Climate Change And Toxic Hazards: During The Storm

A View From The Ground
Why Don’t People Or Businesses Prepare?

**Individuals:**
- Lack Of Individual Resources Or Time To Adequately Prepare
- Not Understanding The Potential For Severity Or Unwilling To Face A Severe Potential Event

**Companies:**
- Difficult For Companies To Designate Time And Resources For Something That May Or May Not Happen Or Happens Infrequently
- Not understanding what the vulnerabilities and chemical hazards exist in their own facilities
- Relying on outdated or inadequate Emergency Response Plans

- 40 Percent Of Small Businesses Never Reopen After A Disaster And Another 25 Percent, That Do Reopen, Fail Within A Year – FEMA
Disaster Risk Assessment For Businesses

- Determine Which Natural Disasters Are Likely To Impact Your Business And Then Prepare For Those Specific Disasters
- Complete A Very Detailed Risk Assessment Of The Facility With Input From Employees From All Levels Of The Organizations
- Catalogue All Dangerous Chemicals, Processes And Equipment - Create A Specific Response For Dealing With Those Processes
- Rate The Hazards Based On Frequency, Severity And The Controls In Place In The Facility
- Create Emergency Response Plans That Fit Your Needs To Address The Hazards
- Share Your Plans With First Responders
- Train & Drill Using The Plan
Information During A Disaster

Timely / Accurate Information Is Critical Before, During And After A Disaster

Information Can Include:

• Evacuation Routes
• Storm Information And Severity
• Local Hazards
• Chemical Releases
• Precautions To Take To Prevent Exposure

Information Sources:

• Local TV & Radio Stations
• NOAA Weather Radio Stations Or Channels
• Text / Email Or Phone Alerts From Municipal Authorities
• Social Media
Cellphones & Getting Hazard Information During A Storm

• Cell Phones Have Replaced Wired Phone Lines In Many Homes
• Overload Of Cell Systems Are Common Leaving Citizens Without Effective Means Of Communication
• Cell Phone Networks Experience Shutdowns Due To Flooding And Damage To Cell Tower Sites
• Long Term Power Outages That Exceed The Limits Of The Cell Tower Backup Battery Systems
• Although Voice Systems May Not Work Or Be Overloaded - Text Systems Many Times Continue To Work
• Cell Phones Are Only Good As Battery Charge
Toxic Substances Storm Dangers

• Fuel Leaks

• Flooding and The Release Of Industrial Hazardous Waste (Chemical, Biological, And Radiological)

• Breech & Inundation Of Identified Hazard Waste Sites

• Breech & Inundation Of Uncontrolled Hazardous Waste Sites
Vulnerable Sites For Chemical Release & Examples Of The Types Of Chemicals That Might Be Released

- Your Home – Household Chemicals, Fuels, Non Compatible Chemicals, Propane Cylinders, Cleaning Supplies, Paints And Thinners
- Hospitals, Laboratories, Pharmacies & Medical Waste Storage Areas
- Fuel Storage Sites & Tank Farms
- Local Gas Stations / Repair Facilities
- Small Manufacturing Operations
- Bus & Vehicle Depots
- Heavy Equipment Sites
Chemical Hazards During And After A Storm

- Explosive Environments Due To Fuel / Gas Leaks
- Contaminated Soil & Standing Water
- Private Wells May Be Contaminated With Household Chemicals Or Industrial Waste Or Runoff
- Municipal Water Supplies May Be Contaminated Or Not Available Due To Flooded Plants Or Filtration Damaged Or Destroyed
- Fuel Station Run Off
- Public Safety Agencies Overwhelmed Or Unavailable To respond to Toxic Chemical Releases
Protecting Yourself From Toxic Exposure

• Listen to announcements or alerts from authorities about chemical safety, disposal issues and what to do in the event of a chemical release

• Stay out of floodwater - It may contain hazardous chemicals, human / livestock waste and other contaminants that can lead to illness

• Call local authorities to report oil and chemical spills, abandoned containers, or other containers you suspect may contain chemicals

• Do not touch or move unknown containers

• You may need to evacuate or stay inside (shelter in place) until you are told it is safe to leave
Be Prepared For Contamination

• Fill Bathtubs, Sinks, Gallon Jars, Or Plastic Soda Bottles So That You Will Have A Supply Of Clean Water
• Consider Having A Portable Camping Filtration Unit On Hand For Questionable Water
• Wash Skin That May Have Come Into Contact With Chemicals Or Floodwater With Soap And Clean Water As Soon As Possible
• Remove And Dispose Of Clothing Have Come Into Contact With Chemicals Or Floodwater
• Have Supplies On Hand To Safely Clean-Up After The Storm Has Passed
Evacuation from Hazardous Releases

• Plan ahead on how you will evacuate: car, public transit or rely on municipal transport
• Listen To Your Local Radio Or Television Station For Updates
• If Emergency Managers Say To Evacuate, Then Do So Immediately
• Turn Off All Utilities At The Main Power Switch And Close The Main Gas Valve
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