

DERTA's HazMat Specialists, who possess an exceptionally high level of training in emergency response, are on call 24/7. Under the Citywide Incident Management System, HazMat emergency responders arrive at a potentially dangerous site to perform chemical identification of hazardous substances. To ensure maximum safety and security, the response team determines zones of delineation and develops strategies on proper containment, mitigation, disposal, and decontamination procedures.

Determining an effective mitigation strategy of the site relies heavily on on-site wet chemistry analysis and a sampling of the unknown chemical (in air, water, or soil.) This technique ensures an accurate chemical identification and determines whether or

not the hazardous substance can be safely transported off the contaminated site without causing injury or harm to emergency response personnel, the community, and the environment. The chemical identification process also determines the proper containment protocol required for transport and disposal under strict accordance with the United States Department of Transportation Federal Regulations and Guidelines.

DERTA's HazMat team utilizes the latest advanced equipment and analytical instruments, specifically designed for field use, to identify dangerous agents and hazardous unknown chemicals. The low-level detection equipment allows the team to conduct high-tech environmental monitoring for special events throughout the city, working alongside federal, state and local law enforcement agencies to immediately assess any potential chemical hazard if and when it develops. DERTA also conducts air plume dispersion modeling to perform risk assessments.

# EMERGENCY RESPONSE (Continued)

DERTA's responsibility to the City is to ensure that any accidental release or intentional release of a hazardous substance be contained, controlled and remediated without endangering the community and the environment.

## Enforcement Action

Title 24, Chapter 6 of the New York City Administrative Code, also known as the New York City Hazardous Substances Emergency Response Law (L.L. 42/87) or "Spill Bill," was enacted to authorize DEP to respond to emergencies or intentional releases of hazardous substances into the environment.

In the event of a hazardous chemical release, the bill authorizes the Commissioner of DEP to issue an order to the accountable party. The order stipulates a series of remedial instructions involving mitigation to be performed immediately by licensed contractors within a timely manner, as estimated by DERTA and agreed to by the responsible party. Failure or a refusal to comply with the Commissioner's Order results in the issuance of a Notice of Violation (NOV). A failure to notify DEP of a hazardous substance release also incurs the issuance of a Notice of Violation.

During Fiscal Year 2023, DERTA issued 103 Commissioner's Orders. Of which 16 NOVs were served for failure to comply with the Commissioner Orders and 1 was served for failure to comply with notification requirements upon release of a hazardous substance.

## Public Safety and Cost Reduction Mitigation Initiative

### Mitigation and Removal

As a progressive measure in the mitigation and removal of hazardous waste throughout the five boroughs, DERTA formulated and developed its own tactical plan in dealing with removal of abandoned hazardous substances off-site as a cost cutting strategic alternative, if and when a responsible party is unidentifiable or unknown.

With approximately 2,961 response incidents per year and counting, 425 (14%) of these incidents

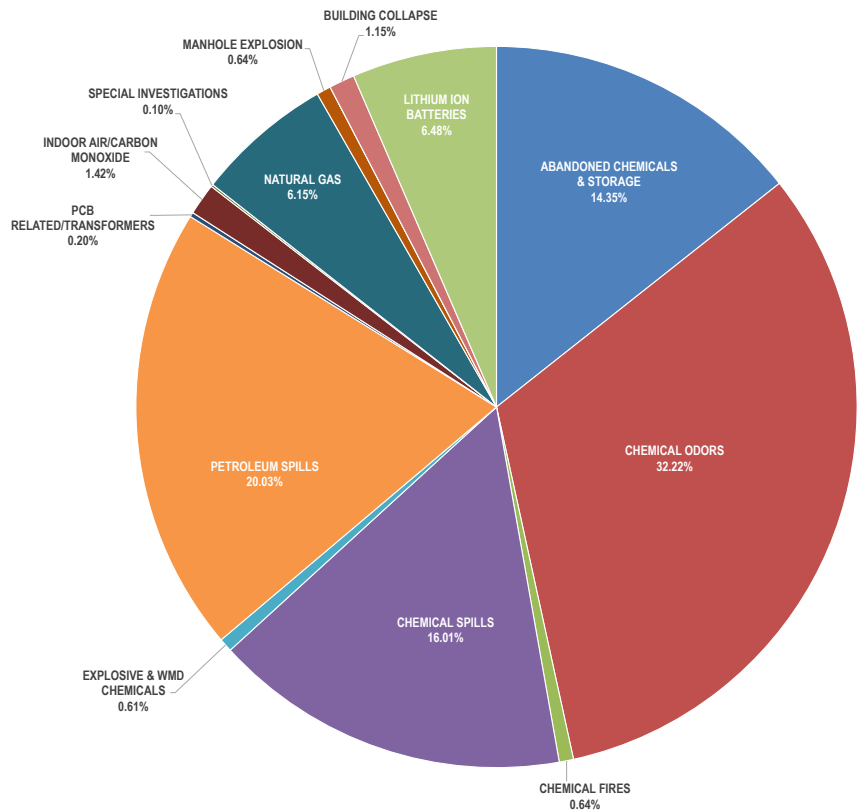
involve abandoned chemicals and storage. Under routine circumstances, these substances are removed and transported by certified environmental contractors.

In certain cases however, where the quantity and volume of the abandoned substance meets the threshold standards within the plan, DERTA puts their hazardous waste management skills to use by performing the removal and transportation of the abandoned hazardous substance. The substance is overpacked by DERTA and safely transported to a secure location where it can be stored and bid out in a relatively safe and timely manner. This, in turn, avoids the lingering effects of pickups during off-hour late nights, weekends, and holidays, which are exorbitant cost contributing factors. The plan also considerably reduces the dependency of overnight (third party) security personnel and, most importantly, expedites the removal of hazardous substances from the streets to preserve a fixture of public health and safety.

In a typical abandoned chemical response scenario, there are three contributing factors that determine whether or not the hazardous substance removal will be undertaken by an environmental contractor. These include sampling, characterization, and identification of the abandoned material on-site through a combination of instrumentation readings and wet chemistry analyses by DERTA responders. If the material is deemed to be a petroleum-based product, the New York State Department of Environmental Conservation is notified for the removal. If the material is deemed to exhibit non-hazardous properties, the Department of Sanitation is notified for the removal. If the material is deemed to exhibit hazardous properties and characteristics, the removal, mitigation, and transport of the material will be the sole responsibility of DERTA, provided that it does not exceed the allowable storage quantities. Once the material is contained and secure, DERTA determines the strategies involved in its removal. With the cost reduction mitigation initiative as an option, DERTA continues to raise the bar in efficiency and maximizes the safety and health of New York City.

## Hazardous Materials Responses by Incident Type

DERTA responded to 2,961 incidents of hazardous material releases in Fiscal Year 2023. Of these incidents, 32% were responses to reports of chemical odors; 20% were petroleum spills; 14% were abandoned chemicals; 16% were responses to chemical spills and 6% were responses to natural gas leaks ( see graph and table below). In December of 2022, DERTA, FDNY and DSNY entered into an agreement to address the disposal of damaged, defective, recyclable (DDR) lithium-ion batteries involved in fires. This is a significant issue requiring 24/7 coverage to address. As depicted in the graph in just seven months these responses represent close to 6.5% of DERTA's emergency response incidents. Due to the unstable nature of this material DERTA has dedicated significant responder hours to safely address these emergency response incidents.



## Hazardous Materials Responses in Fiscal Year 2023 (July '22- June '23)

CATEGORY	FISCAL YEAR 2023												TOTAL
	JUL '22	AUG '22	SEP '22	OCT '22	NOV '22	DEC '22	JAN '23	FEB '23	MAR '23	APR '23	May '23	JUN '23	
ABANDONED CHEMICALS & STORAGE	28	37	44	37	38	32	30	26	33	45	36	39	425
CHEMICAL ODORS	80	83	78	93	90	54	51	55	78	82	110	100	954
CHEMICAL FIRES	2	2	2	0	2	1	0	0	3	4	0	3	19
CHEMICAL SPILLS	48	43	50	66	30	20	25	29	46	34	36	47	474
EXPLOSIVE & WMD CHEMICALS	2	1	2	0	2	0	1	2	4	3	1	0	18
PETROLEUM SPILLS	49	51	41	46	39	46	38	43	56	78	49	57	593
PCB RELATED/TRANSFORMERS	0	0	0	0	0	0	0	1	1	0	3	1	6
INDOOR AIR/CARBON MONOXIDE	1	6	2	4	3	5	2	3	5	1	8	2	42
SPECIAL INVESTIGATIONS	0	0	0	0	0	1	0	0	1	0		1	3
ASBESTOS	0	0	0	0	0	0	0	0	0	0	0	0	0
NATURAL GAS	10	15	17	12	12	18	22	10	13	19	18	16	182
MANHOLE EXPLOSION	0	1	0	2	2	1	3	0	4	4	2	0	19
WATERMAIN BREAK	0	0	0	0	0	0	0	0	0	0	0	0	0
BUILDING COLLAPSE	3	1	0	3	2	0	0	4	5	13	2	1	34
LITHIUM ION BATTERIES						13	17	26	30	28	31	47	192
<b>TOTAL</b>	<b>223</b>	<b>240</b>	<b>236</b>	<b>263</b>	<b>220</b>	<b>191</b>	<b>189</b>	<b>199</b>	<b>279</b>	<b>311</b>	<b>296</b>	<b>314</b>	<b>2,961</b>



# TOXIC CHEMICAL RELEASES

In accordance with §313 of Title III of the Federal Superfund Amendments and Reauthorization Act (SARA), companies and facilities within New York City must file their Toxic Release Inventory (TRI) data with the New York State Department of Environmental Conservation. The most current TRI data available is for reporting year 2022.

The United States Environmental Protection Agency (EPA) receives information on chemical emission reports submitted by facilities under the federal SARA Title III law. SARA Title III requires the reporting of annual releases of toxic chemicals to the air, water and land. Section 313 of that law mandates annual release reporting for more than 650 chemicals. These reports are due to the New York State Department of Environmental Conservation no later than July 1 of each year and cover activities for the previous calendar year.

TRI data presented in this section refer to 26 New York City facilities that have reported their releases to EPA, and only address air emissions that account for the majority of releases.

Facilities meeting the following criteria are required to submit TRI data:

- North American Industry Classification System code ranges from sections 31 through 33. The NAICS code ranges refer to facilities in the manufacturing and industrial sections. Starting in 1998, power-generating facilities were also required to report
- Ten or more full-time employees
- Manufacture or process 25,000 pounds per year or otherwise use 10,000 pounds of a listed toxic chemical during the calendar year.

The top five toxic chemicals released in New York City by descending order are ammonia, toluene, 1,2,4-trimethylbenzene, n-hexane and benzene. These substances represent more than 99.8% of the total reported releases by weight. Ammonia alone represents 97.7% of the total reported released.

These releases were mostly from facilities in the following industrial sectors: electric services (30.78%), other chemical and allied products (26.92%), petroleum bulk stations and terminals (19.23%), nonferrous metal (except aluminum) smelting and refining (15.38%), paint and coating manufacturing (7.69%).

Releases from facilities in the electric services industry accounted for all the ammonia emissions, Paint and coating manufacturing and petroleum bulk stations and terminals accounted for all the toluene releases. Electric services industry and petroleum bulk stations and terminals accounted for all n-hexane releases.

In analyzing the TRI release data in air, it is important to understand that the data does not represent the total value of toxic air emissions from the 26 reporting facilities alone in New York City. Under the minimum criteria required for reporting, there are many other types of facilities in the city that do not meet the requirements under SARA Title III, §313, but when their emissions are cumulatively added, they are a significant source and contributing factor in toxic air emissions. For example, dry cleaners, an industry that is not factored into the TRI data, represents a significant source for toxic air emissions. There are currently 362 dry-cleaning facilities operating in the CFID that utilize a hazardous substance commonly referred to as PERC (chemical name tetrachloroethylene or perchloroethylene); although PERC is not a chemical listed in the EHS list, it is still considered to be a probable carcinogen. Due to the relatively small operational size of a typical dry cleaning facility (less than 10 employees,) the toxic emissions generated by PERC by each dry cleaning facility tends to fall way below the threshold for TRI data reporting. As a result, dry cleaners are generally exempt from filing TRI data, and PERC, therefore, is generally unaccounted for in the releases.

## Year 2022 Toxic Release Inventory Data In New York City By Community Board

Based on Year 2022 Section 313 data submitted to the State Emergency Response Commission

CB	Chemical Name	Release to Air (Pounds Per Year)
<b>BX01</b>	1,2,4-Trimethylbenzene	660.0000000
	Benzo[g,h,i]perylene	0.0000360
	Polycyclic aromatic compounds	0.0009600
	Summary For Community Board B01 (3 detail records)	
<b>BX03</b>	Piperonyl butoxide	5.0000000
	Summary For Community Board B03 (1 detail records)	
<b>BX06</b>	LEAD	0.0861000
	Summary For Community Board B06 (1 detail record)	
<b>Total for Bronx (5 detail record)</b>		<b>665.0870960</b>
<b>BK01</b>	1,2,4-Trimethylbenzene	279.3000000
	Benzene	455.3400000
	Ethylbenzene	85.8700000
	Lead	0.0631000
	n-Hexane	933.4600000
	Polycyclic aromatic compounds	0.8200000
	Toluene	640.0800000
	Xylene (mixed isomers)	270.6000000
	Summary For Community Board K01 (8 details records)	
<b>BK02</b>	Ammonia	24,345.2200000
	Summary For Community Board K02 (1 detail record)	
<b>BK05</b>	Copper	81.0000000
	Diisocyanates	3.0400000
	Lead compounds	39.8300000
	Manganese	4.0000000
	Nickel	3.0000000
	Summary For Community Board K05 (5 detail records)	
<b>BK06</b>	Lead	0.1177000
	Summary For Community Board K06 (1 detail record)	
<b>BK07</b>	Lead	0.0610500
	Summary For Community Board K07 (1 detail records)	
<b>BK12</b>	Lead	0.0305000
	Summary For Community Board K12 (1 detail records)	
<b>BK15</b>	Lead	0.0850000
	Summary For Community Board K15 (1 detail record)	
<b>Total for Brooklyn (18 detail records)</b>		<b>27,141.9173500</b>

## Year 2022 Toxic Release Inventory Data (Continued)

CB	Chemical Name	Release to Air (Pounds Per Year)
<b>MN06</b>		
	Ammonia	45,849.0000000
	Benzo[g,h,i]perylene	0.0400000
	Polycyclic aromatic compounds	1.1700000
	Summary For Community Board M06 (3 detail records)	
<b>Total for Manhattan (1 detail record)</b>		<b>55,995.18</b>
<b>QN01</b>		
	1,2,4-Trimethylbenzene	77.3000000
	Ammonia	99,999.7000000
	Benzene	4.4000000
	Cumene	3.0100000
	Cyclohexane	19.8000000
	Ethylbenzene	8.6200000
	Mercury	21.8000000
	Naphthalene	85.4500000
	n-Hexane	68.7000000
	Polycyclic aromatic compounds	92.1565500
	Toluene	66.0100000
	Xylene (mixed isomers)	63.1200000
	Benzo[g,h,i]perylene	0.0137970
	Summary For Community Board Q01 (13 detail records)	
<b>QN02</b>		
	Lead	0.1327000
	Summary For Community Board Q02 (1 detail record)	
<b>QN4</b>		
	Ammonia	8,699.0000000
	Summary For Community Board Q04 (1 detail record)	
<b>QN07</b>		
	Benzo[g,h,i]perylene	0.0002000
	Lead	0.0830000
	Naphthalene	3.2700000
	Polycyclic aromatic compounds	0.0600000
	Summary For Community Board Q07 (4 detail records)	
<b>QN13</b>		
	Ethylbenzene	39.3700000
	Naphthalene	131.2800000
	Summary For Community Board Q13 (2 detail records)	
<b>Total for Queens (28 details records)</b>		<b>109,383.2762470</b>
<b>SI02</b>		
	Mercury compounds	0.4300000
	Summary For Community Board SI01(1 detail record)	
<b>Total for Staten Islands (1 details records)</b>		<b>0.4300000</b>



# ADMINISTRATIVE INFORMATION

Agency	Division/ Program	Response Time (min)	Emergency personnel				Totals
			No.	Title	Salary	Subtotal	
DEP	Hazardous Materials Emergency Response	5 - 10	1	Director	\$164,288.00	\$164,288.00	\$1,857,828.00
			1	Deputy Director	\$133,052.00	\$133,052.00	
			5	WMD / Sr. HazMat Specialists	\$116,621.00	\$583,105.00	
			11	WMD / HazMat Specialists	\$88,853.00	\$977,383.00	
*NYPD	Emergency Service Unit	30	1	Assistant Chief	\$240,511.00	\$2,645,621.00	\$55,550,229.00
			2	Deputy Inspectors	\$217,380.00	\$434,760.00	
			8	Captains	\$207,115.00	\$1,656,920.00	
			17	Lieutenants	\$163,046.00	\$2,771,782.00	
			39	Sergeants	\$140,310.00	\$5,472,090.00	
			245	Detectives	\$124,106.00	\$30,405,970.00	
			118	Police Officers	\$103,077.00	\$12,163,086.00	
	Highway District Motor Carrier Safety Unit	30	1	Sergeant	\$140,310.00	\$140,310.00	\$964,926.00
			8	Police Officers	\$103,077.00	\$824,616.00	
	COBRA Trained UMOS	30	20	Lieutenants	\$163,046.00	\$3,260,920.00	\$58,866,916.00
			1	Deputy Inspector	\$217,380.00	\$217,380.00	
			62	Sergeant	\$140,310.00	\$8,699,220.00	
			39	Detectives	\$124,106.00	\$4,840,134.00	
			406	Police Officers	\$103,077.00	\$41,849,262.00	
*FDNY	FIRE	5 - 10	1	Assistant Chief	\$200,000.00	\$200,000.00	\$529,613,000.00
			3	Deputy Assistant Chief	\$198,000.00	\$594,000.00	
			8	Deputy Chief	\$196,000.00	\$1,568,000.00	
			60	Battalion Chief	\$178,000.00	\$10,680,000.00	
			190	Captains	\$137,700.00	\$26,163,000.00	
			460	Lieutenants	\$121,800.00	\$56,028,000.00	
	Medical	5 - 10	4500	Firefighters	\$91,000.00	\$409,500,000.00	
			50	Officers	\$65,000.00	\$3,250,000.00	
			190	Paramedic	\$57,000.00	\$10,830,000.00	
			270	EMT	\$40,000.00	\$10,800,000.00	
DOHMH	Office of Environmental Investigations; Office of Radiological Health	30-45	6	City Research Scientist	\$86,329.84	\$517,979.04	\$1,518,773.04
			1	Scientist (Radiation Response)	\$86,277.00	\$86,277.00	
			3	Assoc. Public Health Sanitarian	\$83,666.00	\$250,998.00	
			1	Health Services Manager	\$119,997.00	\$119,997.00	
			1	Public Health Emergency Preparedness Specialist	\$105,791.00	\$105,791.00	
			7	Public Health Sanitarian	\$62,533.00	\$437,731.00	
DSNY	Environmental Police Unit	10 - 45	1	Environmental Police Deputy Chief	\$169,052.00	\$169,052.00	\$1,524,672.00
			1	Environmental Police Lieutenant	\$111,800.00	\$111,800.00	
			1	City Research Scientist	\$87,860.00	\$87,860.00	
			13	Environmental Police Officers	\$88,920.00	\$1,155,960.00	
*OEM	Office of Emergency Management	32	17	Responders	\$96,154.00	\$1,634,618.00	\$1,634,618.00
<b>Budgets were submitted by individual agencies</b>						<b>Total:</b>	<b>\$649,673,134.04</b>

\*values are based on fiscal year 2021 budget.

# ADMINISTRATIVE INFORMATION

## **New York City Department of Environmental Protection**

Rohit T. Aggarwala, Commissioner

## **Bureau of Police and Security**

John D. Cosgrove, Deputy Commissioner

Peter Fusco, Assistant Commissioner

## **Division of Emergency Response and Technical Assessment**

Harry Mayer REP, Director

Joanne Nurse, Deputy Director

# ACKNOWLEDGEMENTS

The New York City Department of Environmental Protection would like to thank the members of the Hazardous Substance Advisory Board for their critical evaluation and suggestions on implementing the New York City Community Right-to-Know Law.

DEP also would like to thank the following:

- All emergency response personnel for their continued efforts to protect the environment and the health and safety of New York City.
- Agency coordinators who have provided information on emergency response included in this report:
  - Division of Emergency Response and Technical Assessment,
  - New York City Police Department
  - New York City Fire Department,
  - New York City Department of Health & Mental Hygiene,
  - New York City Department of Sanitation,
  - New York City Office of Emergency Management, and
  - New York State Emergency Response Commission.
- New York City-based facilities in compliance with the Right-To-Know law for the reporting and submission of their chemical inventory data, which allows DEP to compile the Citywide Facility Inventory Database.
- All concerned individuals who report unsafe acts, storage or releases that involve the spread of hazardous substances into our environment.







**Environmental  
Protection**

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