

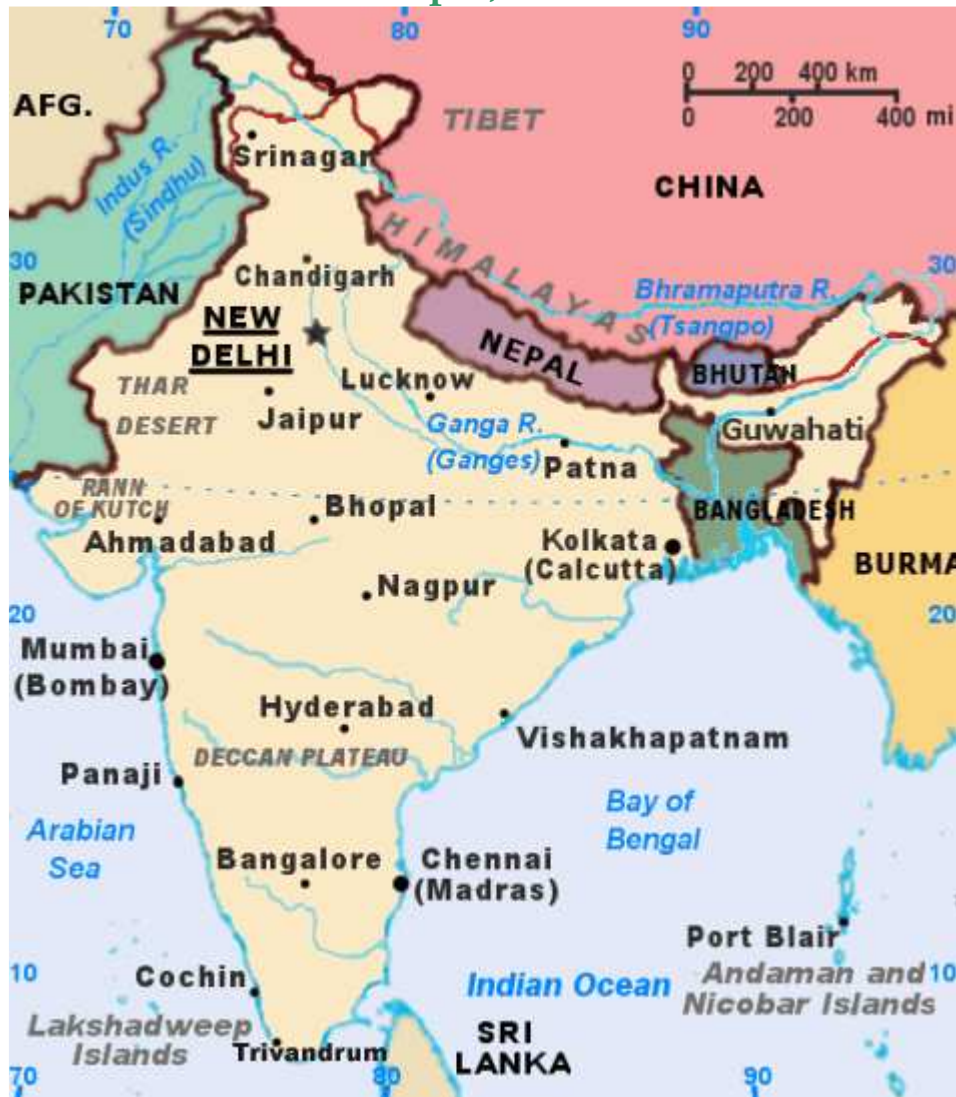
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Appendix 1

Bhopal, India

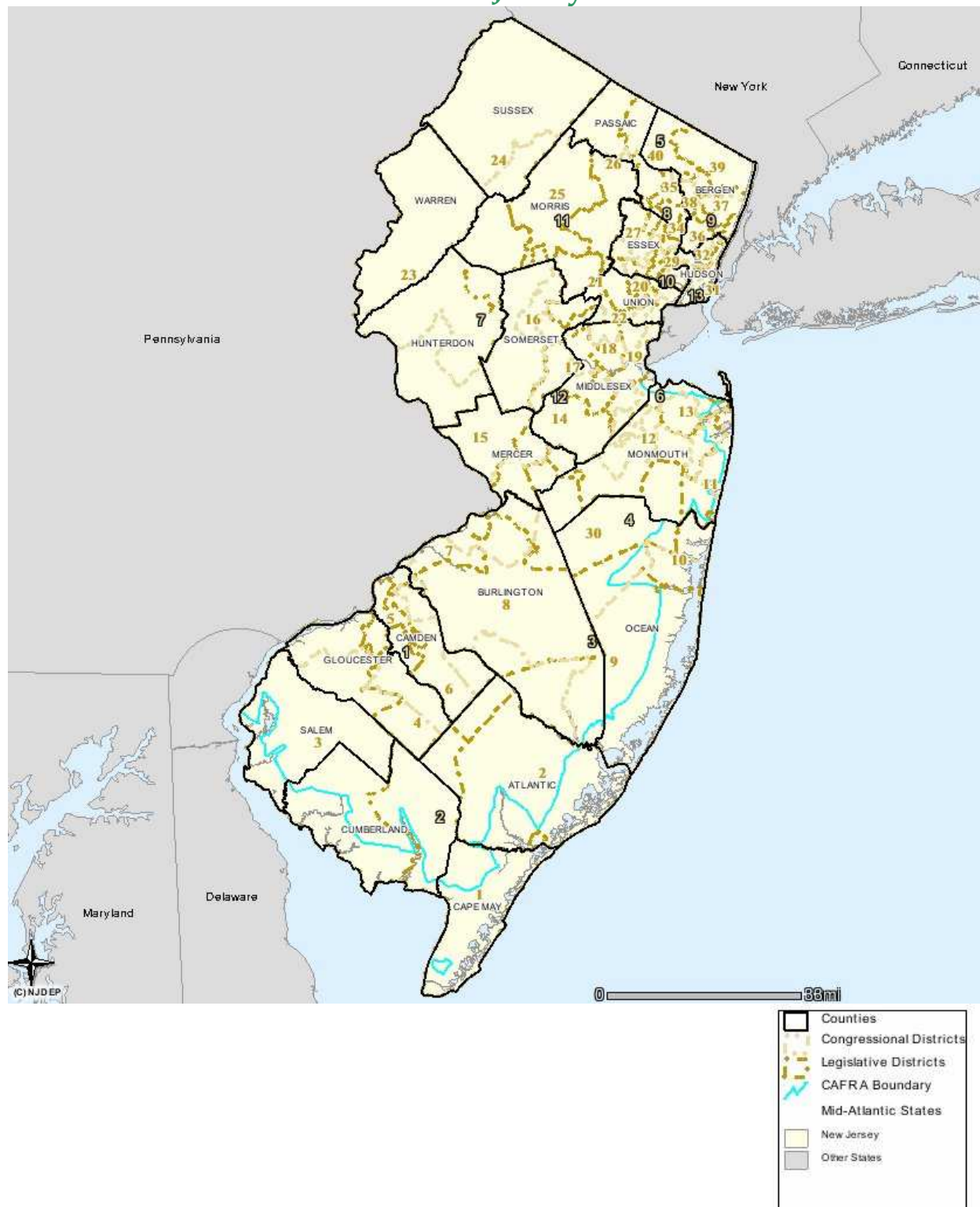


BHOPAL'S DEATH TOLL

- Initial deaths: nearly 3,000
- Subsequent deaths: nearly 15,000
- Permanent disabilities: 50,000
- Compensation: Union Carbide agreed to pay \$470m in January 1989

Source: Indian Council of Medical Research

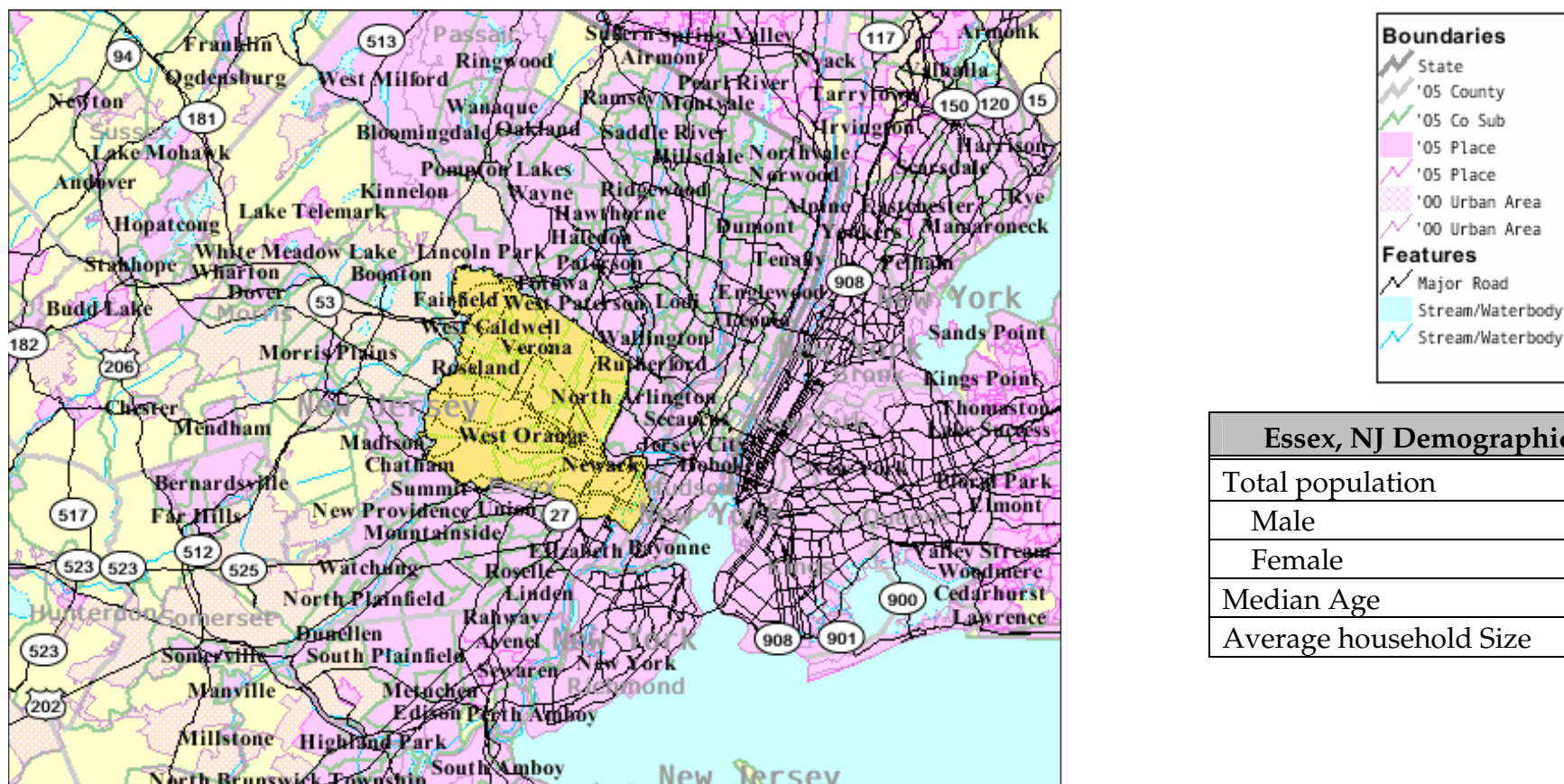
Appendix 2 New Jersey



Source: NJDEP GIS Data

Appendix 3

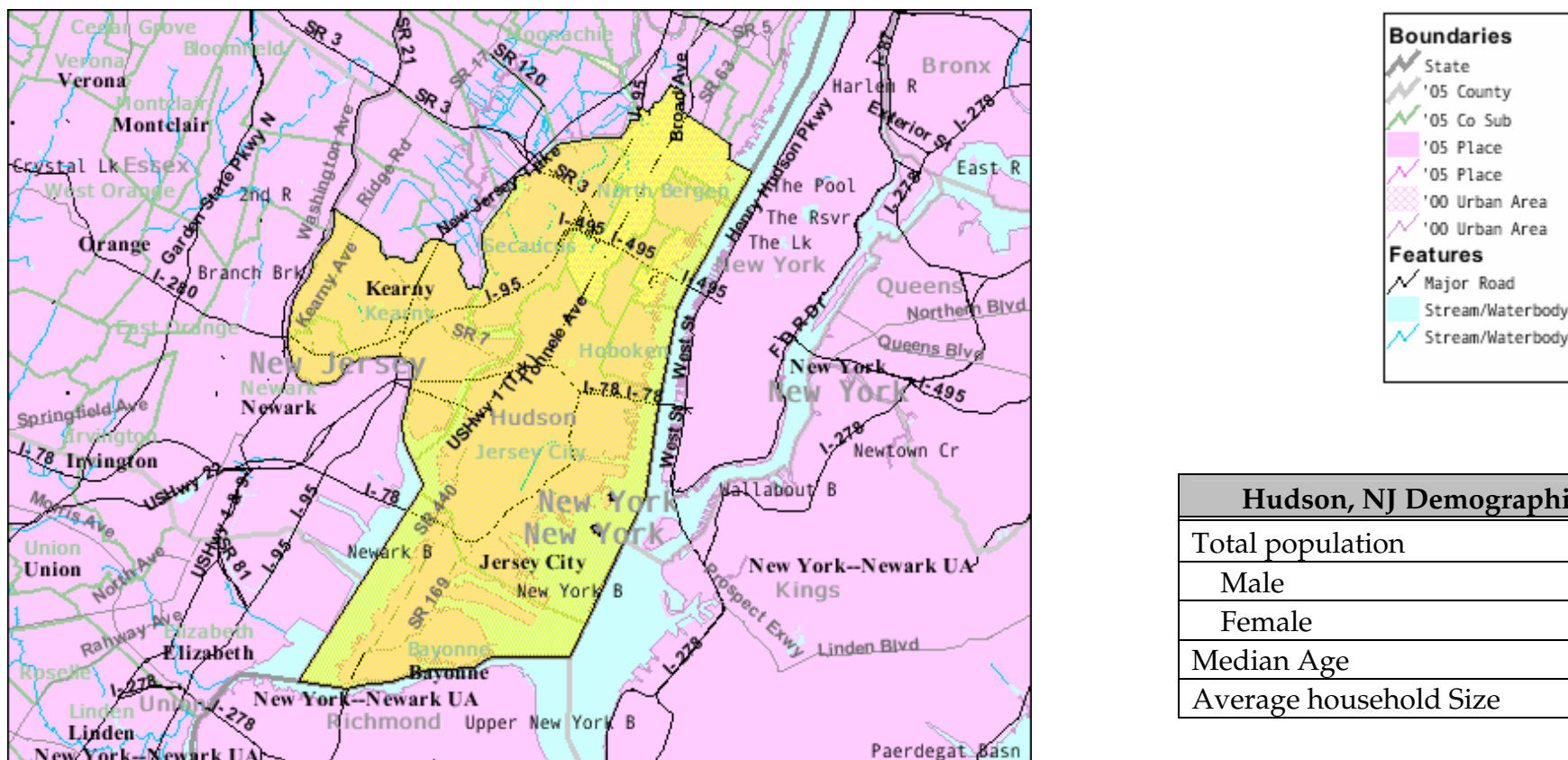
Essex County, New Jersey



Essex, NJ Demographic Data	
Total population	769,628
Male	365,693
Female	403,935
Median Age	35.6
Average household Size	2.71

Source: ArcMap GIS, US Census Bureau 2005 American Community Survey

Appendix 4 Hudson County, New Jersey



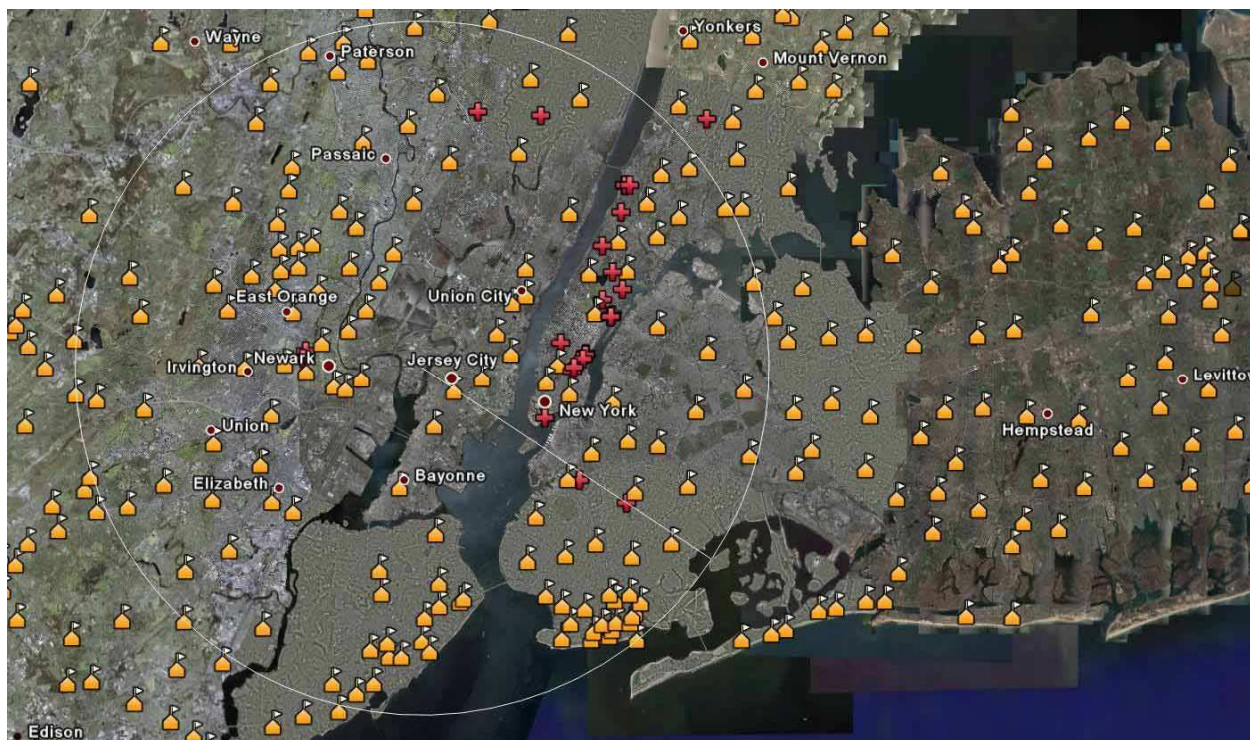
Hudson, NJ Demographic Data	
Total population	594,071
Male	292,469
Female	301,602
Median Age	35.2
Average household Size	2.59

Source: ArcMap GIS, US Census Bureau 2005 American Community Survey

Appendix 5

Offsite Consequences Scenario 1

Kuehne Chemical Company, Inc *Located in Hudson County*

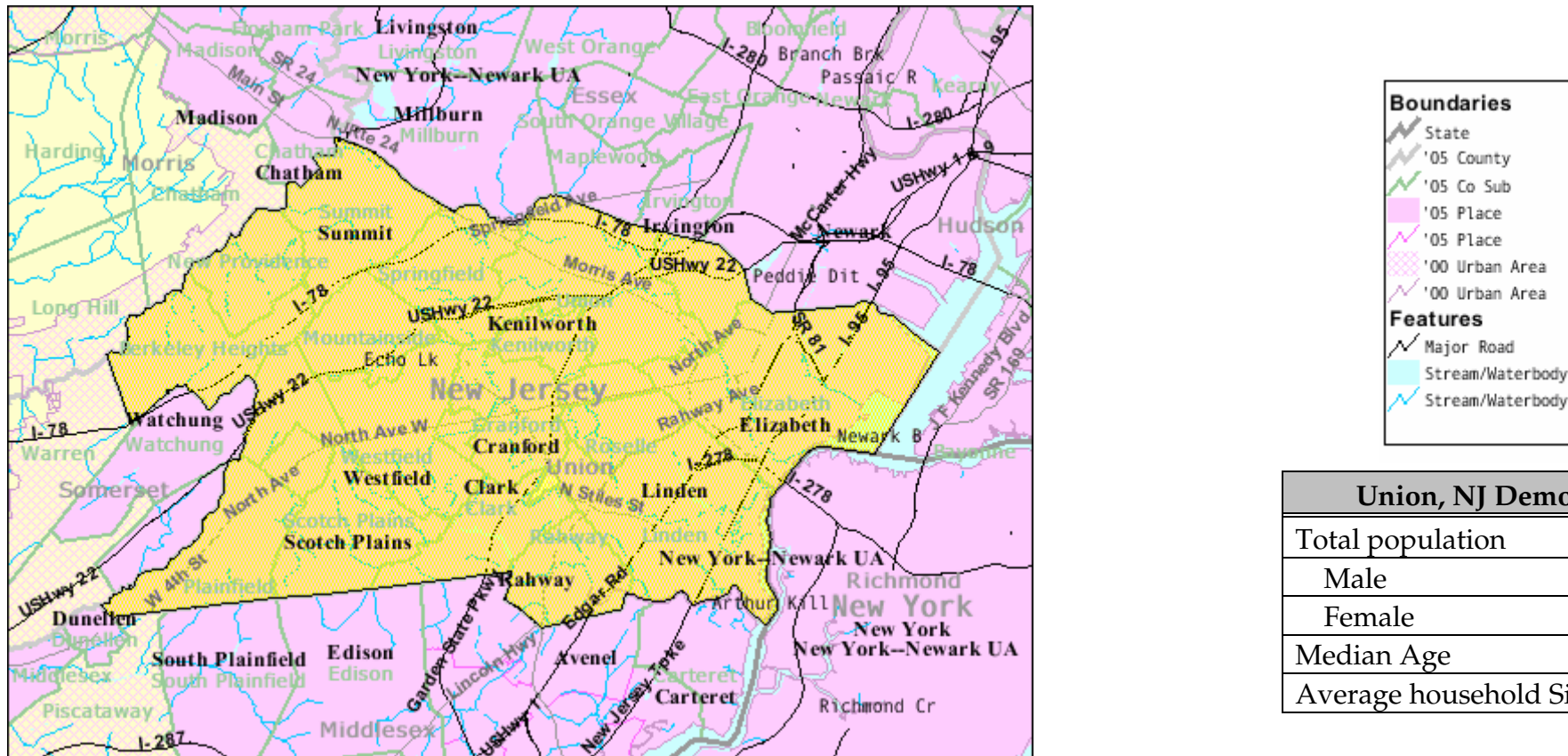


Kuehne Chemical Company, Inc.

Chemical:	Chlorine
Physical State:	Gas liquefied by pressure
Scenario:	Liquid spill and vaporization
Quantity released:	180,000 lbs
Release rate:	18,000 lbs per minute
Release duration:	10 minutes
Wind Speed:	1.5 m/sec
Distance to Endpoint:	14.00 miles
Population within Distance:	12,000,000

Source: Google Earth

Appendix 6 Union County, New Jersey



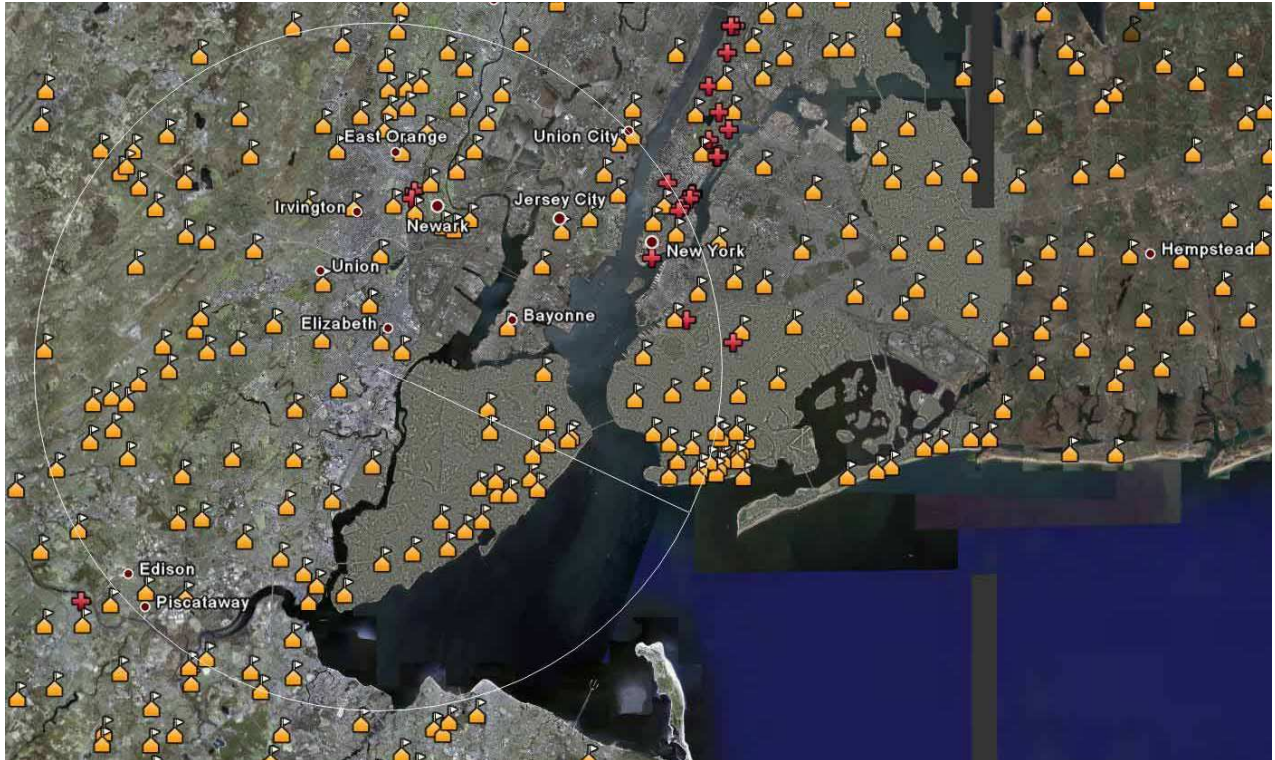
Union, NJ Demographic Data	
Total population	523,649
Male	253,707
Female	269,942
Median Age	37.7
Average household Size	2.87

Source: ArcMap GIS, US Census Bureau 2005 American Community Survey

Appendix 7

Offsite Consequences Scenario 2:

Infinuem USA LP Bayway Chemical Plant
Located in Union County, NJ



Infinuem USA LP Bayway Chemical Plant

Scenario:	Gas Release
Quantity Released:	180,000 lbs
Release Rate:	18,000 lbs per
minutes	
Time:	10 minutes
Wind:	1.5 m/sec
Topography:	Urban
Distance to endpoint:	14 miles
Population within Distance:	4,200,000

Source: Google Earth

Appendix 8 Company Profiles

Facility	Location	Product	Industry	Owned by	Annual Revenues	Year	Employees Onsite
Adco Chemical Company	Newark	Synthetic Resin	Chemical	Adco Global, Inc.	\$109,500,000	2005	N/A
AGC Chemicals Americas, Inc.	Bayonne	Fluon, cleaning solvents	Chemical	AGC America, Inc.	\$22,300,000	2005	25
Ashland Specialty Chemical Company	Kearny	Water treating chemicals and defoamers	Chemical	Ashland, Inc.	\$7,270,000,000	2005	100
Bayonne Plant Holding LLC	Bayonne	Electricity	Power	General Electric	\$149,702,000,000	2005	N/A
Benjamin Moore & Company	Newark	Paints, stains	Paint	Berkshire Hathaway	\$81,663,000,000	2005	200
Cardolite Corporation	Newark	Organic chemicals, plastic materials and resins	Chemical	N/A	\$16,600,000	2005	71
CHEM Fleur	Newark	Flavoring and fragrances	Fragrances	Firmenich, Inc.	\$61,034,000	2005	100
Cogen Technologies	Linden	Electricity	Power	General Electric	\$163,391,000,000	2006	N/A
Conoco-Phillips	Linden	Petroleum	Oil		\$188,523,000,000	2006	N/A
Elan Incorporated	Newark	Flavoring and fragrances	Fragrances	Elan, Inc.	\$541,200,000	2006	68
General Chemical	Newark	Manufacturing and performance chemicals	Chemical	GenTek	\$300,000,000	2005	33
IMTT	Bayonne	Tank holding for petroleum	Storage		\$200,000,000	2005	120
Infineum USA, LP	Linden	Lubricating oils and fuels	Energy		\$45,100,000	2005	350

Company Profiles...

Facility	Location	Product	Industry	Owned by	Annual Revenues	Year	Employees Onsite
Kuehne Chemical Co., Inc.	South Kearny	Freight forwarder	Transportation	Kuehne + Nagel	\$14,790,000,000	2006	50
Lubrizol Dock Resins	Linden	Lubricant additives and specialty chemicals	Chemical	Lubrizol Corporation	\$4,042,700,000	2006	N/A
Muralo Company, Inc.	Bayonne	Paint, brushes and rollers	Paint		\$39,000,000	2005	180
New York Terminals, LLC	Elizabeth	Warehousing and storage	Storage		\$710,000	2005	10
Royce Associates	Newark	Household dyes & tints and inorganic chemicals	Chemical		\$24,000,000	2005	20
Welco-CGI	Newark	Compressed gas, welding supplies, and bottled propane	Gas		\$44,037,182	2005	50

Appendix 9

Chemical Mitigation by Facility

Company	Annual Revenues	Population at Risk	Active Mitigation	Passive Mitigation	Inspection, Maintenance and System Audits	Employee Involvement
Adco Chemical Company	\$109,500,000	0	Sprinkler system, olfactory system	Fire door and Fire wall, limited amount of substance	No information available	Initial training, with annual refresher training
AGC Chemicals Americas, Inc	\$22,300,000	43,200	Manual shutoff systems, alarm systems, emergency backup systems, sprinkler systems, neutralization systems, olfactory system	No information available	"Routine" inspections and tests of systems	Initial operator training with refresher training as changes to the system are made
Ashland Specialty Chemical Company	\$7,270,000,000	20	No information available	Emergency Reporting Center	Takes employee recommendations into consideration, conducts "numerous" management checks	Employees trained and equipped to respond to releases Refresher training when systems change
Bayonne Plant Holding LLC	\$149,702,000,000	112,728	Neutralization systems	Standard Operating Procedures	Regular testing and inspections The system is triennially audited, and hazard reviews conducted periodically	Initial and refresher training for all personnel applicable to positions All operators, as well as managers and maintenance technicians, undergo emergency response training

Chemical Mitigation by Facility...

Company	Annual Revenues	Population at Risk	Active Mitigation	Passive Mitigation	Inspection, Maintenance and System Audits	Employee Involvement
Benjamin Moore & Company	\$81,663,000,000	0	Inherently Safer Technologies, monitoring and detection devices (no information about type provided)	Dikes	System periodically audited	Employee recommendations taken into account in audit No further information available
Cardolite Corporation	\$16,600,000	46	Continuous surveillance, emergency shutdown systems	Standard Operating Procedures, Dikes	System periodically audited	Employee participation in system audits
CHEM Fleur	\$61,034,000	0	Deluge and sprinkler systems, excess flow valves, water cannons	Surround storage facility with blast walls and fire walls; physical space	References to regular inspections and audits of the safety system; no details available	Personnel are specifically trained and regularly evaluated for safe work practices Employees are encouraged to participate in operator training, safety review, and developing operating procedures
Cogen Technologies	\$163,391,000,000	0	Neutralization systems	Standard Operating Procedures	Regular testing and inspections The system is triennially audited, and hazard reviews conducted periodically	Initial and refresher training for all personnel applicable to positions All operators, as well as managers and maintenance technicians, undergo emergency response training

Chemical Mitigation by Facility...

Company	Annual Revenues	Population at Risk	Active Mitigation	Passive Mitigation	Inspection, Maintenance and System Audits	Employee Involvement
Conoco-Phillips	\$188,523,000,000	18,000	Physical security including requiring ID tags References to monitoring systems, but no information available	Minimizes amount of chemicals kept on site, Standard Operating Procedures	Annual audits of the system	Training for preparation, involved in hazard review and incident investigations Also undergo self-assessment and annual drills
Elan Incorporated	\$541,200,000	0	No information available	Relief valves, innerlocks	No information available	Employees required to go through training in handling chemical
General Chemical	\$300,000,000	0	Neutralization systems, emergency shutdown system, monitoring and surveillance systems	Dikes, Standard Operating Procedures	References to regular inspections and audits of the safety system; no details available	Employee training is required
IMTT	\$200,000,000	6,700	Fire monitors, automatic shutoff valves Best practice procedures related to handling chemicals are in place	No information available	Periodic evaluations to analyze and regulate hazard levels and related processes	Many employees go through training on best practices,
Infineum USA, LP	\$45,100,000	4,200,000	Relief valves, neutralization systems, olfactory systems, automatic shutdown systems, deluge systems, sprinkler systems, surveillance	Dikes	Triennial audits	Initial and refresher training

Chemical Mitigation by Facility...

Company	Annual Revenues	Population at Risk	Active Mitigation	Passive Mitigation	Inspection, Maintenance and System Audits	Employee Involvement
Kuehne Chemical Co, Inc	\$14,790,000,000	12,000,000	Olfactory systems, emergency communications systems References made to more, but information not available	Standard Operating Procedures	Regular audits, but information not available	All employees trained in emergency response; periodic drills of how to stop chemical releases
Lubrizol Dock Resins	\$4,042,700,000	110	No information available	No information available	No information available	No information available
Muralo Company, Inc	\$39,000,000	155	No information available	Dikes, Berms	No information available	No information available
New York Terminals, LLC	\$710,000	485,000	Emergency shutdown system, excess flow valve, neutralization system	No information available	No information available	No information available
Royce Associates	\$24,000,000	0	No information available	No information available	No information available	No information available
Welco-CGI	\$44,037,182	0	developed engineering and construction programs that produce equipment and process systems that minimize the possibility of accidental chemical releases	No information available	Initial and periodic review of new and/or modified systems	No information available

Appendix 10

Emergency Response Plan Details by Facility

Company	Annual Revenues	Population at Risk	Coordinates With:	Emergency Drills?	Are First Responders Familiar with Plant?	Regularly Updated?
Adco Chemical Company	\$109,500,000	0	Local emergency responders. No details about which ones.	Yes	No Information Available	Yes
AGC Chemicals Americas, Inc.	\$22,300,000	43,200	Local emergency response agencies, including Bayonne OEM and Bayonne Fire Department.	Yes, with lessons learned applied.	No Information Available	Yes
Ashland Specialty Chemical Company	\$7,270,000,000	20	Local fire department and emergency responders. No details on which one.	Yes	Yes regularly tour facility as well as participate in drills.	Yes
Bayonne Plant Holding LLC	\$149,702,000,000	112,728	Bayonne Fire Department	No Information Available.	Yes regularly tour the facility.	No Information Available
Benjamin Moore & Company	\$81,663,000,000	0	Newark OEM, Local fire department, Police, NJDEP, HazMat teams	Yes - Annually.	No Information Available	Yes
Cardolite Corporation	\$16,600,000	46	Newark Fire Department, HazMat teams, DEP, paramedics, community emergency responders	Yes	No Information Available	Yes
CHEM Fleur	\$61,034,000	0	Maintains contact with Newark Fire Department	No Information Available.	Not certain, but unlikely.	No
Cogen Technologies	\$163,391,000,000	0	Linden Fire Department	Yes	Yes, regularly tour facility.	Yes
Conoco-Phillips	\$188,523,000,000	18,000	Bayonne Fire Department	Yes	Yes	Yes
Elan Incorporated	\$541,200,000	0	Newark HazMat teams, Local fire department, Emergency Health Care providers	No Information Available	No Information Available	No Information Available
General Chemical	\$300,000,000	0	Community emergency response groups, but no details on which ones beyond Essex County OEM, Newark Works.	Yes	Yes meet regularly	No Information Available
IMTT	\$200,000,000	6,700	Local fire department, emergency responders, U.S. Coast Guard	No Information Available	No Information Available	No Information Available

Emergency Response Plan Details by Facility...

Company	Annual Revenues	Population at Risk	Coordinates With:	Emergency Drills?	Are First Responders Familiar with Plant?	Regularly Updated?
Infineum USA, LP	\$45,100,000	4,200,000	Coordinates with neighboring facility-Conoco Phillips refinery. Linden Fire Department, Elizabeth General Hospital, Linden Industrial Mutual Aid Council	Yes, with lessons learned applied.	Yes	Yes
Kuehne Chemical Co., Inc.	\$14,790,000,000	12,000,000	No Information Available	No Information Available	No Information Available	No Information Available
Lubrizol Dock Resins	\$4,042,700,000	110	No Information Available	No Information Available	No Information Available	No Information Available
Muralo Company, Inc.	\$39,000,000	155	No Information Available	No Information Available	No Information Available	No Information Available
New York Terminals, LLC	\$710,000	485,000	No Information Available	No Information Available	No Information Available	No Information Available
Royce Associates	\$24,000,000	0	No Information Available	No Information Available	No Information Available	No Information Available
Welco-CGI	\$44,037,182	0	Newark Fire Department.	No Information Available	No Information Available	No Information Available

Appendix 11

Offsite Consequence Scenarios

Company	Chemical	Toxic or Flammable	Scenario	Quantity Released	Affected Area, radius	Population at Risk	Public Receptors	Environmental Receptors	Other Receptors
Adco	toluene diisocyanate	toxic	Liquid Spill and Vaporization	750 lbs	0.06 miles	0	Industrial and commercial areas	None	None
Adco	toluene diisocyanate	toxic	Liquid Spill and Vaporization	375 lbs	0.06 miles	0	Industrial and commercial areas	None	None
AGC	anhydrous ammonia	toxic	Liquid Spill and Vaporization	13,410 lbs	1.40 miles	43,200	Schools, hospitals, recreational areas, industrial and commercial areas	Wildlife reserves	NJ State Highway 440
AGC	anhydrous ammonia	toxic	Vessel Leak	668 lbs	0.38 miles	159	Industrial and commercial areas	Wildlife reserves	NJ State Highway 440
AGC	anhydrous ammonia	toxic	Pipe Leak	77 lbs	0.1 miles	0	Industrial and commercial areas	None	NJ State Highway 440
AGC	tetrafluoroethylene	flammable	Vapor Cloud Explosion	8,424 lbs	0.05 miles	0	None	None	None
AGC	tetrafluoroethylene	flammable	Boiling Liquid Expanding Vapor Explosion	3,086 lbs	0.03 miles	0	None	None	None
Ashland	cyclohexylamine	toxic	Liquid Spill and Vaporization	400 lbs	0.07 miles	20	Industrial and commercial areas	None	None
Bayonne Plant Holdings	anhydrous ammonia	toxic	Liquid Spill and Vaporization	N/A	2.13 miles	112,728	N/A	N/A	N/A
Benjamin Moore & Co.	vinyl acetate	toxic	Liquid Spill and Vaporization	155,400 lbs	0.11 miles	0	Industrial and commercial areas	Passaic River	None
Cardolite	epichlorohydrin	toxic	Liquid Spill and Vaporization	118,000 lbs	0.60 miles	46	Industrial and commercial areas, prison	None	None
Cardolite	epichlorohydrin	toxic	Transfer Hose Failure	492 lbs	0.06 miles	0	Industrial and commercial areas	None	None

Offsite Consequences Scenarios...

Company	Chemical	Toxic or Flammable	Scenario	Quantity Released	Affected Area, radius	Population at Risk	Public Receptors	Environmental Receptors	Other Receptors
Cardolite	ethylenediamine	toxic	Transfer Hose Failure	262 lbs	0.06 miles	0	Industrial and commercial areas	None	None
CHEM Fleur	isobutylene	flammable	Vapor Cloud Explosion	40,000 lbs	0.25 miles	0	Prison, railway terminal, automobile storage yard	Newark Bay, Salt Water Marsh, Tidal Flats	None
CHEM Fleur	isobutylene	flammable	Vapor Cloud Explosion	13,500 lbs	0.07 miles	0	None	None	None
Cogen Technologies	anhydrous ammonia	toxic	Liquid Spill and Vaporization	156,172 lbs	0.2 miles	0	Industrial and commercial areas	None	None
Cogen Technologies	anhydrous ammonia	toxic	Transfer Hose Failure	14 lbs	0.1 miles	0	Industrial and commercial areas	None	None
Conoco Phillips	flammable mixture	flammable	Vapor Cloud Explosion	5,200,000 lbs	1.4 miles	18,000	Schools, industrial and commercial areas	None	None
Conoco Phillips	flammable mixture	flammable	Vapor Cloud Explosion	2,100,000 lbs	1 mile	2,700	Industrial and commercial areas	None	None
Conoco Phillips	flammable mixture	flammable	Vapor Cloud Explosion	21,000 lbs	0.1 miles	0	None	None	None
Elan Chemical	ethyl chloride	flammable	Vapor Cloud Explosion	75,000 lbs	0.3 miles	0	Industrial and commercial areas and recreational facilities	Passaic River	None
General Chemical	oleum (fuming sulfuric acid)	toxic	Liquid Spill and Vaporization	2,000,000 lbs	0.6 miles	0	Industrial and commercial areas, prison	None	Newark Bay, Passaic River
General Chemical	oleum (fuming sulfuric acid)	toxic	Pipe Leak	230 lbs	0.1 miles	0	None	None	None
IMTT	butane	flammable	Vapor Cloud Explosion	150,000 lbs	0.47 miles	6,700	Schools, recreational areas, industrial and commercial areas	None	None
IMTT	butane	flammable	Vapor Cloud Explosion	10,508 lbs	0.12 miles	0	Industrial and commercial areas	None	None

Offsite Consequences Scenarios...

Company	Chemical	Toxic or Flammable	Scenario	Quantity Released	Affected Area, radius	Population at Risk	Public Receptors	Environmental Receptors	Other Receptors
Infineum USA	Chlorine	toxic	Liquid Spill and Vaporization	180,000 lbs	14 miles	4,200,000	Schools, hospitals, prisons, recreational areas, industrial and commercial areas	Wildlife reserves	Newark Airport
Kuehne	chlorine	toxic	Liquid Spill and Vaporization	180,000 lbs	14 miles	12,000,000	Schools, prisons, hospitals, recreation areas, industrial and commercial offices	wildlife reserves, national and state parks	None
Kuehne	chlorine	toxic	Pipe Leak	50,000 lbs	0.1 miles	0	None	None	None
Lubrizol	acrylic, methacrylic, alkyd, and polyester resins	toxic	N/A	N/A	0.117 miles	110	N/A	N/A	N/A
Muralo	vinyl acetate	toxic	Transfer Hose Failure	1,940 lbs	0.1 miles	155	Recreation areas, industrial and commercial areas	None	None
Muralo	vinyl acetate	toxic	Liquid Spill and Vaporization	8,538 lbs	0.1 miles	155	Recreation areas, industrial and commercial areas	None	None
New York Terminals	anhydrous ammonia	toxic	Liquid Spill and Vaporization	180,000 lbs	5 miles	485,000	Schools, hospitals, prisons, recreational areas, industrial and commercial areas	Wildlife reserves	Newark Airport
New York Terminals	anhydrous ammonia	toxic	Pipe Leak	3,800 lbs	0.3 miles	40	Industrial and commercial areas	None	None
Royce Associates	sodium hydrosulfite	toxic	N/A	N/A	0.08 miles	0	N/A	N/A	N/A
Welco-CGI	propane	flammable	N/A	N/A	0.4 miles	0	N/A	N/A	N/A

Appendix 12

Snapshot of Chemical Facilities

All information on companies' products, chemicals on-site, scenarios, emergency response plans and its five-year accident history came from federal Risk Management Plans filed in 2005. This was the most recent year they were required to submit under the Environmental Protection Agency's Clean Air Act 112(r). Analysis is limited to the executive summaries and the offsite consequence analysis (Sections 2 through 5) of the federal Risk Management Plans. Post 9/11, these are the only sections that can be publicly viewed. In addition, financial information and other relevant information on each company came from a combination of resources, such as company websites, and other databases that provide comprehensive company, industry, and market intelligence.

ADCO CHEMICAL COMPANY

I. Company Profile

Adco Chemical Company, based in Newark, manufactures synthetic resin. Adco Chemical is part of ADCO Global Inc., which has more than 800 employees in 8 locations and serves customers in 65 countries. It reported \$17 million in revenue (FY 2005).

II. Chemicals Onsite

The only chemical stored, used or produced onsite that is regulated by the Clean Air Act (CAA) 112(r) and New Jersey's Toxic Chemical Prevention Act (NJTCPA) is toluene diisocyanate (TDI).

III. Chemical Mitigation

TDI is stored in 55-gallon drums and the maximum quantity stored at the facility never exceeds 110,000 lbs. For the most part, Adco mostly stores half that quantity.

Furthermore, it only takes 6000 lbs of TDI to make a production batch, well below the threshold quantity of 10,000 lbs for TDI under the Accidental Release Prevention regulation. TDI is stored in a separate room in a warehouse; this room is protected by a fire door and firewall, prevents contact with other flammable material also stored in the warehouse. The TDI storage room is also equipped with a sprinkler system and an alarm which detects spills.

IV. Scenarios

The worst-case scenario for a toxic release at the Adco facility involves a spill and vaporization of 2 drums of TDI. Depending on the weather and other environmental factors, TDI would contaminate an area with a 0.06-mile radius. Only industrial and commercial areas would be affected by this release. Similarly, a one drum of TDI would contaminate the same geographic area.

V. Emergency Response Plan

The plant first developed a Risk Management Program under the NJTCPA in 1988. New Jersey Department of Environmental Protection has inspected the plant annually to verify compliance with the program.

Adco Chemical Company has a Combined Emergency Response Plan (Plant Operation #59) to respond to any emergency at the facility. Copies of the emergency response plan are distributed to plant emergency response members and local emergency responders. Adco Chemical Company conducts annual emergency response exercises. Finally, new employees are provided with initial orientation training, which are annually refreshed.

VI. Five Year Accident History

Adco has suffered one incident in the past five years, in which less than .1 lbs of TDI was released. The incident caused minor injuries to one employee, but there was no offsite impact.

I. Company Profile

AGC Chemicals America Incorporated's plant in Bayonne, manufactures two products: polytetrafluoroethylene (PTFE), also called Fluon, an adhesion-resistant plastic; and HCFC 225, also known as Asahiklin AK-225, which is a specialty cleaning solvent. The plant employs 129 full-time employees and 1 part-time employee. Total net sales were \$22.3 million (FY 2005).

II. Chemicals Onsite

Chemicals stored, used or produced onsite that are regulated by the CAA 112(r) and NJ TCPA are anhydrous ammonia and tetrafluoroethylene (TFE).

III. Chemical Mitigation

The plant employs relief valves, check valves, manual shutoff systems, automatic control interlocks, alarms, keyed bypasses, emergency air supplies, emergency power systems, grounding equipment, rupture disks, excess flow monitors, alarm and controls, purge systems, and excess pressure and temperature control interlocks. AGC also uses mitigation systems such as water deluge systems, sprinkler systems, firewalls, and neutralization systems. The process areas are constantly monitored by a "sniffer" system, which is interlocked with readouts and alarms in the control room.

AGC also implements an Operator Training Program, whereby newly all hired operators are required to be initially trained; this program also requires that all employees attend refresher trainings which address process, production, and system changes. All release prevention, mitigation and area sniffer systems are subject to AGC's Preventive Maintenance Program. Equipment reliability information is used in scheduling routine inspections and the testing of these systems, which ensure their uninterrupted operation.

AGC's Safety, Health and Environmental (SHE) Department monitors the Management of Change Program. This program guarantees that equipment, process or software changes are subject to direct input of affected staff. All changes are screened by the SHE Department to determine if further hazard studies are required for a particular change. No changes are made which do not conform to company standards for safe design and operation. Moreover, all incidents are investigated to determine and identify any potential system deficiencies, which may have facilitated its occurrence.

IV. Scenarios

In a worst-case scenario, a release of these chemicals would potentially contaminate a 1.4-mile radius. There are a total of 43,200 people living within this risk zone. Schools, hospitals, recreational areas, New Jersey State Highway 440, and commercial and industrial areas would also be affected. Lesser serious scenarios include a vessel leak, contaminating an area with a radius of 0.38 miles and a pipe leak, extending

contamination to 0.1-mile radius. In both instances, State Highway 440 and commercial areas fall within the risk area.

In addition, a second set of scenarios involves an explosion of stored TFE. The worst-case scenario involving this would be a vapor cloud explosion of 8,424 lbs, affecting an area with a radius of 0.05 miles.

V. Emergency Response Program

AGC-Bayonne maintains an Integrated Contingency Plan known as the Facility Emergency Preparedness Program (FEPP). The plan defines the following: (1) the emergency response team's structure, (2) equipment inventories and its location, (3) the overall response procedures, (4) emergency notification procedures, (5) emergency response drills, and (6) coordination efforts with Bayonne's Office of Emergency Management (OEM) and Local Emergency Planning Committees (LEPCs), which is managed by the Bayonne Fire Department. The FEPP is updated as necessary and changes are primarily based on the results of the emergency response drills.

VI. Five Year Accident History

AGC has suffered one incident in the past 5 years. Gauge failure caused the release of 5.1 lbs of TFE. Fortunately, there were no onsite or community injuries. The year was not provided.

ASHLAND SPECIALTY CHEMICAL COMPANY

I. Company Profile

Ashland Specialty Chemical Company owns a facility in Kearny, New Jersey. This facility manufactures water treating chemicals and defoamers used for industrial purposes and it operates 24 hours per day, seven days per week. Ashland, Inc. reported over \$7.2 billion in revenue (FY 2006).

II. Chemicals Onsite

The only chemicals stored, used or produced onsite that is regulated by the CAA 112(r) and NJ TCPA is cyclohexylamine.

III. Chemical Mitigation

Ashland relies on implemented programs, which seek to ensure an emergency is quickly identified and properly responded to. This requires emergency training for employees. The facility regularly invites local fire departments and emergency responders to tour and inspect the plant, gain familiarity with its operations, and participate in joint emergency drills. Ashland says it continually evaluates and implements employee suggestions and recommendations resulting from routine hazard reviews.

The facility has a written management system in place with operating and maintenance procedures. Ashland's management system procedures ensure rigorous training for operations employees, numerous management checks and balances, and states all procedural changes are subject to review. Ashland maintains a 24-hour corporate emergency reporting system that can speedily coordinate emergency response with management and quickly communicate with key first-aid or medical information to local health care providers. This facility has emergency medical treatment information readily available.

IV. Scenarios

The worst-case scenario involves a liquid spill and the vaporization of 400 lbs of cyclohexylamine which would contaminate any population within a 0.07 mile radius. In this contaminated area there are a small number of residential buildings (20 people), as well as some commercial and industrial facilities. Another scenario involves a cyclohexylamine spill from several 55-gallon drums (drums are a storage unit). This would contaminate an area within a 0.06 mile radius.

V. Emergency Response Program

Ashland Specialty Chemical Company maintains an active relationship with local responders. First, regular inspections are conducted by the local fire department and other emergency responders. Second, all partners participate in joint emergency drills. Moreover, some employees are also members of the LEPC, local emergency response units, and the local fire department. The emergency preparedness plans for the facility

are updated regularly. Ashland reports hosting open houses, usually every 3 to 5 years, as a means to educate the community about safety.

VI. Five Year Accident History

There have been no recorded spills of cyclohexylamine from the facility during the five years of analysis.

BAYONNE PLANT HOLDING, L.L.C.

Note: Cogen Technologies (Linden Venture) is owned by the same holding company, and as such follows similar policies as Bayonne Plant Holding.

I. Company Profile

Bayonne Plant Holding, L.L.C. owns a 165-megawatt (MW) cogeneration (cogen) plant in Bayonne. Bayonne outsources the operation of the facility to GE Contractual Services. This facility has been in operation since 1988.

General Electric employs a total of 316,000 employees. While financial information of the Bayonne facility specifically is unavailable, General Electric Energy, a subsidiary of General Electric, has annual sales of \$2 billion (out of GE's overall \$149.7 billion) (FY 2005).

II. Chemicals Onsite

The only chemical stored, used or produced onsite that is regulated by the CAA 112(r) and NJ TCPA is ammonia.

III. Chemical Mitigation

The plant has specific policies to mitigate chemical security. First, all personnel are required to complete initial and refresher trainings, which are based on each employee's position. In addition, maintenance personnel, operators, and administrators are required to take emergency response trainings and a qualification training in order to operate the ammonia system. Second, the ammonia system, which reduces nitrogen oxide into nitrogen and water, has separate operating procedures.

The ammonia system and the plant's risk management programs are audited every three years. Additionally, hazard reviews are conducted periodically (most recently May 2003). These reviews examine the following: (1) process hazards, (2) the possibility of malfunctions, (3) needed safeguards, and (4) steps for monitoring releases. Recommendations provided by the hazard reviews are implemented throughout the plant.

IV. Scenarios

The worst-case scenario involves a liquid spill and vaporization of ammonia into the surrounding environment. The spill lasts 10 minutes and releases 64,000 lbs. of Ammonia into the atmosphere. The affected area spreads 2.13 miles from site of the release. This area includes a population of 112,728 would also affect residential areas, commercial areas, schools, recreation areas, and hospitals.

V. Emergency Response Plan

The facility also maintains an emergency response plan that includes information and procedures for responding to a release, as well as notification requirements and health data. A copy of the emergency response plan is submitted to the Bayonne Fire Department. The department also takes part in emergency response drills, and

regularly tours the facility, maintaining familiarity with the personnel, layout and the facility's operations.

VI. Five Year Accident History

There have been no recorded spills of ammonia from the facility during the five years of analysis.

BENJAMIN MOORE & COMPANY

I. Company Profile

Benjamin Moore & Company manufactures paints, stains and varnish removers. Originally founded in 1883, in Brooklyn, NY, Benjamin Moore was purchased by Berkshire Hathaway, Inc., in 2000. Berkshire Hathaway is an international holding company based in Omaha, Nebraska. In 2006, Berkshire Hathaway reported \$248,437.00 (millions) in annual sales, and employed 217,000 people. Benjamin Moore's Newark facility employs 200 individuals.

II. Chemicals Onsite

The only chemicals stored, used or produced onsite that is regulated by the CAA 112(r) and NJTCPA is vinyl acetate, ethylene glycol, methyl methacrylate, and xylene.

III. Chemical Mitigation

The facility indicates minimal security measures in its RMP. The only mitigation technique listed was a dikes system. Future plans include installing additional monitoring and detection systems. Despite minimal chemical mitigation, the facility is compliant with the EPA's Accidental Release Prevention Program. This program specifically requires Benjamin Moore assess the hazards of producing, storing, and unloading the resins created by vinyl acetate and it requires the company to take steps toward eliminating or minimizing risks.

IV. Scenarios

A worst case scenario involves the release and vaporization of 155,400 lbs. Alternative scenarios involve the failure of a transfer hose, which would release of 3,820 lbs over slightly more than one hour. Such spills would impact an area with a radius of 0.11 or 0.10 miles, respectively. Both situations would contaminate the industrial area surrounding the plant as well as the nearby Passaic River.

V. Emergency Response Plan

The facility extends its emergency response plan to incorporate the Newark Office of Emergency Management, the local fire department, police, professional hazardous materials (HAZMAT) teams and other environmental agencies. No specific details were provided expect for the fact that the facility conducts annual drills.

VI. Five Year Accident History

There have been no recorded spills of vinyl acetate from the facility during the five years of analysis.

CARDOLITE

I. Company Profile

The Cardolite Corporation, based in Newark, produces organic chemicals, plastic materials, and resins, as well as chemical products used for coatings, brake lining, printing, rubber and the specialty polymer industries. The Cardolite Corporation has worldwide sales and distribution offices and it reports \$16.6 million in sales (FY 2005). The Newark Cardolite facility has 71 employees.

II. Chemicals Onsite

Chemicals stored, used or produced onsite that are regulated by the CAA 112(r) and NJ TCPA are epichlorohydrin and ethylenediamine. In addition, toluene has been stored, used, or produced at various times in the plant; this information was not listed in the federal RMPⁱ.

III. Chemical Mitigation

The plant reports using systems as means to mitigate the effects a chemical release. In terms of active mitigation techniques, the facility employs both continuous surveillance and an emergency shutdown system. Dikes are also present to prevent storage leaks. In addition, the facility uses a computer inventory system to monitor the tank levels, preventing the tanks from reaching maximum capacity. Moreover, the facility claims to have alarms on toxic tanks and there are also procedures for unloading each chemical.

IV. Scenarios

According to the plant, a worst-case scenario involving a liquid spill and vaporization of epichlorohydrin would release 118,000 lbs over approximately three and a half days, and it would affect an area with a 0.60-mile radius. This area would include a small residential area (approximately 46 people), industrial areas and at least one correctional facility.

An alternative scenario includes the failure of a transfer hose containing epichlorohydrin. This would lead to the release of 492 lbs. Another scenario involves the failure of a transfer hose containing ethylenediamine and would release 262 lbs. In both cases, only commercial areas are within the risk area—a 0.06-mile radius.

V. Emergency Response Plan

Cardolite maintains an emergency response plan that “provides the essential planning and training for effectively protecting workers, the public, and the environment during emergency situations.” References in the RMP suggest that the emergency response plan involves the Newark Fire Department, community emergency responders, HAZMAT teams, the NJDEP, and medical emergency teams. There was no information available on whether or not the facility implemented ERP drills and how frequently the plan was updated.

VI. Five Year Accident History

There have been no recorded spills of epichlorohydrin and ethylenediamine from the facility during the five years of analysis.

CHEM FLEUR

I. Company Profile

CHEM Fleur, located in Newark, produces perfume and other fragrances. It is owned by the international fragrance and flavor company Firmenich, Inc., which is headquartered in Princeton, New Jersey. The CHEM Fleur facility employs 100 individuals. While financial data on CHEM Fleur was unavailable, the parent company Firmenich makes an estimated \$59.9 million in sales (FY 2005).

II. Chemicals Onsite

The only chemicals stored, used or produced onsite that is regulated by the CAA 112(r) NJTCPA is the flammable liquefied petroleum gas (LPG) material known as isobutylene (2-Methylpropene).

III. Chemical Mitigation

All isobutylene is stored onsite in an LPG trailer designed to meet all safety regulations from the US Department of Transportation. This material is housed only 12 weeks per year in an isolated area of the plant.

CHEM Fleur also uses a series of active and passive mitigation techniques to lessen the risk of such an explosion. These techniques include deluge or sprinkler systems, excess flow valves, and high-pressure water cannons. It is important to note that the plant's storage facility is surrounded by three 55 foot tall buildings, (one on each side) and on the fourth side there is approximately 1,000 feet of undeveloped land, which leads to the shore of Newark Bay. In addition, the tank itself is surrounded by concrete barriers.

The personnel operating these facilities are specifically trained and regularly evaluated. The facility also employs safe work practices such as equipment release, lockout/tagout, and confined space entry. Employees are encouraged to participate in operator training, the safety committee, the reviewing of key operating procedures, and in making changes to the process safety program.

IV. Scenarios

The worst-case scenario would involve a vapor cloud explosion with 40,000 lbs and it affect would a 0.25 mile radius. Included in this area is a prison facility, railway terminal, automobile storage yard, trucking terminal, Newark Bay, a salt-water marsh, and tidal flats. A lesser explosion – with 13,500 lbs released – would affect an area with a 0.07-mile radius.

V. Emergency Response Plan

The facility maintains a relationship with the Newark Fire Department. However, there is no indication that there is an extensive emergency response plan.

VI. Five Year Accident History

There have been no recorded spills of isobutylene from the facility during the five years of analysis.

COGEN TECHNOLOGIES (LINDEN VENTURE)

Note: Bayonne Plant Holding is owned by the same holding company, and as such follows similar policies as Cogen Technologies (Linden Venture).

I. Company Profile

Cogen Technologies (Linden Venture), owns an 895-megawatt (MW) cogeneration plant located on the ConocoPhillips Refinery in Linden. The facility, wholly owned by General Electric Energy, utilizes waste heat from gas turbines to convert water into steam, which is in turn used to drive steam turbines and create electricity. General Electric employs a total of 316,000 employees. While the individual financial reports for the Linden facility were unavailable, General Electric Energy, a subsidiary of General Electric, reported \$2 billion in annual sales (out of GE's overall \$149.7 billion) (FY 2005).

II. Chemicals Onsite

The only chemical stored, used or produced onsite that is regulated by the CAA 112(r) and NJ TCPA is ammonia.

III. Chemical Mitigation

The plant has specific policies to mitigate chemical security. First, all personnel are required to complete initial and refresher trainings, which are based on each employee's position. In addition, maintenance personnel, operators, and administrators are required to take emergency response trainings and a qualification training in order to operate the ammonia system. Second, the ammonia system, which reduces nitrogen oxide into nitrogen and water, has separate operating procedures.

The ammonia system and the plant's RMPs are audited every three years. Additionally, hazard reviews are conducted periodically (most recently May 2003). These reviews include: (1) process hazards, (2) the possibility of malfunctions, (3) needed safeguards, and (4) steps for monitoring releases. Recommendations provided by the hazard reviews are implemented throughout the plant.

IV. Scenarios

The worst-case scenario involving ammonia is a liquid spill and vaporization, which would release 156,172 lbs. In this scenario, the area in danger of contamination would extend to a 0.2-mile radius. There is a commercial area encompassed in this risk area. An alternative scenario is a leak from a transfer hose, whereby 14 lbs of ammonia would be released. In this case, the affected area would have a 0.1-mile radius, and again the only areas at risk would be a commercial one.

V. Emergency Response Plan

The site also maintains an emergency response plan that involves the Linden Fire Department. The emergency response plan includes information and procedures needed to respond to a release, notification requirements, evacuation procedures, and health data. The fire department is provided with a copy of the plan, and also takes part

in emergency response drills. In addition, the fire department regularly tours the facility to maintain familiarity with the personnel, layout and operations of the site.

VI. Five Year Accident History

There have been no recorded spills of ammonia from the facility during the five years of analysis.

I. Company Profile

ConocoPhillips, located in Linden, is a powerhouse in the petroleum and integrated energy industries with refineries worldwide. The company was formed by the 2002 merger of Conoco and Phillips, which were founded in 1875 and 1906, respectively. The recent financial data indicates net sales of \$188.364 billion and a total staff of 38,700 people (FY 2006).

II. Chemicals Onsite

Flammable mixtures are used onsite and are regulated by the CAA 112(r) and NJ TCPA.

III. Chemical Mitigation

Bayonne Plant Holding reported using flammable mixtures. The plant combusts natural gas to generate electricity and this process requires ammonia gas. The ammonia is stored in 30,000-gallon tanks, which are kept at ambient temperature and pressure. The maximum amount that this facility holds is 64,000 lbs. Due to the large amount of ammonia storage, this facility has implemented extensive programs that includes safety information, standard operating procedures, training, maintenance, emergency response, incident investigation, hot works, safety reviews, compliance reporting, employee participation, management of change, contractor safety, hazard reviews, and hazard assessments. Additional programs regarding environment regulations have also been implemented.

Few safety reviews have been conducted on the facility's current systems; however, many operational procedures are practiced through general procedures, testing and inspection schedules. These practices compliment the hot works procedures, which include general work permits, lockout/tag out etc. All personnel are required to go through extensive training in preparation and full understanding of the processes conducted at the facility. The employees not only go through the training for preparation, they also participate in hazard review and incident investigations. In addition, employees undergo self-assessment, annual drills, and amongst others. Hazard reviews are conducted annually in order to look at all processes and equipment relating to hazard materials. All contractors are required to comply with the facility's regulations. Annual audits for these regulatory practices are conducted for evaluations and assessment of possible improvements and other changes.

IV. Scenarios

The worst-case scenario involves vapor cloud explosion that would release 5.2 million lbs of this mixture into the surrounding environment, and it would extend over a 1.4-mile radius. Within this risk area live an estimated 18,000 people, as well as schools and commercial offices. A smaller explosion, would release 2.1 million lbs, and would affect everything within a 1-mile radius. An estimated 2,700 people would be exposed, in

addition to commercial offices. Finally, a small vapor cloud explosion, would release 21,000 lbs of the mixture covering a 0.1-mile radius.

V. Emergency Response Plan

There has been an implemented emergency response program since the facility opened. This program provides preparedness and response, including coordination and communication with local responders. This facility has a close working relation with the Bayonne Fire Department. The program has a list of emergency response personnel, notification requirements, evacuation procedures, and health data. Local first responders also participate in the facility's emergency response drills.

VI. Five Year Accident History

There have been no recorded flammable mixtures explosions from the facility during the five years of analysis.

I. Company Profile

Elan Chemical, located in Newark, mainly produces chemicals used for flavoring and fragrances. Founded in 1968, Elan employs a total of 68 people (FY 2006). No financial data was available.

II. Chemicals Onsite

The only chemical stored, used or produced onsite that is regulated by the CAA 112(r) or NJTCPA is ethyl chloride, a highly flammable material.

III. Chemical Mitigation

The only mitigation measurements present are pressure relief valves and interlocks. In addition, all employees are required to take training in the handling this chemical.

IV. Scenarios

The worst case scenario involves a vapor cloud explosion that would release 75,000 lbs and would extend to a 0.30 mile radius. One recreational area, the Passaic River and commercial offices would be affected. It is important to note that contaminating the Passaic River may carry the hazardous substances downstream. A second scenario involved a vapor cloud explosion, which would release 3,900 lbs of ethyl chloride into 0.10 mile radius.

V. Emergency Response Plan

The only information provided on Elan's emergency response program is that it works in coordination with Newark HAZMAT Team, local fire department, and emergency health care professionals.

VI. Five Year Accident History

There have been no recorded ethyl chloride spills from the facility during the five years of analysis.

GENERAL CHEMICAL

I. Company Profile

General Chemical, located in Newark, operate in the following markets: water treatment, chemical processing, pharmaceutical and personal care, and technology involving electronic chemicals for semiconductors and disk drive industries. It is owned by GenTek, which is based in Parsippany, New Jersey. GenTek produces manufacturing and performance chemicals. GenTek employs a total of about 6,300 people, of which 33 are employed at General Chemical (FY 2006). GenTek reported net revenues of \$611.3 million of which General Chemical contributes \$373.4 million (FY 2006).

II. Chemicals Onsite

The only chemicals stored, used or produced onsite that is regulated by the CAA 112(r) and NJ TCPA is oleum.

III. Chemical Mitigation

The only passive mitigation measure is the dikes. Implemented active mitigation measures include an emergency shutdown system and a neutralization process. The facility also has a comprehensive release prevention program that is used to promote safe processes and operations. The program includes standard operating procedures, employee participation, employee training, and compliance audits. There are also alarms on the oleum storage tanks, temperature and pressure controls, surveillance of process areas, early detection systems for releases, pressure relief devices.

V. Emergency Response Plans

The facility's emergency response plan is described as community emergency response plan, which incorporates the Essex County OEM, and first responders. Facility also representatives meet periodically with the first responders and carry out joint emergency response drills. The facility also conducts training for workers and the general public.

IV. Scenarios

The worst-case scenario involves a liquid spill and vaporization of 2 million lbs of oleum, which would extend to within a 0.6 mile radius and would affect a prison, commercial offices, the Newark Bay and Passaic River. An alternative scenario involves a pipe leak that would release 230 lbs oleum and would contaminate 0.10-mile radius.

VI. Five Year Accident History

There have been no recorded oleum spills from the facility during the five years of analysis.

INTERNATIONAL-MATEX TANK TERMINALS (IMTT)

I. Company Profile

IMTT is a relatively large tank holding company for the petroleum industry with eight facilities in the U.S. (one of which is located in Bayonne) and two in Canada. IMTT reported \$200 million in sales (FY 2006). The Bayonne facility contributed \$15.6 million of that total. There was no information available on the number of employees.

II. Chemicals Onsite

The only chemicals stored, used or produced onsite that is regulated by the CAA 112(r) and NJ TCPA is butane and ethylenediamine.

III. Chemical Mitigation

The facility has firing monitors and auto shutoff valves. IMTT-Bayonne has an extensive and participatory accidental release prevention program. Employees are trained in best practices for chemical handling. Substance and equipment safety information is also made accessible to employees. Also, all incidents are required to be immediately reported for investigation and follow-ups.

IV. Scenarios

A worst-case scenario involves a vapor cloud explosion, which would release 150,000 lbs of butane gas. This scenario directly affects 6,700 people who live within a 0.47 mile radius. In addition, schools, recreational areas, and commercial offices would also be affected. Alternatively, a smaller release of 10,508 lbs of butane would extend to 0.12 mile radius. Within this area, only commercial and industrial offices would be affected.

V. Emergency Response Plans

In addition, to all the preparedness and prevention programs, IMTT-Bayonne also has an extensive emergency response program called the Facility Spill Response Plan. This plan is in compliance with USEPA (Spill Prevention Controls and Countermeasures Plan; Oil Pollution Act; RMP) and NJDEP (Discharge Prevention, Containment, and Countermeasures and Discharge Cleanup and Removal Plan; Toxic Catastrophe Prevention Act). Emergency drills involve the local fire department and the U.S. Coast Guard.

VI. Five Year Accident History

There have been no recorded butane or ethylenediamine spills from the facility during the five years of analysis.

I. Company Profile

The Infineum Group of Companies, headquartered in Milton Hill, was set up in January 1999 as a joint venture between ExxonMobil and Shell.ⁱⁱ The Infineum Group manufactures and sells lubricating oils and fuels in 70 countries. Infineum also has three regional Business Centers—the UK, USA and Singapore. According to a business and company resource database, Infineum reported \$175.00 million in annual sales and 340 employees (FY 2004).

II. Chemicals Onsite

Infineum owns a manufacturing plant in Linden, called the Infineum Bayway Chemical Plant. This facility produces additives for engine oils and transmission fluids and highly toxic or flammable substances are used in manufacturing these products. Chemicals stored, used or produced onsite that are regulated by the CAA 112(r) and NJ TCPA are: ammonia, chlorine, hydrogen chloride, and by just the CAA is vinyl acetate.

The Infineum Bayway Chemical Plant also uses butane and butenes, both of which are flammable substances. Only butane is regulated under the CAA 112(r). In April of 2006, both butane and butenes were edited out of NJTCPA by the consolidated rule document, whose purpose is to the combine the State's regulatory requirements "with the adopted text of the federal Accidental Release Prevention (ARP) rules."ⁱⁱⁱ In addition, Infineum Bayway Chemical Plant stores hydrogen sulfide, a chemical that is not regulated by the EPA but is regulated under NJTCPA. The State defines this extremely hazardous substance threshold level at 1000 lbs^{iv} Proper handling and regulation of all of these chemicals is critical since a 14-mile radius from the facility encompasses 4,200,000 people.

III. Chemical Mitigation

The Bayway Chemical Plant plays a proactive role in minimizing the potential release of any of the aforementioned chemicals. This facility considers safety in the design, installation, operation, inspection, and maintenance of its processes. Not only are employees consistently trained, but they also participate in process safety management and accident prevention. This facility also conducts internal safety audits and drills with local responders to respond to simulated emergencies. Each one is discussed in detail below.

Operations Integrity Management System

The plant operates under the Operations Integrity Management System (OIMS). OIMS consists of 11 components, all of which provide the framework for managing safety, security, health, and environmental risks, consequently

protecting their employees, the public, and the environment. OIMS was originally developed by ExxonMobil in 1992, and remains instituted at the Infineum Bayway Chemical Plant. This program ensures that operations at the facility have the resources, skills, systems, procedures, and tools to perform safely, reliably, and with environmental care.^v “The OIMP system meets all the requirements of OSHA Process Safety Management, The EPA Risk Management Program, and the New Jersey Toxic Catastrophe Prevention Act. The system also exceeds all regulatory requirements by incorporating periodic management review of performance measurements for each practice to evaluate whether each practice is working as planned and what improvements might be made.”^{vi}

Process Safety Information and Safe Work Practices

Up-to-date operating procedures and inventories are listed in technical documents. “These documents address chemical properties and associated hazards, limits for key process parameters, specific chemical inventories, equipment design basis, and equipment configuration information.”^{vii} Material safety data sheets (MSDS) contain all chemical information, including exposure hazardous exposure, treatment and emergency response. Other documents provide extensive information on the equipment used.

The Safety, Health, and Environmental Manual (SHE) and unit specific standard operating manuals (SOPs) are made available to the employees on the desktop of every personal computer. These manuals provide safe work practices such as: energy isolation for equipment being worked on (lockout/tagout), procedures for the safe removal of hazardous materials before opening process piping/equipment (work permit), hot work permit/procedure to safely manage spark-producing activities, vehicle entry into process areas, confined space entry permit/procedure, and job safety analyses to identify and mitigate hazards associated with maintenance tasks.

Operating Procedures and Mechanical Integrity

There are also written procedures addressing startup, shutdown, normal, and emergency operations. These procedures are periodically reviewed and annually certified as current and accurate. The plant has also identified internal set critical safe operating limits for process parameters such as temperature, pressure, levels, and compositions.

Mechanical integrity is preserved via Bayway’s Preventive Maintenance and Inspection Program. All technical data on piping, fixed equipment, machinery, pressure relief devices, and instrumentation, as well as the specifics of preventive maintenance, are maintained using a computer database and software called SAP R3. Equipment breakdown and repair history are also recorded.

Process Hazard Analysis (PHA)

Bayway Chemical Plant identifies and manages hazards with the Process Hazard Analysis Program. A team of field experts uses knowledge-based Hazard and Operability (HAZOP) analysis techniques to pinpoint hazards and ensure adequate controls are in place to manage these hazards.^{viii} The team also offers suggestions for additional prevention and mitigation measures, all of which are tracked to ensure follow through.

Personnel Training and Participation

Initial Training: Employees involved in the operating process have to participate in a comprehensive process technician-training program. This program includes initial, classroom and on-the-job training for new hire and newly assigned technicians.

Refresher Training: Technician refresher training is provided through Safety Day, unit-specific refresher trainings, and weekly safety meetings. Each one is explained below:

- Safety Day is an annual 8-hour Hazmat technician refresher training for process technicians and general safety training (Hands-on Fire Training, TCPA, DPCC and RCRA Refresher).
- Unit-specific refresher training covers standard and emergency procedures, simulated emergencies, and a review of the MSDS EHS on the unit, and it is conducted at least every three years.
- Respirator Fit, APR and SCBA refresher training are done on an annual basis in the field in separate training sessions.

All trainings are documented for each employee and the company verifies the technician understood the training.

Safety Trainings: This includes weekly safety meetings for operations and maintenance personnel, weekly safety audits, and meetings of the Operations Integrity Committee (OIC). Employees also participate in the development and updating of operating and maintenance procedures and in conducting Process Hazard Analyses (PHA). PHA's are also reviewed by the OIC, the results are available to employees, and follow-up is stewarded by the OIC.

Operations Integrity Committee

The OIC reports directly to the plant manager and is the final review on “safety” matters relating to the facility, its operations and the community. The OIC’s

standards follow industry standards (e.g., Chlorine Institute) and Exxon's Design Practices and Mechanical Standards. The OIC's chairman is the Manager of the Safety, Environmental and Risk Management (SERM) Department and its members include representatives from senior process design and technical personnel, industrial hygiene, environmental compliance, maintenance, plant operations, inspection and the plant safety coordinator.

Contractors Held to the Same Standards

Contractors are also required to follow Infineum's Operations Integrity Management Practices (OIMP), and utilize the same procedures as Infineum employees. Contractor administration procedures are developed, coordinated, and implemented by the Plant's Contractor Administration Team (CAT). Selection is based on the CAT's annual review of the contractor's safety program and their safety performance. Contractors are required to use qualified union trade labor. Once awarded the contract, contractors must ensure their staff familiarizes themselves with the hazards of regulated substances found at the Bayway Chemical Plant, the plant's emergency response and evacuation plan, alcohol and drug policy, and other Infineum chemical rules and regulations. All trainings and certifications are recorded.

Compliance Audits

The Bayway Chemical Plant conducts triennial audits to determine whether the procedures and practices of programs are being utilized.

Chemical Specific Prevention Steps

Listed below are the plant's preventative features:

- Process relief valves and rupture disks that vent to a flare system or a scrubber
- Check valves Scrubber to neutralize byproducts such as HCl
- Flammable gas detectors with alarms for ethane and butanes/butenes
- Toxic gas detectors with alarms for hydrogen sulfide, chlorine, hydrogen chloride, ammonia, and sulfur dichloride
- Automatically operated and manual valves to isolate and stop a leak
- Computer control that automatically stops the process when high temperatures or pressures are detected
- Curbing and diking to contain liquid leaks
- Procedures to check for leaks before returning equipment to service after maintenance
- Deluge system for butane/butane
- Emergency response procedures for specific chemicals
- TV surveillance cameras

Emergency Response Program and Local Engagement

Emergency response is a coordinated effort between Bayway, and neighboring facility, ConocoPhillips Refinery. Bayway's Emergency Manual includes procedures to deal with site-wide emergencies and instructions on how to conduct external notification. The facility has the following emergency equipment available: "fire-fighting equipment, a command post vehicle, two ambulances, several self-contained breathing systems and back-up air supplies, acid suits, rescue equipment, medical supplies, etc."^{ix}

Other resources include a Chemical Plant team which is trained to respond to site and transportation emergencies. Linden's Fire Department Commander also helps coordinate procedures. There is also a Medical Department and trained emergency medical technicians. A partnership has been created with Elizabeth General Hospital to provide medical services when the Medical Department is not staffed. In addition, Bayway also has an onsite meteorological station to help determine the consequences of the release of a regulated substance. Lastly, Infineum is a member of the Linden Industrial Mutual Aid Council (LIMAC) through which it can obtain backup material in a major incident.

Emergency response drills, involving outside agencies, are exercised frequently, critiqued and then improved. Furthermore, the plant extends outward into the community by participating in local emergency response planning activities, such as Hazardous Materials Advisory Council (HMAC) and the Linden LEPC.

IV. Worst Case Scenarios

A worst-case scenario involves a gas release, which would release as much as 180,000 lbs of chlorine and would contaminate a 14-mile radius. This would directly impact an estimated 4,200,000 individuals, as well as schools, hospitals, public recreational areas, commercial and industrial areas, and nearby wildlife sanctuaries.

V. Five Year Facility Accident History

There have been no recorded chemical spills from the facility during the five years of analysis.

VI. Other Relevant Information

The Bayway Chemical Plant has been recognized by the Occupational Safety and Health Administration (OSHA) as a Voluntary Protection Program – Safety Through Accountability and Recognition (VPP-STAR) Facility for its effective safety and health management programs.^x The plant helped four other Linden businesses achieve their select status.

KUEHNE CHEMICAL COMPANY, INC.

I. Company Profile

Kuehne Chemical Co, Inc., located in South Kearny, is part of the Kuehne + Nagel group. Founded in 1890 in Bremen, Germany, Kuehne + Nagel began as a traditional international freight forwarder and is now a global logistical service provider, supplying “integrated end-to-end supply chain management solution.”^{xi} More specifically, Kuehne + Nagel operates in the following worldwide sectors: seafreight, airfreight, rail & road logistics, and contract logistics.

Kuehne + Nagel is an international organization with 830 offices throughout 100 countries. Kuehne + Nagel employs a total of 25,607, and approximately 22% (5,568) are staff in the Americas. The company reported net revenues of \$2.769 billion (CFH) in 2005, of which the offices in the Americas contributed 26.3%.

II. Chemicals Onsite

The only chemical stored, used or produced onsite that is regulated by the CAA 112(r) and NJ TCPA is chlorine.

III. Chemical Mitigation

Kuehne Chemical Co has written Standard Operating Procedures (SOP), which delineates emergency preparedness. Although, we were unable to secure a copy of this document, the federal RMP provided a brief overview. Included in this document are: the location of the company's Emergency Response Plan, a general site plan indicating the locations of Extraordinarily Hazardous Substances (EHS), material safety data sheets, and the frequency of emergency response drills. Kuehne's SOP also states the location of other emergency tools such as atmospheric monitoring equipment, two way radio equipment, portable battery, powered lanterns, an emergency event log book, first aid kits. The SOP is reviewed annually with all employees at the facility.

According to company policies, employees are also trained in emergency response. Employees are required to participate in periodic drills and assessments of how to mitigate and stop the following: “a chlorine release onsite, chlorine release off site, sodium and potassium hydroxide solution spills, sodium hypochlorite solution spills, fires and explosions.”^{xii}

IV. Scenarios

Kuehne's worst-case scenario involves a liquid spill and vaporization which would release 180,000 lbs of chlorine and would contaminate everything within a 14-mile radius. This includes all of Newark and Jersey City as well as much of the New York City metropolitan area. Such a spill would leave an estimate 12 million individuals exposed to the chemical, as well as numerous schools, prisons, hospitals, public recreation areas, commercial offices, wildlife preserves, and national and state parks. An alternative scenario would be a pipe leaking, and would result in 50,000 lbs of

chlorine being released. Such a release would affect an area within 0.1 miles, having a minimal offsite impact.

V. Emergency Response Plan

Kuehne Chemical's federal RMP makes reference to an emergency response plan, but does not provide any details.

VI. Five Year Facility Accident History

Since 1999, Kuehne Chemical Co. reported the following accidents:

1. March 11, 2003 - 5 lbs of chlorine released, evacuation of onsite personnel, one operator treated for chlorine inhalation
2. August 29, 2002 - less than 1 pound of chlorine released no impact on or off site.
3. May 9, 2002 - less than 1 pound of chlorine released no impact on or off site.
4. February 25, 2002 - less than 1 pound of chlorine released no impact on or off site.
5. November 17, 2000 - less than 1 pound of chlorine released no impact on or off site.
6. July 6, 2000 - less than 1 pound of sulfur dioxide released no impact on or off site.
7. July 3, 2000 - less than 1 pound of chlorine released no impact on or off site.
8. May 30, 2000 - less than 5 lbs of chlorine released no impact on or off site.
9. April 12, 2000 - less than 1 pound of chlorine released no impact on or off site.
10. March 23, 1999 - less than 1 pound of chlorine released no impact on or off site.

LUBRIZOL DOCK RESINS

I. Company Profile

Lubrizol Resins Corporation located in Linden, New Jersey, is one of the Lubrizol Corporation's manufacturing and laboratory facilities. Originally purchased in October of 2002, this facility manufactures products for the paint and coatings, printing ink, laminating, adhesives and sealants, and grease markets. Founded in 1928, the Lubrizol Corporation is a global fluid technology company, which provides specialty chemicals and materials for a wide variety of markets and end-use applications. The corporation is organized into two operating segments: the lubricant additives segment, known as Lubrizol Additives, and the specialty chemicals segment, also referred to as Noveon. Headquartered in Wickliffe, Ohio, the Lubrizol Corporation owns and operates manufacturing facilities in 20 countries, as well as other sales and technical offices around the world. The Lubrizol Corporation had net revenues of \$4,042.7 million and \$136.7 millions according to its 2006 annual financial report. Lubrizol Dock Resins Company specifically had 46 employees and annual sales of approximately \$13 million in 2002.^{xiii}

II. Chemicals Onsite

According to a report by the Work Environment Council (WEC) (footnote) Lubrizol stores or produces a reactive mixture onsite. The specific chemicals regulated by the CAA and TCEA are not defined.

III. Chemical Mitigation

This facility did not submit a Federal RMP. However, if there were a chemical spill, it is estimated that there are approximately 110 people within the area that would be contaminated, which has a radius of 0.117 miles (footnote needed)

IV. Scenarios

No scenarios were provided by the facility or other entities.

V. Emergency Response Plan

No information was available regarding the emergency response plan Lubrizol has in place.

VI. Five Year Facility Accident History

There have been no recorded chemical spills from the facility during the five years of analysis.

MURALO COMPANY, INC.

I. Company Profile

The Muralo Company, headquartered in Bayonne, New Jersey, operates in the paint, brushes and rollers industry. Founded in 1894, Muralo also has offices in Chicago, IL, and Los Angeles, CA. Muralo employed 375 people and reported \$0.10 million in annual sales in 2000.^{xiv} More recent financial data is not available because Muralo, a private company, is not required to disclose financial data to the public.

II. Chemicals Onsite

The only chemical stored, used, or produced onsite that is regulated by the CAA 112(r) is vinyl acetate.

III. Chemical Mitigation

This facility does not have an active mitigation response. It does not have a water curtain, neutralization, excess flow valve, flares, or scrubbers. It also does not have a sprinkler, deluge or an emergency shutdown system. The only chemical mitigation measures are written operating procedures, dikes and berms. All of which are considered passive forms of mitigation.

IV. Worst Case Scenarios

A worst-case scenario involves transfer hose failure, which would lead to the release of 1,940 lbs of vinyl acetate and would contaminate a 0.1-mile radius. This would directly affect 155 residents, in recreational areas and neighboring industrial and commercial buildings. Alternatively, a liquid spill and vaporization of the vinyl acetate would lead to the release of 8,538 lbs.

V. Emergency Response Plan

No information was available regarding the emergency response plan Muralo has in place.

VI. Five Year Facility Accident History

There have been no recorded vinyl acetate spills from the facility during the five years of analysis.

NEW YORK TERMINALS, LLC

I. Company Profile

New York Terminals, LLC, located in Elizabeth, is a chemical warehouse and storage facility. First established in 1956, reported \$710,000 in sales and a staff of 10 (FY 2005).

II. Chemicals Onsite

The only chemical stored onsite that is regulated by both the CAA 112(r) and the TCEQ is Ammonia (Anhydrous).

III. Chemical Mitigation

New York Terminals does not institute any passive mitigation techniques. In terms of active mitigation techniques, New York Terminals has an emergency shutdown system, an excess flow valve, as well as an ammonia detection and emergency response.

IV. Worst Case Scenario/Alternative Scenarios

The worst-case scenario involves the release and vaporization of 180,000 lbs of ammonia, which would contaminate a five-mile radius and directly impact an estimated 485,000 individuals. IT would affect schools, hospitals, prisons, public recreational areas, commercial and industrial areas, Newark-Liberty International Airport, and wildlife reserves nearby. A less serious scenario would involve a pipe developing a leak, resulting in the release of 3,800 lbs and would have a 0.3-mile radius. This would also endanger 40 people in the industrial community surrounding the facility. Alternatively, if a different pipe leaked, the result would be the release of 27,200 lbs of ammonia, contaminating an area with a radius of 0.2 miles. Such a leak would directly endanger 3 people in the commercial and industrial offices in the vicinity.

V. Emergency Response Plan

No information was available regarding the facility's emergency response plan.

VI. Five Year Accident Record

There have been no recorded anhydrous ammonia spills from the facility during the five years of analysis.

ROYCE ASSOCIATES

I. Company Profile

Royce Associates, located in Newark, NJ is a branch of the company Royce International. Founded in 1929 Royce International manufactures chemicals for the textile industry. The Newark facility was created as a catalyst manufacturing and international division warehousing. Royce Associates manufactures both household dyes & tints and inorganic chemicals. Royce Associates reported \$7,140,600 in sales (FY 2005). Currently, there are 20 employees at the Newark facility.

II. Chemicals Onsite

The only chemical stored onsite that is regulated by the TCPA is sodium hydrosulfide.

III. Chemical Mitigation

With the State of New Jersey unwilling to provide the RMP for Royce Associates and with Royce unwilling to answer questions about the security of their facilities. We were unable to determine whether they had any plans or procedures in place to mitigate the threat of the chemicals stored at their facilities.

IV. Scenarios

Potential scenarios were not available.

V. Emergency Response Plan

No information was available regarding the facility's emergency response plan.

VI. Five Year Accident Record

There have been no recorded sodium hydrosulfite spills from the facility during the five years of analysis.

I. Company Profile

Welco-CGI, located and headquartered in Newark, is a subsidiary of Praxair Distribution Incorporated. Welco-CGI has three other locations in New Jersey. The products that are produced and stored in the Newark facility are compressed gas, welding supplies, and bottled propane. Welco-CGI has a total of 50 employees at the Newark facility and 270 employees overall. Welco-CGI reported \$44,037,182 in sales (FY 2005).

II. Chemicals Onsite

The Newark facility is an industrial and specialty gas plant that stores and/or handles propane. The facility receives propane in bulk form, stores it in a tank, and then loads it into cylinders for distribution to customers by truck.”^{xv} Propane is regulated by the CAA 112(r).

III. Chemical Mitigation

Welco-CGI has active engineering and construction programs, which ensures the facility follows safe employee, equipment, and process procedures. In addition, the facility has a comprehensive accident prevention program based on process safety concepts, which includes technical documentation of process safety information and initial and periodic audits of new or modified processes. The program is also compliant with OSHA’s Process Safety Management standard.

Praxair also urges its employees to take an active involvement in the process safety program. Additionally, Praxair has established chemical-specific safety features that deal with the process at Newark, including an incident alarm system, automatic shutdown systems, and a sprinkler system.

IV. Scenarios

Worst-case scenarios were not available.

V. Emergency Response Programs

To reduce the effects of an accidental release of regulated substances on the public, its employees, and the environment, Praxair has developed an emergency response program. “The Newark location will be a non-responding facility as defined in section 8.1 of the CEPPO General Guidance for Risk Management Programs (July 1998), i.e. Praxair employees will respond to minor incidents.”^{xvi} For larger and more dangerous incidents’, Praxair has established an emergency response plan, which they coordinated with the Ferry Street Station of the Newark Fire Department.

VI. Five Year Accident Record

There have been no recorded propane spills from the facility during the five years of analysis.

Appendix 13

Survey Instrument

2007 CHEMICAL FACILITY SURVEY

Part I: Company Profile

Company Name: _____

Address: _____

1. Is this facility owned by a larger organization? If yes, what is the name of the parent company?

2. What year was the New Jersey (NJ) facility and the parent company established?

3. Are there other domestic or international locations? If yes, please list them.

4. What major industries does this company operate in?

5.

- a. Are the parent company and/or the NJ facility a member of the American Chemistry Council (ACC)? If yes, what was the year of enrollment?

- b. Are the parent company and/or the NJ facility a member of any other trade/industry associations? If yes, what was the year of enrollment?

6. In 2006, (or for the latest reported year), what were the company's:

- a. Net revenues?

b. Net income?

c. Prime product sales?

d. Capital expenditures?

e. Net debt to capital ratio?

f. Current assets to current liabilities ratio?

Part II: Jurisdiction

7. Approximately, how far is the nearest publicly accessible road to the areas where chemicals are made or stored?

8. What is the nearest population and how far is it located from the facility?

Part III: Managing Chemicals

9. What products are produced and stored at the NJ facility?

10.

a. What chemicals does the facility produce and store that fall under the EPA CAA 112(r)?

b. What chemicals does the facility produce and store that fall under the NJ TCPA?

11. How are the chemicals dispersed throughout the facility?

12. Are all chemical storage rooms equipped with a sprinkler system?

13. What is your approach to security mitigation? Is it threat specific? Is it consequence based?

14. In the past five-years, what the facility's accident history?

15. Does this facility currently use inherently safer technology, (i.e. procedure simplification; use of less hazardous substances, use of smaller quantities of substances; improvement of inventory control)? If not, has management ever explored these options?

Part IV: Personnel

16. What is the total number of staff (including management)?

17. What background checks does management perform on newly hired employees?

18. Are there any follow-up checks during employment at the facility? If yes, what are they?

19.

a. Are employees required to attend periodic safety refresher trainings?

b. If yes, which trainings are required?

c. How often are the refresher trainings mandated?

d. Are only managers required to attend or also employees that directly interact with chemicals?

Part V: Chemical Security

20.

a. What countermeasures does your facility employ to prevent access to potentially toxic chemicals? (i.e. locks, electronic locks, PIN code requirements, CCTV, armed guards, etc.)

b. What target hardening measures does the facility employ (i.e. Primary and secondary fences, barriers at the gate, perimeter vehicle barrier, perimeter lighting, inside lighting, fence line intrusion detection system, etc)?

c. How frequently are the aforementioned security measures updated? Are they updated facility-wide or only in selected areas?

d. How frequently are these security measures tested?

21. How does the facility protect its critical information systems, such as hardware, software, infrastructure, and data, from loss, corruption, theft, or any other type of cyber sabotage?

22. Does the facility conduct a risk assessment of its vulnerabilities? If yes, how frequently?

23. Did the facility make any security enhancements as a direct result of DHS' 2006 Chemical Facility Anti-Terrorism Standards? If yes, what were they?

24. Is the facility required, by any level of government (federal, state, and local), to submit current security plans? If yes, where, in what format, and how frequently is this plan submitted?

25. When was the most recent Risk Management Plan (RMP) submitted?

Part VI: Emergency Preparedness

26. Please describe the facility's Emergency Management Plan.

27.

a. Does this facility have annual emergency response exercises? If yes, what are the exercises?

b. Who participates in these exercises?

c. How frequently are these exercises updated and by whom?

28. Please describe management's relationship with first responders, and other community members.

29. How are first responders and other community members incorporated into the emergency plan?

30. Is the facility involved in any task forces or similar organizations with state and local authorities to facilitate information sharing?

31. Do you think that the sharing of information with the State—whether it is to State, local, or Federal entities—is effectively streamlined?

Thank you for completing this survey!

Appendix 14

Contact Information for Chemical Facilities

Name of Interviewee	Organization	Position	Contact Information	Date of Telephone Conference
Paul Baldouf	NJ DEP Radiation Protection and Release Prevention	Assistant Director	609 984-5636	5/31/2007
Alan Bookman	NJ DEP Pollution Prevention and RTK		609 984-5338	5/30/2007
Thomas Giordano	Preparedness Unit at NJ Office of Emergency Management Recovery Bureau		609 963 6818	6/6/2007
Gene Haplea	NJ Office of Homeland Security & Preparedness	Deputy Assistant Director for NJ Office of Counterterrorism	609-631-7481	5/29/2007
Gary Sondermeyer	NJ DEP	Chief of Staff	609-633-1123	5/25/2007
John P. Paczkowski	Port Authority of New York and New Jersey	Director of Office of Emergency Management	201-595-4670	5/24/2007
Bob Van Fossen	NJDEP Bureau of Emergency Planning and Response	Assistant Director	609-633-2168	5/30/2007

Appendix 15

State of New Jersey RMP Denial



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

LISA P. JACKSON
Acting Commissioner

State of New Jersey
Department of Environmental Protection
Management and Budget
Office of the Records Custodian
PO Box 442
Trenton, New Jersey 08625-0442
(609)341-3121

Dear Requester:

Pursuant to the New Jersey Open Public Records Act, the Office of the Records Custodian is providing you with the attached copy of the Request Form you submitted. We have indicated, under Disposition Notes, whether or not the request has been granted or denied.

If you have any questions regarding the status of your request for access to document(s), please contact the Office of the Records Custodian. Thank you.

Sincerely,

Rick Yarsinsky, Chief
Office of the Records Custodian



State of New Jersey
Department of Environmental Protection
GOVERNMENT RECORDS REQUEST FORM



Important Notice

The reverse side of this form contains important information related to your rights concerning government records. Please read it carefully. In addition, please note that you may complete and submit requests electronically on the Internet at <http://www.nj.gov/dep/opra>.

Requestor Information - Please Print

First Name Patrick MI C Last Name Steele
Company Maxwell School (Syracuse University)
Mailing Address [REDACTED]
City Syracuse State NY Zip 13224 Email pasteele@maxwell.syr.edu
Business Hours Telephone: Area Code [REDACTED] Number [REDACTED] Extension [REDACTED]
Preferred Delivery: Pick Up [REDACTED] US Mail [REDACTED] On Site Inspect [REDACTED]
Under penalty of N.J.S.A. 2C:28-3, I certify that I Have Not been convicted of any indictable offense under the laws of New Jersey, any other state, or the United States.
Signature [REDACTED] Date [REDACTED]

Payment Information

Max. Authorization Cost \$ [REDACTED]
Select Payment Method
Cash [REDACTED] Check [REDACTED] Money Order [REDACTED]
Fees Pages 1-10 @\$0.75
Pages 11-20 @\$0.50
Pages 21 - @\$0.25
Deliv: Delivery / postage fees additional depending upon delivery type.
Extras Extraordinary service fees dependent upon request.

Record Request Information: To expedite the request, be as specific as possible in describing the records being requested. Also, please include the type of access requested (copying or inspection), and if data, the medium requested.

We are looking for the Risk Management Plans (RMP's) that are available for the following companies: Adco Chemical Company, AGC Chemicals Americas Inc, Ashland Specialty Chemical Company, Bayonne Plant Holding LLC, Benjamin Moore & Company, Cardolite Corporation, CHEM Fleur, Cogen Technologies, Conoco-Phillips, Elen Incorporated, General Chemical, INET, Infineum USA LP, Kuchee Chemical Company Inc., Linden LPG Storage Facility, Lubrizol Beck Resins, Muralo Company Inc, New York Terminals LLC, Royce Associates, and Welco-CGT

STATE USE ONLY

Est. Document Cost [REDACTED]
Est. Delivery Cost [REDACTED]
Est. Extras Cost [REDACTED]
Total Est. Cost [REDACTED]
Deposit Amount [REDACTED]
Estimated Balance [REDACTED]
Deposit Date [REDACTED]

STATE USE ONLY

Disposition Notes
Custodian: If any part of request cannot be delivered in seven business days, detail reasons here.

Please see addendum:

In Progress - Open [REDACTED]
Denied - Closed [REDACTED]
Filed - Closed [REDACTED]
Partial - Closed [REDACTED]

STATE USE ONLY

Tracking Information
Tracking # 64018
Rec'd Date 05/17/2007
Ready Date [REDACTED]
Total Pages [REDACTED]
Final Cost
Total [REDACTED]
Deposit [REDACTED]
Balance Due [REDACTED]
Balance Paid [REDACTED]
Records Provided [REDACTED]

Custodian Signature [REDACTED] Date 5/25/07



State of New Jersey
Department of Environmental Protection
GOVERNMENT RECORDS REQUEST FORM



Important Notice

The reverse side of this form contains important information related to your rights concerning government records. Please read it carefully. In addition, please note that you may complete and submit requests electronically on the Internet at <http://www.nj.gov/dep/opra>.

Requestor Information - Please Print

First Name Patrick MI C Last Name Steele
Company Maxwell School (Syracuse University)
Mailing Address [REDACTED]
City Syracuse State NY Zip 13224 Email pasteele@maxwell.syr.edu
Business Hours Telephone: Area Code [REDACTED] Number [REDACTED] Extension [REDACTED]
Preferred Delivery: Pick Up [REDACTED] US Mail [REDACTED] On Site Inspect [REDACTED]
Under penalty of N.J.S.A. 2C:28-3, I certify that I Have Not been convicted of any indictable offense under the laws of New Jersey, any other state, or the United States.
Signature _____ Date _____

Payment Information

Max. Authorization Cost \$ _____
Select Payment Method
Cash [REDACTED] Check [REDACTED] Money Order [REDACTED]
Fees Pages 1-10 @\$0.75
Pages 11-20 @\$0.50
Pages 21 - @\$0.25
Deliv: Delivery / postage fees additional depending upon delivery type.
Extras Extraordinary service fees dependent upon request.

Record Request Information: To expedite the request, be as specific as possible in describing the records being requested. Also, please include the type of access requested (copying or inspection), and if data, the medium requested.

We are looking for the Risk Management Plans (RMP's) that are available for the following companies: Adco Chemical Company, AGC Chemicals Americas Inc, Ashland Specialty Chemical Company, Bayonne Plant Holding LLC, Benjamin Moore & Company, Cardolite Corporation, CHEM Fleur, Cogen Technologies, Conoco-Phillips, Elen Incorporated, General Chemical, INET, Infineum USA LP, Kuchee Chemical Company Inc., Linden LPG Storage Facility, Lubrizol Beck Resins, Muralo Company Inc, New York Terminals LLC, Royce Associates, and Welco-CGT

STATE USE ONLY

Est. Document Cost _____
Est. Delivery Cost _____
Est. Extras Cost _____
Total Est. Cost _____
Deposit Amount _____
Estimated Balance _____
Deposit Date _____

STATE USE ONLY

Disposition Notes
Custodian: If any part of request cannot be delivered in seven business days, detail reasons here.

Please see addendum:

In Progress - Open _____
Denied - Closed _____
Filed - Closed _____
Partial - Closed _____

STATE USE ONLY

Tracking Information
Tracking # 64018
Rec'd Date 05/17/2007
Ready Date _____
Total Pages _____
Final Cost
Total _____
Deposit _____
Balance Due _____
Balance Paid _____
Records Provided _____

Custodian Signature [Signature] Date 5/25/07

Requesting Access to Government Records Under the New Jersey Open Public Records Act (N.J.S.A. 47:1A-1 et seq.)

Information Regarding the Requested Records		
Are you involved in litigation with NJDEP or in litigation with another entity related to the records you are requesting?		No
If your request is in reference to a facility, site or parcel of land, please provide the Municipality and County where the facility, site or parcel of land is located:		County: Municipality:
If your request is in reference to a specific parcel of land, please provide the street address, block, lot and property owner of the parcel of land: (Note: if the property in question is over multiple blocks and lots, please list all in the description field below)		Street Address 1: Street Address 2: Block: Lot: Property Owner:
If your request is in reference to a single facility, please provide the name of the facility, and the name of the operator name of the facility:		Facility Name: Operator Name:
Please provide the owner name the facility or parcel of land:		Owner Name:
Is your request in reference to DEP Enforcement? (Inspections, Investigations or Enforcement Actions, Citizen Complaints, Facility Notifications/Self Reporting)		No
Is your request in reference to DEP Site Remediation? (Underground Storage Tanks, ISRA, Voluntary Cleanup, Superfund, Responses to Environmental Emergencies, Calls to the Environmental Hotline)		No
If the request is in reference to a particular permit issued by NJDEP, please provide the type of permit and any identifying numbers such as permit, incident or case numbers. (i.e. Fishing, Hunting, Hazardous Waste, Solid Waste, Land Use, NJPDES, Pesticides, Stream Encroachment, TWA, UST, Water Allocation)		List Permit Type: List ID Numbers:
If your request is in reference to an individual, please provide the individual's name and type, and if the individual is a DEP employee, your relationship with the individual:		Individual's name: Type of Individual: Relationship:
If the an individual was specified above, the individual was DEP Licensed, please specify the license type the individual holds:		License Type:
Please select how you want to access your record request information:		Access Method: On-site access, visit, copy

Requesting Access to Government Records Under the New Jersey Open Public Records Act (N.J.S.A. 47:1A-1 et seq.)

1. In order to request access to government records under OPRA, you must complete all the required portions of and date this request form and deliver it in person during regular business hours or by mail, fax or electronically to the appropriate custodian of the record requested. Your request is not considered filed until the appropriate custodian of the record requested has received a completed request form. If you submit the request form to any other officer or employee of the Department of Environmental Protection, that officer or employee does not have the authority to accept your request form on behalf of the Department of Environmental Protection and you will be directed to the appropriate division custodian. Descriptions of the divisions and agencies of the Department of Environmental Protection can be found at <http://www.nj.gov/dep/index.html>.
2. If you submit a request for access to government records to someone other than the appropriate custodian, do not complete the Department of Environmental Protection request form, or attempt to make a request for access by telephone or fax; the Open Public Records Act and its deadlines, restrictions and remedies will not apply to your request.
3. The fees for duplication of a government record in printed form are listed on the front of this form. We will notify you of any special charges, special service charges or other additional charges authorized by State law or regulation before processing your request. Payment shall be made by cash, check or money order payable to the State of New Jersey and mailed to the address specified below.
4. If it is necessary for the records custodian to contact you concerning your request, providing identifying information, such as your name, address and telephone number or an e-mail address is required. Where contact is not necessary, anonymous requests are permitted; except that anonymous requests for personal information are not honored.
5. Anonymous requests, when permitted, may require a deposit of estimated fees if the request fee exceeds five (5) dollars. You agree to pay the balance due upon delivery of the records.
6. Under OPRA, a custodian must deny access to a person who has been convicted of an indictable offense in New Jersey, any other state, or the United States, and who is seeking government records containing personal information pertaining to the person's victim or the victim's family.
7. By law, the Department of Environmental Protection must notify you that it grants or denies a request for access to government records within seven business days after the custodian of the record requested receives the request, provided that the record is currently available and not in storage. If the record requested is not currently available or is in storage, the custodian will advise you within seven business days when the record can be made available and the estimated cost. You may agree with the custodian to extend the time for making records available, or granting or denying your request.
8. You may be denied access to a government record if your request would substantially disrupt agency operations and the custodian is unable to reach a reasonable solution with you.
9. If the Department of Environmental Protection is unable to comply with your request for access to a government record, the custodian will indicate the reasons for denial on the request form and send you a signed and dated copy.
10. Except as otherwise provided by law or by agreement with the requester, if the custodian of the record requested fails to respond to you within seven business days of receiving a request form, the failure to respond will be considered a denial of your request.
11. If your request for access to a government record has been denied or unfilled within the time permitted by law, you have a right to challenge the decision by the Department of Environmental Protection to deny access. At your option, you may either institute a proceeding in the Superior Court of New Jersey or file a complaint in writing with the Government Records Council (GRC). You may contact the GRC by toll-free telephone at 866-850-0511, by mail at PO Box 819, Trenton, NJ, 08625, by e-mail at grc@dea.state.nj.us, or at their web site at www.state.nj.us/grc. The Council can also answer other questions about the law.
12. Information provided on this form may be subject to disclosure under the Open Public Records Act.
13. Requests may only be sent to the address specified below. Any request sent to an address other than the one specified below are subject to denial. All requests and/or fees must be mailed to the following address:

Department of Environmental Protection
Office of Records Custodian
Attention: Public Records Requests
401 East State Street
P.O. Box 402
Trenton, New Jersey 08625-0402

Appendix 16 Interview Log

Name of Interviewee	Organization	Position	Contact Information	Date of Telephone Conference
Paul Baldouf	NJ DEP Radiation Protection and Release Prevention	Assistant Director	609 984-5636	5/31/2007
Alan Bookman	NJ DEP Pollution Prevention and RTK		609 984-5338	5/30/2007
Gene Haplea	NJ Office of Homeland Security & Preparedness	Deputy Assistant Director for NJ Office of Counterterrorism	609-631-7481	5/29/2007
Gary Sondermeyer	NJ DEP	Chief of Staff	609-633-1123	5/25/2007
John P. Paczkowski	Port Authority of New York and New Jersey	Director of Office of Emergency Management	201-595-4670	5/24/2007
Bob Van Fossen	NJDEP Bureau of Emergency Planning and Response	Assistant Director	609-633-2168	5/30/2007

Appendix 17
Allocation of Federal Grants
Direct Federal Pass –Through Funding to Counties, Federal

COUNTY	AMOUNT
Middlesex	\$7,794,954.00
Passaic	\$6,498,575.00
Essex	\$6,339,633.00
Hudson	\$6,047,481.00
Bergen	\$5,155,010.00
Union	\$5,018,733.00
Gloucester	\$4,986,617.00
Burlington	\$4,106,767.00
Mercer	\$4,047,895.00
Camden	\$3,907,481.00
Atlantic	\$3,679,715.00
Somerset	\$3,477,504.00
Morris	\$3,276,453.00
Salem	\$2,948,515.00
Hunterdon	\$2,908,895.00
Monmouth	\$2,800,605.00
Cumberland	\$2,697,011.00
Ocean	\$2,444,654.00
Warren	\$2,222,217.00
Sussex	\$1,672,778.00
Cape May	\$1,552,058.00
TOTAL	\$83,583,551.00

Source: “2004/2005 Progress Report” (2006).

In Three Years, 2003-2005, UASI Funds Were Expended on the Following Areas:

FOCUS AREA	AMOUNT EXPENDED
Regional Fire Decontamination/Response (foam caches, air cascades, water vessels, response/specialized equipment)	\$11.3 million
Regional Urban Search and Rescue (USAR) capability (9 fire departments – Newark, Jersey City, Hoboken, North Hudson Regional, Elizabeth, Hackensack, Morristown, Paterson, Bayonne)	\$11 million
Regional Law Enforcement Task Force (a rapid deployment force of 1,000 local police officers and 60 State Police personnel provided with standardized equipment and training)	\$8 million
Regional EMS Task Force (pre-selected EMS squads – std equipment and training)	\$2.6 million
Regional Interoperability Communication (to improve radio capabilities among various first responder groups using different equipment)	\$11.2 million
Regional Hard and Soft Target Hardening (water supply resources, New Jersey Transit facilities and 10 shopping malls)	\$7.65 million
Regional Situational Awareness (tracking response to events, through E-Team and Site Profiler software, Geographic Information System)	\$6.6 million
Increasing Regional and Local Planning Capacity (eight planners)	\$1.3 million
Regional Medical Examiner Enhancements	\$.210 million
Basic Personal Protective Equipment (PPE) (for law enforcement)	\$.243 million
Miscellaneous (specialized training, exercises, human patient simulators/mannequins, enhanced security for Port Authority of NY/NJ, and advanced helicopter radar detecting systems)	\$3 million
TOTAL UASI 2003-2005 REGIONAL INITIATIVES	\$63.2 million

Source: “2004/2005 Progress Report” (2006)

Appendix 18

Best Practices Standards Regulation

State of New Jersey
Domestic Security Preparedness Task Force

Domestic Security Preparedness)
Best Practices Standards at TCPA/DPCC)
Chemical Sector Facilities)

BEST PRACTICES STANDARDS AT TCPA/DPCC CHEMICAL SECTOR FACILITIES

WHEREAS, the events of September 11, 2001 and the attack against civilian targets in the United States required the State of New Jersey and all states to increase domestic security preparedness; and

WHEREAS, on October 4, 2001, the Legislature of the State of New Jersey enacted the Domestic Security Preparedness Act (hereinafter the Act); and

WHEREAS, the Act authorizes and directs the New Jersey Domestic Security Preparedness Task Force (hereinafter the Task Force) to provide statewide coordination and supervision of all activities related to domestic preparedness for a terrorist attack or any other technological disaster by ensuring that there is a comprehensive program of domestic preparedness to deter, prepare for, respond to, and recover from incidents of terrorism; or any other technological disaster and

WHEREAS, the Act authorizes the Task Force to adopt domestic security and preparedness standards, guidelines and protocols after review by the Infrastructure Advisory Committee (IAC) and approval by the Governor; and

WHEREAS, the Task Force has designated the New Jersey Department of Environmental Protection (hereinafter NJDEP) to serve as liaison to the Chemical Sector of the IAC; and

WHEREAS, the NJDEP, as agent for the Task Force, and the Chemical Sector, have developed Chemical Sector Best Practices that were subsequently reviewed by the IAC and adopted by the Task Force as standards and reviewed and approved by Governor James E. McGreevey on September 18, 2003; and

WHEREAS, the Act authorizes and directs the Task Force to identify and assess potential risks to domestic security and to the well-being of New Jersey's citizens, including risks to and disruptions of essential state and local infrastructures; and,

WHEREAS, NJDEP has determined that additional measures are appropriate to ensure accountability that appropriate prevention and response measures are implemented by the chemical sector to address emerging domestic security threats;

WHEREAS, the State of New Jersey has identified facilities within the Chemical

Sector as possible targets of acts of terrorism; and

WHEREAS, NJDEP has undertaken, in coordination with the Task Force, Office of Counter Terrorism (OCT), and the New Jersey State Police, specific preventive and protective measures at individual facilities in response to threats to those facilities; and

WHEREAS, the Task Force has plenary authority to require that facilities meet standards, guidelines and protocols and to implement approved best practices and develop preventive measures to reduce vulnerabilities to critical infrastructure and the public; and

NOW THEREFORE, the Task Force hereby adopts the following requirements as standards:

1. Chemical Sector facilities located in the State of New Jersey shall comply with adopted Chemical Sector Best Practices. **For purposes of these standards, “Chemical Sector facilities located in New Jersey” (facilities) shall include all facilities that are subject to the provisions of the Toxic Catastrophe Prevention Act (TCPA), N.J.S.A. 13:1K-19 et seq., and all facilities subject to the provisions of the Discharge Prevention, Containment and Countermeasure Program (DPCC) that are identified by either of the following Standard Industrial Classification (SIC) major groups: 28 (chemical and allied products), 30 (rubber and**

miscellaneous plastic products), 5169 (chemicals and allied products, not elsewhere classified), or the corresponding North American Industry Classification System (NAICS) codes (325, 326, and 424690);

2. Chemical Sector facilities located in New Jersey shall, within one hundred and twenty (120) days of the effective date of these standards, develop and provide access to NJDEP an assessment of facility vulnerabilities and hazards that might be exploited by potential terrorists. Such assessments shall be conducted by a qualified security expert, shall employ a methodology that has been approved by the American Institute of Chemical Engineers' Center for Chemical Process Safety against its criteria for security vulnerability assessments, and shall include, at a minimum, consideration of: access and security provisions on the facility grounds; (including the regular testing and maintenance of security systems); existing or needed security measures outside the perimeter of the facility that would reduce vulnerabilities to an attack on the facility; employee and contractor background checks and other personnel measures; information and cyber security; storage and processing of potentially hazardous materials.
3. The assessment required by paragraph 2 herein shall include a prevention, preparedness, and response plan that identifies: the implementation status of all Best Practices identified by the Task

Force, based on its degree of security risk; and all other measures that have been implemented or are planned to be implemented to eliminate or minimize risk of terrorist attack, to mitigate the consequences of any attack that does occur, or to respond to an attack that does occur. To the extent that the plan identifies measures that have not yet been implemented, the plan shall either present the schedule for implementation of the identified measure(s) or document that the costs of the measure(s) are not justified by the anticipated security and public safety benefits.

4. The process and development of the assessment and plans required by paragraphs 2 and 3 herein shall afford employees of the facility and their collective bargaining representatives (if any) a reasonable opportunity to identify issues that should be addressed in the assessment and plans. The assessment should, at a minimum, detail the issues identified by the employees of the facility and their collective bargaining representatives (if any) in the assessment and planning process. The assessment should also include the development and/or review of an Emergency Response Plan that addresses the issues identified by the employees of the facility and their collective bargaining representatives (if any), the local Office of Emergency Management and the Department of Environmental Protection.

5. **Facilities subject to the TCPA program shall conduct a review of the potential for adopting inherently safer technology (IST)** as part of the assessment and plan required by Paragraphs 2 and 3 herein. For purposes of this standard, “inherently safer technology” shall mean the principles or techniques incorporated in a covered process to minimize or eliminate the potential for an extraordinarily hazardous substance (EHS) accident that include, but are not limited to, the following: 1) reducing the amount of EHS material that potentially may be released; 2) substituting less hazardous materials; 3) using EHSs in the least hazardous process conditions or form; and 4) designing equipment and processes to minimize the potential for equipment failure and human error. **Such review shall include analysis of whether adoption of IST alternatives is practicable and the basis for any determination that implementation of IST is impractical.** Such review shall be conducted by a qualified expert in chemical process safety.
6. Each operator of a facility that receives a citation from the U.S. Occupational Safety and Health Administration or from the New Jersey Public Employees Occupational Safety and Health Program for an alleged violation of the Process Safety Management Standard, 29 CFR 1910.119, shall within three (3) business days of receipt, transmit a copy of such citation to the NJDEP.

7. Every Chemical Sector facility located in New Jersey shall report a breach of security at the facility to NJDEP and their local law enforcement entity within 15 minutes of discovery of the breach. A “breach of security” shall be deemed to include any incident in which unauthorized persons gain access to the facility or in which other security measures are compromised.
8. To the extent paragraphs 4 and 5 set forth more fully detailed requirements than those found in the Chemical Sector Best Practices approved by the Governor on September 18, 2003, Chemical Sector facilities shall comply with the requirements of paragraphs 4 and 5 and the requirements found in the Chemical Sector Best Practices.
9. These standards are without prejudice to the authority of the Task Force or NJDEP to issue orders as appropriate to ensure domestic security preparedness.
10. All assessments, plans, reports and reviews required by these standards shall be maintained on site for inspection by representatives of NJDEP or the Task Force during normal business hours.
11. Every Chemical Sector Facility located in New Jersey shall be subject to monitoring and inspection with respect to matters addressed in these standards.
12. NJDEP and the Task Force shall hold all documents submitted or obtained pursuant to these standards in a confidential and secure

fashion, protected as privileged and confidential information under the authorities of the Domestic Security Preparedness Act, P.L. 2001, Ch. 246, N.J.S.A. App.A:9-69.6.c and N.J.S.A. App. A:9-74.11.a, and the Toxic Catastrophe Prevention Act, N.J.S.A. 13:1K-29. For the purposes of these standards, NJDEP will handle all such documents in accordance with the applicable requirements established under the Toxic Catastrophe Prevention Act found at N.J.A.C. 7:31-10.8, subject to the requirements applicable to non-participants. The service list of recipients of all notices and orders issued in implementation of these standards shall also be deemed privileged and confidential.

NEW JERSEY DOMESTIC SECURITY
PREPAREDNESS TASK FORCE

Peter C. Harvey, Attorney General
Chairman, Domestic Security Preparedness Task Force

Dated:

**DOCUMENT SIGNED BY PETER C. HARVEY AND BRADLEY M. CAMPBELL
11/21/05**

Dated:

Bradley M. Campbell, Commissioner
Domestic Security Preparedness Task Force Liaison
To the Chemical Sector

Source: Interview with Gary Sondermeyer, 5/25/07

Appendix 19

Best Practices Standards Checklist

New Jersey Chemical Sector Checklist for Implementation of Security Best Practices Standards

Company Name, DIFF #		
Local Name		
Person(s) Interviewed, Title		
Department Reviewer, Date		

This report was prepared at the direction of the New Jersey Domestic Security Preparedness Task Force pursuant to its authority under the New Jersey Domestic Security Preparedness Act. The information contained within this report is **CONFIDENTIAL** and shall be protected as privileged and confidential under the authorities of the New Jersey Domestic Security Preparedness Act, P.L. 2001, Ch. 246, N.J.S.A. App. A:9-69.6c and N.J.S.A. A:9-74.11.a, and the Toxic Catastrophe Prevention Act, N.J.S.A. 13:1K-29. This report shall not be deemed a public record under the provisions of P.L. 1963, c. 73 (C.47:1A-1 et seq.) or the common law concerning access to public records.

Security Requirement	Yes	No	N/A	Comments
Security Vulnerability Assessment (SVA)				
General				
1. Was an SVA conducted? <u>List the date the SVA was completed or scheduled for completion.</u>				
2. Was an approved SVA methodology used? <u>Specify the methodology.</u> (Air Products, API/NPRA, BASF, Bayer, CCPS, Easi-Assessment by Straec, ExxonMobil, FMC, Georgia Pacific, PPG, Sandia, SOCMA w/manual, SVA Pro by Dyadem,)				
3. Was a multi-disciplined team used to conduct the SVA?				
4. Was a "qualified security expert" part of the SVA team? <u>If yes, list name, title, and affiliation.</u>				

Revised 3/16/06

Security Requirement	Yes	No	N/A	Comments
5. <u>Was a consultant used to prepare the SVA? If yes, list the name of the firm.</u>				
6. <u>Were employees afforded an opportunity to provide input? If yes, describe the mechanism employed.</u>				
Facility Characterization				
1. Were the following critical assets identified?				
a. Equipment? <u>List equipment that the facility identified as critical.</u>				
b. Process control systems?				
c. Raw materials & products? <u>List substances that the facility identified as critical.</u>				
d. Utilities?				
e. Data?				
f. Personnel?				
2. Were on-site and off-site consequences of a successful attack documented and ranked as to the following?				
a. Impact to people?				
b. Impact to infrastructure?				
c. Impact to economy?				
d. Impact to environment?				
Threat Assessment				
1. Were the following potential adversaries identified, characterized, & ranked?				

Revised 03/16/06

Security Requirement	Yes	No	N/A	Comments
a. External? <u>Describe the adversaries and rank (Only list the threats ranked medium & high).</u>				
b. Internal? <u>Describe the adversaries and rank (Only list the threats ranked medium & high).</u>				
c. Internally assisted? <u>Describe the adversaries and rank (Only list the threats ranked medium & high).</u>				
2. Was the facility's target attractiveness analyzed? <u>Summarize the facility's target attractiveness.</u>				
Vulnerability Analysis				
1. Were specific threat scenarios defined?				
2. Did the scenarios address the following:				
a. Degradation of assets?				
b. Loss of containment?				
c. Theft?				
d. Contamination?				
e. IT system compromise?				
3. Were existing security systems evaluated and ranked based on:				
a. Ability to Deter?				
b. Ability to Detect?				
c. Ability to Delay?				

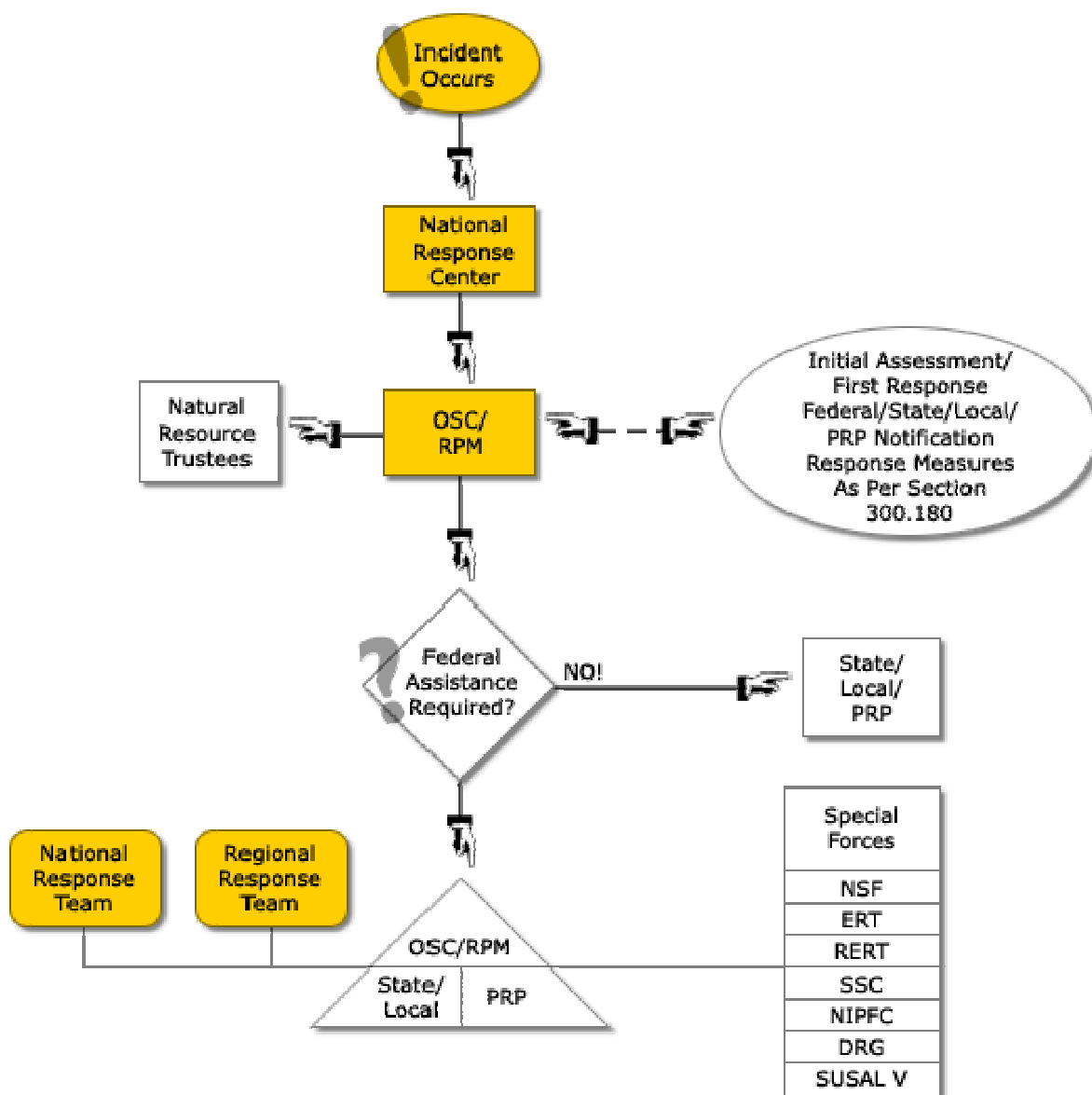
Revised 03/16/06

Security Requirement	Yes	No	N/A	Comments
d. Ability to Respond?				
4. Were vulnerabilities identified & ranked? <u>Summarize the vulnerabilities and rank.</u>				
Risk Reduction Recommendations				
1. Were risk reduction recommendations made?				
2. Were all recommendations implemented? <u>If no, which were not, why, and when are they scheduled for completion.</u>				
Prevention, Preparedness, and Response Plan				
Implementation of Best Practices				
1. Does the plan address communication with public & private groups?				
2. Does the plan address access control systems?				
3. Does the plan address perimeter protection?				
4. Does the plan address backup systems for utilities (for high-risk facilities only)?				
5. Does the plan address policies, procedures, and training for emergency response & security?				
6. Does the plan address transportation security procedures?				
7. Does the plan address cyber security?				

Revised 03/16/06

Appendix 20

US Environmental Protection Agency's Emergency Response Program Snapshot of the National Response System



Source: <http://www.epa.gov/superfund/programs/er/nrs/snapshot.htm>

Appendix 21

New Jersey's Toxic Catastrophe Prevention Act (TCPA) Program

Data for tables 1-3 were collected from New Jersey's Department of Environmental Protection, Toxic Catastrophe Prevention Act (TCPA) Program Consolidated Rule Document, (Revised April 17, 2006)

*Table 1:
2006 Extraordinarily Hazardous Substance (EHS) List*

Name of Extraordinarily Hazardous Substance (EHS)	CAS #	Threshold Quantity in Pounds
Group I		
*Hydrogen chloride (HCl)	7647-01-0	2,000
*Hydrochloric Acid 36% by weight per more HCL	7647-01-0	5,600
Allyl Chloride	107-05-1	2,000
*Hydrogen fluoride (HF)	74-90-8	500
*Hydrofluoric acid 70% by weight or more HF	7664-39-3	700
*Chlorine	7782-50-5	1,000
*Phosphorus trichloride	7719-12-2	500
*Hydrogen sulfide	7783-06-4	1,000
*Phosgene	75-44-5	100
*Bromine	7726-95-6	1,000
*Methyl isocyanate	624-83-9	100
*Toluene-2,4-diisocyanate	584-84-9	10,000
*Toluene-2,4-diisocyanate	26471-62-5	10,000
Group II		
*Acetaldehyde	75-07-0	4,900
*Acrolein	107-02-8	200
*Acrylonitrile	107-13-1	2,300
*Allylamine	107-11-9	1,200
*Ammonia (NH ₃)	7664-41-7	5,200
*Ammonia (aqueous) 28 % by weight or more NH ₃	1336-21-6	19,000
*Arsine	7784-42-1	60
*bis (Chloromethyl) ether	542-88-1	80
Boron tribromide	10294-33-4	10,000
*Boron trichloride	10294-34-5	1,700
*Boron trifluoride	7637-07-2	200
Bromine chloride	13863-41-7	800
Bromine pentafluoride	7789-30-2	1,300
Carbon monoxide (10 % by volume or more)	630-08-0	12,000
Carbonyl fluoride	353-50-4	1,700
*Chlorine dioxide	10049-04-4	500
Chlorine pentafluoride	13637-63-3	500
Chlorine trifluoride	7790-91-2	600

2006 Extraordinarily Hazardous Substance (EHS) List...

Name of Extraordinarily Hazardous Substance (EHS)	CAS #	Threshold Quantity in Pounds
*Chloromethyl methyl ether	107-30-2	300
Chloropicrin	76-06-2	900
Chloroprene	126-99-8	12,000
*Crotonaldehyde (cis-, trans-isomers)	123-73-9 4170-30-3	450
*Cyanogen	460-19-5	1,300
*Cyanogen chloride	506-77-4	200
Diazomethane	334-88-3	300
*Diborane	19287-45-7	60
Dichloroacetylene	7572-29-4	125
*Dichlorosilane	4109-96-0	2,000
Diethylamine	109-89-7	9,600
*Dimethylamine	124-40-3	6,600
*1,1 Dimethylhydrazine	57-14-7	800
*Epoxypropane (Propylene oxide)	75-56-9	7,700
*Ethylamine	75-04-7	7,500
*Ethylene oxide (Oxirane)	75-21-8	2,700
*Ethylenimine (Aziridine)	151-56-4	800
*Ethyl mercaptan	75-08-1	13,000
*Fluorine	7782-41-4	450
*Formaldehyde (gas)	50-00-0	175
*Furan	110-00-9	200
Hexafluoroacetone	684-16-2	3,300
Hydrogen bromide (HBr)	10035-10-6	2,900
Hydrobromic acid 62 % by weight or more HBr	10035-10-6	4,800
*Hydrogen selenide	7783-07-5	125
*Isopropylamine	75-31-0	3,300
Ketene	463-51-4	50
Methacrylaldehyde	78-85-3	1,300
*Methyl acrylonitrile	126-98-7	175
*Methylamine	74-89-5	2,300
Methyl bromide	74-83-9	1,800
*Methyl chloride	74-87-3	12,000
*Methyl chloroformate	79-22-1	350
Methyl dichlorosilane	75-54-7	27,000
Methyl fluoroacetate	453-18-9	90
Methyl fluorosulfate	421-20-5	50
*Methylhydrazine	60-34-4	125
Methyl iodide	74-88-4	2,900
*Methyl mercaptan	74-93-1	2,400
Methyl vinyl ketone	78-94-4	10
*Nickel carbonyl	13463-39-3	125
*Nitric acid (HNO ₃) 94 % by weight or more HNO ₃	7697-37-2	450

2006 Extraordinarily Hazardous Substance (EHS) List...

Name of Extraordinarily Hazardous Substance (EHS)	CAS #	Threshold Quantity in Pounds
<i>Nitrogen Oxides</i>		
Nitrogen dioxide (NO ₂) 10 % by volume or more	10102-44-0	200
*Nitric oxide 10 % by volume or more	10102-43-9	125
Nitrogen tetroxide 10 % by volume or more	10544-72-6	200
Nitrogen trifluoride	7783-54-2	10,000
Nitrogen trioxide 10 % by volume	10544-73-7	175
*Oleum 65 % by weight or more free sulfur trioxide (SO ₃)	8014-95-7	800
Osmium tetroxide	20816-12-0	4,500
Oxygen difluoride	7783-41-7	10
Ozone	10028-15-6	15
Pentaborane	19624-22-7	15
*Perchloromethyl mercaptan	594-42-3	125
Perchloryl fluoride	7616-94-6	2,900
*Phosphine	7803-51-2	30
Phosphorus trifluoride	7783-55-3	34,000
*Phosphoryl chloride	10025-87-3	800
Propylamine	107-10-8	11,000
Selenium hexafluoride	7783-79-1	700
Stibine	7803-52-3	250
*Sulfur dioxide (SO ₂) 10 % by volume or more	SO ₂ 7446-09-5	4,600
Sulfur monochloride	10025-67-9	2,800
Sulfur pentafluoride	5714-22-7	175
*Sulfur tetrafluoride	7783-60-0	150
Sulfur trioxide	7446-11-9	500
Sulfuryl fluoride	2699-79-8	22,000
Tellurium hexafluoride	7783-80-4	175
Tetrafluorohydrazine	10036-47-2	3,800
*Tetramethyl lead	75-74-1	800
*Tetranitromethane	509-14-8	900
Thionyl chloride	7719-09-7	250
*Titanium tetrachloride	7550-45-0	600
*Trichlorosilane	10025-78-2	2,700
*Trifluorochloroethylene	79-38-9	7,300
Trimethoxysilane	2487-90-3	1,100
*Trimethylamine	75-50-3	11,000
*Trimethylchlorosilane	75-77-4	1,400
Vinyl trichlorosilane	75-94-5	7,700

* EHS also listed in Part B or Part C as of the date of adoption. Some may appear with different Federal thresholds or concentrations.

*Table 2:
2006 List of Regulated Toxic Substances and
Threshold Quantities for Accidental Release Prevention*

Chemical Name	CAS No.	Threshold Quantity (lbs)	*Basis for Listing
Acrolein [2-Propenal]	107-02-8	5,000	b
Acrylonitrile [2-Propenenitrile]	107-13-1	20,000	b
Acrylyl chloride [2-Propenoyl chloride]	814-68-6	5,000	b
Allyl alcohol [2-Propen-1-ol]	107-18-6	15,000	b
Allylamine [2-Propen-1-amine]	107-11-9	10,000	b
Ammonia (anhydrous)	7664-41-7	10,000	a, b
Ammonia (conc 20% or greater)	7664-41-7	20,000	a, b
Arsenous trichloride	7784-34-1	15,000	b
Arsine	7784-42-1	1,000	b
Boron trichloride [Borane, trichloro-]	10294-34-5	5,000	b
Boron trifluoride [Borane, trifluoro-]	7637-07-2	5,000	b
Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro[oxybis[metane]]-, T-4-	353-42-4	15,000	b
Bromine	7726-95-6	10,000	a, b
Carbon disulfide	75-15-0	20,000	b
Chlorine	7782-50-5	2,500	a, b
Chlorine dioxide [Chlorine oxide (ClO ₂)]	10049-04-4	1,000	c
Chloroform [Methane, trichloro-]	67-66-3	20,000	b
Chloromethyl ether [Methane, oxybis[chloro-]	542-88-1	1,000	b
Chloromethyl methyl ether [Methane, chloromethoxy-]	107-30-2	5,000	b
Crotonaldehyde [2-Butenal]	4170-30-3	20,000	b
Crotonaldehyde, (E)- [2-Butenal, (E)-]	123-73-9	20,000	b
Cyanogen chloride	506-77-4	10,000	c
Cyclohexylamine [Cyclohexanamine]	108-91-8 1	5,000	b
Diborane	19287-45-7	2,500	b
Dimethyldichlorosilane [Silane, dichlorodimethyl-]	75-78-5	5,000	b
1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	57-14-7	15,000	b
Epichlorohydrin [Oxirane, (chloromethyl)-]	106-89-8	20,000	b
Ethylenediamine [1,2-Ethanediamine]	107-15-3	20,000	b
Ethyleneimine [Aziridine]	151-56-4	10,000	b
Ethylene oxide [Oxirane]	75-21-8	10,000	a, b
Fluorine	7782-41-4	1,000	b
Formaldehyde (solution)	50-00-0	15,000	b
Furan	110-00-9	5,000	b
Hydrazine	302-01-2	15,000	b
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000	d
Hydrocyanic acid	74-90-8	2,500	a, b
Hydrogen chloride (anhydrous)	7647-01-0	5,000	a

*2006 List of Regulated Toxic Substances and
Threshold Quantities for Accidental Release Prevention...*

Chemical Name	CAS No.	Threshold Quantity (lbs)	*Basis for Listing
<i>[Hydrochloric acid]</i>			
Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) <i>[Hydrofluoric acid]</i>	7664-39-3	1,000	a, b
Hydrogen selenide	7783-07-5	500	b
Hydrogen sulfide	7783-06-4	10,000	a, b
Iron, pentacarbonyl- <i>[Iron carbonyl (Fe(CO)₅), (TB-5-11)-]</i>	13463-40-6	2,500	b
Isobutyronitrile <i>[Propanenitrile, 2-methyl-]</i>	78-82-0	20,000	b
Isopropyl chloroformate <i>[Carbonochloridic acid, 1-methylethyl ester]</i>	108-23-6	15,000	b
Methacrylonitrile <i>[2-Propenenitrile, 2-methyl-]</i>	126-98-7	10,000	b
Methyl chloride <i>[Methane, chloro-]</i>	74-87-3	10,000	a
Methyl chloroformate <i>[Carbonochloridic acid, methylester]</i>	79-22-1	5,000	b
Methyl hydrazine <i>[Hydrazine, methyl-]</i>	60-34-4	15,000	b
Methyl isocyanate <i>[Methane, isocyanato-]</i>	624-83-9	10,000	a, b
Methyl mercaptan <i>[Methanethiol]</i>	74-93-1	10,000	b
Methyl thiocyanate <i>[Thiocyanic acid, methyl ester]</i>	556-64-9	20,000	b
Methyltrichlorosilane <i>[Silane, trichloromethyl-]</i>	75-79-6	5,000	b
Nickel carbonyl	13463-39-3	1,000	b
Nitric acid (conc 80% or greater)	7697-37-2	15,000	b
Nitric oxide <i>[Nitrogen oxide (NO)]</i>	10102-43-9	10,000	b
Oleum (Fuming Sulfuric acid) <i>[Sulfuric acid, mixture with sulfur trioxide]</i> ¹	8014-95-7	10,000	e
Peracetic acid <i>[Ethaneperoxoic acid]</i>	79-21-0	10,000	b
Perchloromethylmercaptan <i>[Methanesulfenyl chloride, trichloro-]</i>	594-42-3	10,000	b
Phosgene <i>[Carbonic dichloride]</i>	75-44-5	500	a, b
Phosphine	7803-51-2	5,000	b
Phosphorus oxychloride <i>[Phosphoryl chloride]</i>	10025-87-3	5,000	b
Phosphorus trichloride <i>[Phosphorous trichloride]</i>	7719-12-2	15,000	b
Piperidine	110-89-4	15,000	b
Propionitrile <i>[Propanenitrile]</i>	107-12-0	10,000	b
Propyl chloroformate <i>[Carbonochloridic acid, propylester]</i>	109-61-5	15,000	b
Propyleneimine <i>[Aziridine, 2-methyl-]</i>	75-55-8	10,000	b
Propylene oxide <i>[Oxirane, methyl-]</i>	75-56-9	10,000	b
Sulfur dioxide (anhydrous)	7446-09-5	5,000	a, b
Sulfur tetrafluoride <i>[Sulfur fluoride (SF₄), (T-4)-]</i>	7783-60-0	2,500	b
Sulfur trioxide	7446-11-9	10,000	a, b

*2006 List of Regulated Toxic Substances and
Threshold Quantities for Accidental Release Prevention...*

Chemical Name	CAS No.	Threshold Quantity (lbs)	*Basis for Listing
Tetramethyllead [Plumbane, tetramethyl-]	75-74-1	10,000	b
Tetranitromethane [Methane, tetranitro-]	509-14-8	10,000	b
Titanium tetrachloride [Titanium chloride (TiCl ₄) (T-4)-]	7550-45-0	2,500	b
Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-]1	584-84-9	10,000	a
Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-]1	91-08-7	10,000	a
Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-]1	26471-62-5	10,000	a
Trimethylchlorosilane [Silane, chlorotrimethyl-]	75-77-4	10,000	b
Vinyl acetate monomer [Acetic acid ethenyl ester]	108-05-4	15,000	b

1 The mixture exemption in 68.115(b)(1) does not apply to the substance.

* Basis for Listing:

- a. Mandated for listing by Congress
- b. On EHS list, vapor pressure 10 mmHg or greater
- c. Toxic gas
- d. Toxicity of hydrogen chloride, potential to release hydrogen chloride, and history of accidents
- e. Toxicity of sulfur trioxide and sulfuric acid, potential to release sulfur trioxide, and history of accidents.

*Table 3:
2006 List of Regulated Flammable Substances and Threshold Quantities for
Accidental Release Prevention*

Chemical Name	CAS No.	Threshold Quantity (lbs)	*Basis for Listing
Acetaldehyde	75-07-0	10,000	g
Acetylene [Ethyne]	74-86-2	10,000	f
Bromotrifluoroethylene [Ethene, bromotrifluoro-]	598-73-2	10,000	f
1,3-Butadiene	106-99-0	10,000	f
Carbon oxysulfide [Carbon oxide sulfide (COS)]	463-58-1	10,000	f
Chlorine monoxide [Chlorine oxide]	7791-21-1	10,000	f
2-Chloropropylene [1-Propene, 2-chloro-]	557-98-2	10,000	g
1-Chloropropylene [1-Propene, 1-chloro-]	590-21-6	10,000	g
Cyanogen [Ethanedinitrile]	460-19-5	10,000	f
Cyclopropane	75-19-4	10,000	f
Dichlorosilane [Silane, dichloro-]	4109-96-0	10,000	f
Difluoroethane [Ethane, 1,1-difluoro-]	75-37-6	10,000	f
Dimethylamine [Methanamine, N-methyl-]	124-40-3	10,000	f
2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	463-82-1	10,000	f
Ethane	74-84-0	10,000	f
Ethyl acetylene [1-Butyne]	107-00-6	10,000	f
Ethylamine [Ethanamine]	75-04-7	10,000	f
Ethyl chloride [Ethane, chloro-]	75-00-3	10,000	f
Ethylene [Ethene]	74-85-1	10,000	f
Ethyl ether [Ethane, 1,1'-oxybis-]	60-29-7	10,000	g
Ethyl mercaptan [Ethanethiol]	75-08-1	10,000	g
Ethyl nitrite [Nitrous acid, ethyl ester]	109-95-5	10,000	f
Hydrogen	1333-74-0	10,000	f

*2006 List of Regulated Flammable Substances and Threshold Quantities for
Accidental Release Prevention...*

Chemical Name	CAS No.	Threshold Quantity (lbs)	*Basis for Listing
Isopentane [Butane, 2-methyl-]	78-78-4	10,000	g
Isoprene [1,3-Butadiene, 2-methyl-]	78-79-5	10,000	g
Isopropylamine [2-Propanamine]	75-31-0	10,000	g
Isopropyl chloride [Propane, 2-chloro-]	75-29-6	10,000	g
Methane	74-82-8	10,000	f
Methylamine [Methanamine]	74-89-5	10,000	f
3-Methyl-1-butene	563-45-1	10,000	f
2-Methyl-1-butene	563-46-2	10,000	g
Methyl ether [Methane, oxybis-]	115-10-6	10,000	f
Methyl formate [Formic acid, methyl ester]	107-31-3	10,000	g
1,3-Pentadiene	504-60-9	10,000	f
Pentane	109-66-0	10,000	g
1-Pentene	109-67-1	10,000	g
2-Pentene, (E)-	646-04-8	10,000	g
2-Pentene, (Z)-	627-20-3	10,000	g
Propadiene [1,2-Propadiene]	463-49-0	10,000	f
Propyne [1-Propyne]	74-99-7	10,000	f
Silane	7803-62-5	10,000	f
Tetrafluoroethylene [Ethene, tetrafluoro-]	116-14-3	10,000	f
Tetramethylsilane [Silane, tetramethyl-]	75-76-3	10,000	g
Trichlorosilane [Silane, trichloro-]	10025-78-2	10,000	g
Trifluorochloroethylene [Ethene, chlorotrifluoro-]	79-38-9	10,000	f
Trimethylamine [Methanamine, N,N-dimethyl-]	75-50-3	10,000	f
Vinyl acetylene [1-Buten-3-yne]	689-97-4	10,000	f
Vinyl chloride [Ethene, chloro-]	75-01-4	10,000	a, f

*2006 List of Regulated Flammable Substances and Threshold Quantities for
Accidental Release Prevention...*

Chemical Name	CAS No.	Threshold Quantity (lbs)	*Basis for Listing
Vinyl ethyl ether [Ethene, ethoxy-]	109-92-2	10,000	g
Vinyl fluoride [Ethene, fluoro-]	75-02-5	10,000	f
Vinylidene chloride [Ethene, 1,1-dichloro-]	75-35-4	10,000	g
Vinylidene fluoride [Ethene, 1,1-difluoro-]	75-38-7	10,000	f
Vinyl methyl ether [Ethene, methoxy-]	107-25-5	10,000	f

1 A flammable substance when used as a fuel or held for sale as a fuel at a retail facility is excluded from all provisions of this part (see §68.126).

* Note: Basis for Listing:

- a. Mandated for listing by Congress.
- f. Flammable gas.
- g. Volatile flammable liquid.

Source: <http://www.state.nj.us/dep/rpp/brp/tcpa/downloads/conrule2006.pdf>

Appendix 23

List of Substances Regulated by the Clean Air Act (CAA) 112(r)

CAA 112(r) List Of Regulated Substances	CAS #	TQ
1,1-Dichloroethylene	75-35-4	10,000
1,1-Dimethyl hydrazine	57-14-7	15,000
1,2-Ethanediamine	107-15-3	20,000
1,2-Propadiene	463-49-0	10,000
1,3-Butadiene	106-99-0	10,000
1,3-Butadiene, 2-methyl-	78-79-5	10,000
1,3-Pentadiene	504-60-9	10,000
1-Buten-3-yne	689-97-4	10,000
1-Butene	106-98-9	10,000
1-Butyne	107-00-6	10,000
1-Chloropropylene	590-21-6	10,000
1-Pentene	109-67-1	10,000
1-Propene	115-07-1	10,000
1-Propene, 1-chloro-	590-21-6	10,000
1-Propene, 2-chloro-	557-98-2	10,000
1-Propene, 2-methyl-	115-11-7	10,000
1-Propyne	74-99-7	10,000
2,2-Dimethylpropane	463-82-1	10,000
2-Butenal	4170-30-3	20,000
2-Butenal, (e)-	123-73-9	20,000
2-Butene	107-01-7	10,000
2-Butene, (E)	624-64-6	10,000
2-Butene-cis	590-18-1	10,000
2-Butene-trans	624-64-6	10,000
2-Chloropropylene	557-98-2	10,000
2-Methyl-1-butene	563-46-2	10,000
2-Methylpropene	115-11-7	10,000
2-Pentene, (E)-	646-04-8	10,000
2-Pentene, (Z)-	627-20-3	10,000
2-Propanamine	75-31-0	10,000
2-Propen-1-amine	107-11-9	10,000
2-Propen-1-ol	107-18-6	15,000
2-Propenal	107-02-8	5,000

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
2-Propenenitrile	107-13-1	20,000
2-Propenenitrile, 2-methyl-	126-98-7	10,000
2-Propenoyl chloride	814-68-6	5,000
3-Methyl-1-butene	563-45-1	10,000
Acetaldehyde	75-07-0	10,000
Acetic acid ethenyl ester	108-05-4	15,000
Acetic acid ethenyl ester??	108-05-4	15,000
Acetylene	74-86-2	10,000
Acrolein	107-02-8	5,000
Acrylonitrile	107-13-1	20,000
Acrylyl chloride	814-68-6	5,000
Allyl alcohol	107-18-6	15,000
Allylamine	107-11-9	10,000
Ammonia (anhydrous)	7664-41-7	10,000
Ammonia (conc 20% or greater)	7664-41-7	20,000
Arsenous trichloride	7784-34-1	15,000
Arsine	7784-42-1	1,000
Aziridine	151-56-4	10,000
Aziridine, 2-methyl	75-55-8	10,000
Benzene, 1,3-diisocyanato -2-methyl-	91-08-7	10,000
Benzene, 1,3-diisocyanatomethyl-	26471-62-5	10,000
Benzene, 2,4-diisocyanato -1-methyl-	584-84-9	10,000
Bis(chloromethyl) ether	542-88-1	1,000
Borane, trichloro-	10294-34-5	5,000
Borane, trifluoro-	7/2/7637	5,000
Boron trichloride	10294-34-5	5,000
Boron trifluoride	7/2/7637	5,000
Boron trifluoride compound with methyl ether (1:1) 3	353-42-4	15,000
Boron, trifluoro[oxybis[methane]]-, (T-4)- 3	353-42-4	15,000
Bromine	7726-95-6	10,000
Bromotrifluoroethylene	598-73-2	10,000

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
Butane	106-97-8	10,000
Butane, 2-methyl-	78-78-4	10,000
Butene	25167-67-3	10,000
Carbon disulfide	75-15-0	20,000
Carbon oxide sulfide (COS)	463-58-1	10,000
Carbonic dichloride	75-44-5	500
Carbonochloridic acid, propylester	109-61-5	15,000
Carbonochloridic acid, 1-methylethyl ester	108-23-6	15,000
Carbonochloridic acid, methylester	79-22-1	5,000
Carbonyl sulfide	463-58-1	10,000
Chlorine	7782-50-5	2,500
Chlorine dioxide	10049-04-4	1,000
Chlorine monoxide	7791-21-1	10,000
Chlorine oxide	7791-21-1	10,000
Chlorine oxide (ClO ₂)	10049-04-4	1,000
Chloroethane	75-00-3	10,000
Chloroform	67-66-3	20,000
Chloromethane	74-87-3	10,000
Chloromethyl ether	542-88-1	1,000
Chloromethyl methyl ether	107-30-2	5,000
Crotonaldehyde	4170-30-3	20,000
Crotonaldehyde, (E)-	123-73-9	20,000
Cyanogen	460-19-5	10,000
Cyanogen chloride	506-77-4	10,000
Cyanogen chloride ((CN)Cl)	506-77-4	10,000
Cyclohexanamine	108-91-8	15,000
Cyclohexylamine	108-91-8	15,000
Cyclopropane	75-19-4	10,000
Diborane	19287-45-7	2,500
Diborane(6)	19287-45-7	2,500

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
Dichloromethyl ether	542-88-1	1,000
Dichlorosilane	4109-96-0	10,000
Difluoroethane	75-37-6	10,000
Dimethylamine	124-40-3	10,000
Dimethyldichlorosilane	75-78-5	5,000
Dimethylhydrazine	57-14-7	15,000
Epichlorohydrin	106-89-8	20,000
Ethanamine	75-04-7	10,000
Ethane	74-84-0	10,000
Ethane, 1,1-difluoro-	75-37-6	10,000
Ethane, 1,1'-oxybis-	60-29-7	10,000
Ethane, chloro-	75-00-3	10,000
Ethanedinitrile	460-19-5	10,000
Ethaneperoxoic acid	79-21-0	10,000
Ethanethiol	75-08-1	10,000
Ethene	74-85-1	10,000
Ethene, 1,1-dichloro-	75-35-4	10,000
Ethene, 1,1-difluoro-	75-38-7	10,000
Ethene, bromotrifluoro-	598-73-2	10,000
Ethene, chloro-	75-01-4	10,000
Ethene, chlorotrifluoro-	79-38-9	10,000
Ethene, ethoxy-	109-92-2	10,000
Ethene, fluoro-	75-02-5	10,000
Ethene, methoxy-	107-25-5	10,000
Ethene, tetrafluoro-	116-14-3	10,000
Ethyl acetylene	107-00-6	10,000
Ethyl chloride	75-00-3	10,000
Ethyl cyanide	107-12-0	10,000
Ethyl ether	60-29-7	10,000
Ethyl mercaptan	75-08-1	10,000
Ethyl nitrite	109-95-5	10,000
Ethylene	74-85-1	10,000
Ethylene oxide	75-21-8	10,000
Ethylenediamine	107-15-3	20,000

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
Ethyleneimine	151-56-4	10,000
Ethyne	74-86-2	10,000
Fluorine	7782-41-4	1,000
Formaldehyde	50-00-0	15,000
Formaldehyde (solution)	50-00-0	15,000
Formic acid, methyl ester	107-31-3	10,000
Furan	110-00-9	5,000
Hydrazine	302-01-2	15,000
Hydrazine, 1,1-dimethyl-	57-14-7	15,000
Hydrazine, methyl-	60-34-4	15,000
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000
Hydrocyanic acid	74-90-8	2,500
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	1,000
Hydrogen	1333-74-0	10,000
Hydrogen chloride (anhydrous)	7647-01-0	5,000
Hydrogen chloride (gas only)	7647-01-0	5,000
Hydrogen cyanide	74-90-8	2,500
Hydrogen fluoride (anhydrous)	7664-39-3	1,000
Hydrogen selenide	7/5/7783	500
Hydrogen sulfide	6/4/7783	10,000
Iron carbonyl (Fe(CO) ₅), (TB-5-11)-	13463-40-6	2,500
Iron, pentacarbonyl-	13463-40-6	2,500
Isobutane	75-28-5	10,000
Isobutyronitrile	78-82-0	20,000
Isopentane	78-78-4	10,000
Isoprene	78-79-5	10,000
Isopropyl chloride	75-29-6	10,000
Isopropyl chloroformate	108-23-6	15,000
Isopropylamine	75-31-0	10,000
Methacrylonitrile	126-98-7	10,000
Methanamine	74-89-5	10,000
Methanamine, N,N-dimethyl-	75-50-3	10,000
Methanamine, N-methyl-	124-40-3	10,000

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
Methane	74-82-8	10,000
Methane, chloro-	74-87-3	10,000
Methane, chloromethoxy-	107-30-2	5,000
Methane, isocyanato-	624-83-9	10,000
Methane, oxybis-	115-10-6	10,000
Methane, oxybis[chloro-	542-88-1	1,000
Methane, tetranitro-	509-14-8	10,000
Methane, trichloro-	67-66-3	20,000
Methanesulfonyl chloride, trichloro-	594-42-3	10,000
Methanethiol	74-93-1	10,000
Methyl chloride	74-87-3	10,000
Methyl chlorocarbonate	79-22-1	5,000
Methyl chloroformate	79-22-1	5,000
Methyl ether	115-10-6	10,000
Methyl formate	107-31-3	10,000
Methyl hydrazine	60-34-4	15,000
Methyl isocyanate	624-83-9	10,000
Methyl mercaptan	74-93-1	10,000
Methyl thiocyanate	556-64-9	20,000
Methyltrichlorosilane	75-79-6	5,000
Monoethylamine	75-04-7	10,000
Monomethylamine	74-89-5	10,000
Nickel carbonyl	13463-39-3	1,000
Nitric acid (\geq conc 80%)	7697-37-2	15,000
Nitric oxide	10102-43-9	10,000
Nitrogen oxide (NO)	10102-43-9	10,000
Nitrous acid, ethyl ester	109-95-5	10,000
Oleum (fuming sulfuric acid)	8014-95-7	10,000
Oxirane	75-21-8	10,000
Oxirane, (chloromethyl)-	106-89-8	20,000
Oxirane, methyl-	75-56-9	10,000

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
Pentane	109-66-0	10,000
Peracetic acid	79-21-0	10,000
Perchloromethyl mercaptan	594-42-3	10,000
Phosgene	75-44-5	500
Phosphine	7803-51-2	5,000
Phosphorous trichloride	12/2/7719	15,000
Phosphorus oxychloride	10025-87-3	5,000
Phosphorus trichloride	12/2/7719	15,000
Phosphoryl chloride	10025-87-3	5,000
Piperidine	110-89-4	15,000
Plumbane, tetramethyl-	75-74-1	10,000
Propadiene	463-49-0	10,000
Propane	74-98-6	10,000
Propane, 2,2-dimethyl-	463-82-1	10,000
Propane, 2-chloro-	75-29-6	10,000
Propane, 2-methyl	75-28-5	10,000
Propanenitrile	107-12-0	10,000
Propanenitrile, 2-methyl-	78-82-0	20,000
Propene	115-07-1	10,000
Propionitrile	107-12-0	10,000
Propyl chloroformate	109-61-5	15,000
Propylene	115-07-1	10,000
Propylene oxide	75-56-9	10,000
Propyleneimine	75-55-8	10,000
Propyne	74-99-7	10,000
Silane	7803-62-5	10,000
Silane, chlorotrimethyl-	75-77-4	10,000
Silane, dichloro-	4109-96-0	10,000
Silane, dichlorodimethyl-	75-78-5	5,000
Silane, tetramethyl-	75-76-3	10,000
Silane, trichloro-	10025-78-2	10,000
Silane, trichloromethyl-	75-79-6	5,000
Sulfur dioxide (anhydrous)	9/5/7446	5,000

List of Substances Regulated by the Clean Air Act (CAA) 112(r)...

CAA 112(r) List Of Regulated Substances	CAS #	TQ
Sulfur fluoride (SF ₄), (T-4)-	7783-60-0	2,500
Sulfur tetrafluoride	7783-60-0	2,500
Sulfur trioxide	11/9/7446	10,000
Sulfuric acid (fuming)	8014-95-7	10,000
Sulfuric acid, mixture with sulfur trioxide	8014-95-7	10,000
Tetrafluoroethylene	116-14-3	10,000
Tetramethyllead	75-74-1	10,000
Tetramethylsilane	75-76-3	10,000
Tetranitromethane	509-14-8	10,000
Thiocyanic acid, methyl ester	556-64-9	20,000
Thiomethanol	74-93-1	10,000
Titanium chloride (TiCl ₄)(T-4)-	7550-45-0	2,500
Titanium tetrachloride	7550-45-0	2,500
Toluene diisocyanate (unspecified isomer)	26471-62-5	10,000
Toluene-2,4-diisocyanate	584-84-9	10,000
Toluene-2,6-diisocyanate	91-08-7	10,000
Toluenediisocyanate(mixed isomers)	26471-62-5	10,000
Trichloromethanesulfonyl chloride	594-42-3	10,000
Trichlorosilane	10025-78-2	10,000
Trifluorochloroethylene	79-38-9	10,000
Trimethylamine	75-50-3	10,000
Trimethylchlorosilane	75-77-4	10,000
Vinyl acetate monomer	108-05-4	15,000
Vinyl acetate??monomer?	108-05-4	15,000
Vinyl acetylene	689-97-4	10,000
Vinyl chloride	75-01-4	10,000
Vinyl ethyl ether	109-92-2	10,000
Vinyl fluoride	75-02-5	10,000
Vinyl methyl ether	107-25-5	10,000
Vinylidene chloride	75-35-4	10,000
Vinylidene fluoride	75-38-7	10,000

Source: EPA, Title III Consolidated List of Lists - October 2006 Version

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- ⁱ http://oaspub.epa.gov/enviro/multisys2.get_list?facility_uin=110000319325
- ⁱⁱ <http://www.infineum.com/company/history.html>
- ⁱⁱⁱ <http://www.state.nj.us/dep/rpp/brp/tcpa/downloads/conrule2006.pdf>
- ^{iv} <http://www.state.nj.us/dep/rpp/brp/tcpa/downloads/conrule2006.pdf>
- ^v ExxonMobil, http://www.exxonmobil.com/Corporate/About/about_operations_oims.asp
- ^{vi} Federal RMP Executive Summary
- ^{vii} Federal RMP Executive Summary
- ^{viii} Federal RMP
- ^{ix} Federal RMP
- ^x Federal RMP
- ^{xi} <http://www.kn-portal.com/en/about>
- ^{xii} Federal RMP
- ^{xiii} Lubrizol Corporation Press Room, http://corporate.lubrizol.com/PressRoom/news/2002/021024-1-dock_resins.asp
- ^{xiv} Business and Company Resource Center, Muralo Company Inc.
- ^{xv} RMP Executive Summaries 2004
- ^{xvi} Federal RMP Executive Summary 2004