

HAZARDOUS MATERIALS MANAGEMENT IN NEW YORK CITY

2017 Annual Report



NYC
Environmental
Protection

Bill de Blasio
Mayor
Vincent Sapienza, P.E.
Acting Commissioner

October 1, 2017



I am pleased to present the New York City Department of Environmental Protection's (DEP) 2017 Hazardous Materials Management Annual Report. You will find data from fiscal year 2017 as required by Local Laws 26 and 92, also known as the "Community Right-to-Know Law," as well as information about DEP's comprehensive Right-to-Know Program. Community Right-to-Know Law requires 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 fiscal year 2017, DEP performed 10,689 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, or contact the Right-to-Know Program by email at 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 "Vincent Sapienza". The signature is fluid and cursive, with a large, stylized initial "V".

Vincent Sapienza, P.E.
Acting Commissioner

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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 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 2017 Annual Report according to §24-715 of Local Law 26 of 1988.



ANALYSIS OF THE CITYWIDE FACILITY INVENTORY DATABASE

Citywide Facility Inventory Database (CFID)

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 calendar year. DEP collects and archives the reported information in the Citywide Facility Inventory Database. 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 11,222 reporting facilities within New York City. During fiscal year 2017, 700 new facilities entered into the database, 133 facilities became exempt from filing, and 402 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 comprehensive

Facilities in CFID by Community Board

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	167	319	528	424	339
2	127	193	247	342	184
3	60	124	202	131	163
4	141	78	365	142	
5	95	221	930	222	
6	105	168	375	95	
7	89	184	201	353	
8	105	75	286	133	
9	123	77	95	137	
10	109	116	91	124	
11	142	150	129	122	
12	200	149	179	262	
13		104		224	
14		117		80	
15		127			
16		66			
17		157			
18		229			
TOTAL	1463	2654	3628	2791	686

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

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 474 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 batteries containing sulfuric acid (an EHS). These batteries are used as 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.

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.

Top 20 Extremely Hazardous Substances Reported

Rank	CAS Number	Chemical Name	Frequency Reported
1	7664-93-9	Sulfuric Acid	9734
2	50-00-0	Formaldehyde	1100
3	7664-39-3	Hydrofluoric Acid	506
4	108-95-2	Phenol	388
5	7722-84-1	Hydrogen Peroxide	360
6	7664-41-7	Ammonia	255
7	108-05-4	Vinyl Acetate	246
8	26628-22-8	Sodium Azide	228
9	7697-37-2	Nitric Acid	189
10	123-31-9	Hydroquinone	173
11	67-66-3	Chloroform	164
12	7647-01-0	Hydrochloric Acid	115
13	151-50-8	Potassium Cyanide	96
14	79-06-1	Acrylamide	93
15	75-56-9	Propylene Oxide	82
16	129-00-0	Pyrene	76
17	143-33-9	Sodium Cyanide	71
18	7487-94-7	Mercuric Chloride	68
19	108-91-8	Cyclohexylamine	51
20	62-53-3	Aniline	48

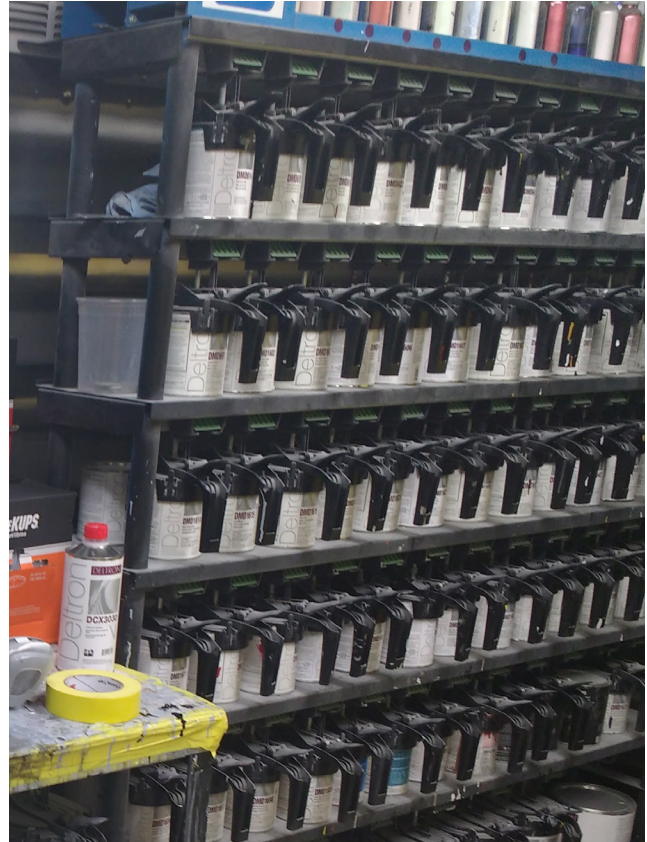
Top Five Industries Reporting to RTK by Borough

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.

See table below.



Top Five Industries in CFID Reporting to RTK by Borough

NAICS Code	Facility Type	Borough					Total by type	Percent of CFID
		Bronx	Brooklyn	Manhattan	Queens	Staten Island		
517210	Cellular and Other Wireless Telecommunications	514	1,015	1,522	942	240	4,233	37.7
811111	General Automotive Repair	230	316	46	361	81	1,034	9.2
811121	Automotive Body, Paint and Interior Repair & Maintenance	155	224	29	286	63	757	6.7
812320	Dry Cleaning Services	102	211	143	182	45	683	6.1
517110	Wired Telecommunications Carriers	22	42	375	48	17	504	4.5
Total Number of Facilities		1023	1,808	2,115	1,819	446		
Borough as percent of City		14.2	25.1	29.3	25.2	6.2		
Total							7,211	64.2

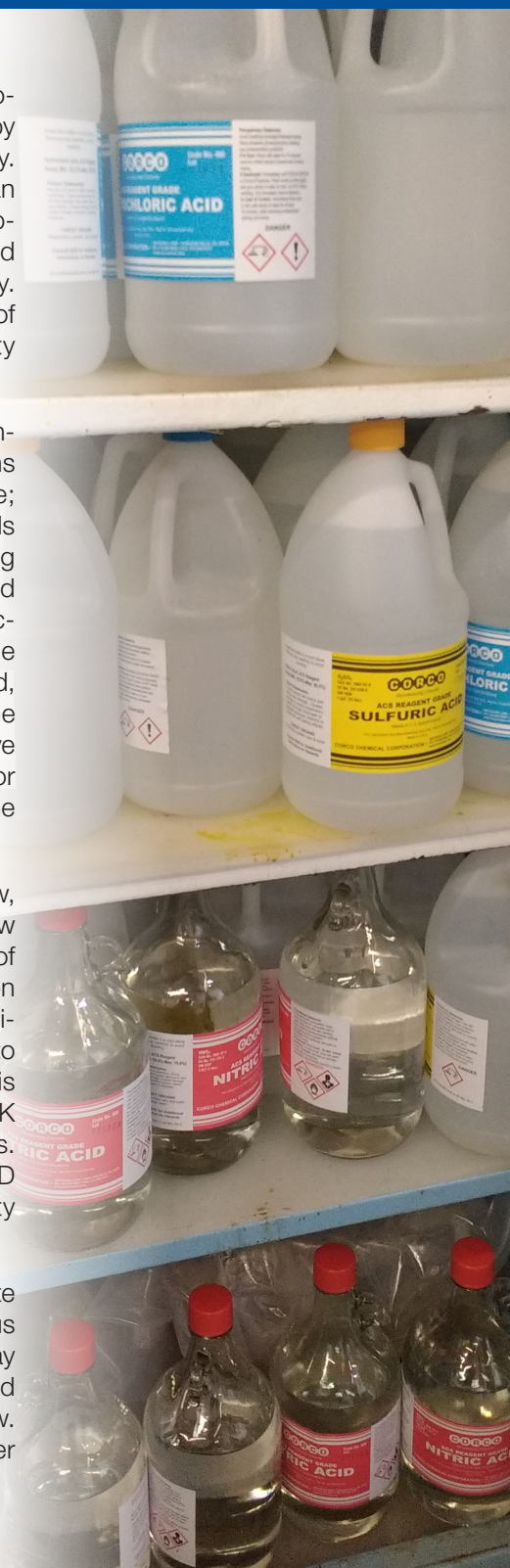
FACILITY RIGHT-TO-KNOW (RTK) INSPECTIONS

With a total of 11,222 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. 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 recommended: the facility store 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, or 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 aims at 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.

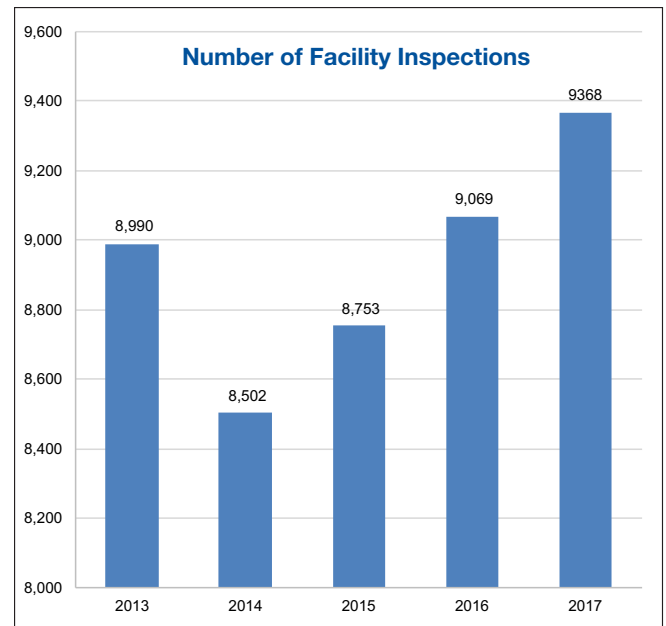


Facilities Inspected for Fiscal Years

2013-2017

In Fiscal Year 2017, DERTA completed 9,368 facility inspections and 1,321 Con Edison transformer inspections with a grand total of 10,689 inspections completed. 700 new facilities were added to the CFID.

The table below indicates the number of DERTA inspections performed in Fiscal Year 2017.



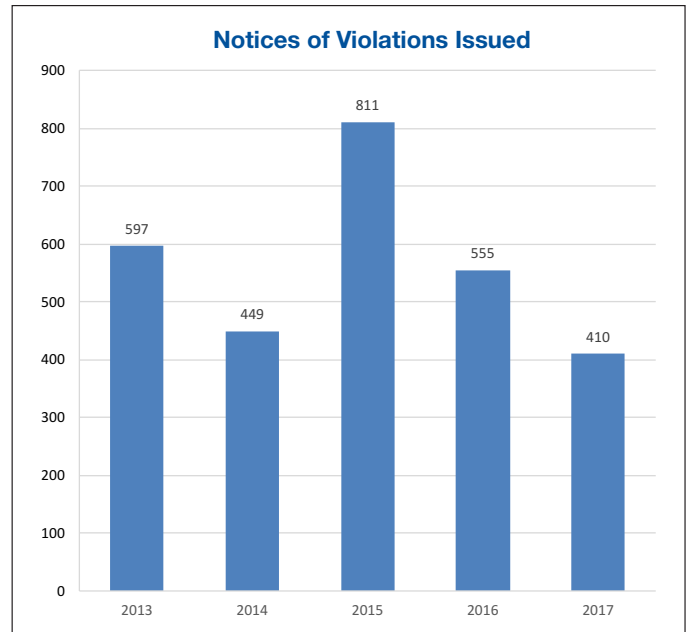
Inspections Completed in FY 2017

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	159	303	180	482	314
2	163	163	157	391	124
3	82	86	97	70	107
4	159	85	254	104	
5	108	276	658	231	
6	105	151	222	88	
7	71	197	79	358	
8	68	84	153	91	
9	109	66	43	133	
10	117	96	27	110	
11	146	167	72	94	
12	238	200	76	246	
13		90		177	
14		83		48	
15		99			
16		86			
17		230			
18		195			
Total	1525	2657	2018	2623	545

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), failure to grant access 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 410 Notices of Violation to facilities for non-compliance with reporting requirements.

The table and the graph show the number of violations issued for Fiscal Years 2013-2017.



Notices of Violation Issued for Fiscal Years 2013-2017

Type of Violations	Number Of Violations Issued				
	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Failure to File FIF	582	425	774	543	393
Failure to submit SDS	3	1	0	1	2
Failure to provide copies of FIF&SDS to emergency responders	4	4	3	0	0
Failure to Meet Labeling Requirement	6	10	27	0	0
Failure to Grant Access	2	9	7	10	6
Failue to File RMP	0	0	0	1	9
Total Violations	597	449	811	555	410

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 360 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 2016 reporting year, 24 new RMPs have been received, 82 facilities have reported updates to their plans, and 138 affidavits have been received indicating that no change has been made to their facility's RMP.

By 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	8	6	49	16	11
2	6	14	7	4	6
3	4	2	3	0	5
4	2	2	20	4	
5	3	7	43	10	
6	2	1	17	4	
7	1	8	10	12	
8	2	1	5	2	
9	1	1	2	1	
10	4	2	0	3	
11	2	2	3	1	
12	3	2	6	6	
13		0		6	
14		2		4	
15		5			
16		1			
17		1			
18		5			
Total by Borough	38	62	165	73	22

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.

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.



EMERGENCY RESPONSE (Continued)

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 2017, DERTA issued 10 Commissioner’s Orders of which, 4 NOVs were served for failure to comply.

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.

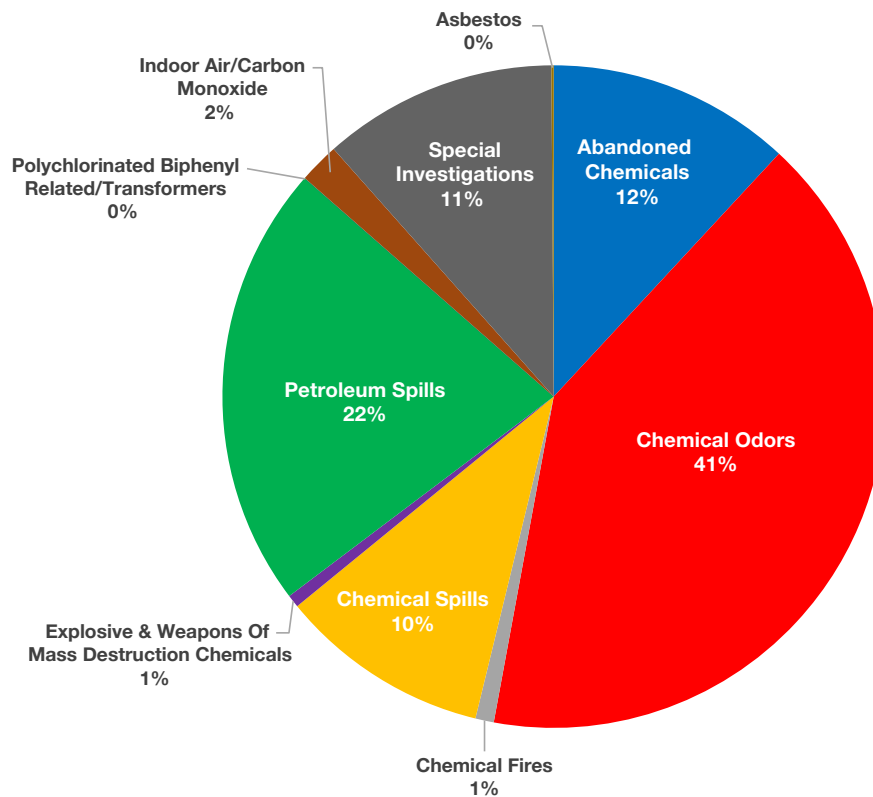
In Fiscal 2017, DERTA responded to 3,554 response incidents, 423 (12%) of these incidents involve abandoned chemicals. Under routine circumstances, these substances are removed and transported by certified environmental contractors.

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 in Fiscal Year 2017

DERTA responded to 3,554 incidents of hazardous material releases in Fiscal Year 2017. Of these incidents, 41% were responses to reports of chemical odors; 22% were petroleum spills; 12% were abandoned chemicals; 10% were responses to chemical spills and 11% were responses to special investigations (see graph and table below).



Hazardous Materials Responses in Fiscal Year 2017 (July '16- June '17)

CATEGORY	FISCAL YEAR 2017												TOTAL
	JUL '16	AUG '16	SEP '16	OCT '16	NOV '16	DEC '16	JAN '17	FEB '17	MAR '17	APR '17	MAY '17	JUN '17	
Abandoned Chemicals	42	35	39	49	39	29	42	22	26	21	33	46	423
Chemical Odors	149	176	151	124	111	83	66	83	83	110	142	179	1457
Chemical Fires	1	3	3	1	2	1	5	5	2	4	4	1	32
Chemical Spills	26	31	35	22	30	20	24	19	28	40	45	46	366
Explosive & Weapons Of Mass Destruction Chemicals	2	5	1	2	3	2	2	1	0	1	1	2	22
Petroleum Spills	79	85	69	67	53	63	43	41	51	68	85	69	773
Polychlorinated Biphenyl Related/Transformers	0	0	0	0	0	0	0	0	0	0	0	0	0
Indoor Air/Carbon Monoxide	6	2	4	4	4	2	11	7	11	8	5	6	70
Special Investigations	28	28	31	50	42	37	41	33	26	27	32	32	407
Asbestos	0	0	1	0	0	0	0	0	0	0	1	2	4
Total	333	365	334	319	284	237	234	211	227	279	348	383	3554

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 fiscal year 2016.

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 40 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, xylene (mixed isomers), 1,2,4-trimethylbenzene and Naphthalene. These substances represent more than 97% of the total reported releases by weight. Ammonia alone represents 96% of the total reported released.

These releases were mostly from facilities in the following industrial sectors: electric services (95.48%), petroleum bulk stations and terminals (4.39%), other chemical and allied products (0.06%), nonferrous metal (except aluminum) smelting and refining (0.05%), paint and coating manufacturing (0.02%).

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 40 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 631 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.

Year 2016 Toxic Release Inventory Data In New York City By Community Board

Based on Year 2016 Section 313 data submitted to the State Emergency Response Commission

CB	Chemical Name	RELEASE TO AIR (Pounds Per Year)
B01	POLYCYCLIC AROMATIC COMPOUNDS	3.17
	ETHYLBENZENE	13.26
	1,2,4-TRIMETHYLBENZENE	423.47
	NAPHTHALENE	262.24
	Summary For Community Board Bo1 (4 detail records)	
B03	PIPERONYL BUTOXIDE	5
	Summary For Community Board Bo3 (1 detail record)	
B09	1,2,4-TRIMETHYLBENZENE	29.4
	Summary For Community Board Bo9 (1 detail record)	
Total for Bronx (6 detail record)		736.54
K01	POTASSIUM BROMATE	20
	N-HEXANE	353.51
	XYLENE (MIXED ISOMERS)	116.46
	POLYCYCLIC AROMATIC COMPOUNDS	0.5
	1,2,4-TRIMETHYLBENZENE	157.01
	BENZENE	198.85
	ETHYLBENZENE	23.53
	TOLUENE	287.22
	Summary For Community Board K01 (8 detail records)	
	K02	AMMONIA
Summary For Community Board K02 (1 detail record)		
K05	LEAD COMPOUNDS	61.25
	METHYL ISOBUTYL KETONE	10
	METHANOL	10
	XYLENE (MIXED ISOMERS)	10
	TOLUENE	10
	Summary For Community Board K05 (5 detail records)	
K07	XYLENE (MIXED ISOMERS) (2detail records)	122.6
	N-HEXANE	0.09
	1,2,4-TRIMETHYLBENZENE (2 detail records)	28.4
	NAPHTHALENE	3.6
	LEAD	0.06105
	Summary For Community Board K07 (8 detail records)	
K15	LEAD	0.024
	Summary For Community Board K15 (1 detail record)	
Total For Brooklyn (23 detail records)		72,473.10

Year 2016 Toxic Release Inventory Data (Continued)

CB	CHEMICAL Name	RELEASE TO AIR (Pounds Per Year)	
M06	POLYCYCLIC AROMATIC COMPOUNDS	1.2	
	BENZO(G,H,I)PERYLENE	0.05	
	AMMONIA	35568.47	
	Summary For Community Board M06 (3 detail records)		
Total For Manhattan (3 details records)		35,569.72	
Q01	CHLORODIFLUOROMETHANE	97	
	1,2,4-TRIMETHYLBENZENE (2 detail records)	188.2	
	BENZENE	67.16	
	XYLENE (MIXED ISOMERS)	685.3	
	ETHYLBENZENE	80.07	
	TOLUENE	1507	
	NAPHTHALENE (2 detail records)	245.2	
	POLYCYCLIC AROMATIC COMPOUNDS	0.92	
	BENZO(G,H,I)PERYLENE	0.004	
	NAPHTHALENE	8	
	AMMONIA (2 detail records)	48,461.10	
	N-HEXANE	60.1	
	BENZO(G,H,I)PERYLENE	0.0529565	
	POLYCYCLIC AROMATIC COMPOUNDS	32.155	
	Summary For Community Board Q01 (17 detail records)		
	Q07	TETRACHLOROETHYLENE	10
		ZINC (FUME OR DUST)	5
POLYCYCLIC AROMATIC COMPOUNDS		0.1	
NAPHTHALENE		10	
Summary For Community Board Q07 (4 detail records)			
Q13	ETHYLBENZENE	36.7	
	NAPHTHALENE	124.53	
	Summary For Community Board Q13 (2 detail records)		
Total For Queens (23 detail records)		51,618.59	

ADMINISTRATIVE INFORMATION

Agency	Div/ Program	Time (min)	Emergency personnel				Totals
			No.	Title	Salary	Subtotal	
DEP	Hazardous Materials Emergency Response	5 - 10	1	Director	\$147,686.00	\$147,686.00	\$2,137,637.00
			1	Deputy Director (Operations)	\$139,031.00	\$139,031.00	
			1	Deputy Director (RTK)	\$97,768.00	\$97,768.00	
			4	WMD / Sr. HazMat Specialists	\$94,759.25	\$379,037.00	
			19	WMD / HazMat Specialists	\$64,098.00	\$1,217,862.00	
			1	Special Officer	\$51,993.00	\$51,993.00	
			1	Supervisor Electrician	\$104,260.00	\$104,260.00	
NYPD	Emergency Service Unit	25	1	Deputy Chief	\$210,277.00	\$210,277.00	\$471,239,285.00
			2	Deputy Inspector	\$190,828.00	\$381,656.00	
			5	Captains	\$181,914.00	\$909,570.00	
			17	Lieutenants	\$144,864.00	\$2,462,688.00	
			46	Sergeants	\$124,251.00	\$5,715,546.00	
			244	Detectives	\$107,069.00	\$26,124,836.00	
			155	Police Officers	\$102,891.00	\$15,948,105.00	
			4077	Cobra Trained Officers	\$102,891.00	\$419,486,607.00	
FDNY	FIRE	5 - 10	1	Assistant Chief	\$200,000.00	\$200,000.00	\$487,768,500.00
			3	Deputy Assistant Chief	\$198,000.00	\$594,000.00	
			12	Deputy Chief	\$196,000.00	\$2,352,000.00	
			80	Battalion Chief	\$178,000.00	\$14,240,000.00	
			185	Captains	\$137,700.00	\$25,474,500.00	
			460	Lieutenants	\$121,800.00	\$56,028,000.00	
	Medical		4000	Firefighters	\$91,000.00	\$364,000,000.00	
			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	2	City Research Scientist (Rad Response)	\$83,315.00	\$166,630.00	\$1,095,089.00
			2	Scientist (Radiation Response)	\$83,670.00	\$167,340.00	
			5	Assoc. PH Sanitarian (Environmental Investigations)	\$67,937.00	\$339,685.00	
			1	Administrative Staff Analyst NM (Radiation Response)	\$83,352.00	\$83,352.00	
			6	Public Health Sanitarian II (Environmental Investigations)	\$56,347.00	\$338,082.00	
DSNY	Environmental Police Unit	10 - 45	1	Deputy Director	\$77,284.00	\$77,284.00	\$626,059.00
			1	Lieutenant	\$98,379.00	\$98,379.00	
			6	Environmental Police Officers	\$75,066.00	\$450,396.00	
OEM	Office of Emergency Management	21	17	Responders	\$92,335.94	\$1,569,710.98	\$1,569,710.98
Budgets were submitted by individual agencies						Total:	\$964,436,280.98

DEP ADMINISTRATIVE INFORMATION

New York City Department of Environmental Protection

Vincent Sapienza, P.E., Acting Commissioner

Bureau of Police and Security

Kevin McBride, Deputy Commissioner

Division of Emergency Response and Technical Assessment

Vassilios Zoumboulas, P.E., Director

Dr. Harry Mayer, Deputy Director of Operations

Joanne Nurse, Deputy Director of Right-To-Know Program

ACKNOWLEDGEMENTS

The New York City Department of Environmental Protection (DEP) 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.



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