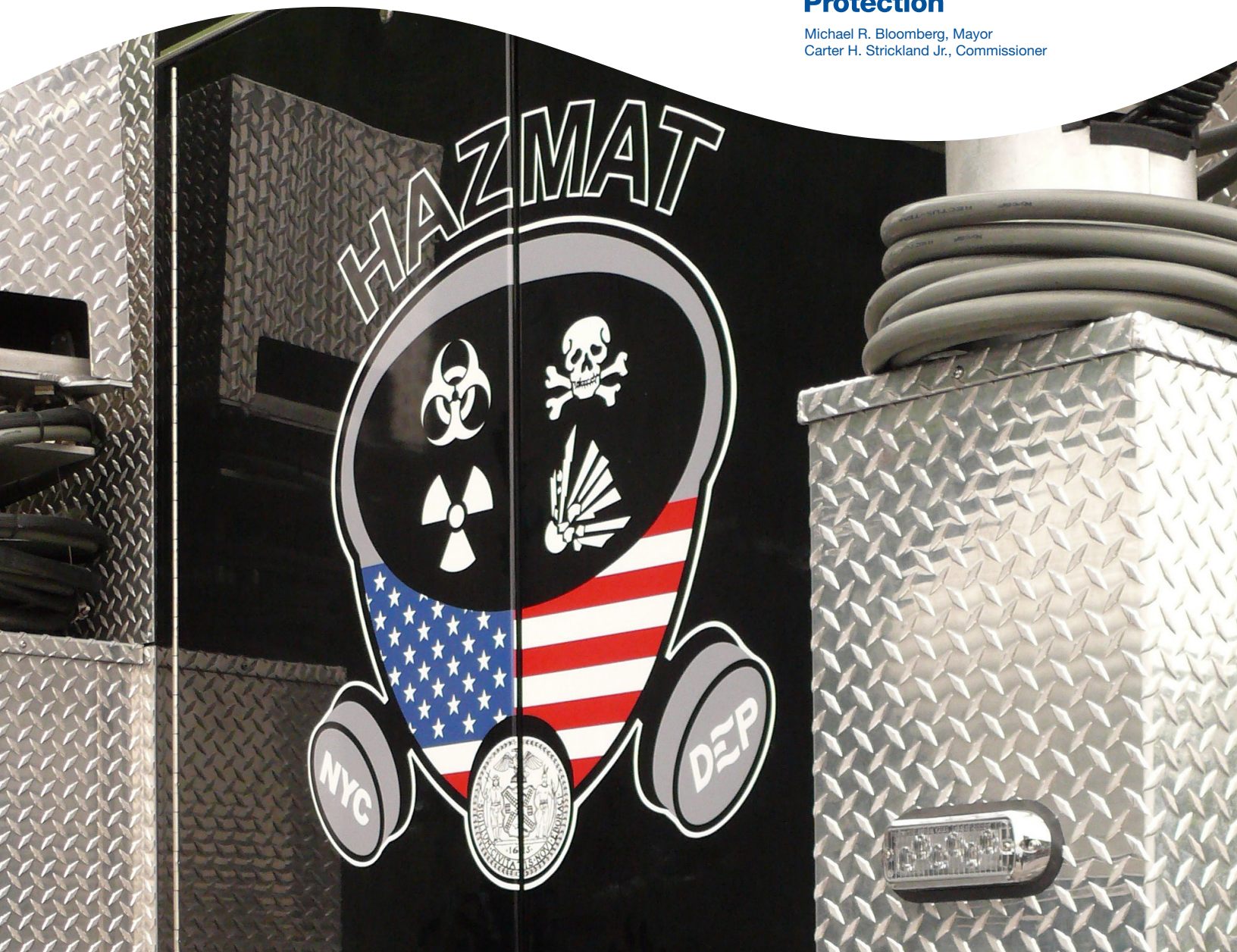


HAZARDOUS MATERIALS MANAGEMENT IN NEW YORK CITY 2013 Annual Report



**Environmental
Protection**

Michael R. Bloomberg, Mayor
Carter H. Strickland Jr., Commissioner





October 1, 2013

I am pleased to present the New York City Department of Environmental Protection (DEP) Hazardous Materials Management Annual Report for 2013. You will find data from fiscal year 2013 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 certain 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 year, DEP performed 8,900 inspections of facilities that store hazardous substances to ensure compliance under the Right-to-Know Law. We also upgraded the Tier II Filing System to allow stakeholders to submit documents and make payments online. Between July 2012 and June 2013, more than 1,730 filers took advantage of the new online payment system.

To learn more about DEP’s Right-to-Know Program, please visit our website at www.nyc.gov/dep, or contact the Right-to-Know Program via 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,

Carter H. Strickland, Jr.
Carter H. Strickland, Jr.
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 empowers the Department of Environmental Protection (DEP) with the jurisdiction 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 the regulation of hazardous substances 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 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 often 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 releases. The HazMat responders comprise chemists and engineers who possess the formal education, technical and tactical expertise to effectively operate and carry out emergency responses collectively enforcing the Spill Bill and the Right-to-Know Law.

All the information for DERTA’s HazMat responses are 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 2013 Annual Report according to §24-715 of Local Law 26 of 1988.



ANALYSIS OF THE CITYWIDE FACILITY INVENTORY DATABASE

Growth of the 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 are submitted to provide detailed quantitative information for substances stored during each fiscal year. DEP collects the reported information and archives it in the Citywide Facility Inventory Database (CFID). The CFID currently contains 8,852 reporting facilities within New York City.

DEP uses its online system, Tier II, to simplify the filing process for facilities reporting under the Right-To-Know Program.

The online system allows the facility to simply enter their inventories and quantities, and the computer processes all calculations and fees to ensure a proper submission. This keeps entries accurate, allows for greater efficiency, and manages the tracking of data.

As a result, the data in the CFID is more accurate and up to date, helping emergency responders from various city agencies to perform their functions more effectively.

Over the years, more facilities have opted to file electronically. During the 2012 filing year, 80% of facilities filed using our Tier II filing system. In the previous year, 77% filed. DEP's improved system allows facilities to submit their payment online using an electronic check or credit card making it more convenient for facility operators. The system also makes it easier for facilities to obtain account information on demand.

The information contained within the CFID is often used by the New York City Police Department, the Fire Department of New York, the New York City Office of Emergency Management, the New York City Department of Sanitation, and the New York City Department of Health and Mental Hygiene. The CFID also provides information to elected officials, the public, and the city's Local Emergency Planning Committee to increase safety awareness.

The CFID data is collected under both the New York City Community Right-to-Know Law and Title III of the Superfund Amendments and Reauthorization Act. During fiscal year 2013, there were 570 new facilities entered into the database, while 68 became exempt from filing and 342 went out of business.

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

- Facility Inventory Forms
- Material Safety Data Sheet for each reportable chemical
- Risk Management Plans, 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

Number of Facilities in CFID Reporting Hazardous Substances by Community Board

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	111	262	366	324	288
2	118	164	195	306	145
3	44	94	141	105	132
4	93	62	275	118	
5	68	179	651	189	
6	74	139	272	80	
7	60	141	138	325	
8	83	56	221	122	
9	102	60	80	114	
10	91	91	69	109	
11	111	121	109	101	
12	164	113	129	240	
13		86		197	
14		84		68	
15		111			
16		50			
17		126			
18		185			
TOTAL	1,119	2,124	2,646	2,398	565

Total Number of Facilities in CFID: 8,852

Facilities in CFID Reporting 10,000 Pounds or More of a Hazardous Substance

Manhattan	36.96%
Queens	26.22%
Brooklyn	18.15%
Bronx	10.74%
Staten Island	7.93%

Number of Facilities Reporting 10,000 Pounds or More of a Hazardous Substance by Community Board

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	23	39	104	58	51
2	16	37	34	49	28
3	4	6	7	9	28
4	9	5	61	5	
5	6	25	145	26	
6	10	16	48	7	
7	13	20	16	53	
8	9	5	31	11	
9	15	8	13	8	
10	14	6	5	14	
11	12	9	11	19	
12	14	4	24	28	
13		9		53	
14		7		14	
15		9			
16		5			
17		7			
18		28			
TOTAL	145	245	499	354	107

Total For City: 1,350



FACILITY RIGHT-TO-KNOW INSPECTIONS

With a total of 8,852 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 routinely scheduled basis throughout the city. The inspections often involve a full site inventory analysis that also includes an assessment in the proper storage and segregation of hazardous substances by class. Class is usually related to chemical compatibility and hazardous characteristics like 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). Any discrepancies are updated by DERTA in an inspection report.

DERTA continues to enhance their in-house inspection reporting system that enables DERTA inspectors to remotely submit their RTK inspection data directly from the field. The system is called the DERTA Inspection Reporting System. The DERTA Inspection Reporting System integrates the CFID data, which consists of the Tier II Filing data and Geographic Information Systems mapping data, with the inspection data generated by DERTA inspectors. The key approach in the design of the system is its functionality as a web-based reporting system that allows DERTA inspectors the ability to

access information directly from the CFID when performing an inspection or responding to an emergency. Other advantages include its ability to handle simultaneous data input from multiple users, reduced data corruption, and greater reliability. The enhanced inspection database can easily be tracked and managed for various functions, including violation disputes. DEP has also developed a mobile version of the program installed on handheld computers. These computers are connected to the City's wireless network, which allows the inspectors to share and store information wirelessly. The inspectors are also able to get accurate up-to-date facility information from DEP while on their inspection site.

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 their stored substances under the RTK Law, and allows DERTA to take action by issuing a Commissioner's Order and Notice of Violation if a facility fails to comply with the order.



RESPONSE TO HURRICANE SANDY

Following Hurricane Sandy, there were concerns regarding the impact of flooding on hazardous substances within facilities located throughout the flood zone. Initially, DERTA inspectors determined that there were 367 facilities located within these areas. This conclusion was based upon NYC.gov maps indicating evacuation areas known to be heavily affected such as Coney Island and lower Manhattan, and the inspectors' technical experience. Out of 367 facilities, 265 facilities accounted for all reported chemicals, 48 facilities were severely affected but reported no spills or inspectors did not find any evidence of spills, 21 were closed or inaccessible, 15 facilities went out of business or relocated, 11 facilities reported spills but cleaned up prior to inspection, and seven facilities were completely washed-out.

The seven washed-out facilities included:

- two sports and health clubs containing water treatment chemicals;
- a funeral home with a small amount of embalming fluid;
- one MTA bus depot containing waste oil and other petroleum based products;
- a nursing home containing cleaning products;

- an auto repair shop containing waste oil and petroleum products; and
- one woodworking shop containing paint and lacquer.

Of the 21 facilities that were closed or inaccessible, 14 are government or utility facilities. In DERTA's experience, these entities are compliant with RTK laws and follow safe practices. Also, often these facilities are unmanned and the chemicals are secured within enclosures such as sulfuric acid batteries and transformers. The remaining seven facilities consisted of four commercial buildings, two shipyards, and a radio transmitter station.

After the initial rounds of inspection, DEP overlaid the inspection database with the FEMA maps of the Sandy inundated zone, and it was determined that there were approximately an additional 650 facilities within the zone. A majority of facilities claimed no impact on the chemicals, and DERTA inspectors did not observe any evidence of chemical spills. This included non-compliant facilities and facilities which were not required to report until the following year. Many of these facilities had secured their chemicals prior to the hurricane. If these facilities did have any impacts from flooding, it was not related to chemicals regulated under the RTK law, but rather impacts on the storage of heating fuel.



DEP recognized a need to prepare for future flood events. In the future, DEP will email and provide guidance-cards to facilities which may be susceptible to imminent flooding. This guidance focuses on good management practices so as to minimize spills. To view guidance on chemical safety and spill prevention during flood events, visit www.nyc.gov/html/dep/pdf/tier2/flood_safety.pdf.

Currently, DEP is in the process of mapping facilities within the new FEMA flood maps and evacuation zones. These new maps, which reflect different storm and flooding patterns, will help DEP to anticipate which facilities may be affected in the future. DERTA is also reviewing its findings regarding the Sandy inundated flood zone inspections to determine which industries were most impacted and how DERTA could assist them in implementing preventative measures. Ideas include review of chemicals stored by specific industries to determine if there is a need to stress segregation techniques. Also, DERTA will include flood zone information on the inspection form, as well as, a questionnaire which inspectors can use in their inspection process.

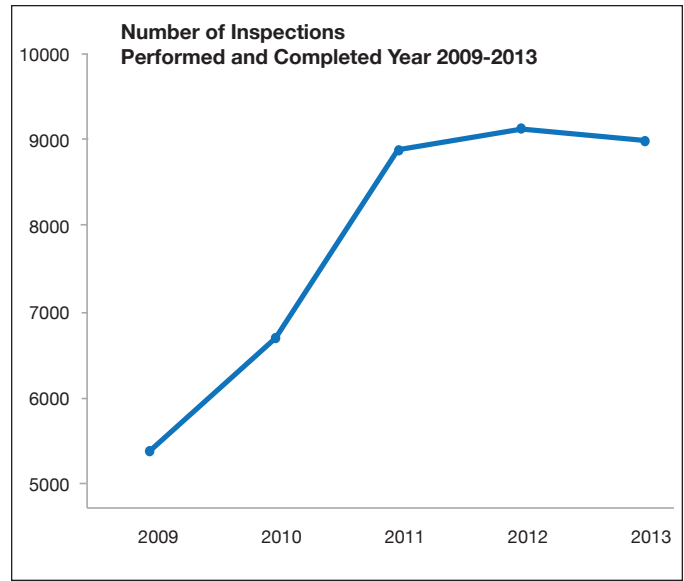
DEP's role in the aftermath of Sandy is critical in New York City's protection of the health and public welfare of its citizens and the environment. The Report recognizes the impact hazardous substances could have during a flood event and how DERTA could help minimize such impacts during such crises. For more information, please visit www.nyc.gov/html/sirr/html/report/report.shtml to view the Report.

DERTA's involvement per the city's initiative includes: assisting the Department of City Planning in identifying cost-effective measures to safeguard exposed substances in the 100-year floodplain and aiding the Mayor's Office of Long-Term Planning and Sustainability in the development of a catalogue of best practices for storing enclosed hazardous substances in the 100-year floodplain. In the upcoming year, DERTA will work closely with these entities to minimize the potential impacts of hazardous substances during a flood event.

Facilities Inspected for Fiscal Year 2009-2013

In Fiscal Year 2013, DERTA completed 8,990 facility inspections and identified 570 new facilities that were added to the CFID. DERTA issued 597 Notices of Violation to facilities for noncompliance with reporting requirements.

The two tables indicate the number of DERTA inspections performed and completed as organized by Community Boards by each borough in Fiscal Year 2013.



Number of Inspections Completed in FY2013

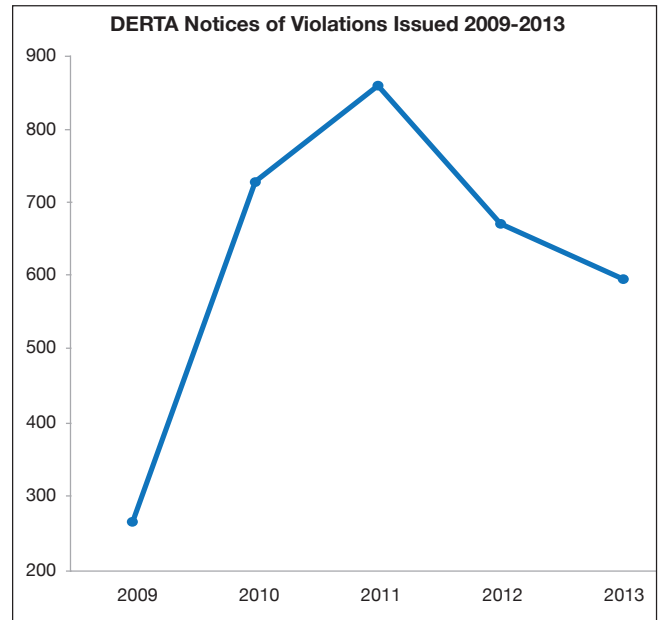
Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	128	290	235	312	272
2	126	170	125	330	121
3	47	85	68	83	108
4	82	48	229	88	
5	58	159	498	172	
6	66	164	216	33	
7	32	170	75	370	
8	57	48	159	69	
9	107	47	52	101	
10	84	86	34	83	
11	114	126	87	74	
12	155	110	87	201	
13		136		139	
14		58		76	
15		120			
16		41			
17		129			
18		185			
TOTAL	1,056	2,172	1,865	2,131	501

Total for CFID: 7,725

Total DERTA Inspections: 8,990 including 1,265 inspections for Con Ed Transformers

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 Material Safety Data Sheets and failure to submit a Risk Management Plan. The majority of violations this year were issued for failure to submit a Facility Inventory Form. A breakdown of violations issued for Fiscal Year 2009-2013 are shown below:



Notices of Violation Issued for Fiscal Year 2009-2013

Violations	2009	2010	2011	2012	2013
Failure to File Facility Inventory Forms	256	714	846	652	582
Failure to submit Material Safety Data Sheets	2	1	0	1	3
Failure to provide copies of Facility Inventory Forms & Material Safety Data Sheets to emergency responders	1	0	1	7	4
Failure to Meet Labeling Requirement	2	6	3	4	6
Failure to Grant Access	4	7	7	5	2
Failue to File Risk Management Plan	0	0	2	3	0
Total Violations for Fiscal Year:	265	728	859	672	597

RISK MANAGEMENT PLANS

According to Local Law 92 of 1993, any facility that stores Extremely Hazardous Substances or regulated toxic substances, listed under this law, in quantities exceeding determined thresholds are required to file a Risk Management Plan (RMP). Facilities must submit a new RMP every five years. Currently, the RTK Program has registered 319 active RMP facilities operating within the five boroughs. Since the enactment of this law, many facilities have significantly reduced their inventories of Extremely Hazardous Substances to levels below reportable thresholds resulting in reduced risks to facility workers, emergency response personnel, and the community. For the 2013 fiscal year, 11 new RMPs have been received, 31 facilities have reported updates to their plans, and 133 affidavits have been received indicating that no change has been

made to their facility's RMP. In addition, added security has been a primary focus at all facilities storing Extremely Hazardous Substances. NYPD's Counter Terrorism Bureau has been working with DERTA in performing risk vulnerability assessments at these facilities.

Once an RMP has been filed, the facilities must submit either an affidavit stating there have been no changes in the facility or its surroundings from the previous calendar year, or they must provide an update of the previously accepted RMP by March 1 of each year that reflects the changes of the previous year. A breakdown of these facilities by borough and Community Boards is shown below.

Facilities Submitting Risk Management Plans

Community Board	Bronx	Brooklyn	Manhattan	Queens	Staten Island
1	7	7	45	15	10
2	7	13	6	5	5
3	0	2	2	0	2
4	2	3	20	4	
5	2	5	33	9	
6	2	1	11	3	
7	1	7	9	10	
8	1	0	4	3	
9	1	2	2	1	
10	4	2	0	3	
11	2	2	3	1	
12	2	2	6	6	
13		0		8	
14		2		4	
15		4			
16		1			
17		1			
18		4			
TOTAL	31	58	141	72	17

Total Numbers of Facilities Submitting Risk Management Plans: 319



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 to respond to reported incidents and perform chemical analyses at response sites. Under the Citywide Incident Management System, HazMat emergency responders arrive at a potentially dangerous site to perform chemical identification of hazardous substance. To ensure maximum safety and security, the response team determines zones of delineation and develops strategies on proper containment, mitigation, 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 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 uses 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 plume dispersion modeling to perform risk assessments.

DERTA's responsibility to the city ensures that any accidental release or threatened 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 threatened 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 by DERTA. A failure to notify DEP of a hazardous substance release also incurs the issuance of a Notice of Violation.

The regulation of hazardous substances under the Right-to-Know Law is archived in DERTA’s Citywide Facility Inventory Database under the Right-to-Know Program. The vast enriched database lists the quantities in pounds, categorizes the storage classes, and outlines the potential dangers of hazardous substances stored within facilities. The information submitted by the facilities is recorded on a document referred to as the Facility Inventory Form. Facilities are required by law to either submit their Facility Inventory Form by hard copy or electronically online no later than March 1 of every year.

During fiscal year 2013, DERTA issued 21 Commissioner’s Orders. Of which, eight Notices of Violation 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 recently formulated and developed its own tactical plan in dealing with the removal of abandoned hazardous substances off-site as a cost cutting strategic alternative, if and when a responsible party is unidentifiable or unknown.

With nearly 3,500 response incidents per year and counting, nearly 365 (10.8%) of these incidents involve abandoned chemicals. Under routine circumstances, these substances are removed and transported by certified environmental contractors. The process, which incurs thousands of dollars in cost, involves a bidding process where time, quantity, and distance are calculated by the vendor to set a price to be agreed upon by DERTA with specific terms set forth to ensure a safe and secure pickup.

In certain cases however, where the quantity and volume of the abandoned substance meets the threshold standards within the plan, DERTA puts their hazardous



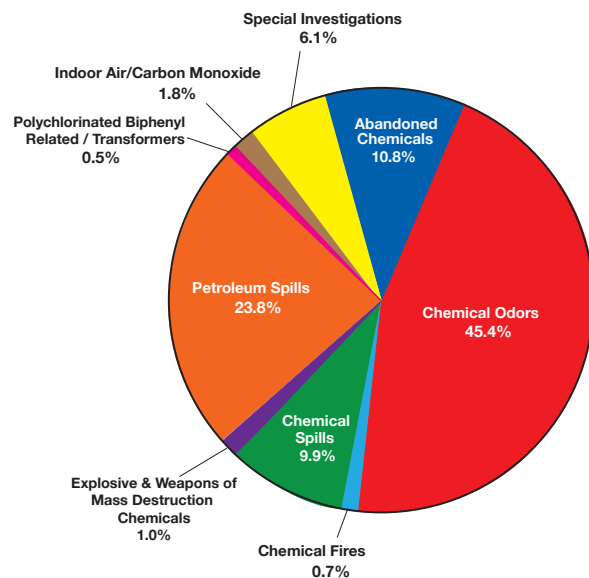
waste management skills to use by performing the removal and transportation of the abandoned hazardous substance. The substance is overpacked by DERTA and safely transported to a secure location where it can be stored and bid out in a relatively safe and timely manner. This, in turn, avoids the lingering effects of pickups during off-hour late nights, weekends, and holidays, which are exorbitant contributing factors in the determination of price quotes. 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. Prior to this, a preliminary stage involves the 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 3,393 incidents of hazardous material releases in Fiscal Year 2013. Of these incidents, 45.4% were responses to reports of chemical odors; 23.8% were petroleum spills; 10.8% were abandoned chemicals 10.0% were responses to chemical spills and 6.1% were responses to special investigations.



CATEGORY	JUL '12	AUG '12	SEP '12	OCT '12	NOV '12	DEC '12
Abandoned Chemicals	33	34	38	31	45	22
Chemical Odors	107	181	187	144	131	142
Chemical Fires	3	4	3	1	2	0
Chemical Spills	30	28	30	26	30	27
Explosive & Weapons Of Mass Destruction Chemicals	4	1	2	2	1	0
Petroleum Spills	53	71	65	84	125	56
Polychlorinated Biphenyl Related/Transformers	2	0	0	4	1	2
Indoor Air/Carbon Monoxide	5	4	2	3	13	4
Special Investigations	13	14	17	19	19	19
Asbestos	0	0	0	0	0	0
Total for Month	250	337	344	314	367	272

CATEGORY	JAN '13	FEB '13	MAR '13	APR '13	MAY '13	JUN '13	TOTAL FY 2013
Abandoned Chemicals	17	19	24	21	37	44	365
Chemical Odors	89	71	95	114	144	136	1,541
Chemical Fires	0	1	0	2	4	2	22
Chemical Spills	14	13	31	38	35	35	337
Explosive & Weapons Of Mass Destruction Chemicals	4	2	4	0	9	6	35
Petroleum Spills	74	36	55	57	67	64	807
Polychlorinated Biphenyl Related/Transformers	0	2	2	1	1	0	15
Indoor Air/Carbon Monoxide	8	3	3	4	3	10	62
Special Investigations	18	21	23	7	26	13	209
Asbestos	0	0	0	0	0	0	0
Total for Month	224	168	237	244	326	310	3,393



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 2011.

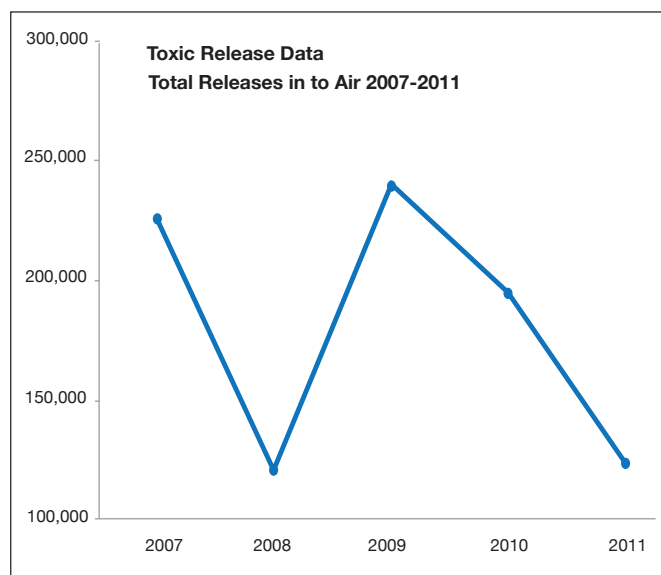
The United States Environmental Protection Agency (EPA) receives information on chemical emission reports submitted by facilities under SARA Title III law. SARA Title III requires the reporting of annual releases of toxic chemicals to the air, water, and land. Section 313 of that law mandates annual 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.

Toxic Release Inventory data presented in this section refer to 29 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 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, chlorodifluoromethane, trichloroethylene, tetrachloroethylene (perc), and



n-hexane. These substances represent more than 93% of the total reported releases by weight. Ammonia alone represents 59% of the total reported releases.

These releases were from facilities in the following industrial sectors: electric services (77.7% of the total releases), petroleum bulk stations and terminals (8.7%), metal coating and allied services (7.0%), other fabricated wire product manufacturing (6.0%), other chemical and allied products (0.3%).

Releases from facilities in the electric services industry accounted for all the ammonia emissions. Electric services and other chemical and allied products accounted for all of the chlorodifluoromethane releases. Metal coating and allied services accounted for all trichloroethylene releases. Other fabricated wire product manufacturing accounted for all tetrachloroethylene 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 29 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 as an industry whole, represents a significant source for toxic air emissions. There are currently 750 dry-cleaning facilities operating in the Citywide Facility Inventory Database that utilize a hazardous substance

commonly referred to as perc (chemical name tetrachloroethylene or perchloroethylene); although perc is not a chemical listed in the Extremely Hazardous Substance 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 release figures.

The list on pages 18 - 19 shows the release figures in air, in pounds per year, for all TRI substances by Community Boards.

Year 2011 Toxic Release Inventory Data In New York City By Community Board

Based on Year 2011 Section 313 data submitted to the State Emergency Response Commission

CB	CHEMICAL NAME	RELEASE TO AIR (Pounds Per Year)
B01	1,2,4-TRIMETHYLBENZENE (1 detail record)	97.00
	LEAD COMPOUNDS (2 detail records)	1.14
	NAPHTHALENE (2 detail records)	20.00
	POLYCYCLIC AROMATIC COMPOUNDS (2 detail records)	1.24
	Summary for Community Board B01 (7 detail records)	119.38
B09	1,2,4-TRIMETHYLBENZENE (1 detail record)	28.20
	Summary for Community Board B09 (1 detail record)	28.20
Total for BRONX (8 detail records)		147.58
K01	1,2,4-TRIMETHYLBENZENE (3 detail records)	274.98
	BENZENE (3 detail records)	735.47
	COPPER (1 detail record)	99.00
	ETHYLBENZENE (3 detail records)	132.80
	LEAD COMPOUNDS (1 detail record)	62.18
	METHANOL (1 detail record)	10.00
	NAPHTHALENE (2 detail records)	43.00
	N-HEXANE (3 detail records)	3,327.39
	POLYCYCLIC AROMATIC COMPOUNDS (1 detail record)	0.37
	POTASSIUM BROMATE (1 detail record)	250.00
	STYRENE (1 detail record)	3.00
	TOLUENE (3 detail records)	1,463.56
	TRICHLOROETHYLENE (1 detail record)	8,662.00
	XYLENE (MIXED ISOMERS) (3 detail records)	849.75
	Summary for Community Board K01 (24 detail records)	15,913.50
K02	AMMONIA (1 detail record)	7,001.00
	Summary for Community Board K02 (1 detail record)	7,001.00
K05	METHYL ISOBUTYL KETONE (1 detail record)	10.00
	N-BUTYL ALCOHOL (1 detail record)	10.00
	TOLUENE (1 detail record)	10.00
	XYLENE (MIXED ISOMERS) (1 detail record)	10.00
	Summary for Community Board K05 (4 detail records)	40.00
K06	1,2,4-TRIMETHYLBENZENE (1 detail record)	48.00
	BENZO(G,H,I)PERYLENE (1 detail record)	0.02
	LEAD (1 detail record)	0.21
	NAPHTHALENE (1 detail record)	521.00
	POLYCYCLIC AROMATIC COMPOUNDS (1 detail record)	1.43
	Summary for Community Board K06 (5 detail records)	570.66

Year 2011 Toxic Release Inventory Data (Continued)

C. B.	CHEMICAL NAME	RELEASE TO AIR (Pounds Per Year)
K07	1,2,4-TRIMETHYLBENZENE (2 detail records)	102.95
	LEAD (1 detail record)	0.06
	NAPHTHALENE (2 detail records)	14.60
	N-HEXANE (2 detail records)	0.96
	XYLENE (MIXED ISOMERS) (2 detail records)	271.50
	Summary for Community Board K07 (9 detail records)	390.07
K15	LEAD (1 detail record)	0.06
	Summary for Community Board K15 (1 detail record)	0.06
K17	METHANOL (1 detail record)	10.00
	TOLUENE (1 detail record)	10.00
	Summary for Community Board K17 (2 detail records)	20.00
Total for BROOKLYN (49 detail records)		23,935.29
M06	AMMONIA (1 detail record)	45,786.00
	BENZO(G,H,I)PERYLENE (1 detail record)	0.03
	DIOXIN AND DIOXIN-LIKE COMPOUNDS (1 detail record)	0.02
	POLYCYCLIC AROMATIC COMPOUNDS (1 detail record)	1.15
	Summary for Community Board M06 (4 detail records)	45,787.20
Total for MANHATTAN (4 detail records)		45,787.20
Q01	1,2,4-TRIMETHYLBENZENE (1 detail record)	129.57
	AMMONIA (2 detail records)	20,348.64
	BENZENE (1 detail record)	54.79
	BENZO(G,H,I)PERYLENE (2 detail records)	0.04
	CHLORODIFLUOROMETHANE (2 detail records)	23,290.00
	DICHLORODIFLUOROMETHANE (1 detail record)	21.00
	DIOXIN AND DIOXIN-LIKE COMPOUNDS (1 detail record)	0.04
	ETHYLBENZENE (1 detail record)	75.00
	LEAD (1 detail record)	35.31
	NAPHTHALENE (2 detail records)	207.46
	POLYCYCLIC AROMATIC COMPOUNDS (2 detail records)	30.62
	TOLUENE (1 detail record)	1,475.85
	XYLENE (MIXED ISOMERS) (1 detail record)	657.63
	Summary for Community Board Q01 (18 detail records)	46,325.95
Q02	1,2,4-TRIMETHYLBENZENE (1 detail record)	10.00
	BENZENE (1 detail record)	93.00
	ETHYLBENZENE (1 detail record)	19.00
	NAPHTHALENE (1 detail record)	3.00
	N-HEXANE (1 detail record)	196.00
	TOLUENE (1 detail record)	193.00
	XYLENE (MIXED ISOMERS) (1 detail record)	80.00
	Summary for Community Board Q02 (7 detail records)	594.00
Q07	POLYCYCLIC AROMATIC COMPOUNDS (1 detail record)	0.10
	Summary for Community Board Q07 (1 detail record)	0.10
Q12	TETRACHLOROETHYLENE (1 detail record)	7,390.00
	Summary for Community Board Q12 (1 detail record)	7,390.00
Q13	ETHYLBENZENE (1 detail record)	32.30
	NAPHTHALENE (1 detail record)	107.90
	Summary for Community Board Q13 (2 detail records)	140.20
Total for QUEENS (29 detail records)		54,450.25
Citywide Total		124,320.32

ADMINISTRATIVE INFORMATION

Agency	Div/ Program	Time (min)	Emergency personnel				Subtotal	Totals		
			No.	Title	Salary					
DEP	Hazardous Materials Emergency Response	5 - 10	1	Executive Director	\$135,000.00	\$135,000.00				
			1	Deputy Director	\$118,800.00	\$118,800.00				
			7	WMD / Sr. HazMat Specialists	\$73,785.29	\$516,497.03				
			26	WMD / HazMat Specialists	\$55,988.42	\$1,455,698.92				
			1	HazMat Technician	\$39,957.00	\$39,957.00				
			1	Special Officer	\$47,093.00	\$47,093.00				
			1	Supervisor Electrician	\$96,005.00	\$96,005.00	\$2,409,050.95			
NYPD	ESU	24	1	Deputy Chief	\$190,215.00	\$190,215.00				
			1	Inspector	\$181,121.00	\$181,121.00				
			5	Captains	\$164,444.00	\$822,220.00				
			18	Lieutenants	\$129,224.00	\$2,326,032.00				
			45	Sergeants	\$113,979.00	\$5,129,055.00				
			262	Detectives	\$98,116.00	\$25,706,392.00				
			93	Police Officers	\$91,903.00	\$8,546,979.00				
			23,509	COBRA Trained Police Officers	\$91,903.00	\$2,160,547,627.00	\$2,203,449,641.00			
			1	Assistant Chief	\$184,000.00	\$184,000.00				
	FDNY	Fire	5-10	2	Deputy Assistant Chief	\$180,000.00	\$360,000.00			
11				Deputy Chief	\$179,000.00	\$1,969,000.00				
65				Battalion Chief	\$161,000.00	\$10,465,000.00				
176				Captains	\$125,500.00	\$22,088,000.00				
443				Lieutenants	\$110,300.00	\$48,862,900.00				
2,590				Firefighters	\$90,300.00	\$233,877,000.00				
Medical		5 -10	8	Deputy Chief	\$78,500.00	\$628,000.00				
			15	Captains	\$52,000.00	\$780,000.00				
			25	Lieutenants	\$50,000.00	\$1,250,000.00				
			180	Paramedic	\$50,500.00	\$9,090,000.00				
			250	EMT	\$39,100.00	\$9,775,000.00	\$339,328,900.00			
			DOHMH	Field Response in Bureau of Environmental Emergency Preparedness and Response; Office of Environmental Investigations and The Office Radiological Health	30 - 45	1	Admin. Staff Analyst - MIII (Chem/Rad/Bio Response)	\$131,429.00	\$131,429.00	
						2	Admin. Staff Analyst - MII (Chem/Rad/Bio Response)	\$109,522.00	\$219,044.00	
2	Health Services Manager (Chem/Rad/Bio Response)	\$98,603.00				\$197,206.00				
4	City Research Scientist (Chem/ Rad/Bio Response)	\$85,054.75				\$340,219.00				
3	Admin. Staff Analyst NM (Chem/Rad/Bio Response)	\$76,598.00				\$229,794.00				
1	City Research Scientist (Radiation Response)	\$81,903.00				\$81,903.00				
2	Scientist (Radiation Response)	\$65,592.00				\$131,184.00	\$1,729,080.00			
DSNY	Environmental Police Unit	10 - 45	2	Assoc. PH Sanitarian (Environmental Investigations)	\$67,698.00	\$135,396.00				
			5	Public Health Sanitarian II (Environmental Investigations)	\$52,581.00	\$262,905.00	\$1,729,080.00			
			6	Environmental Police Officers	\$69,339.00	\$416,034.00	\$579,168.00			
OEM	Office of Emergency Management	33.3	19	Responders	\$85,373.00	\$1,622,087.00	\$1,622,087.00			

Budgets were submitted by Individual Agencies

Total: \$2,547,388,846.95

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: the Division of Environmental Response and Technical Assessment, the New York City Police Department, the New York City Fire Department, the New York City Department of Health & Mental Hygiene, the New York City Department of Sanitation, the New York City Office of Emergency Management, and the 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 act, storage, or release that involves the spread of hazardous substances into our environment.



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