ANNEX E

HAZARDOUS MATERIALS AND OIL SPILL RESPONSE

APPENDICES

1. Personal Protection of Citizens
2. Containment and Clean-up
3. Regulated Hazardous Materials Facilities
4. Transportation Routes

I. PURPOSE

A. The purpose of this annex is to establish guidelines under which the City will operate in the event of a hazardous material or oil spill incident.

B. It defines the roles, responsibilities and inter/intra organizational relationships of government and private entities in response to a hazardous material or oil spill incident.

C. It provides guidance to protect the population and the environment from a hazardous material or oil spill incident.

II. EXPLANATION OF TERMS

A. Acronyms

CEC	Community Emergency Coordinator
CEMP	Comprehensive Emergency Management Plan
CHEMTREC	Chemical Transportation Emergency Center
EPA	[US] Environmental Protection Agency
EPCRA	Emergency Planning, and Community Right-to-Know Act of 1986
FEMA	Federal Emergency Management Agency
FDEM	Florida Division of Emergency Management
FDEP	Florida Department of Environmental Protection
FDOH	Florida Department of Health
FDOT	Florida Department of Transportation
FHP	Florida Highway Patrol
FOSC	Federal On-Scene Coordinator
HMRT	Hazardous Material Response Team
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
LEPC	Local Emergency Planning Committee
NIMS	National Incident Management System
NPFR(D)	North Port Fire Rescue (District)
NPPD	North Port Police Department
OPA	Oil Pollution Act of 1990
PIO	Public Information Officer
RP	Responsible Party
SCFD	Sarasota County Fire Department
SOSC	State On-Scene Coordinator
SWO	State Watch Office
USCG	United States Coast Guard

B. Definitions

1. **Accident Site**: The location of an unexpected occurrence, failure, or loss, either at a facility or along a transport route, resulting in a release of listed chemicals.

2. **Acute Exposure**: Exposures that occur for relatively short periods of time, generally hours to 1-2 days.

3. **CHEMTREC**: The Chemical Emergency Transportation Center (CHEMTREC) is a centralized toll-free telephone service advice on the nature of the product and steps to be taken in handling the early stages of transportation emergencies where hazardous chemicals are involved. CHEMTREC promptly contacts the shipper of the material involved for more detailed information and appropriate follow-up action including on-scene assistance when feasible.

4. **Contingency Plan**: A document developed to identify and catalog all the elements required to respond to an emergency, to define responsibilities and specific tasks, and to serve as a response guide.

5. **Exclusion Zone**: Is the area where contamination does or could occur.

6. **Extremely Hazardous Substances**: Chemicals listed by EPCRA which can cause both severe short- and long-term health effects after a single, brief exposure (short duration). These chemicals can cause damage to living tissue, impairment of the central nervous system, severe illness or in extreme cases, death when ingested, inhaled, or absorbed through the skin.

7. **Fixed Facility**: A plant site where manufacturing, handling/transferring, processing, storage, and/or disposal of chemicals is performed.

8. **Hazard**: A situation that may result in death or injury to persons or in damage to property. Includes effects of toxicity, fire, explosion, shock, concussion, fragmentation and corrosivity.

9. **Hazard Analysis**: In this context, use of a simplified vapor dispersion model which looks at the movement of toxic or explosive vapors over distance at a concentration level of concern to determine whether the amount of chemical at a facility or in a transport container poses a threat to the surrounding community, requiring more detailed analysis and planning.

10. **Hazardous Materials**: Chemicals that are explosive, flammable, poisonous, corrosive, reactive, or radioactive and require special care in handling because of the hazards they pose to public health and the environment.

11. **NCP**: The National Contingency Plan establishes the structure by which the Federal government responses to episodic hazardous material release and oil spill events.

12. **Off-site**: The area outside the boundary of the on-site area that may be affected by the consequences of an extraordinary situation.

13. **On-scene**: The total area that may be impacted by the effects of an extraordinary situation. The on-scene area is divided into mutually exclusive on-site and off-site areas.

14. **On-scene Command Post**: Facility at a safe distance from an accident site, where the IC, responders and technical representatives can make response decisions, deploy manpower and equipment, maintain liaison with media and handle communications.

15. **On-site**: The area within the boundary established by the owner of a fixed facility.

16. **Plume**: A vapor cloud formation that has shape and buoyancy.

17. **Response**: The efforts to minimize the hazards created by an emergency by protecting the people, the environment, property and returning the scene to normal pre-emergency conditions.

18. **Terrorist Activities**: A violent act, or an act dangerous to human life, in violation of the criminal laws of the United States or of any State, to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.

19. **Weapons of Mass Destruction**: Any destructive device as defined in 18 U.S.C. §§ 921 and 2332a, which reads: (1) any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one quarter ounce, mine or device similar to the above; (2) poison gas; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

C. References

1. Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III to the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. § 11000.

2. Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901-6992k.

3. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as the Superfund Law, 42 U.S.C. §§ 9601–9675.

4. Section 112r of the Clean Air Act Amendments of 1990, 42 U.S.C § 7412.

5. Oil Pollution Act, 33 U.S.C. § 2701.

6. Hazardous Waste Operations and Emergency Response, 29 C.F.R. § 1910.120.

7. Florida Emergency Planning and Community Right-To-Know Act, F.S. §§ 252.81-252.90.

8. Hazard Communication Standard, 29 C.F.R. § 1910.1200, as amended by 52 F.R. 31,852, August 24, 1987.

9. USCG Marine Safety Office Tampa Bay, Area Contingency Plan.

10. EPA Region IV Oil and Hazardous Substances Pollution Contingency Plan.

III. SITUATION AND ASSUMPTIONS

A. Situation

1. Hazardous materials are commonly produced, stored, used, distributed and transported in the City; hence, hazardous materials incidents may occur as the result of natural disasters, human error or accident, or terrorist acts.

2. The North Port Fire Rescue District's personnel are trained to the hazardous materials awareness level. The closest technician-level service is from the Sarasota County Fire Department (SCFD) which will be requested for hazardous materials incidents within the City.

3. The SCFD Hazardous Materials Response Team (HMRT) will have, to the extent possible, the capability to make protective responses in the event

of an incident involving the transportation, storage, usage, or manufacture of hazardous materials.

4. The resources of industry, environmental consultants; emergency response companies; and local, State or Federal governments, separately or in combination, may be required to effectively manage the situation.

5. Information on sites regulated by EPCRA is maintained by the Southwest Florida LEPC, and the North Port Fire Rescue, Division of Emergency Management. Refer to Appendix 3 for a map of regulated facilities.

6. Underground natural gas and propane distribution lines are ubiquitous in the City and are identified with above-ground pipeline markers. Tampa Electric (Peoples' Gas) is responsible for natural gas, and AmeriGas propane distribution lines; the AmeriGas lines are in the process of being vacated with the expectation of elimination by 2020.

7. Major transportation routes for hazardous materials cargo are indicated in Appendix 4 to this Annex.

8. Evacuation routes should be determined by the Incident Commander and disseminated to the residents in the affected area based on the current and projected situation.

B. Assumptions

1. The existence of fixed hazardous materials facilities and natural gas/propane distribution lines provide the potential for an episodic air release with the possibility of being hazardous to the populous located within the proximity of each fixed hazardous materials facility.

2. Protective actions include alerting, in-place sheltering, evacuation, and notification of any environmental contamination.

3. The amount of time available to determine the scope and magnitude of the incident (i.e., lead-time) will impact the recommended protective actions.

4. In the event of a hazardous material incident, many of the residents in the vulnerable zone may choose to evacuate spontaneously without official recommendation. Many may leave by way of routes not designated as main evacuation routes.

5. In the event of an evacuation, some of the populace may relocate to private homes or hotel/motel facilities.

6. A transportation incident involving hazardous materials may require the evacuation of the public at any location within the City.

7. Hazardous materials entering the wastewater (i.e., sanitary sewers, lift stations and/or treatment plants) systems may necessitate the shutdown of the affected system or its components which may result in the release (bypass) of untreated wastewater. Hazardous Materials entering the stormwater system (i.e., storm sewers, roadside swales, streams) may require containment to prevent or otherwise restrict further downstream flow.

8. Wind shifts may occur that result in changes in protective action measures.

IV. METHOD OF OPERATIONS

A. General

This Annex will become effective during any situation in which there is a danger to life, health, property or the environment because of an accident involving the uncontrolled release or spill of any hazardous materials. The primary agencies involved will be the City's fire and police departments, assisted by other City and County departments as appropriate. The extent of the hazard and circumstances involved may require the activation of the Emergency Operations Center (EOC) and full disaster response from City agencies and outside organizations as outlined in the City's Comprehensive Emergency Management Plan (CEMP).

Depending upon the seriousness of the incident, protective actions could include alerting, sheltering in-place, evacuation and notification of other appropriate agencies.

The Incident Commander (IC) / Unified Command (UC) will direct and control all on-site operations involving hazardous material emergencies that may include estimating the areas and population affected by a hazardous materials release and provide warning to and implementation of protective actions for the public in the immediate vicinity of the incident site.

B. Incident Classification

The North Port Fire Rescue District classifies the response to hazardous materials into two basic categories:

1. First Responder Operations - those events of a hazardous materials nature that can typically be resolved by first responders without the intervention of a hazardous materials response team. This may include:

   a. Minor spills of a petroleum product

   b. Natural gas/propane distribution line break

   c. Other hazardous materials for which personnel have had specific training, and whose structural firefighting gear is sufficient protection

2. Hazardous Materials Incident - those events of a hazardous materials nature that cannot typically be resolved by first responders and require the intervention of a hazardous materials response team.

C. Reporting

1. First responders arriving upon a scene where hazardous materials are found to be involved will immediately notify their dispatcher and provide the following size-up insofar as possible:

   a. Location of accident

   b. Type of material involved

   c. Extent of injuries and damage

   d. Estimate of need for additional resources

   e. Estimate of need for anticipated area evacuation

   f. The actions being taken

2. In the event the initial report is through police radio channels, the North Port Police Department dispatcher will immediately pass the above information to the Sarasota County fire dispatcher.

3. **Special Statement:** ***IF THE SITUATION OBVIOUSLY REQUIRES IMMEDIATE ACTION TO ISOLATE THE AREA OR TO EVACUATE NEARBY RESIDENTS OR BUILDING OCCUPANTS (i.e., IF THERE IS IMMINENT DANGER OF EXPLOSION OR RELEASE OF TOXIC GAS), THE FIRST OFFICER ON THE SCENE (EITHER FIRE OR POLICE) SHOULD RECOMMEND EVACUATION***

IMMEDIATELY. Adjustment of the evacuation zone can be made later after the senior fire official arrives on the scene.

4. Notification

   a. On notification of an incident involving hazardous materials, the fire dispatcher will:

      i. Dispatch NPFR units and the SCFD HMRT.

      ii. If the situation warrants, notify the following departments:

         - North Port Police

         - North Port Public Works

         - North Port Utilities

   b. The Emergency Management Coordinator, or other on-scene officer, shall contact the State Watch Office, and provide information on the incident.

D. Determining Affected Areas and Protective Actions

1. The Incident Commander shall estimate areas and population affected by a hazardous materials release. Aids for determining the size of the area affected may include:

   a. The US Department of Transportation Emergency Response Guidebook

   b. Computerized release modeling (CAMEO/other software)

   c. Assistance by the responsible party

   d. Assistance by expert sources such as CHEMTREC

   e. Assistance by State and Federal agencies

2. The Incident Commander shall determine required protective actions for response personnel and the public. See Appendix 1 for emergency responder safety considerations. See Appendix 2 for public protective action information.

3. The Incident Commander will typically provide warning to and implement protective actions for the public in the immediate vicinity of the incident site. The Emergency Manager will normally oversee dissemination of warning and implementation of protective actions for the public beyond the immediate incident site and related activities such as traffic control and activation of shelters.

E. Phases of Emergency Management

1. Mitigation

a. Develop inspection guidelines

b. Conduct site inspections

c. Enforce current fire and other City codes

2. Preparedness

a. Conduct public orientation/education programs

b. Provide for training for all emergency response personnel

c. Conduct preplanning activities at regulated facilities

d. Identify resources (e.g., contractors and specialized equipment)

e. Develop recovery guidelines

3. Response

a. Determine hazard and its potential

b. Initiate protective actions to protect life, property and the environment

c. Contain and control the hazard

4. Recovery

a. Monitor/survey to declare area safe

b. Coordinate the removal of contaminants

c. Document event

d. Recover costs

F. National Incident Management System (NIMS)

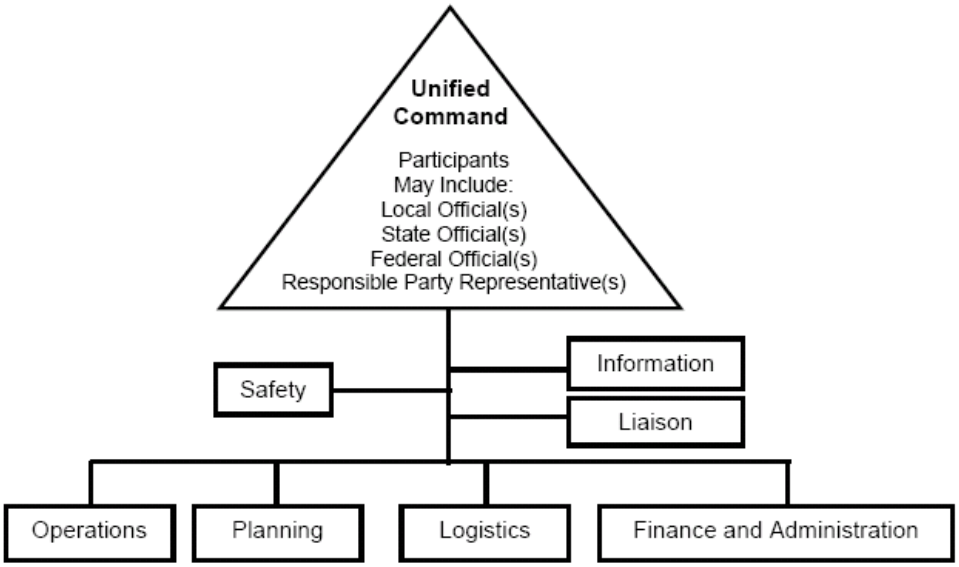
The National Incident Management System (NIMS) will be used to manage and efficiently mitigate any such incident by integrating a combination of facilities, equipment, personnel, procedures, and communications into a common organizational structure.

V. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. Organization

1. See City's Base Plan.

2. Effective response to a hazardous materials incident or oil spill may also require response assistance from the responsible party (RP) for the spill and in some situations, by State and Federal agencies with responsibilities for hazardous materials spills. In this instance, a Unified Command (UC) structure would be established.



B. Assignment of Responsibilities

1. Southwest Florida Local Emergency Planning Committee

a. Coordinate with the emergency coordinators of regulated facilities and vulnerable facilities to maintain the list of regulated facilities and the list of vulnerable facilities.

b. Maintain an accurate and up-to-date hazardous materials emergency contact roster that provides 24-hour contact information for regulated facilities, local hazardous materials transportation companies, vulnerable facilities, State and Federal hazardous materials response agencies, and technical assistance organizations such as CHEMTREC. Disseminate this roster to local emergency responders.

c. Ensure each regulated facility and local hazardous materials transportation company is notified of the telephone number to be used to report hazardous materials incidents to local authorities.

d. Coordinate the review of regulated facility emergency plans by local officials.

2. North Port Fire Rescue

a. The first fire department officer arriving on the scene

i. Assume duties of IC until relieved by a higher-ranking fire officer.

ii. Establish an Incident Command Post (ICP) and determine the safest approach route (either upwind or crosswind).

iii. Take immediate steps to identify the hazardous material, and report to fire dispatch.

iv. Isolate the area and deny entry to all but necessary emergency response personnel.

v. Develop and initiate a plan of action appropriate to the situation, in accordance with North Port Fire Rescue procedures.

vi. Determine the need for emergency protective measures and ensure implementation of plan.

b. Initiate mass gross decontamination of victims.

c. Provide support to the HMRT as appropriate.

d. Provide a PIO as department spokesperson and coordinate public information and media releases with the City PIO.

e. If a Responsible Party (RP) has not been identified or is unwilling to assume the responsibility for cleanup and disposal of the hazardous substance and contaminated materials, it may be necessary for the City to contract with a hazardous materials cleanup company to perform those tasks.

3. The Sarasota County Fire Department HMRT

a. Identify the hazardous material if possible and determine its hazards and any appropriate action(s) to be taken to manage the incident.

b. Confine or contain the hazardous material to the smallest area possible.

c. Stabilize the emergency through limiting or stopping further release of the hazardous material.

d. Serve as an advisor to the IC.

e. Decontaminate victims, personnel, equipment and facilities.

f. Work with the Responsible Party and hazardous materials clean-up contractor to identify appropriate methods for removal of hazardous substances and contaminated materials.

4. North Port Police

a. The senior police officer at the incident scene will report to the ICP.

b. Initiate evacuation of persons from the danger area when requested to do so by the IC.

c. Cordon-off access to the scene and restrict entry by unauthorized personnel. Entry by non-emergency personnel will be permitted based on officer judgment or proper identification.

d. When necessary, coordinate local law enforcement activities with State and Federal law enforcement agencies.

5. North Port Emergency Management

a. Emergency Management Coordinator will respond to the scene and report to the ICP.

b. Determine if use of a mass notification system is required and/or press briefings are needed to keep the public informed. Coordinate with NPFR and other Department PIO representatives before any releases are forwarded to the media.

c. Coordinate efforts of volunteer groups in relocating, sheltering and feeding evacuees.

d. When the IC recommends evacuation, coordinate the evacuation operations.

e. When directed by the IC, activate and manage the EOC.

f. Coordinate with other City departments and outside agencies as required.

g. Initiate and coordinate cost recovery.

6. American Red Cross

a. Staff and operate shelter/mass care facilities

b. Register evacuees

c. Provide emergency clothing

d. Provide emergency food

e. Process inquiries from concerned families outside the disaster area

f. Maintain a current list of shelters, emergency feeding sites, and lodging facilities

7. Recommended roles of transportation shippers and fixed facility operators of Hazardous Materials within the Incident Command System (ICS)

a. Designate a facility emergency coordinator to be assigned to the ICP

b. Implement facility contingency plan

c. Provide technical support to IC

d. Provide post planning support for dealing with contingency planning to include Risk Management plans

e. Provide expertise to the EOC

f. Provide emergency service representative (fire brigade) to the ICP

g. Provide public information representative to the ICP

h. Provide for the removal and ultimate disposal of hazardous substances and contaminated materials, and restoration of affected area.

8. State Agencies with responsibility include:

a. Florida Division of Emergency Management (FDEM)

b. Florida Department of Environmental Protection (FDEP)

c. Florida Highway Patrol (FHP)

9. Federal agencies with responsibility may include the Department Environmental Protection Agency (DEP), Federal Emergency Management Agency (FEMA) and the US Coast Guard (USCG) which may respond to certain hazardous materials incidents and oil spills when required by Federal environmental protection plans or requested to do so by the State.

C. Relationship to Other Plans

1. See the City's Comprehensive Emergency Management Base Plan.

2. The SCFD's HMRT SOG establish operational concepts and activities for team activation, assessment, personnel safety, site control, identification containment, command post, staging areas, monitoring, on-site/off-site response coordination and recovery.

3. Extremely Hazardous Substance Fixed Facility Contingency Plan. Each fixed facility having extremely hazardous substances (as defined by EPCRA) is required to develop an on-site contingency plan that specifies notification, emergency response organization and responsibilities; emergency response organization procedures and coordination procedures for interfacing with off-site authorities and response organizations.

4. EPA and USCG Regional and Area Contingency Plans are required under OPA and the National Contingency Plan. They describe Federal response and recovery operations, and coordination with local and state agencies in the event of a spill or release of a hazardous material or oil in their respective areas of responsibility.

VI. ADMINISTRATION AND SUPPORT

A. Support

See the City's Basic Plan.

B. Documentation and Investigative Follow-up

1. The fixed-site facility is responsible for documentation of accidental releases and preparing the following:

   a. Fixed-site version of the incident including time, cause of spills, material and quantity released, location, response actions, etc.

   b. Chronological log that details a minute-by-minute account of spill response activities (e.g., emergency response team activation, notification of off-site authorities, significant changes in situation, time of recommendations to off-site authorities, etc.).

2. The on-scene NPFR senior officer is responsible for preparing an event log that summarizes the incident including cause of incident, incident critique, damage assessment and conclusion.

3. The North Port Emergency Manager will prepare an After-Action Report to document the event, and "lessons learned."

C. Cost Recovery

1. The City may directly invoice the responsible party for costs incurred during the response and recovery from the incident.

2. The US Environmental Protection Agency's (EPA) Local Governments Reimbursement Program provides Federal funds to local governments for costs related to temporary emergency measures conducted in response to releases or threatened releases of hazardous substances. Eligible local governments may submit applications to EPA for reimbursement of up to $25,000 per incident.

3. If the incident involves an oil spill incident(s) which has impacted or substantially threatened the navigable waters of the U.S, the City may recover costs and damages under the Federal Oil Pollution Act (OPA) which is managed by the US Coast Guard.

4. If the disaster of a such magnitude that a Major Disaster Declaration is designated by the President of the United States, the City will seek reimbursement under the Stafford Act administered by FEMA.

D. Resources, Training and Exercises

1. Resources

NPFR will provide its front-line suppression units with limited equipment and supplies for product identification, and, based on department procedures, mitigation of the spill or release.

2. Training

a. Initial hazardous materials training is conducted during basic firefighter class, and refresher training is provided on an annual basis.

b. Specialized Response Training and Equipment for SCFD HMRT is the responsibility of the SCFD HMRT Training Coordinator.

3. Exercises

a. Methods for exercising this annex are the Tabletop, Functional, and Full-Scale models for Hazardous Materials Emergency Events.

b. NPFR will conduct its own and participate in County-wide exercises as needed.

VII. ANNEX DEVELOPMENT & MAINTENANCE

A. Responsibility

1. The Emergency Manager will be responsible for the development and maintenance of this Annex.

2. Each department and tasked agency should develop its own implementing instructions and procedures to support this Annex and reviewing these annually.

B. Schedule for Annex Updating

This annex will be maintained in accordance with the following schedule:

1. The Annex will be updated with each updating of the City's Comprehensive Emergency Management Plan.

2. The Annex will be reviewed after each exercise and/or actual response to a hazardous materials event and modified as necessary.

3. The annex will be reviewed and revised, if needed, after each of the following types of events:

   a. A major change in applicable Federal or State laws, regulations, or policies.

   b. Major advances in applicable response technology and/or operational concepts.

APPENDICES

Appendix 1 - Personal Protection of Citizens
Appendix 2 - Containment and Clean-up
Appendix 3 - Regulated Facilities
Appendix 4 - Transportation Routes

APPENDIX 1 TO ANNEX E
PERSONAL PROTECTION OF CITIZENS

The following establishes policies and guidelines regarding the personal protection of citizens potentially affected by a hazardous materials incident. It includes the strategies of in-place sheltering and evacuation as well as relocation, water supply protection, and wastewater system protection

1. Sheltering In-place

    a. In some cases, advising people to stay indoors and to attempt to reduce the flow of air into a structure may be the most effective protective option. Emergency officials have used this strategy when it has been recognized that people could not be evacuated from an area prior to the arrival of a toxic chemical cloud.

    b. For an indoors protective strategy to be effective, planning and preparedness activities should provide:

        i. In-place sheltering or evacuation guidelines to be developed by the SCFD HMRT for determining when sheltering or evacuation is appropriate based on decision-making criteria such as the type of chemical, toxicity, duration, etc.

        ii. A public information and notification system to warn and advise the public of immediate danger.

        iii. A system for determining when a toxic chemical cloud has dissipated or cleared an area.

        iv. Notification procedure for advising people to evacuate a building at an appropriate time.

        v. Public education on the value of indoor protection and on expedient means to reduce ventilation rates.

2. Evacuation

    a. Evacuation can be an effective means of protecting the public if it can be accomplished prior to the arrival of the toxic cloud at a particular location. The effectiveness of evacuation is dependent upon the time required to evacuate an area, and the size of the area compared to the time available before the cloud arrives.

b. The responsibility for recommending an evacuation normally rests with the IC. The NPPD working with NPFR will carry out the evacuation. In situations where rapid evacuation is critical to the continued health and safety of the population, the IC may advise the public in the immediate vicinity to evacuate. Emergency Management will coordinate with the City Parks manager for the opening of a nearby Community Center(s) as a shelter for evacuees, if required.

c. If the emergency warrants and the IC recommends evacuation, NPPD officers will immediately initiate an evacuation. (Recommended evacuation distance guidelines for specific hazardous materials are contained in the Emergency Response Guidebook). The IC will determine the routes of evacuation.

d. Ingress for incoming personnel must be identified, so as not to endanger their lives in the process of reporting to the incident site. Evacuation guidelines must be coordinated with liaison personnel at the on-scene ICP to ensure the safety of everyone.

e. If an ordinance declaring a Local State of Local Emergency is adopted by City Commission, the EOC will be activated to coordinate the efforts of other County and municipal agencies and response personnel per the City's Comprehensive Emergency Management Plan.

3. Other Public Protection Strategies

a. Relocation: Some hazardous materials incidents may contaminate the soil, surfaces or water of an area and pose a lingering threat to people living there. It may be necessary for people to move out of the area for a substantial period until the area has been decontaminated or until natural microbiological degradation of the chemical has occurred with time.

b. Water Supply Protection: Surface and ground water supplies can be contaminated by a hazardous chemical spill or release. Recovery and restoration planning must provide for the quick identification of a threat of contamination to the drinking water supply and notification to the public and private water system operators, as well as warning of the public.

c. Wastewater and Stormwater Handling Systems: Hazardous chemicals entering stormwater and/or wastewater systems can cause serious and long-term damage to the environment or to a water/wastewater treatment plant. If wastewater is diverted, it could create public health and environmental problems.

APPENDIX 2 TO ANNEX E
CONTAINMENT AND CLEAN-UP

This Appendix provides for containment and clean-up operations and identifies resources available for clean-up and disposal.

1. Techniques for Spill Containment and Clean-up

   a. The responsibility for selecting and implementing the appropriate countermeasures is assigned to the IC in coordination with the State/Federal on-scene coordinator.

   b. The spiller is, by law, responsible for all clean-up counter-measures.

   c. The IC is responsible for monitoring the response activity to ensure that appropriate containment/displacement techniques are being initiated.

   d. Containment methods may include:

      i. Dikes

      ii. Berms and drains

      iii. Trenches

      iv. Booms

      v. Barriers in soil

      vi. Stream diversion

      vii. Patching and plugging of containers or vessels

      viii. Portable catch basins

      ix. Over-packed drums or other forms of containerization

      x. Re-orientation of the container

   e. The IC, in the absence of a responsible party, may secure private contractors for displacement techniques. These may include:

      i. Hydraulic and mechanical dredging

ii. Excavating

iii. Skimming

iv. Pumping

v. Dispersing/dilution

vi. Vacuuming

f. Treatment of spilled hazardous substances can be physical, chemical or biological in nature. Treatment operations are the responsibility of the operator. Monitoring responsibility is assigned to the FDEP, in accordance with the State of Florida Oil and Hazardous Substances Spill Contingency Plan.

g. Exposure Assessment: Initial assessment of the incident is the responsibility of the fixed facility. It should be recognized that industrial capability to assess the situation is supported by in-depth knowledge of the chemicals, facilities and the environment. The fixed facility is liable for damages resulting from a release and is motivated to provide timely and accurate assessment of each situation. Other assessment capability is available.

i. The HMRT has equipment to provide monitoring and assessment capability.

ii. The FDEP has an air toxic response program with personnel and equipment to sample suspected airborne toxic compounds.

h. Restoration

i. Treatment of contaminated soils and sediments is a responsibility of the owner of the property and/or the spiller.

ii. When feasible, contaminated soils and sediments will be treated on the site. Technologies available include:

- Incineration

- Wet air oxidation

- Solidification

- Encapsulation

- Solution mining (soil washing or soil flushing)
- Neutralization/detoxification
- Microbiological degradation

iii. Off-site transportation or storage, treatment, destruction, or secure disposition off-site may be provided in cases where State/Federal On-Scene Coordinator(s) determines such actions:

- Are most cost effective
- Will create increased capacity to manage
- Are necessary to protect public health, welfare or the environment

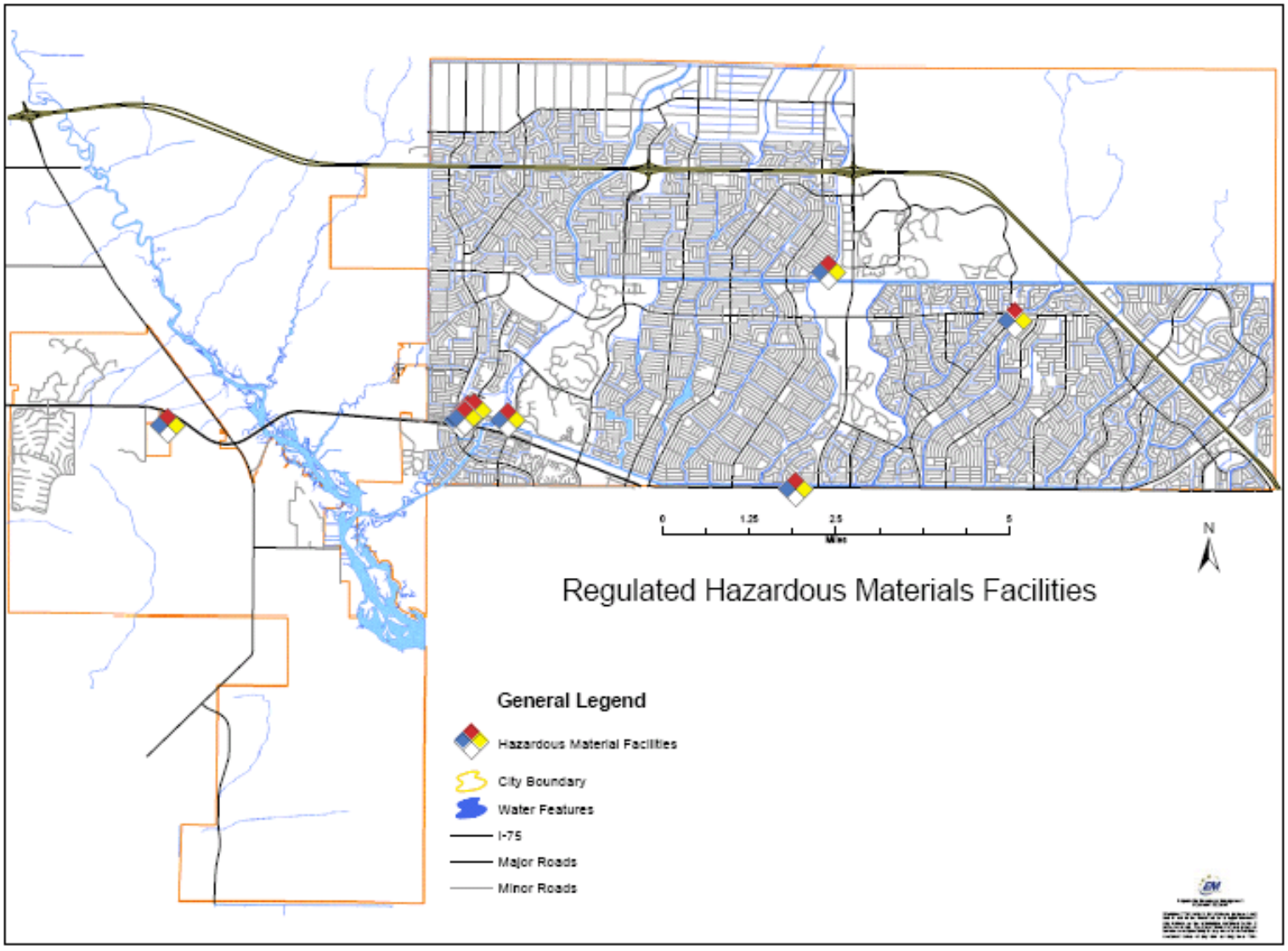
iv. Contaminated soils and sediments may be removed from the site. Technologies used to remove contaminated sediments from soils include:

- Excavation
- Hydraulic Dredging
- Mechanical Dredging

v. Provision of alternative water supplies can be provided in several ways:

- Individual treatment units
- Water distribution system
- New wells or deeper wells
- Cisterns
- Bottled water
- Trucked-in water

APPENDIX 3 TO ANNEX E
REGULATED HAZARDOUS MATERIALS FACILITIES[1]



[1] The Tier II Emergency and Hazardous Chemical Inventory form identifies the specific locations and inventory of hazardous materials at a fixed facility. In accordance with 42 U.S.C. 11044], this information is available from the Southwest Florida Local Emergency Planning Committee during normal working hours.

APPENDIX 4 TO ANNEX E
MAJOR ROUTES OF TRANSPORTATION OF HAZARDOUS MATERIALS