Crawford County

Local Emergency Planning Committee

Chemical Emergency Response Plan

Chemical Emergency Response Plan

June 2012

Prepared for:

Crawford County
Local Emergency Planning Committee
Crawford County, Illinois

Prepared by:

TRC

Austin, Texas

Crawford County Local Emergency Planning Committee
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1 INTRODUCTION

Under the federal and state Emergency Planning and Community Right to Know (EPCRA) regulations, all Emergency Services and Disaster Agencies (ESDAs) must develop an emergency response plan to aid response workers in responding to an emergency situation. This document has been developed in fulfillment of the EPCRA and other emergency response regulatory requirements and is intended to serve as both a stand-alone chemical emergency response plan and as an annex to the county-wide emergency operations plan (EOP) as described below.

1.1 Regulatory Drivers and Reporting Requirements

In 1986, the United States Congress enacted the EPCRA regulations (also known as Title III of the Superfund Amendments and Reauthorization Act [SARA]). This legislation established requirements for businesses and government entities regarding emergency planning and hazardous chemical reporting for communities and has the following primary goals:

- To provide a basis for each community to develop chemical emergency planning and response programs specific to the community's needs
- To provide the public with access to information that identifies, quantifies, locates, and assesses chemical hazards in their community

In response to the federal EPCRA legislation, many states, including Illinois, enacted similar laws. This document fulfills an aspect of the Illinois EPCRA legislation reporting requirements.

Subsection 10 of Chapter 20, Section 3305 of the Illinois Compiled Statutes (ILCS, [20 ILCS 3305]), also referred to as the Illinois Emergency Management Agency (IEMA) Act, sets forth the requirement that each political subdivision within the State of Illinois must establish an ESDA[1]. This same section of the IEMA Act specifies that each ESDA must develop and maintain an EOP developed in accordance with standards promulgated by the IEMA. The Crawford County EOP was approved in June 2011.

Title 29, Section 301.250 of the Illinois Administrative Code (IAC [29 IAC 301.250(b)]) establishes that each EOP shall include a State Emergency Response Committee (SERC)-approved LEPC chemical emergency response plan as a Hazardous Material Annex to the EOP. The LEPC chemical emergency response plan/EOP Hazardous Materials Annex will hereafter be referred to as the LEPC Plan. The IEMA serves as the SERC for Illinois.

[1] Note that the State of Illinois initiated the conversion of the use of the ESDA term to Emergency Management Agency (EMA). However, the ESDA term is still used. Hence, both terms are used in the various appendices to the LEPC Plan and the terms can be used interchangeably.

In compliance with 29 IAC 301.250(a), the LEPC Plan must include the information pursuant to the following five basic concepts:

- The purpose of the LEPC Plan
- A description of the situations that trigger implementation of the LEPC Plan
- A description of the assumptions that apply to the LEPC Plan
- The concept of operations for the LEPC Plan
- The assignment of responsibility for LEPC Plan maintenance, review, and updating

In addition to the five basic concepts that must be addressed in the LEPC Plan in order to comply with 29 IAC 301.250(a), there are nine elements set forth in the federal EPCRA rules that must be addressed in LEPC Plans (as listed in Title 42, Chapter 116, Section 11003 of the United States Code; also referred to as Section 303(c) of the SARA rule). These nine elements are addressed in Section 3 of this document. Specific responsibilities for the nine elements are found in Appendix D.

This LEPC Plan was prepared in accordance with the guidance provided in the following documents:

- *Illinois Emergency Management Agency LEPC Plan Development and Review (PDR) Supplement for Chemical Emergency Response Plans / LEPC Plans* (2003, revised June 2005)
- *United States Environmental Protection Agency Local Emergency Planning Committee (LEPC) Handbook: Region 6* (May 2004)

The *Illinois Emergency Management Agency LEPC Plan Development and Review (PDR) Supplement for Chemical Emergency Response Plans / LEPC Plans* (PDR guidance document) provides the review checklists that are used by the IEMA to ensure that LEPC plans meet all necessary planning requirements.

2 EMA BASIC CONCEPTS

2.1 Purpose of the Local Emergency Planning Committee Emergency Response Plan

The purpose of this LEPC Plan is to provide guidance to emergency response organizations that may respond to a hazardous materials emergency in Crawford County. As response to a hazardous material emergency can involve numerous organizations, it is important that all response personnel work under uniform guidelines and procedures. This document is intended to identify and plan for hazardous material emergencies that may occur in Crawford County, and to set forth the procedures that will facilitate effective response to such emergencies by multiple organizations. This LEPC Plan is also intended to function as the Hazardous Materials Annex to the Crawford County EOP.

2.2 Implementation of the LEPC Plan

The LEPC Plan will be implemented in the event of an incident involving hazardous materials. Minor spills that can be managed by trained personnel at the release location and that will not result in a threat to human health or the environmental will not trigger activation of the LEPC Plan.

Indications that a hazardous materials incident/emergency is in progress include:

- Notification by a facility representative
- Notification by eyewitnesses or workers at the site of the incident
- Hazardous materials containers and locations
- Container shapes and sizes
- Explosions or detonations
- Vapor plumes
- Fire with a non-typical flame color
- Fire with non-typical smoke color
- Sick or injured personnel or witnesses
- Sick or injured animals
- Placards or labels on containers or packages
- Leaks or spills from containers or packages

Until additional information is available, it will be assumed that hazardous materials are involved in the following incidents:

- An incident at a facility that is subject to the requirements of EPCRA/SARA Title III
- An incident involving a commercial carrier

The LEPC Plan may be activated by any response organization.

2.3 Assumptions Used in the LEPC Plan

The EOP and LEPC Plan are written with the following assumptions:

- All local government and response officials having a role in emergency management are familiar with their appropriate sections of the LEPC Plan and EOP, and have developed their own internal emergency response protocols, as needed.
- While outside assistance and mutual aid should be available, the County must be prepared to sustain emergency response and recovery efforts until outside assistance becomes available.
- Outside assistance may be delayed due to a regional event, such as an earthquake.
- Copies of all mutual aid agreements are on file in the Office of the County Clerk or with the various organizations.
- If State or Federal resources arrive in the County to assist with response or recovery, Crawford County will remain in control of the incident. If the Unified Command deems it would be more suited to relinquish control to the State or Federal resources, he or she will notify these resources that they are in control.

Assumptions specific to aspects of emergency response in Crawford County discussed in separate annexes to the EOP are included in the related annex (e.g., communications, public information, emergency medical service, etc.).

2.4 Summary of County Emergency Response Operations

Within Crawford County, life safety is the highest priority when preparing for and responding to emergencies and disasters. This LEPC Plan, as well as the EOP, is intended to coordinate the response efforts of the county's emergency response organizations in order to provide the best possible protection of human health and the environment during a hazardous materials incident.

The EOP and LEPC Plan may be activated by any response organization. The ultimate responsibility in disaster situations, including making the declaration of a disaster, rests with the Chief Elected Official (CEO) of the affected jurisdiction. During a declared local disaster or emergency, the CEO of that jurisdiction will commit to allocating all available resources to the mitigation of the incident. If the resources of that jurisdiction are insufficient to effectively mitigate the incident, the resources of the County will be committed. If the resources of the County are insufficient, then requests will be made to the State of Illinois (through IEMA) to obtain necessary resources. If the resources of the State of Illinois are insufficient, then a request will be made to obtain resources from the Federal Government.

During emergency or disaster operations, the incident will be managed in accordance with the procedures set forth in the EOP and LEPC Plan and response efforts will be directed using the Incident Command System (NIMS). The Incident Command System will be used to direct activities of the responding organizations in addressing the following response activities:

- Identification of chemical hazards
- Development of an incident action plan.
- Communication between response organizations
- Notification of the potentially affected public and of government officials
- Protection and evacuation of the public, as needed
- Decontamination
- Incident termination and debriefing

Emergency procedures are discussed in detail in Section 3.2.3, as well as in the facility-specific plans maintained at the EOC.

2.5 Plan Review and Maintenance

The Crawford County LEPC is responsible for maintaining, reviewing, and updating this LEPC Plan. In accordance with 29 IAC 620.80(b), the LEPC will review and, if needed, update the LEPC Plan on an annual basis or more frequently if circumstances in the community that may affect emergency response procedures change. If necessary updates or changes are identified more frequently than annually, such as during a hazardous material incident response, the applicable changes will be incorporated as soon as practicable.

3 EPCRA PLANNING ELEMENTS

3.1 Element 1—Identification of EHS Facilities

3.1.1 Facilities Subject to EPCRA in Crawford County

The following facilities in Crawford County are subject to EPCRA due to the presence of Extremely Hazardous Substances (EHSs) at quantities above the EPCRA-defined threshold planning quantity (as reported in the 2012 Tier II Emergency and Hazardous Chemical Inventory reports submitted to the LEPC):

- AT&T Corporation
- Bi-Petro, Inc. – Stoy Dump
- Bradford Supply Company
- Bunker Hill Supply Company (Annapolis)
- Bunker Hill Supply Company (Hutsonville)
- CII Carbon, LLC – Robinson Coke Plant
- Crawford County Oil, LLC
- Dana Corporation, Sealing Products
- E. H. Baare Corporation
- Effingham Equity – Robinson
- Fair-rite Products
- Ferrellgas Company
- Glover Oilfield Service, Inc./Voke
- Glover Oilfield Service, Inc./Wilkins
- Indiana Railroad – Palestine
- Lincolnland Agri-Energy, LLC
- Marathon – Robinson, Illinois, Terminal
- Marathon Petroleum Company LP
- Marathon Pipe Line – Robinson Wabash Station
- Mont Eagle Mills, Incorporated (Oblong)

- Mont Eagle Mills, Incorporated (Flat Rock)
- Qwest – Annapolis
- Shakespeare Oil Company, Inc. – Richart Lease
- Superior Fuels, Inc.
- Wabash Valley Heat and Gas
- Wabash Valley Service Company (Flat Rock)

These facilities are referred to as EHS facilities.

3.1.2 Transportation Routes for Extremely Hazardous Substances

Crawford County is served by two State highways (State Route 33 bisecting the county from east to west and State Route 1 bisecting the county from north to south), the Indiana Railroad Company (running east to west parallel to State Route 33), and the Robinson Community Airport. In addition, numerous pipelines transport natural gas and other petroleum products through the county. There are no navigable waterways in Crawford County.

3.1.3 Facilities Presenting or Subjected to Additional Risk

Based on the *Crawford County LEPC Chemical Hazards Analysis* (May 2006), the following facilities may present additional risk with regard to hazardous materials incidents:

- AMEREN/CIPS
- area electrical sub stations
- natural gas pumping stations
- propane storage areas

Potential secondary hazards include Marathon Petroleum Company (MPC), Robinson Refinery, an oil refinery with pressurized vessels and large capacity storage tanks, and Lincolnland Agri-Industries, an ethanol refinery with large capacity storage of ethanol. The *Crawford County LEPC Chemical Hazards Analysis* (May 2006) is provided in Appendix A.

A number of locations in Crawford County may be subjected to additional risk due to the nature of the business or location. Locations with concentrations of people such as children (e.g., schools and daycares), the elderly (nursing homes), or the infirm (hospitals) are more vulnerable to hazardous materials incidents. Parks and other environmentally sensitive areas are also at increased risk in the event of a hazardous materials incident, especially those areas used for public water supply. In Crawford County, these public locations at increased risk include, but are not necessarily limited to, the following types of facilities:

- Nursing homes
- Schools (five elementary schools, two private schools, one junior high school, four high schools, one community college)
- Hospitals (Crawford County Memorial Hospital)
- Daycares
- Parks
- Robinson Correctional Center

In the future, a survey will be conducted to determine the actual locations subject to additional risk and the number of people that may be affected at each location so that special arrangements can be made for their care during emergencies.

3.2 Element 2—Emergency Response Methods and Procedures

3.2.1 Summoning Emergency Personnel

Emergency response alerting and dispatching is typically provided by the 911 Public Safety Answering Point (PSAP). At the discovery of a hazardous materials incident, the facility or first responder shall notify the 911 PSAP. The 911 PSAP is prepared to dispatch emergency response organizations based on the type and severity of the incident.

Once the incident command system is in place, a Unified Command will be identified, and the response operation has begun, the Unified Command may choose to open the Emergency Operations Center (EOC). The EOC is an established command center located in the Commercium Building at 301 South Cross Street in Robinson. The room is supplied with the following for use during emergency response operations:

- a conference table,
- desks,
- three local phone lines,
- a dedicated phone line to the MPC Robinson Refinery Emergency Command Center (ECC),
- a two-way radio for every emergency service agency in Crawford County,
- a fax machine,
- a copier,
- a computer with internet access,

- an activation terminal for the community warning system, and,
- a GIS Mapping System.

The EOC can be opened at the request of the CEO or the Unified Command, or during any Level II emergency at the MPC Robinson Refinery.

Any dispatch of a response organization would be directed through the 911 PSAP, unless there was a failure of the PSAP. In the event of a failure at the 911 PSAP, the back-up PSAP (located in the office adjacent to the EOC) would be activated. If necessary, the EOC could also communicate with any response organization, but would not have the ability to activate the two-tone paging system.

3.2.2 Summary of Facility Procedures for Hazardous Materials Accidents

Facility procedures for hazardous materials accidents at each facility subject to EPCRA are outlined in the facility-specific emergency response plans located at the EOC.

3.2.3 Summary of Emergency Responder Procedures for Hazardous Materials Accidents

Emergency response operations will commence upon activation of the LEPC Plan by the CEO or the first notified response organization. The following subsections summarize aspects of the emergency response procedures. More detailed response procedures can be found in the additional annexes to the EOP and information presented in this section is drawn from these annexes. The EOP annexes include:

- Communications
- Disaster Intelligence/Damage Assessment
- Earthquake
- Emergency Medical Service
- Evacuation
- Mass Care
- Mortuary Services
- Public Information
- Warning/Emergency Information
- Severe Weather

3.2.3.1 Incident Command System

Once the LEPC Plan, and possibly the EOP, are activated, an Incident Command system is established. The key personnel and a brief description of the functions of the Command Group and the various Sections and Branches required to implement the Incident Command System are listed in Table 3.2.3-1.

In order to effectively use the Incident Command System, the roles that each responder is filling must be identified. Within the Incident Command Post there are command vests with each identified position stenciled on the vest. During hazardous materials incidents, it is important that any person with an assigned command role wear the appropriate vest. In addition to the response personnel, there may be people from the affected facility, State and Federal Agencies, insurance companies, and other interested parties that respond to the incident site. These people should be directed to the Governmental Liaison who will then direct them to the appropriate level of command.

Table 3.2.3-1. Incident Command System Positions and Responsibilities

Position	Responsibility
Incident Commander (IC), Unified Command	Overall command of the incident. Initially the IC will be the first arriving Response Organization Supervisor.
Public Information Officer (PIO)	In charge of the media and all media relations. The PIO helps develop press briefings and provides escorts and resources to the media. The PIO reports to the IC or Unified Command.
Governmental Liaison	In charge of making contact with the State and Federal Agencies. The Liaison provides escorts and resources for incoming State and Federal Agencies. The Liaison reports to the IC or Unified Command.
Incident Safety Officer (Safety)	Assures the safety of the total incident site. The Safety Officer may stop or question any act that he/she deems unsafe. The Safety Officer reports to the IC or Unified Command.
Operations Branch Chief (Operations)	Directs all field activities at the incident site. The Operations Chief assists with planning and communications with all field agencies. The Operations Chief reports to the IC or Unified Command.
Logistics Branch Chief (Logistics)	Supplies all resources that are necessary to support the incident mitigation. The Logistics Chief reports to the IC or Unified Command.
Finance Branch Chief	Supports the incident by tracking all costs and gains financial approval from the IC or Unified Command to spend monies.

Table 3.2.3-1. Incident Command System Positions and Responsibilities (cont.)

Position	Responsibility
Fire Group Officer	Directs all firefighting personnel. Reports to Operations.
EMS Group Officer	Directs all EMS personnel. Reports to Operations.
Rescue Group Officer	Directs all Rescue personnel. Reports to Operations.
Hazardous Materials Group Officer	Directs all Hazardous Materials personnel. Reports to Operations.
Hazardous Materials Decontamination Officer	Directs the setup and operation of the Decontamination. Reports to the Hazardous Materials Group Officer.
Hazardous Materials Entry Officer	Directs the entry into a hazardous matls site. Reports to the Hazardous Matls Group Officer.
Hazardous Materials Safety Officer	Provides specific safety information and observation of the haz materials operation. Reports to the Haz Matls Group Officer.

3.2.3.2 General Organization and Assignment of Responsibilities

In addition to the roles and responsibilities pursuant to the Incident Command System, county officials and response organizations also follow the general organization and assignment of responsibilities as outlined below.

Chief Elected Official (CEO)

1. Sets policy for the emergency response organizations
2. Assumes responsibility for the overall response and recovery operations
3. Commits necessary jurisdictional resources to support operations
4. Sets response and recovery goals

Crawford County Emergency Management Agency (EMA) Coordinator/Community Emergency Coordinator[2]

1. Coordinate all phases of emergency management
2. Assist and advise the CEO of all emergency or disaster situations
3. Coordinate all warnings
4. Maintain readiness of the EOC and Mobile Command Post

[2] Note: The terms EMA Coordinator, Community Emergency Coordinator, and ESDA Coordinator used in the various appendices to the EOP all refer to the same position and can be used interchangeably.

5. Assist the American Red Cross with shelter operations
6. Assist the American Red Cross with welfare services
7. Coordinate damage assessment/disaster intelligence operations
8. Coordinate resource requests
9. Assist in the formulation of a debris removal plan
10. Request state/federal assistance through IEMA
11. Assist in the formulation of any media briefings/press releases

Crawford County Sheriff / Police Chiefs

1. Coordinate all law enforcement activities for their jurisdiction
2. Assist and help coordinate any evacuation activities
3. Provide security for shelters, evacuated areas, emergency scenes, and critical facilities
4. Provide necessary traffic control and development of a traffic plan
5. Assure the continued operation of the PSAP and/or alternate PSAP

Crawford County Health Department

1. Coordinate public health activities
2. Provide health related media or press releases
3. Ensure the potable water supply
4. Inoculate emergency responders or citizens to prevent the spread of infection or disease
5. Assist in the development of a sanitation plan
6. Assist in the formation of a crisis counseling team to reduce the effects of post incident stress in the citizens and the responders

Crawford County Coroner

1. Coordinate all mortuary services
2. Expand mortuary services in an emergency

3. Provide notification to the next of kin
4. Advise the unified command of incident related deaths

County Highway Supervisor

1. Coordinate with all city/village/township road and street superintendents/commissioners to determine the scope of damage to roads and bridges
2. Coordinate public works activities
3. Determine the structural integrity of necessary facilities
4. Provide necessary road and bridge repairs
5. Assist in the formulation of a traffic plan
6. Coordinate public debris removal

Treasurer, Clerk, Supervisor of Assessments

1. Provide facilities and staff to support emergency operations
2. Track disaster related costs

Jurisdictional In District Fire Chief

1. Provide fire suppression
2. Assist with manpower for search and rescue operations
3. Assist with manpower and equipment to support hazardous materials incidents
4. Assist with manpower and equipment to augment evacuation needs
5. Assist with decontamination

Red Cross

1. Assist with shelter operations
2. Assist with damage assessment/disaster intelligence
3. Assist with recovery and welfare operations

Each Response Organization

1. Prepare and maintain standard operating guidelines and checklists to support their assigned emergency or disaster functions
2. Establish a line of succession to function as a designate in their absence
3. Maintain accurate rosters of personnel
4. Establish a meeting or call-up procedure
5. Protect all records during an emergency or disaster
6. Establish a means so that information can be sent to or received from the EOC
7. Assure that all mutual aid documents are up to date and in effect
8. Perform training of all personnel so that they are aware of their emergency function(s)
9. Ensure that all personnel are aware of the components of this Plan

3.2.3.3 Response Agency Primary and Secondary Roles

In conjunction with the primary roles and responsibilities outlined above, response organizations will be asked to assume primary and/or secondary roles within the response effort. These roles are outlined in Table 3.2.3-2 as follows.

Table 3.2.3-2. Response Agency Primary and Secondary Roles

Job Function	Primary Agency	Secondary Agency
Animal Control	Crawford County Humane Society	Veterinarians
Command Post Operations	Rescue/Fire Departments	EMA
Decontamination	Rescue	Fire Departments
Evacuation	Law Enforcement	Fire Department/Rescue/EMS/Red Cross
Fire Suppression/Foam	Fire Departments	
Governmental Notifications	EMA & Facilities	Fire Departments
Hazardous Materials Entry	Rescue	Fire Departments
Hazardous Materials Research	Rescue	EMA
Incident/Perimeter Security	Law Enforcement	Fire Departments

Table 3.2.3-2. Response Agency Primary and Secondary Roles (cont.)

Job Function	Primary Agency	Secondary Agency
Public Medical Care	EMS/Crawford Memorial Hospital	Crawford County Health Department
Resource Management	EMA	Rescue
Responder Medical Care	EMS	Rescue/Crawford Memorial Hospital
Shelter Care	American Red Cross	ESDA
Warning/Notification (This would include activation of the Community Warning System)	EMA	Law Enforcement, Fire Departments, Rescue

EMS = Emergency Medical Services
EMA = Crawford County Emergency Management Agency

3.2.3.4 Succession of Command

A line of succession will be developed for each governmental unit and response organization. Each unit of government should maintain a line of succession to a level of three deep. Each response organization should maintain a line of succession to a level of four deep. It is assumed that the authority given to a supervisor or CEO will be given to a successor in the absence of the supervisor or CEO. Upon return of the supervisor or CEO, the successor's authority returns to the CEO or the supervisor.

3.2.3.5 Response Strategy

One of the first steps in responding to a hazardous materials incident is to assess the degree of the hazard and develop a response strategy. Research must be done to ensure that the proper methods and techniques are utilized to ensure the safety of the responders and the citizens that are involved. The Unified Command is responsible for developing the response strategy. When responding to a hazardous materials incident, the following topics must be considered.

- ***Hazardous Material Identification***—The chemical(s) involved in the incident must be identified in a safe manner. At no time should responders be allowed to approach the incident without the appropriate level of personal protective equipment and without knowledge of the physical and chemical hazards that a chemical possesses.
- ***Public Protective Measures***—A determination must be made regarding how best to protect the citizens from the hazards of the released chemical(s). A decision

must be made to either evacuate (relocate) the affected citizens or shelter in place. This determination must be based upon the chemical hazards, the volume of the chemical released, and the resources available to accomplish an evacuation. It is important to identify special populations such as schools, businesses, nursing homes, the hospital, etc. early in the incident response process.

- ***Selection of Response Strategy***—A determination must be made of the best strategy to mitigate the incident. This would include the non-intervention mode, the defensive mode, or an offensive mode. Selecting the proper strategy should be based upon the risks involved to the responders and citizens, risks to the environment, available resources, and the training of the response personnel.

- ***Establishing Isolation Zones***—A determination must be made to select proper isolation distances from the location of the hazardous material incident. The initial isolation zones will be based upon the North American Emergency Response Guidebook. Adjustment to the isolation zones will be based upon monitoring and defensive measures which can be applied to reduce the spread of the chemical.

- ***Selecting Personal Protective Equipment***—A determination must be made about the proper levels of personal protective equipment. Zones must be established around the incident site and all personnel informed of the zones. A detailed list of personal protective equipment for each zone must be made available to all response personnel on site.

- ***Initiating Decontamination Procedures***—Decontamination of the citizens, responders, equipment, and the environment must be implemented. Actions in the field cannot occur until proper decontamination procedures are established.
- ***Establishing a Staging Area***—A staging area must be established to be able to maintain control of all incoming response units. This area must be established early in the incident.
- ***Establishing a Command Post***—A Command Post location must be established early in the incident. The Command Post must be located uphill and upwind of the incident site. The Command Post must be in the cold zone.
- ***Protecting the Environment***—Environmental protection must be considered when selecting the proper strategy. This would include limiting contamination and preventing runoff from reaching waterways.
- ***Controlling Other Hazards***—Other hazards such as electrical lines, sewers, and ignition sources must be controlled.

3.2.3.5.1 Identification of the Chemical Hazards

In order to provide the maximum level of safety to the responders and the citizens, it is important to obtain as much information about the chemical(s) that are involved as practical. Prior to implementing any strategy or tactic, there is certain information that must be determined and incorporated into any incident action plan. The type of chemical information that is needed and a possible source of that information are provided in Table 3.2.3-3.

Table 3.2.3-3. Information Sources for Identifying Chemical Hazards

Required Information	Information Source
Chemical Name	Placards, Labels, Bills of Lading, Manifests, Airbills, Eyewitnesses, Facility Site Plan and Facility Representative, MSDS, Shipper, or Consignee
Chemical Hazard	MSDS, ERG, Placard or Label, Industry Experts, Reference Manuals, CAMEO, Chem-Trec
Chemical Properties	MSDS, ERG, Reference Manuals, Industry Experts, CAMEO, Chem-Trec
Chemical Inventory	Facility Tier II Information, LEPC, Waybills, Bills of Lading, Facility Site Plan and Facility Representative
Chemical Reactivity	MSDS, ERG, Reference Manuals, Industry Experts, EPA, Government and Industry Experts, Chem-Trec
Personal Protective Equipment	MSDS, ERG, Industry Experts, Reference Manuals, CAMEO
Isolation Zones	ERG, Reference Manuals, Government and Industry Experts
Decontamination	MSDS, Reference Manuals, Government and Industry Experts
First Aid / Medical Care	MSDS, Reference Manuals, Poison Control Center, Government and Industry Experts, Crawford Memorial Hospital, ERG, package labeling.
Environmental Hazards	MSDS, Reference Manuals, Government and Industry Experts, EPA, Fish and Wildlife

CAMEO = Computer-Aided Management of Emergency Operations
Chem-Trec = Chemical Transportation Emergency Center
EPA = Environmental Protection Agency
ERG = Emergency Response Guidebook
LEPC = Local Emergency Planning Committee
MSDS = Material Safety Data Sheet

3.2.3.5.2 Communication

Once it has been determined that a hazardous materials event is in progress and multiple organizations will be responding, a communications plan must be developed. Under the incident command system, it is preferred to develop the communications plan based upon the anticipated job function rather than the frequencies used by each department on a day to day basis.

The job functions, the groups assigned to that function, and suggested frequencies to be used by all personnel, are provided in Table 3.2.3-4. If it is found that these groupings will not work, an alternate communications plan must be quickly developed and implemented to ensure proper incident communications.

Table 3.2.3-4. Suggested Radio Frequencies

Job Function	Assigned Groups	Frequencies
Command	Unified Command, PIO, Liaison, Safety	EMA Channel
Operations	Fire, Rescue, Haz. Mat.	Robinson Fire 1 Channel
Operations	EMS	United Life Care
Operations	Law Enforcement	Crawford County Repeater
Logistics	Logistics (All)	Robinson Fire 2 Channel
Disaster Channel	Disaster Response Team	Disaster Channel (155.655)

Since good communications is important, it is critical that all personnel stay on their assigned radio frequency. If mutual aid units are brought into the incident and do not have these frequencies, it is the responsibility of the Logistics Officer to supply these units with our communications equipment. For additional information, refer to the Tactical Interoperability Communications Plan (TICP).

3.2.3.5.3 Decontamination

Decontamination of people, equipment, and supplies is critical to prevent the spread of contamination and to protect emergency responders and the public from exposure to the released chemicals. Decontamination is typically accomplished by one or more of the following three techniques:

- ***Dilution***—Dilution utilizes water to flush the hazardous material from protective clothing and equipment. The advantages of dilution are speed and economy, but its disadvantages are possible reactivity with some materials and pollution created by the runoff.

- ***Absorption***—Absorption is the process of absorbing the hazardous material to prevent increasing the contaminated area. The most readily available absorbent is soil. Other acceptable materials would include sawdust, anhydrous fillers, sand, or commercially available products such as Zorb-all, or PIG ™ products.

- ***Chemical Degradation***—Chemical degradation is the process of altering the chemical structure of the hazardous material. The principle advantage of chemical degradation is the hazardous material is rendered less harmful. The disadvantages are the time restrictions required to determine the correct decontamination solutions for the hazardous chemical and the immediate availability of the necessary decontamination materials.

Before beginning decontamination procedures, the Unified Command and the Decontamination Officer must decide how much decontamination is necessary. This decision should be based on the answer to the following pertinent questions:

- Are existing resources immediately available to decontamination personnel and equipment? If not, where can they be obtained and how long will it take to get them?

- Can decontamination be conducted safely? Dilution, for example, may be impractical due to freezing weather or present an unacceptable risk to emergency personnel.

- Can the equipment be decontaminated? The toxicity of some materials may render equipment unsafe. Disposal may be the only method of safely handling the equipment.

3.2.3.5.4 Decontamination Area Site Selection

The Decontamination (Decon) Area should be based on access to the incident from hard surfaced roads, water supplies, and by proximity to environmentally sensitive areas such as streams, rivers, and ponds. Ideally, a Decon Area should be close to the incident in order to limit the spread of contamination. Decontamination may, however, be impractical at one location and several sites may be required. An upwind, uphill area is an ideal decontamination site, but sometimes this is impractical. Shifting winds and the size of migrating vapor clouds should be taken into consideration to avoid moving the decontamination operation once it is underway. Decon Areas further than 100 yards from the incident will require transportation to and from the site. Incidents requiring the use of self-contained breathing apparatus (SCBA) and encapsulated suits will compound transportation problems. Experience in the field has shown that the best vehicle for transporting workers to and from a decontamination site is a pickup truck. Workers in

encapsulated suits can ride in the truck bed with their equipment. Drivers must wear respiratory protection and be aware of the hazards of the hazardous material.

When a suitable decontamination site has been selected, an isolation perimeter should be established to mark the contaminated area. This is to warn personnel of possible hazards and identify where contaminated personnel should go for decontamination. The decontamination area can easily be marked with stakes, banner tape, rope, or cones. Warning signs should be placed well in advance of the danger zone.

3.2.3.5.5 Decontamination Officer

In accordance with the Incident Command System, a Hazardous Materials Decon Officer should be selected for each hazardous material incident response. The role of the Decon Officer is to supervise the setup and operation of the Decon Area. The Decon Officer should confer with the Incident Commander, the Safety Officer, and the Hazardous Materials Branch Officer and select the proper type of decontamination as well as the proper site to perform decontamination activities. The Decon Officer must assist in the selection of personal protective clothing for the Decon Workers and assure the cleanliness of the Decon Area.

3.2.3.5.6 Typical Nine Step Decontamination Process

Emergency response personnel will typically follow the nine step process presented in Table 3.2.3-5, or some variation of this process, for decontamination activities. The nine steps are designed to deal with the worst case incidents. In most situations, it will not be necessary to go through the entire nine-step procedure. The decision to implement all or part of the decontamination process should be based on analysis of the hazards and risks of the hazardous materials involved. This normally consists of checking with technical reference sources to determine the general hazard such as:

- Is the material flammable vs. poisonous?
- Can the material be brushed off?
- Can the material be easily spotted on personal protective equipment?

It is important to remember that more than one reference source should be consulted before determining the hazards of the chemical and the decontamination method that is selected.

Table 3.2.3-5. Typical Nine Step Decontamination Procedure

Step	Action
1	Entry Point – This is the area that contaminated personnel enter. The entry point should be clearly marked. Any tools that are used at the incident site are to be left at the entry point.
2	Gross Rinse – This is accomplished by the use of a shower, fire hoses, garden hoses, etc. All runoff from the gross rinse must be contained (within the shower basin or baby pools). All personnel assisting in this area should be equipped with personal protective equipment one level less than the personnel that are being decontaminated.
3	After stepping through a footbath, the decontamination personnel will assist the contaminated personnel into a scrub pool. At this point, the decontamination personnel will gently scrub (with soft brushes) and rinse the contaminated personnel. The decontamination personnel will be in personal protective equipment one level less than the personnel that are being decontaminated.
4	After stepping through another footbath, the decontamination personnel will assist the contaminated personnel into another rinse. The decontamination personnel will assure that all contamination is removed from the external clothing. At this point, SCBA, may either be removed or serviced. If the SCBA are removed, they should be wrapped in plastic and set aside for further decontamination. If the bottle is changed, the contaminated bottle should be set aside and wrapped in plastic.
5	Removal of personal clothing and effects - In extremely hazardous situations, complete removal of personal clothing and effects will be required. Items that can be decontaminated should be wrapped in plastic for further decontamination. Items that cannot be decontaminated will be disposed of
6	Personal showering – In most situations, this can be accomplished at a fire station, school gym, or even at the hospital. Ample soap and water should be used.
7	Personnel that have showered should now dry off and put on clean clothes.
8	At this point, the Decon personnel and entry personnel should be evaluated by the on-site medical personnel. Vital signs should be taken and recorded. Any cuts or abrasions should be noted.
9	This step is the forwarding point to another location for emergency treatment, further medical observation, or more decontamination. If the hazardous chemical was an extremely hazardous substance (EHS), the personnel should be transported to the hospital for further medical evaluation. Prior to transport, the hospital should be notified as to the chemical hazard and the level of possible exposure.

EHS = Extremely Hazardous Substance
SCBA = Self Contained Breathing Apparatus

3.2.3.5.7 Decontamination Solutions for Known Materials

Decontamination may be accomplished using decontamination solutions that are more capable of degrading chemical contaminants than plain water. Table 3.2.3-6 describes five general purpose decontamination solutions that may be used for ten basic hazard classes.

Table 3.2.3-6. General Purpose Decontamination Solutions

Decontamination Solution	Components
Solution A	A solution containing 5% Sodium Carbonate and 5% Trisodium Phosphate
Solution B	A solution containing 10% Calcium Hypochlorite
Solution C	A solution containing 5% Trisodium Phosphate
Solution D	A dilute solution containing Hydrochloric Acid (HCL). Mix one pint of HCL into 10 gallons of water and stir with a wooden or plastic stirrer.
Solution E	A concentrated solution of tide or other detergent and water. Mix into a paste and scrub with a soft brush. Rinse with water.

HCL = Hydrochloric Acid

A matrix for selecting the appropriate decontamination solution is provided in Table 3.2.3-7.

Table 3.2.3-7. Decontamination Solutions Selection Matrix

Type of Hazard	Decontamination Solution Type (see Table 3.2.3.6)
Inorganic acids, metal processing wastes	Solution A
Heavy metals: mercury, lead, cadmium, etc.	Solution B
Pesticides, chlorinated phenols, dioxins and PCBs	Solution B
Cyanides, ammonia, and other non-acidic organic wastes	Solution B
Solvents and organic compounds: Toluene and Acetone	Solution C or A
PBB's and PCB's	Solution C or A
Oily, greasy, wastes not contaminated with pesticides	Solution C
Inorganic bases, alkali and caustic wastes	Solution D
Radioactive materials	Solution E
Etiologic materials	Solution A or B

PBBs = polybrominated biphenyls
PCBs = polychlorinated biphenyls

3.2.3.5.8 Mass Decontamination

During some incidents, it may become necessary to perform mass decontamination on large numbers of contaminated personnel. These individuals could be either responders or citizens. It is the responsibility of all response personnel to ensure that every effort is made to decontaminate all contaminated people and property before the contamination can spread from the incident site. It is critical to inform the contaminated individuals of the danger that the chemical can cause if it is not removed from their person. Mass decontamination can be very difficult to perform due to the following circumstances:

- People may not be aware that they were exposed to the chemical
- Facilities may not exist at the incident site
- The number of contaminated individuals may exceed the decontamination resources
- People are reluctant to remove their clothing in public
- People will leave the area and spread the contamination throughout the community

The decision to perform mass decontamination must be made early in the incident and resources summoned as quickly as possible. Potential locations or temporary setups that could be used for mass decontamination would include:

- School shower facilities
- Motels
- Firehouses
- Fire hoses
- Aerial devices with tarpaulins for privacy
- Car Washes

Since we cannot be assured that all personnel will have been decontaminated at the incident site, a secondary decontamination should be established at the Crawford Memorial Hospital. If people arrive at the hospital and were near the incident site, they must be decontaminated prior to entering the hospital. The hospital must remain a hazard free environment at all times.

3.2.3.5.9 Incident Termination

Once the incident in the field has been terminated, the following items must be completed to give the incident closure. Table 3.2.3-8 provides a checklist of closure items and the person(s) responsible for assuring that all items are complete.

Table 3.2.3-8. Closure Checklist

Closure Item	Responsible Person(s)
All evacuees are returned	Unified Command
The contaminated area has been decontaminated	Unified Command
All response equipment has been decontaminated	Operations Branch Chief
All equipment has been replaced	Department Supervisors (Any equipment that has to be replaced should be ordered and the bills sent to the EMA Coordinator for compilation)
Clean-up is underway	Crawford County or no political subdivision within Crawford County is responsible for the costs of clean up. Under no circumstances should any clean-up activity commence without the permission of the Incident Commander and the Chief Executive Officer of that political subdivision. It is the responsibility of the spiller to pay for all costs associated with the incident, including but not limited to damages, clean up, and the costs of resources.
Financial Obligations Are Met	EMA Coordinator / State's Attorney
Insurance Claims	EMA Coordinator / State's Attorney

EMA = Emergency Management Agency
ESDA = Emergency Services and Disaster Agency
IEMA = Illinois Emergency Management Agency

3.2.3.5.10 Preservation of Records

All governmental bodies and agencies shall provide for the protection of records deemed essential for continuing government functions and the conduct of emergency operations. All bills, statements, or receipts should immediately be submitted to the treasurer of that jurisdiction.

3.2.3.5.11 Incident Debriefing

Immediately after a hazardous materials incident, the Incident Commander will schedule a time for an incident debriefing. The debriefing should be scheduled as soon as possible after an incident and include representatives from all interested parties and all agencies/departments that responded to the incident. The debriefing will include the following discussions:

- At the incident, what was done well?
- At the incident, what needs improvement?
- What planning changes need to be made?
- What additional training needs to be implemented?

A written copy of the notes taken at the debriefing will be forwarded to each department, agency, and interested party that was in attendance at the debriefing. Any outstanding action items should be noted and given to the LEPC Chairman. If results of the debriefing exercise indicate deficiencies in the LEPC Plan, the Plan will be updated as soon as practicable.

3.2.4 Summary of Healthcare Providers' Procedures for Hazardous Materials Accidents

Procedures for the treatment and the transport of the severely ill or critically injured, identification of treatment facilities, provision of medical equipment and supplies, medical personnel administration, communications, and record keeping are addressed in the Emergency Medical Services Annex to the EOP.

Requests for medical care in the event of a hazardous materials incident can be made through the 911 PSAP or via radio to the Crawford County Sheriff's Department. The Unified Command can request medical assistance as needed during the course of emergency response operations.

Medical care for the population affected by the hazardous materials incident is provided primarily by Crawford Memorial Hospital in Robinson which provides 24-hour emergency room capability. Pre-hospital care is primarily provided by a system of first responders, Emergency Medical Technicians (EMTs) – Basic (EMT-Bs), EMT-Intermediates (EMT-Is), and EMT-Paramedics. Patient transport is provided by United Life Care, an advanced life support service serving all of Crawford County. Care for emergency responders, including checks of responder vital signs and follow-up care and examinations of responders at the conclusion of the incident, is provided by the EMS providers at the site as well as Crawford Memorial Hospital.

Upon arrival at the scene, the senior paramedic will assume control of medical activities at the scene. A triage function will be developed in response to the specific needs of the emergency. Transport criteria and needs will be developed on scene to meet the triage requirements and the medical needs of the affected community.

Crawford Memorial Hospital will be the primary treatment facility for the incidents in Crawford County. However, if Crawford Memorial Hospital becomes unusable, alternative locations such as medical clinics, local schools, nursing homes, or hospitals in other communities may be used.

Prior to transporting victims to the hospital, the senior paramedic should provide the hospital with the following information:

- Location of the incident
- Anticipated number of victims
- Type(s) of injuries
- Chemical(s) involved
- Type of hazard the chemical possesses
- Exposure duration and dose
- Method of exposure (inhalation, ingestion, injection, absorption)
- Degree of victim decontamination

If at all possible, EMS should transport a copy of the applicable chemical MSDS(s) with the victim to the Hospital.

Since the hospital is to remain a hazard free area, if decontamination of the victim cannot be confirmed at the incident site, then additional decontamination may have to be performed at the hospital. If this is necessary, the hospital should coordinate with the EMS providers to arrange for decontamination personnel to be dispatched to the hospital to assist with decontamination.

It is the responsibility of the hospital to update their facility plans to include the internal structure required to mitigate a mass casualty incident that involves hazardous materials or contamination of the hospital due to an on-site release of a hazardous chemical.

3.3 Element 3—Emergency Coordinators

3.3.1 Community Emergency Coordinator

The Crawford County EMA Coordinator fulfills the role of the Community Emergency Coordinator. The Crawford County EMA Coordinator/Community Emergency Coordinator responsibilities are listed in Section 3.2.3. At the time of completion of this version of the LEPC Plan (June 2012), Ken Pryor is the designated Crawford County EMA Coordinator/Community Emergency Coordinator.

3.3.2 Facility Emergency Coordinator

Each facility subject to EPCRA must designate an emergency coordinator. Table 3.3.2-1 lists the facility emergency coordinator and contact number for the EHS facilities in Crawford County.

3.4 Element 4—Notification of a Release

Procedures for notifying emergency response organizations and the public are addressed in detail in the Warning/Emergency Information Annex to the Crawford County EOP. Citizens of the county may be notified of an emergency or hazardous materials incident through the use of warning sirens, fixed public address systems, door to door notification, mobile public address systems, telephone notification, commercial radio announcements, and or Reverse 911.

3.4.1 Facility Notification Procedures

Notification procedures for each facility subject to EPCRA are outlined in the facility-specific emergency response plans provided as appendices to this document. Facilities and transportation services that use, produce, store, or transport hazardous materials should immediately alert the 911 PSAP when an emergency situation involving hazardous material occurs. Any warning, if necessary, will be instituted by 911 PSAP, the EOC, the EMA, or the Unified Command.

Table 3.3.2-1. Facility Emergency Coordinator Contact Information

Facility Subject to EPCRA	Designated Facility Emergency Coordinator
AT&T Corporation	Alarm Center 888-590-5860 Lynn Ragsdale, Associate EHS Administrator 770-922-6035 800-566-9347 (24-hour)
Bi-Petro, Inc. – Stoy Dump	Skip Homeier 217-535-0181 217-546-4969 (24-hour)
Bradford Supply Company	Chad Smith 618-544-3171 217-932-2013 (24-hour)
Bunker Hill Supply Company (Annapolis)	Jim Sechrest 618-569-4545 618-569-5583 (24-hour)
Bunker Hill Supply Company (Hutsonville)	Robin Guyer 618-563-4464 618-563-4844 (24-hour)
CII Carbon, LLC – Robinson Coke Plant	Matt Taylor 618-544-2193 217-649-7182 (24-hour)
Crawford County Oil, LLC	Emery Webster 618-544-3493 618-553-0110 (24-hour)
Dana Corporation, Sealing Products	Steve Shaffer, Plant Manager 618-546-5300
E. H. Baare Corporation	Travis Crumrin 618-546-1575 618-584-3075 (24-hour)
Effingham Equity – Robinson	Randy Meese 618-586-5451 618-553-3533 (cell) ChemTrec 800-424-9300 (24-hour)
Fair-rite Products	Tom McCoy (Primary) 618-584-3500 Darrell Julian (Secondary) 812-910-1123 (cell) 812-291-5128 (24-hour)

Table 3.3.2-1. Facility Emergency Coordinator Contact Information (cont.)

Facility Subject to EPCRA	Designated Facility Emergency Coordinator
Ferrellgas Company	Pete Todd 618-395-7414 800-234-7414 (24-hour)
Glover Oilfield Service, Inc./Voke	Jonathon Conat 618-395-3624 618-752-5820 (24-hour)
Glover Oilfield Service, Inc./Wilkins	Jonathon Conat 618-395-3624 618-752-5820 (24-hour)
Indiana Railroad – Palestine	Pat McDurmon 618-586-2111 Dispatch 800-677-1985 317-626-3470 (24-hour)
Lincolnland Agri-Energy, LLC	Brandon Sisal 618-586-2321 618-421-3332 (cell) 618-553-3802 (24-hour)
Marathon – Robinson, Illinois, Terminal	Bobby Winters 812-298-0678 (24-hour) Findley, Ohio 877-627-5463 (24-hour) Terminal 618-544-3139
Marathon Petroleum Company LP	Operations Shift Foreman 618-544-2121 (24-hour)
Marathon Pipe Line – Robinson Wabash Station	Michael Howard 618-592-3611, ext. 224 618-553-7042 (cell) Keith Bomer 618-592-3611, ext. 225 618-553-1350 (cell)
Mont Eagle Mills, Incorporated (Oblong)	Eric Eubank 618-562-4211 (24-hour)

Table 3.3.2-1. Facility Emergency Coordinator Contact Information (cont.)

Facility Subject to EPCRA	Designated Facility Emergency Coordinator
Mont Eagle Mills, Incorporated (Flat Rock)	Doug Benson 618-928-0265 (24-hour)
Qwest – Annapolis	UniCall Emergency Center 866-864-2255 (24-hour) Tim DuBois 317-557-6409 (24-hour)
Shakespeare Oil Company, Inc. – Richart Lease	Kirk Wilkins 618-322-8250 (24-hour) Dave Richart 618-553-3554 (cell) Ken Dyke 618-553-3895 (cell) Salem Office 618-548-1585
Superior Fuels, Inc.	Jerry McDaniel 618-553-2115 (cell) Encore 618-783-8714
Wabash Valley Heat and Gas	John Daugherty 618-562-3614 (cell, 24-hour) 1-800-866-5668
Wabash Valley Service Company (Oblong-Flat Rock)	Kent Ochs 618-842-5631 618-516-1697 (24-hour)

Note: The information provided in Table 3.3.2.1 was collected from the 2012 Tier II Emergency and Hazardous Chemical Inventory reports submitted to the LEPC.

Facilities notifying the 911 PSAP and/or EOC should provide as much of the following information as is known at the time of the release so that the appropriate emergency response services and public notification can be provided:

- The chemical name or identity of any hazardous substance involved in the release
- An estimate of the quantity of any such substance that was released into the environment
- The time and duration of the release
- The medium or media into which the release occurred
- Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals
- Proper precautions to take as a result of the release, including evacuation (unless such information is readily available to the community emergency coordinator pursuant to the emergency plan)
- The name and telephone number of the person or persons to be contacted for further information

3.4.2 Community Emergency Coordinator Notification Procedures

Upon learning of a hazardous materials incident, the Community Emergency Coordinator will notify the appropriate emergency response organizations. The Community Emergency Coordinator will also notify the LEPC Chairman who will in turn notify the LEPC Vice-Chairman. Appropriate government officials will be notified by telephone. The contact information for the LEPC Chairman and the LEPC Vice-Chairman, is provided in Table 3.4.2-1.

Table 3.4.2-1. Contact Information for Notification of an Incident

Agency/Name/Address	Method of Contact
LEPC Chairman – Von Meeks Marathon Petroleum Company LP 400 South Marathon Avenue Robinson, IL 62454	Work Phone: 618-544-2121, ext. 5332 Home Phone: 618-544-4802 Cell Phone: 618-553-1568
LEPC Vice-Chairman – Position Currently Open	Work Phone: Home Phone: Emergency Contact:

Note: All other State and Federal Agencies can be notified by using the IEMA Number (1-800-782-7860). The IEMA dispatcher can link with all other State and Federal Agencies.

3.4.3 Notification of the Public

Public notification in the event of a hazardous materials incident will be conducted according to the procedures provided in the Warning/Emergency Information Annex to the EOP. The methods for notifying the public of a hazardous materials incident will be dependent on the type and severity of the incident and may be accomplished by one or more of the following methods:

- activation of the community warning siren system
- commercial radio broadcasts
- emergency service vehicle public address systems
- telephone communication
- door-to-door notification
- Reverse 911

There are several factors that should be considered as to the best means to alert the public of a hazardous materials incident, including the following:

- Threat posed by the hazardous chemical
- Physical size of the release
- Demographics of the area that the release is occurring
- Time of day that the incident is occurring

- Special populations that must be warned
- Measures that can be performed to reduce the threat

Since it may require some time to determine if a hazardous materials incident is in progress, all responders should be prepared to warn the public as quickly as possible of a hazardous materials incident.

Prior to issuing a notification, the size of the warning area must be calculated. The initial isolation distance for a specific chemical must be taken from the Emergency Response Guidebook (ERG). After the initial isolation, the area can be upsized or downsized due to defensive measures that can be performed or changes in the situation. It is the responsibility of the IC to determine the hazards of the incident and direct the notification of the public. For our purposes, we can classify public notifications into two categories: small scale notifications and large scale notifications. Table 3.4.3-1 indicates the type of notification and the methods to be used for notifying the public.

Table 3.4.3-1. Notification Methods Based on Area of Notification

Area of Notification	Size of Notification	Notification Methods
Less than 1 square block or less than ¼ mile radius	Small	Door to Door, Mobile Public Address Systems, WTYE Radio Broadcast, or Community Warning System (in those areas so equipped)
More than 1 square block or less than ½ mile radius	Large	Door to Door closest to the incident site, then Mobile Public Address Systems, WTYE Radio Broadcast, the Community Warning System (in those areas so equipped), and Reverse 911
More than 1 square block and greater than 1 mile radius	Large	Same as above

3.5 Element 5—Determining the Occurrence of a Release

3.5.1 Facility Release Detection Mechanisms

Release detection mechanisms vary by facility according to the type of facility and possible release. The EHS facility release detection mechanisms are outlined in the facility-specific emergency response plans provided as appendices to this document.

3.5.2 Facility Vulnerability Zones

An estimation of the vulnerability zone for each EHS facility is provided in the facility-specific emergency response plans provided as appendices to this document.

3.5.3 Area Likely to be Affected

An estimation of the area likely to be affected by a hazardous materials incident at an EHS facility is included in the facility-specific emergency response plans provided as appendices to this document.

3.5.4 Release Detection Mechanisms for Transportation Accidents

Detection of a release from a transportation accident will be made by the vehicle drivers, witnesses to the accident, and/or emergency response personnel responding to the accident. Indications that hazardous materials are involved in the transportation accident include:

- Hazardous materials containers and locations
- Container shapes and sizes
- Explosions or detonations
- Vapor plumes
- Fire with a non-typical flame color
- Fire with non-typical smoke color
- Sick or injured personnel or witnesses
- Sick or injured animals
- Placards or labels on containers or packages
- Leaks or spills from containers or packages

Until additional information is available, it will be assumed that hazardous materials are involved in an incident involving a commercial carrier.

3.6 Element 6—Emergency Response Equipment and Facilities

3.6.1 Emergency Response Resources

A list of the primary emergency responders in Crawford County, including the responders' contact information, is provided in Table 3.6.1-1. Note that all emergency response activities shall initially be dispatched through the 911 PSAP, with subsequent calls for support from emergency responders made by the Unified Command.

In addition to the emergency response agencies and organizations listed in Table 3.6.1-1, the following law enforcement departments are available to assist in emergency response operations:

- Robinson Police Department
- Oblong Police Department
- Palestine Police Department
- Hutsonville Police Department
- Crawford County Sheriff's Department
- Crawford County Auxiliary Police Department

A list of emergency response equipment maintained by each response organization, as applicable, is provided in Appendix C.

3.6.2 Emergency Response Equipment

Emergency response equipment maintained by each emergency response organization, as applicable, is provided in Appendix C.

3.6.3 Facility Emergency Response Equipment

Emergency response equipment maintained by each facility subject to EPCRA is listed in the facility specific emergency response plans provided as appendices to this LEPC Plan.

3.6.4 Available Resources

Resources available from the response organizations in Crawford County, as applicable, are provided in Table 3.6.1-1.

Table 3.6.1-1. Emergency Responders' Contact Information and Available Resources

Emergency Responders	Contact Person	Contact Information	Available Resources
Agencies			
Local Emergency Planning Committee	Von Meeks 100 Marathon Avenue Robinson, IL 62454	Work: (618) 544-2121 Home: (618) 544-4802 Cell: (618) 553-1568	LEPC members
Emergency Services and Disaster Agency (LEPC/EMA)	Ken Pryor P.O. Box 132 Robinson, IL 62454	Work: (618) 562-0402 Home: (618) 562-0402	EMA Coodinator
State Emergency Response Committee / Illinois Emergency Management Agency (SERC/IEMA)	IEMA Communications Center	1-800-782-7860	IEMA Communications Center
Fire Departments: Backup personnel can be reached through 911 system			
Robinson Fire Department	Ted Atteberry 400 S. Jackson Street Robinson, IL 62454	(618) 544-2955 (618) 546-5656 (fax) chiefrfd@mchsi.com	seven full-time firefighters and a Fire Chief
Oblong Fire Department	Phillip Mendenhall 111 W. Main Street Oblong, IL 62449	(618) 592-4513 (618) 592-4513 (fax) bonesofd@fairpoint.com	volunteer firefighters
LaMotte Township Fire Department (Palestine)	Harry Purcell 104 E. Harrison Street P.O. Box 37 Palestine, IL 62451	(618) 586-2122 (618) 586-2016 (fax) fire700@springnet1.com	volunteer firefighters
Hutsonville Fire Department	Gregg Cox P.O. Box 95 Hutsonville, IL 62433	(618) 563-4700 (618) 584-3536 (fax)	volunteer firefighters
Flat Rock Fire Department	Mandell Steffey 205 S. Main Street Flat Rock, IL 62427	(618) 584-3535 (618) 584-3536 (fax) frfpd@frtci.net	volunteer firefighters
Prairie Licking Fire Department (Annapolis)	Matt Davidson P.O. Box 16 Annapolis, IL 62413	(618) 569-5051 (618) 569-5051 (fax) PLFD1@yahoo.com	volunteer firefighters

Table 3.6.1-1. Emergency Responders' Contact Information and Available Resources (cont.)

Emergency Responders	Contact Person	Contact Information	Available Resources
Medical Services Backup personnel can be reached through 911 system			
United Life Care Ambulance	Cliff Simpson 301 South Cross Robinson, IL 62454	(618) 544-5911 ulcamb@mchsi.com	paramedic ambulance service; 16 EMT-Basic, 1 EMT-Intermediate, 11 Paramedics
Crawford County Memorial Hospital	Melody Tedford 1000 North Allen St. Robinson, IL 62454	(618) 544-3131	93 bed acute care facility; 30 health care services; 24-hour care provided
Crawford County Health Department	Donna Milam 202 N. Bline Blvd. Robinson, IL 62454	(618) 544-8798	Health Department staff
Other Emergency Services Backup personnel can be reached through 911 system			
Crawford County Rescue Squad	Randy Cox P.O. Box 132 Robinson, Il 62454	(618) 544-4078 racox1@verizon.net	Staff capable of handling vehicular and/or confined space extrication, hazardous materials response; and underwater search and rescue
911 Public Safety Answering Point (PSAP)	Dispatcher on call	911	NA
American Red Cross	American Red Cross Old Northwest Territory Chapter 316 Main Street Vincennes, IN 47591	(812) 882-2204 (812) 882-2128 fax onwtredcross@sbcglobal.net	Red Cross staff

Note: The emergency responders were identified in the Crawford County, Illinois, LEPC Chemical Hazard Analysis and updated in June 2012.

3.7 Element 7—Evacuation Plans

3.7.1 Evacuation Standard Operating Procedures

Evacuation procedures to be followed during a hazardous materials incident are detailed in the Evacuation Annex to the EOP. Evacuation of people at risk in emergency situations that occur with little or no warning will be implemented on an ad hoc basis. The Unified Command at the scene of the emergency has authority to order "an evacuation" and will provide evacuation instructions with support arranged through the EOC as necessary. Evacuation routes will be coordinated from the EOC Evacuation by Law Enforcement and the EMA Coordinator. If the EOC is not activated/operational, then the Unified Command at the scene will coordinate the evacuation. Evacuation instructions will be based on known or assumed health risks associated with the hazard, the magnitude of the emergency, the intensity of the emergency, the time until onset, and the expected duration of the emergency.

If the chemical involved has the potential to explode, or if the incident is going to become a long-term incident, evacuation is the preferred option. If the event is going to become a short-term incident and there is a greater threat to the responders and public by exposing them to the chemical in an evacuation process, then sheltering in place is the preferred option. Since life safety is the number one priority in Crawford County, all response resources may be required to perform public protection.

Once the determination has been made to evacuate, the following provisions must be made:

- A shelter location must be designated and opened (schools are preferred; by agreement, all public buildings within Crawford County can be utilized as evacuation shelters)
- The shelter must be opened
- The American Red Cross must be notified
- IEMA must be notified
- The shelter must be staffed to receive the evacuated citizens
- People should be allowed to drive to the shelter if conditions will allow
- School buses can be used to evacuate large areas if time permits
- Ambulances should be made available to move the handicapped or bedridden
- Pets can be brought to the shelter initially; however, other arrangements will have to be made through the Humane Society, veterinarians, etc.

NOTE: Pets will not be allowed in shelters provided by the Red Cross.

Following the evacuation order by an emergency response organization, the Law Enforcement shall be notified and will coordinate the evacuation effort, including:

- Identifying the number of people requiring transportation to evacuate
- Designating an assembly point for evacuees without their own transportation
- Arranging transportation for evacuees without their own vehicles
- Arranging shelters to house evacuees
- Providing evacuation information to the local media for public dissemination

If the threat posed to the public can be remediated by sheltering in place, the following steps should be taken by the public to shelter in place:

- Close all windows and doors
- Shutdown all air conditioning and heating systems
- If possible, move to a second story or higher.
- Do not go into a basement

The announcement of an evacuation or shelter in place can be accomplished by the same methods that are used to warn and notify the public. When declaring an evacuation, the following points must be announced:

- The physical size of the evacuation area. This would include from street to street or road to road.
- The reason for the evacuation
- The location of the shelter(s)
- The estimated duration of the evacuation

Once an area has been evacuated, it will be necessary to check the area to assure that all of the citizens have been accounted for. As soon as safely possible, responders will enter the area and ensure that the public is out of the area. No one can re-enter the area without permission from the Unified Command. Once an area has been evacuated, the area must be secured and a perimeter established. The determination on whether an area can be re-entered must be based on the following factors:

- The chemical contamination in the area is less than the permissible level

- The initial incident has been controlled and is deemed safe
- The area has been decontaminated and checked for levels of the chemical

In order to assure that unauthorized entry into the area is not allowed, the following re-entry procedure will be followed:

- Law Enforcement will provide a perimeter around the incident site. This will include roadblocks and patrols of the area (if safe).
- A logbook will be maintained of who enters the area and where they are going and people requesting entry must sign in and sign out.
- A ribbon system will be adopted. The ribbons will be available only at the Command Post. Anyone that is not wearing a ribbon on his or her arm will not be allowed into the area.

3.7.2 Precautionary Evacuations

Precautionary evacuations will be conducted when a threatened or occurring hazardous materials incident poses potentially significant risk to the public.

3.7.3 Primary Evacuation Routes

The Crawford County EMA Coordinator and Law Enforcement organizations will designate general evacuation routes for evacuees to use. These routes will be selected based on the location of the hazardous materials incident, the nature of the incident, and the characteristics of the population expected to be affected by the incident. At the time of general evacuation, the EMA Coordinator will designate areas along the route where evacuees can obtain fuel, water, medical aid, vehicle repair/maintenance, information, and comfort facilities, as well as recommended destinations.

3.7.4 Alternative Evacuation Routes

In the event that primary transportation routes become unusable, the Crawford County EMA Coordinator or Law Enforcement will designate alternate evacuation routes for evacuees to use.

3.8 Element 8—Training Programs

In accordance with 29 IAC 620.80(e), the LEPC will work with the emergency response organizations to identify training needs in support of the LEPC Plan. EHS facilities will also provide appropriate training for their facilities as is discussed in the facility-specific emergency response plans provided as appendices to this LEPC Plan.

3.8.1 Training Programs and Schedules for Emergency Responders

Crawford County Emergency Response personnel are provided Hazmat specific training on an ongoing basis. Specific classes are conducted at the MPC Robinson Refinery as well as specific courses offered through local Fire, Police Ambulance, Hospital and Health Department facilities. See Appendix E for Training outline.

3.8.2 Training Programs and Schedules for Medical Personnel

Medical personnel are provided Hazmat specific training on an ongoing basis. Specific classes are offered through local Ambulance, Hospital and Health Department facilities covering topics such as decontamination, monitoring/analysis, response protocols, etc. See Appendix E for Training outline.

3.9 Element 9—Exercising the LEPC Plan

3.9.1 Schedule for Exercising the LEPC Plan

In accordance with 29 IAC 620.80(d), the LEPC Plan will be exercised at least annually. The annual drill will usually be coordinated through one of the local emergency response organizations and/or the MPC Robinson Refinery. Scenarios include hazmat responses including transportation related issues.

3.9.2 Testing the Adequacy of the LEPC Plan

The LEPC will test the adequacy of the LEPC Plan by exercising the Plan on an annual basis. Exercises will be developed by the LEPC to test and validate the various sections of the Plan which relate to local response organizations. The annual exercises will vary in design to address a variety of possible hazardous materials incidents and may coincide with exercising of the EOP.

The LEPC will provide notice of the exercise to the IEMA in the event that the IEMA would like to participate. Full-scale exercises will be followed by discussions between the various heads of the participating response organizations as well as by a public critique. These discussions will serve to identify shortcomings in the LEPC Plan or in implementation of the LEPC Plan, as well as to identify necessary amendments to the LEPC Plan.

The LEPC may rely on the following federal guidance documents in developing the exercise:

- *Federal Emergency Management Agency's CHER-CAP Hazardous Materials Exercise Evaluation Program*
- *National Response Team-2: Developing a Hazardous Materials Exercise Program*

If an actual hazardous materials incident occurs within a given year, the LEPC realizes that it may request exercise credit for the incident response to satisfy the annual LEPC plan exercise requirement.

NOTE: In order to receive "State" exercise credit, the exercise must be developed, conducted, and evaluated in accordance with the State of Illinois Homeland Security Exercise and Evaluation Program (HSEEP) to include the completion of the After Action Report (AAR) and the Corrective Action Plan (CAP).

APPENDIX A

CRAWFORD COUNTY, ILLINOIS, LEPC CHEMICAL HAZARD ANALYSIS

CRAWFORD COUNTY, ILLINOIS LEPC

CHEMICAL HAZARD ANALYSIS

Date Completed: May 1, 2006

Developed and Completed
By

Crawford County, Illinois, LEPC

Last Review and Update: June 2012

INDEX

COMMUNITY PROFILE

Geography

Crawford County, Illinois, has a total area of 446 square miles (1,154 square kilometers), consisting of 444 square miles (1,149 square kilometers) of land and 2 square miles (6 square kilometers) of water. The total area is 0.49% water. The county average annual rainfall is 45 inches; average annual snowfall is 17 inches. Crawford County weather is made up of four seasons with Winter temperatures averaging 38 degrees; Spring temperatures averaging 58 degrees; Summer temperatures averaging 77 degress; and Fall temperatures averaging 60 degrees. The weather information is from the National Weather Service including the average for the years 1971 through 2000. The Wabash River runs the entire length of the County's east border. The Embarras River also enters the county on the west border approximately 1.2 miles north of the south border and exits the county on the south border approximately 9 miles east of the west border. There are several acres of flood plain located on the southern and western boarders. Crawford County is contained within the Wabash Valley Seismic Zone.

Property

Crawford County consists primarily of agricultural properties with various manufacturing industries. Critical facilities would include AMEREN/CIPS, area electrical sub stations, natural gas pumping stations and propane storage areas. Potential secondary hazards would be Marathon Petroleum Company, an oil refinery with pressurized vessels and large capacity storage tanks and Lincoln Land Agri-Industries, an ethanol refinery with large capacity storage of ethanol. Site specific Emergency Pre-Plans are conducted and maintained by the Robinson Fire Department.

Infrastructure

There are two State highways serving Crawford County as well as the Indiana Railroad Company. The Robinson Community Airport has a runway length of 5,109 feet by 75 feet. There are no public docks nor navigable waterways. There are 7 water districts in Crawford County with a total storage capacity of 1,823,000 gallons. Electrical providers are AMEREN/CIPS and Norris Electric. Natural Gas providers are AMEREN/CIPS and Flat Rock Municpal Gas Company. Propane storage and delivery facilities are Wabash Valley Heat and Gas Company, Inc. and FS Wabash Valley Service Company.

Land line telephone services providers in Crawford County are Verizon, OTE and Flat Rock Telephone Co-Op, Inc. One local radio station is in Robinson, WTAY/WTYE.

Demographics

As of the 2010 Census, there were 19,817 people residing in Crawford County. The county contains major municipalities including Robinson with a population of 9,900; Oblong with a population of 2,789; Lamotte with a population of 2,046; Honey Creek with a population of 1,563; Hutsonville with a population of 1,177; Montgomery with a population of 672; Prairie with a population of 594; Martin with a population of 531; Licking with a population of 448; and Southwest with a population of 97. The population density is 46 square miles. (18 square kilometers). There were 8,861 housing units (both occupied and unoccupied) at an average density of 20/square mile (8/square kilometer). The racial makeup of the county was 92.8% White, 4.7% Black or African American, 0.2% American Indian and Alaska Native, 0.5% Asian, 0.0% Pacific Islander, 0.8% from other races, and 0.9% from two or more races. Hispanics or Latinos of any race made up 1.8% of the population. The population and racial percentages include the Robinson Correction Center with a population of approximately 1,200 inmates.

There were 7,763 households out of which 66.39% were family households where 79.18% were married couples living together, 14.09% had a female householder with no husband present, 6.73% had a male householder with no wife present. Non-families comprised the remianing 33.61% of households in Crawford County. Individuals made up 29.09% of all households, with 13.28% of all households having someone living alone who was 65 years of age or older (45.66% of all individual households). The average household size was 2.41 for owner-occupied housing units and 2.17 for renter-occupied housing units.

In the county the population was spread out with 20.45% under the age of 18; 8.72% from 18 to 24; 25.24% from 25 to 44; 28.75% from 45 to 64; and, 16.83% who were 65 years of age or older. The median age was 42 years.

The public schools in Crawford County include five Elementary Schools with an approximate enrollment of 1740 students ; one Middle School with an enrollment of 362 students; four High Schools with an enrollment of 950 students; and, one Community College with an enrollment of 1062 students.

The Crawford Memorial Hospital located in Robinson is a 25 bed facility with 31 health care services and 24-hour emergency care.

Response Organizations

Crawford County has six Fire Departments, comprised of Robinson Fire Department with 7 full-time firefighters and a Fire Chief; Oblong Fire Department; LaMotte Township Fire Department in Palestine; Hutsonville Fire Department; Flat Rock Fire Department; and, Prairie Licking Fire Department in Annapolis. With the exception of Robinson, all other Fire Departments are made up of volunteer firefighters.

Crawford County's Law Enforcement is made up of the Robinson Police Department; Oblong Police Department; Palestine Police Department; Hutsonville Police Department; Crawford County Sheriff's Department; and, the Crawford County Auxiliary Police Department.

The Emergency Services for Crawford County consist of 911 Emergency Systems; United Life Care Ambulance a paramedic ambulance service; Crawford County Rescue Squad capable of handling vehicular and/or confined space extrication, hazardous materials response and underwater search and rescue.

CHEMICAL HAZARD ANALYSIS METHODOLOGY

Chemical Hazard Identification

After completing the Community Profile, all of the potential chemical hazards that the community is subject to were listed on the Chemical Hazard Analysis Worksheet. Both Extremely Hazardous Substances (EHS) and non-EHS chemicals hazards were included on the Chemical Hazard Analysis Worksheet. The chemical hazards were not listed in any particular order.

Chemical Hazard Profiles

Based on the information in the Community Profile, each of the chemical hazards identified were assigned rating numbers for each of the individual categories listed on the Chemical Hazard Analysis Worksheet. The Category Rating Guidelines were used to help determine the rating for each category. Ratings did not exceed the maximum number shown for each category on the Category Rating Guidelines page.

Category Weighting

The Chemical Hazard Analysis Worksheet has predetermined importance-weighting factors (*wf*) included for each category. The Chemical Hazard Severity Rating for each chemical hazard was calculated using the ratings that were entered into each category and the predetermined weighting factors (*wf*).

The selected category ratings were multiplied by the weighting factor (*wf*) identified for each category. The Chemical Hazard Severity Rating for each individual chemical hazard is the sum of the products of the category ratings and weighting factors (*wf*) in each category.

A prioritized list of chemical hazards was developed based upon the Chemical Hazard Severity Ratings. The higher the Chemical Hazard Severity Rating, the more critical the chemical hazard is to the community. The prioritized list can be found in the Chemical Hazard Overview.

Categories Used In Conducting The Chemical Hazard Analysis

The following categories were used in determining the Chemical Hazard Severity Rating for each chemical hazard:

Potential Magnitude was rated on a 1 to 4 scale based on the estimated percentage of the community that could be affected by the chemical hazard. The weighting factor for this category is 6.

Frequency of Occurrence was rated on a 1 to 4 scale based on the likelihood that the chemical hazard would occur in the community. The weighting factor for this category is 3.

Seasonal Pattern was rated on a 1 to 3 scale based on most likely time of the year that the chemical hazard might occur. The weighting factor for this category is 1.

Areas Affected was rated on a 1 to 4 scale based on whether or not the chemical hazard would affect high or low population areas and whether or not critical facilities would be affected. The weighting factor for this category is 4.

Duration Rating was rated on a 1 to 4 scale based on the length of time the response might last. The weighting factor for this category is 2.

Speed of Onset was rated on a 1 to 4 scale based on the number of hours of warning received by the community prior to the chemical hazard occurring. The weighting factor for this category is 5.

Warning Systems was rated on 1 to 4 scale based on the expected percentage of the affected population that would receive warning prior to the chemical hazard occurring. The weighting factor for this category is 1.

Local Response Capabilities was rated on a 1 to 3 scale based on the level of mutual aid that would be requested by the community. The weighting factor for this category is 4.

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Diesel Fuel #2 (AT&T)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Sulfuric Acid (AT&T)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Crude Oil (Bailey Station)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	2 8	**50**
Petroleum Crude Oil (Bi-Petro, Inc. Stoy Dump)	1 6	1 3	3 3	1 4	2 4	4 20	4 4	2 8	**52**
Chlorine (Bradford)	3 18	1 3	3 3	4 16	1 2	4 20	4 4	2 8	**74**
Sulfuric (Bradford)	2 12	1 3	3 3	3 12	1 2	4 20	4 4	2 8	**64**
Anhydrous Ammonia (Bunker Hill, Hut'ville)	2 12	2 6	3 3	2 8	1 2	4 20	4 4	1 4	**59**
Atrazine 4L (Bunker Hill, Hut'ville)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Degree Xtra (Bunker Hill, Hut'ville)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Diesel Fuel #2 (Bunker Hill, Hut'ville)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Glyphosate (Bunker Hill, Hut'ville)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Gramoxone Max (Bunker Hill, Hut'ville)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Princep 4L (Bunker Hill, Hut'ville)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**

Anhydrous Ammonia (Bunker Hill, Annapolis)	2 12	2 6	3 3	2 8	1 2	4 20	4 4	1 4	**59**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Degree Xtra (Bunker Hill, Annapolis)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Glyphosate (Bunker Hill, Annapolis)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Gramoxone Max (Bunker Hill, Annapolis)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Guardsman Max (Bunker Hill, Annapolis)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Diesel Fuel (CII Carbon)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Kruzite 70 102-120 RKB (CII Carbon)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Castable Plus MC-25 (CII Carbon)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Petroleum Coke (CII Carbon)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Hydrochloric Acid (Crawford County Oil)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Carbon Dioxide (Dana)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Sulfuric Acid (Dana)	1	1	3	1	1	4	4	2	

	6	3	3	4	2	20	4	8	**50**
Carbon Disulfide, (Dillman Services)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Argonmix (EH Baare)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Hydrochloric Acid (EH Baare)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	2 8	**50**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
PVC Powder (EH Baare)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Sulfuric Acid (EH Baare)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	2 8	**50**
Aatrex (Effingham Equity in Robinson)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Anhydrous Ammonia (Effingham Equity in Robinson)	2 12	2 6	3 3	2 8	1 2	4 20	4 4	1 4	**59**
Bicep II Magnum (Effingham Equity in Robinson)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Glyphomax Plus (Effingham Equity in Robinson)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Glystar Plus (Effingham Equity in Robinson)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Gramoxone (Effingham Equity in Robinson)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Keystone (Effingham	1	1	3	1	1	4	4	1	

Equity in Robinson)	6	3	3	4	2	20	4	4	**46**
Liquefied Petroleum Gas (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Aiphatic Hydrocarbon (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Copper Oxide (CUO) (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Copper Oxide (Cupric Oxide) (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Iron Oxide (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Nickel Oxide (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Nitrogen Cryogenic Liquid (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Zinc Oxide (Fair-Rite)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Liquefied Petroleum Gas (Ferrellgas)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Crude Oil (Glover Oilfield Svc)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	2 8	**50**
Coal Dust (Hutsonville Power)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Compressed Dry	2	1	3	2	1	4	4	2	

Chlorine Gas (Hutsonville Power)	12	3	3	8	2	20	4	8	**60**
Flyash (Hutsonville Power)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Fuel Oil (Hutsonville Power)	1 6	1 3	3 3	4 16	2 4	4 20	4 4	2 8	**64**
Chlorine (IRR)	3 18	1 3	3 3	4 16	1 2	4 20	4 4	2 8	**74**
Denatured Alcohol (IRR)	1 6	1 3	3 3	4 16	2 4	4 20	4 4	2 8	**64**
Fuel Oil (Slurry Oil) (IRR)	1 6	1 3	3 3	4 16	2 4	4 20	4 4	2 8	**64**
Hydrocarbons (Slurry Oils) (IRR)	1 6	1 3	3 3	4 16	2 4	4 20	4 4	2 8	**64**
Liquified Petroleum (Liquified Propane Gas) (IRR)	3 18	1 3	3 3	2 8	2 4	4 20	4 4	2 8	**68**

CHEMICAL HAZARD ANALYSIS WORKSHEET
Category Rating Guidelines

Potential Magnitude Rating (percentage of the community that can be affected):

4 rating = **Catastrophic** (more than 50% of the community affected).
3 rating = **Critical** (25 to 50% of the community affected).
2 rating = **Limited** (10 to 25% of the community affected).
1 rating = **Negligible** (less than 10% of the community affected).

Frequency of Occurrence Rating:

4 rating = **Highly likely** (near 100% probability of occurrence in the next year).
3 rating = **Likely** (between 10 and 100% probability of occurrence in the next year, or at least one chance of occurrence in the next 10 years).
2 rating = **Possible** (between 1 and 10% probability of occurrence in the next year, or at least one chance of occurrence in the next 100 years).
1 rating = **Unlikely** (less than 1% probability of occurrence in the next 100 years).

Seasonal Pattern Rating:

3 rating = Likely to occur **anytime** of the year.
2 rating = Likely to occur during times of extreme weather conditions only (extreme heat or cold that could affect responders and/or the public).
1 rating = Likely to occur during times of moderate weather conditions only (weather conditions have no affect on responders and/or the public).

Areas Affected Rating:

4 rating = **High** population area **with** critical facilities.
3 rating = **High** population area **without** critical facilities.
2 rating = **Low** population area **with** critical facilities.
1 rating = **Low** population area **without** critical facilities.

Duration Rating:

4 rating = **15** days or **more**.
3 rating = **8** to **14** days.
2 rating = **3** to **7** days.
1 rating = **2** days or **less**.

Speed of Onset Rating:

4 rating = **0** to **6** hours warning.
3 rating = **7** to **12** hours warning.
2 rating = **13** to **24** hours warning.
1 rating = **25** hours or **more** hours warning.

Warning Systems Rating:

4 rating = **0** to **25%** of the **affected** population receives warning.
3 rating = **26** to **50%** of the **affected** population receives warning.
2 rating = **51** to **75%** of the **affected** population receives warning.
1 rating = **76** to **100%** of the **affected** population receives warning.

Local Response Capabilities Rating:

3 rating = State assistance required.
2 rating = Mutual aid required.
1 rating = Mutual aid not required.

CHEMICAL HAZARD OVERVIEW

Based on the chemical hazard analysis criteria and methodology as previously described, the following chemical hazards are considered to be of greatest risk to the community:

1. Honeywell Hydrofluoric Acid Anhydrous (MPC) 75 Points

Clear, colorless, corrosive fuming liquid with an extremely acrid odor. Forms dense white vapor clouds if released. Both liquid and vapor can cause severe burns to all parts of the body. Specialized medical treatment is required for all exposures. Both liquid and vapor can cause severe burns, which may not be immediately painful or visible. HF will penetrate skin and attack underlying tissues. Large or multiple burns totaling over 25 square inches of body surface area may also cause hypocalcemia (depletion of calcium in the body) and other toxic effects which may be fatal. Prolonged contact with very dilute HF solutions will cause burns. Can irritate nose, throat and respiratory system. Onset of symptoms may be delayed for several hours. The effects of contact with dilute solutions of hydrofluric acid or its vapors may be delayed. Symptoms might include pain, redness of the skin and possible tissue destruction.

In worst case scenario without mitigation:

Release duration: 10 minutes;

Distance to endpoint: 25 miles;

Estimated residential population within distance to endpont: 85,000;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

2. Chlorine (IRR) 74 Points

Reacts with water to form corrosive acids. Vigorously accelerates combustion. May react violently with combustible materials. Keep oil, grease, and cumbustibles away. Do not breathe gas. Compressed liquefied gas. May be fatal if inhaled. If inhaled, remove to fresh air. May cause eye irritation. May cause permanent eye injury. May cause blindness. Causes skin irritation. Causes skin burns contact with liquid may cause cold burns/frost bite. Irritating to eyes and respiratory system. Cough. Acute or chronic respiratory conditions. Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Oxidant. Strongly supports combustion. May react violently with combustible materials. Some materials which are noncumbustible in air may burn in the presence of an oxidizer. Use of water

may result in the formation of very toxic aqueous solutions. Move away from container and cool with water from a protected position. Keep adjacent cylinders cool by spraying with large amounts of water until the fire burns itself out. Keep containers and surroundings cool with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Gas is heavier than air and may collect in low areas or travel along the ground where there may be an ignition source present.

Worst case scenario:

Distance to endpoint: 25 miles;

Estimated residential population within distance to endpoint: 85,000;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

3. Chlorine (Bradford) 74 Points

Reacts with water to form corrosive acids. Vigorously accelerates combustion. May react violently with combustible materials. Keep oil, grease, and cumbustibles away. Do not breathe gas. Compressed liquefied gas. May be fatal if inhaled. If inhaled, remove to fresh air. May cause eye irritation. May cause permanent eye injury. May cause blindness. Causes skin irritation. Causes skin burns contact with liquid may cause cold burns/frost bite. Irritating to eyes and respiratory system. Cough. Acute or chronic respiratory conditions. Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Oxidant. Strongly supports combustion. May react violently with combustible materials. Some materials which are noncumbustible in air may burn in the presence of an oxidizer. Use of water may result in the formation of very toxic aqueous solutions. Move away from container and cool with water from a protected position. Keep adjacent cylinders cool by spraying with large amounts of water until the fire burns itself out. Keep containers and surroundings cool with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Gas is heavier than air and may collect in low areas or travel along the ground where there may be an ignition source present.

Worst case scenario:

Distance to endpoint: 25 miles;

Estimated residential population within distance to endpoint: 85,000;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

4. <u>Liquified Petroleum (Liquified Propane Gas) (IRR)</u> <u>68</u> <u>Points</u>

Propane is a colorless gas or liquid stenched with a foul sulfur smelling odorant. It is shipped or transported as a liquified gas under pressure. It is extremely flammable and explosive. At high concentrations this product acts as a simple asphysiant, which displaces oxygen from the breathing atmosphere may cause skin and eye burns upon liquid contact. Large releases can create a flammable vapor cloud. Product is an anesthetic at high concentrations, producing dizziness, headache, incoordination and narcosis; extremely high concentrations can cause asphyxiation and death by displacement of oxygen from the breathing atmosphere. Vapor is generally non-irritating to skin. direct contact with liquified product can cause "cold burn" or frostbite. For small fires, Class B fire extinguishing media such as CO2 or dry chemical can be used. For large fires use water spray or fog. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Bleve's (boiling liquid expanding vapor explosions) can occur when a liquid in a pressurized container in close proximity to a fire reaches a temperature well above its boiling point. Its effect could lead to a catastrophic failure of the vessel resulting in flying equipment fragments, a shock wave and a fireball causing serious damage and death. Isolate hazard area. If safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use extreme caution when fighting liquefied petroleum gas fires. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.

Worst case scenario:

Distance to endpoint: 1.3 miles;

Estimated residential population within distance to endpoint: 4,400;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

5. Sulfuric (Bradford) 64 Points

Oily, colorless to slightly yellow, clear to turbid liquid. Avoid spraying water into containers; use water spray. For small amounts of combustibles, smother fire with dry chemical. Avoid direct streams of water, may cause splattering. Use approved self-contained breathing appartus and full protection clothing involving a fire. Considerable heat may be evolved if water is not used cautiously to avoid splattering. Flammable and explosive hydrogen gas can be generated inside metal drums and storage tanks. Concentrated acid can ignite combustible materials on contact. Acid plus active metals can form explosive concentrations of hydrogen. At high temperatures, sulfur trioxide mists may release from vented or ruptured containers. Sulfuric acid is not flammable but highly reactive and capable of igniting finely divided combustible materials. Reacts violently with water and organic materials with evolution of heat. Extremely hazardous in contact with many materials and may release hydrogen gas. Do not breathe vapors and mists. Do not get on skin or in eyes. This product reacts violently with bases liberating heat and causing splatering. Personnel handling this material should be thoroughly trained to handle spills and releases. Do not direct hose streams into an unignited transportation spill (tank truck or tank car.) Stop leak if it can be done without risk. Dike spill using absorbent or impervious materials such as earth, sand or clay. Dike or retain dilution water or water from firefighting for later disposal. Pump any free liquid into an appropriate closed container. Exercise caution during neutralization as considerable heat may be generated. Carefully neutralize spill with soda ash. Absorb neutralized spill with an inert absorbent. Scrape up and place in appropriate closed container. Do not flash to drain. Runoff from fire control or dilution water may cause pollution.

Worst case scenario:

Distance to endpoint: 1.3 miles;

Estimated residential population within distance to endpoint: 4,400;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

6. Fuel Oil (Hutsonville Power) 64 Points

Fuel oil is a clear to amber liquid and should be kept away from heat, flame and sources of ignition. Never siphon thi product by mouth. If swallowed, this product may get sucked into the lungs (aspirated) and cause lung damage or even death. Prolonged or repreated skin contact can cause defatting and drying of the skin which may produce severe

irritation or dermatitis. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Avoid using straight water streams. Water spray and foam AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of cumbustible material. Keep run-off water out of sewers and water sources.

Worst case scenario:

Distance to endpoint: .5 miles;

Estimated residential population within distance to endpoint: 100;

Public receptors within distance to endpoint: residences and recreation areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

7. Denatured Alcohol (IRR) 64 Points

Appearance: clear, colorless liquid. Flash Point: 55 deg F. Flammable liquid and vapor. May cause central nervous system depression. Cannot be made non-poisonous. Danger! Poison! May be fatal or cause blindness if swalled. May form explosive peroxides. Vapor harmful. May be absorbed through intact skin. Causes severe eye irritation. Causes respiratory tract irritation. May cause digestive tract irritation. Causes moderate skin irritation. Containers can build up pressure if exposed to heat and/or fire. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Will be easily ignited by heat, sparks or flame. For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do not use straight streams of water. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray. Cool containers with flooding

quantities of water until well after fire is out.

Worst case scenario:

Distance to endpoint: 1.3 miles;

Estimated residential population within distance to endpoint: 4,400;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

8. Fuel Oil (Slurry Oil) (IRR) 64 Points

Fuel oil is a clear to amber liquid and should be kept away from heat, flame and sources of ignition. Never siphon thi product by mouth. If swallowed, this product may get sucked into the lungs (aspirated) and cause lung damage or even death. Prolonged or repreated skin contact can cause defatting and drying of the skin which may produce severe irritation or dermatitis. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Avoid using straight water streams. Water spray and foam AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of cumbustible material. Keep run-off water out of sewers and water sources.

Worst case scenario:

Distance to endpoint: .5 miles;

Estimated residential population within distance to endpoint: 1,700;

Public receptors within distance to endpoint: schools, residences, prisons/ correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

9. Hydrocarbons (Slurry Oils) (IRR) 64 Points

This product is a brown to black viscous colored liquid. This product is considered to be a cumbustible liquid and should be kept away from heat, flame and sources of ignition. When heated this material may vent toxic levels of hydrogen sulfide (H2S) vapors that accumulate in the vapor spaces of storage and transport compartments. H2S vapors can cause eye, skin, and respiratory tract irritation and asphyxiation. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Avoid using straight water streams. Water spray and foam AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with waer spray from a distance and prevent further ignition of cumbustible material. Keep run-off water out of sewers and water sources.

Worst case scenario:

Distance to endpoint: .5 miles;

Estimated residential population within distance to endpoint: 1,700;

Public receptors within distance to endpoint: schools, residences, prisons/ correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

10. Petroleum Gases (Butane) (IRR) 62 Points

Butane is a colorless gas or liquid with a slight hydrocarbon odor. It is shipped or transported as a liquified gas under pressure. It is extremely flammable and explosive. At high concentrations this product acts as a simple asphyxiant, which displaces oxygen from the breathing athosphere. May cause skin and eye burns upon liquid contact. Large releases can create a flammable vapor cloud. For small fires, Class B fire extinguishing media such as CO2 or dry chemical can be used. For large fires use water spray or fog. Bleve's (boiling liquid expanding vapor explosions) can occur when a liquid in a pressurized container in close proximity to a fire reaches a temperature well above its boiling point. Its effect could lead to a catastrophic failure of the vessel resulting in flying equipment fragments, a shock wave and a fireball causing serious damage and death. Isolate hazard area. It safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some caes it may be perferred to allow flame to continue to burn. Use extreme caution when fighting liquified petroleum gas fires. Keep surounding area cool with

water spray from a distance and prevent further ignition of cumbustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.
Worst case scenario:
Distance to endpoint: 1.3 miles;
Estimated residential population within distance to endpoint: 4,400;
Public receptors within distance to endpoint: schools, residences, recreation areas, major commercial, office or industrials areas.
Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

11. **MPC Gas, Reformate Hydrotreater H2 Rich Sour (MPC)** **62** **Points**

This product is a toxic colorless gas that possesses a rotten egg odor. It is extremely flammable and explosive. It is generally maintained as a gas under pressure. This gas contains hydrogen sulfide. At lower concentrations H2S can cause eye skin and respiratory tract irritation. Exposure to very high concentrations (>1,000 PPM) will cause immediate unconsciousness and death through respiratory paralysis. The sense of smell cannot be used as a reliable indicator or exposure. Product is an anethestic at high concentrations, producing dizziness, headache, incoordination and narcosis; extremely high concentrations can cause asphyxiation and death by displacement of oxygen from the breathing atmosphere. Exposure to H2S vapors may cause pulmonary irritation, pulmonary edema and unconsciousness. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electroc motors, static discharge, or other ignition sources at locations distance from material handling. Flashback can occur along vapor trail. Since this gas could burn with a near invisible flame in daylight, approach with caution. Isolate hazard area. If safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Keep surrounding area cool with water spray from a distance and prevent further ignition of cumbustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.

Worst case scenario:

Distance to endpoint: 1.3 miles;

Estimated residential population within distance to endpoint: 4,400;

Public receptors within distance to endpoint: schools, residences, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

12. MPC Hydrocarbons, C2-C4 (MPC) 61 Points

This product is a colorless gas or liquid with a slight hydrocarbon odor. It is shipped or transported as a liquified gas under pressure. It is extremely flammable and explosive. At high concentrations this product acts as a simple asphyxiant, which displaces oxygen from the breathing atmosphere. Liquid can cause frost burns. Large releases can create a flammable vapor cloud. Components of this product are anesthetic at high concentrations, producing dizziness, headache, incoordination and narcosis; extremely high concentrations can cause asphyxiation and death by displacement of oxygen from the breathing atmosphere. Direct contact with liquified product can cause "cold burn" or frostbite. If liquified product has caused a "frost burn", remove contaminated clothing. Thaw frostbitten areas slowly with lukewarm water or by wrapping affected areas with blankets. Do not rub affected areas. Let circulation reestablish itself naturally, exercising area if possible. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (ATTT/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Vapors may travel along the ground or be moved by ventiliation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. Bleve's (boiling liquid expanding vapor explosions) can occur when a liquid in a pressurized container in close proximity to a fire reaches a temperature well above its boiling point. Its effect could lead to a catastrophic failure of the vessel resulting in flying equipment fragments, a shock wave and a fireball causing serious damage and death. Isolate hazard area. If safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.

Worst case scenario:

Distance to endpoint: 1.3 miles;

Estimated residential population within distance to endpoint: 4,400;

Public receptors within distance to endpoint: schools, residences, prisons/ correctional facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

13. <u>Marathon Propane (MPC)</u> <u>61</u> <u>Points</u>

Propane is a colorless gas or liquid stenched with a foul sulfur smelling odorant. It is shipped or transported as a liquified gas under pressure. It is extremely flammable and explosive. At high concentrations this product acts as a simple asphysiant, which displaces oxygen from the breathing atmosphere may cause skin and eye burns upon liquid contact. Large releases can create a flammable vapor cloud. Product is an anesthetic at high concentrations, producing dizziness, headache, incoordination and narcosis; extremely high concentrations can cause asphyxiation and death by displacement of oxygen from the breathing atmosphere. Vapor is generally non-irritating to skin. direct contact with liquified product can cause "cold burn" or frostbite. For small fires, Class B fire extinguishing media such as CO2 or dry chemical can be used. For large fires use water spray or fog. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Bleve's (boiling liquid expanding vapor explosions) can occur when a liquid in a pressurized container in close proximity to a fire reaches a temperature well above its boiling point. Its effect could lead to a catastrophic failure of the vessel resulting in flying equipment fragments, a shock wave and a fireball causing serious damage and death. Isolate hazard area. If safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use extreme caution when fighting liquefied petroleum gas fires. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.

Worst case scenario:
Distance to endpoint: 1.3 miles;
Estimated residential population within distance to endpoint: 4,400;
Public receptors within distance to endpoint: schools, residences, prisons/ correctional facilities, recreation areas, major commercial, office or industrials areas.
Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

14. <u>Marathon Petroleum Crude Oil (MPC)</u> <u>61</u> <u>Points</u>

Crude oil is an amber to black in color depending on the source. It possesses a rotten egg or sulfur odor. Crude oil is a volatile and extremely flammable liquid. Vapors may cause flash fires. Keep away from heat, flame and sources of ignition. Can contain toxic levels of hydrogen sulfide vapors that accumulate in the vapor spaces of storage and transport compartments. H2S vapors can cause eye, skin, and respiratory tract irritation and asphyxiation If swallowed, the volatile components of this product may get sucked into the lungs (aspirated) and cause lung damage or even death. Vapors and fumes can cause respiratory and nasal irritation. Significant concentrations of hydrogen sulfide gas can be present in the vapor space of storage tanks and bulk transport compartments. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Avoid using straight water streams. Water spray and foam AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Keep run-off water out of sewers and water sources.

Worst case scenario:

Distance to endpoint: .5 miles;

Estimated residential population within distance to endpoint: 500;

Public receptors within distance to endpoint: residences, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

15. <u>Scott Hydrogen Sulfide (MPC)</u> <u>61</u> <u>Points</u>

Hydrogen sulfide is a toxic colorless gas that possesses a rotten egg odor. It is extremely flammable and explosive. It is generally maintained as a gas under pressure. At lower concentrations H2S can cause eye, skin, and respiratory tract irritation. Exposure to very high concentrations (<1,000 ppm) will cause immediate unconsciousness and death through respiratory paralysis. The sense of smell cannot be used as a reliable indicator of exposure. Hydrogen sulfide gas (H2S) is toxic by inhalation. Prolonged breathing of 50-100 ppm H2S vapors can produce eye and respiratory tract irritation. Higher concentrations (250-600 ppm) for 15-30 minutes, can produce headache, dizziness, nervousness, nausea and pulmonary edema or bronchial pneumonia. Concentrations of > 1,000 ppm will cause immediate unconsciousness and death through respiratory paralysis. For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. Since this gas could burn with a near invisible flame in daylight, approach with caution. Isolate hazard area. If safe to do so , stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Keep surrounding area cool with water spay from a distance and prevent further ignition of combustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.

Worst case scenario:

Distance to endpoint: .5 miles;

Estimated residential population within distance to endpoint: 500;

Public receptors within distance to endpoint: residences, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: water curtain (unit area coverage); water cannon (local at release).

16. <u>Compressed Dry Chlorine Gas (Hutsonville Power)</u> <u>60</u> <u>Points</u>

Reacts with water to form corrosive acids. Vigorously accelerates combustion. May react violently with combustible materials. Keep oil, grease, and cumbustibles away. Do not breathe gas. Compressed liquefied gas. May be fatal if inhaled. If inhaled, remove to fresh air. May cause eye irritation. May cause permanent eye injury. May cause blindness. Causes skin irritation. Causes skin burns contact with liquid may cause cold burns/frost bite. Irritating to eyes and respiratory system. Cough. Acute or chronic respiratory conditions. Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Oxidant. Strongly supports combustion. May react violently with combustible materials. Some materials which are noncumbustible in air may burn in the presence of an oxidizer. Use of water may result in the formation of very toxic aqueous solutions. Move away from container and cool with water from a protected position. Keep adjacent cylinders cool by spraying with large amounts of water until the fire burns itself out. Keep containers and surroundings cool with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Gas is heavier than air and may collect in low areas or travel along the ground where there may be an ignition source present.

Worst case scenario:

Distance to endpoint: 25 miles;

Estimated residential population within distance to endpoint: 85,000;

Public receptors within distance to endpoint: schools, residences, hospitals, prisons/correction facilities, recreation areas, major commercial, office or industrials areas.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

17. <u>Propane (Wabash Valley, Hutsonville)</u> <u>60</u> <u>Points</u>

Propane is a colorless gas or liquid stenched with a foul sulfur smelling odorant. It is shipped or transported as a liquified gas under pressure. It is extremely flammable and explosive. At high concentrations this product acts as a simple asphysiant, which displaces oxygen from the breathing atmosphere may cause skin and eye burns upon liquid contact. Large releases can create a flammable vapor cloud. Product is an anesthetic at high concentrations, producing dizziness, headache, incoordination and narcosis; extremely high concentrations can cause asphyxiation and death by displacement of oxygen from the breathing atmosphere. Vapor is generally non-irritating to skin. direct contact with liquified product can cause "cold burn" or frostbite. For small fires, Class B fire extinguishing media such as CO2 or dry chemical can be used. For large fires use water spray or fog. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Bleve's (boiling liquid expanding vapor explosions) can occur when a liquid in a pressurized container in close proximity to a fire reaches a temperature well above its boiling point. Its effect could lead to a catastrophic failure of the vessel resulting in flying equipment fragments, a shock wave and a fireball causing serious damage and death. Isolate hazard area. If safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use extreme caution when fighting liquefied petroleum gas fires. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.
Worst case scenario:
Distance to endpoint: 1 mile;
Estimated residential population within distance to endpoint: 3,400;
Public receptors within distance to endpoint: schools, residences, recreation areas, major commercial, office or industrials areas.
Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

18. <u>Propane (Wabash Valley, Oblong)</u> <u>60</u> <u>Points</u>

Propane is a colorless gas or liquid stenched with a foul sulfur smelling odorant. It is shipped or transported as a liquified gas under pressure. It is extremely flammable and explosive. At high concentrations this product acts as a simple asphysiant, which displaces oxygen from the breathing atmosphere may cause skin and eye burns upon liquid contact. Large releases can create a flammable vapor cloud. Product is an anesthetic at high concentrations, producing dizziness, headache, incoordination and narcosis; extremely high concentrations can cause asphyxiation and death by displacement of oxygen from the breathing atmosphere. Vapor is generally non-irritating to skin. direct contact with liquified product can cause "cold burn" or frostbite. For small fires, Class B fire extinguishing media such as CO2 or dry chemical can be used. For large fires use water spray or fog. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Bleve's (boiling liquid expanding vapor explosions) can occur when a liquid in a pressurized container in close proximity to a fire reaches a temperature well above its boiling point. Its effect could lead to a catastrophic failure of the vessel resulting in flying equipment fragments, a shock wave and a fireball causing serious damage and death. Isolate hazard area. If safe to do so, stop the flow of gas and allow fire to burn out. Extinguishing the flame before shutting off the supply can cause the formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use extreme caution when fighting liquefied petroleum gas fires. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Avoid use of solid water streams. Contact with water and liquified product can cause increased vaporization.
Worst case scenario:
Distance to endpoint: 1 mile;
Estimated residential population within distance to endpoint: 3,400;
Public receptors within distance to endpoint: schools, residences, recreation areas, major commercial, office or industrials areas.
Immediate Active Mitigation to minimize actual release: to be set up by emergency responsers.

19. <u>Anhydrous Ammonia (Bunker Hill, Hutsonville)</u> <u>59</u> <u>Points</u>

Anhydrous Ammonia is a colorless liquid or gas with pungent odor. Ammonia is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. Exposure to liquid or rapidly expanding gases may cause severe chemical burns and frostbite to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure. Contact with liquid may produce a caustic burn and frostbite. Acute exposure to vapors may result in severe irritation of the respiratory tract, bronchospasm, pulmonary edema or respiratory arrest. Special fire-fighting procedures include wearing protective clothing and a positive pressure SCBA. Fight fires using dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Cool fire exposed containers with water spray. Use water spray to knock down vapor and dilute.

Worst case scenario:

Distance to endpoint: 2 miles;

Estimated residential population within distance to endpoint: 6,800;

Public receptors within distance to endpoint: schools, residences, or prisons/ correctional facilities.

Immediate Active Mitigation to minimize actual release: to be set up by emergency responders.

20. Anhydrous Ammonia (Bunker Hill, Annapolis) 59 Points

Anhydrous Ammonia is a colorless liquid or gas with pungent odor. Ammonia is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. Exposure to liquid or rapidly expanding gases may cause severe chemical burns and frostbite to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure. Contact with liquid may produce a caustic burn and frostbite. Acute exposure to vapors may result in severe irritation of the respiratory tract, bronchospasm, pulmonary edema or respiratory arrest. Special fire-fighting procedures include wearing protective clothing and a positive pressure SCBA. Fight fires using dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Cool fire exposed containers with water spray. Use water spray to knock down vapor and dilute.
Worst case scenario:
Distance to endpoint: 2 miles;
Estimated residential population within distance to endpoint: 6,800;
Public receptors within distance to endpoint: residences.
Immediate Active Mitigation to minimize actual release: to be set up by emergency responders.

21. Anhydrous Ammonia (Effingham Equity, Robinson) 59 Points

Anhydrous Ammonia is a colorless liquid or gas with pungent odor. Ammonia is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. Exposure to liquid or rapidly expanding gases may cause severe chemical burns and frostbite to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure. Contact with liquid may produce a caustic burn and frostbite. Acute exposure to vapors may result in severe irritation of the respiratory tract, bronchospasm, pulmonary edema or respiratory arrest. Special fire-fighting procedures include wearing protective clothing and a positive pressure SCBA. Fight fires using dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Cool fire exposed containers with water spray. Use water spray to knock down vapor and dilute.
Worst case scenario:
Distance to endpoint: 2 miles;
Estimated residential population within distance to endpoint: 6,800;
Public receptors within distance to endpoint: schools, residences, or prisons/ correctional facilities.
Immediate Active Mitigation to minimize actual release: to be set up by emergency responders.

22. Anhydrous Ammonia (Mont Eagle, Flat Rock) 59 Points

Anhydrous Ammonia is a colorless liquid or gas with pungent odor. Ammonia is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. Exposure to liquid or rapidly expanding gases may cause severe chemical burns and frostbite to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure. Contact with liquid may produce a caustic burn and frostbite. Acute exposure to vapors may result in severe irritation of the respiratory tract, bronchospasm, pulmonary edema or respiratory arrest. Special fire-fighting procedures include wearing protective clothing and a positive pressure SCBA. Fight fires using dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Cool fire exposed containers with water spray. Use water spray to knock down vapor and dilute.
Worst case scenario:
Distance to endpoint: 2 miles;
Estimated residential population within distance to endpoint: 6,800;
Public receptors within distance to endpoint: residences.
Immediate Active Mitigation to minimize actual release: to be set up by emergency responders.

23. _____ _____ Points

24. _____ _____ Points

25. _____ _____ Points

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Methanol (IRR)	1 6	1 3	3 3	4 16	2 4	1 5	4 4	2 8	**49**
Molten Sulfer (IRR)	1 6	1 3	3 3	2 8	1 2	1 5	4 4	1 4	**35**
Petroleum Gases (Butane) (IRR)	3 18	1 3	3 3	2 8	2 4	2 10	4 4	3 12	**62**
Betz 8486 (MPC)	1 6	1 3	3 3	1 4	1 2	1 5	2 2	1 4	**29**
MAPLLC Brand Gasoline Additive Blend (MPC)	1 6	1 3	3 3	2 8	1 2	2 10	2 2	2 8	**42**
MAPLLC No. 2 Fuel Oil (0.05% Sulfur Max) (MPC)	1 6	1 3	3 3	2 8	2 4	2 10	2 2	2 8	**44**
MAPLLC Transmix (MPC)	1 6	1 3	3 3	2 8	2 4	2 10	2 2	2 8	**44**
MAPLLC Wholesale Gasoline Additive Blend (MPC)	1 6	1 3	3 3	2 8	2 4	2 10	2 2	2 8	**44**
3M Atc-603 Light Water Atc3 Ar-afff 3% (MPC)	1 6	1 3	1 1	1 4	1 2	1 5	2 2	1 4	**27**
3M Fc-600 Light Water Brand Atc/afff (MPC)	1 6	1 3	1 1	1 4	1 2	1 5	2 2	1 4	**27**
Akzo Nobel Kf-752 AluminaCatalysts (MPC)	1 6	1 3	1 1	1 4	1 2	1 5	2 2	1 4	**27**
Ashland Advantage Plus 1454M Deposit Inhibitor (MPC)	1 6	1 3	3 3	1 4	1 2	1 5	2 2	1 4	**29**

Ashland Chargepac 7 Coagulant (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Alcoa Selexcorb Cd (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
AndersonHydrochloric Acid 50% (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Angus Fire Alcoseal 3/6% AR-FFFP Extinguisher Grade (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
ANH Apg Empire S (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
ANH Apg Kast-o-lite 22 Plus (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
ANH Apg Kast-o-lite 23 Li Plus (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
ANH APG KX-99-BF (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
ANH Hwr Korundal Xd (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
ANH Hwr Versaflow Thermax Plus (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
ANH Hwr Versagun Thermax Adtech (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Almatis Activated Alumina (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Almatis H-152 (MPC)	1	1	3	1	1	4	2	1	

	6	3	3	4	2	20	2	4	**44**
Baker Petrolite FLO XS (MPC Pipeline)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Baker Petrolite Tolad 249 Fuel Additive (MPC Pipeline)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Acetochlor (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Atrazine (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Cyclohexanine (Mont Eagle, Oblong	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Glyphosate (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Gramoxone (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Guardsman (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Kernal Guard, Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Metolachlor (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Phostoxin (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Princep 4L (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Roundup Weather Max (Mont Eagle, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Aatrex 4L (Mont Eagle,	1	1	3	1	1	4	4	1	

Flat Rock)	6	3	3	4	2	20	4	4	**46**
Acetochlor (Mont Eagle, Flat Rock)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Ammonia (Mont Eagle, Flat Rock)	2 12	2 6	3 3	2 8	1 2	4 20	4 4	1 4	**59**
Lead (Qwest-Annapolis)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Sulfuric Acid (Qwest-Annapolis)	2 12	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**52**
Petroleum Crude Oil (Shakespeare Oil)	1 6	1 3	3 3	1 4	2 4	4 20	4 4	2 8	**52**
Fuel Ethanol (Superior Fuels)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	2 8	**50**
Calined Petroleum Coke (Ucar Carbon)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Propane (Wabash Valley, Hutsonville)	2 12	1 3	3 3	2 8	1 2	4 20	4 4	2 8	**60**
Isopropylamine Salt of Glyphosate (Wabash Valley, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Paraquat Dichloride (Wabash Valley, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Petroleum Oil (Wabash Valley, Oblong	2 12	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**52**
Potassium Salt Glyphosate (Wabash Valley, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**

Propane (Wabash Valley, Oblong)	2 12	1 3	3 3	2 8	1 2	4 20	4 4	2 8	**60**
Atrazine (Wabash Valley, Flat Rock)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Paraquat Dichloride (Wabash Valley, Flat Rock)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Potassium salt Glyphosate (Waash Valley, Flat Rock)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Propane (Wabash Valley, Palestine)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Aromatic (Wabash Valley, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Hydrocarbon Oil (Wabash Valley, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Fuel Oil (Wabash Valley, Oblong)	1 6	1 3	3 3	1 4	1 2	4 20	4 4	1 4	**46**
Ansul Thunderstorm ATC 1x3 Formula F-601A, AR-AFFF (MPC)	1 6	1 3	1 1	1 4	1 2	1 5	2 2	1 4	**27**
Arch Chemical Ethylene Glycol, CPG Grade (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashlad Advantage Plus 1465 Deposit Inhibitor (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Amersite 2	1	1	3	1	1	4	2	1	

Corrosion Inhibitor (MPC)	6	3	3	4	2	20	2	4	**44**
Ashland Biosperse 254 Microbiocide (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Cargepac 55 Coagulant (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Drew 11-717 Cooling Water Treatment (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Drew 11-760 Cooling Water Treatment (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Drewcor 2130 Corrosion Inhibitor (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Drewplus ED 750 Foam Control Agent (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ashland Drewsperse 739 Antifoulant (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Axens D-1275 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Axens HR 806 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Axens HR 841 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Axens HR 845 S (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Baker Chemical Hydrochloric Acid (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Baker Petrolite Sulfix	1	1	3	1	1	4	2	1	

9272 Scavenger (MPC)	6	3	3	4	2	20	2	4	44
Baker Petrolite Tolad 3000 Fuel Additive (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Baker Petrolite Tolad 3511 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Baker Petrolite Tolad 9012HF Fuel Additive (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Benetech BT-910 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Betz Spec-Aid 8Q103 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Betz Spec-Aid 8Q110 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Betz Spec-Aid 8Q17 (MPC	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Betz Spec-Aid 8Q400 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Betz Spec-Aid 8Q403 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Brenntag Sodium Hydroxide Solution 4-50% (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Brenntag Sodium Hypochlorite Solution (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	44
Chemtech Methanol	1	1	3	1	1	4	2	1	

(MPC)	6	3	3	4	2	20	2	4	**44**
Chemtech Phosphoric Acid 80% Tech Grade (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Criterion 448 Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion Dc-130 Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion DN-120 Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion Dn-190 Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion Dn-3120 Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion Pr-11 Reforming Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion Pr-15 Reforming Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Criterion Pr-9 Reforming Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Dow Ucarsol LE Solvent 713 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Dupont Oleum (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Dupont Sulfuric Acid, 77 to 100% (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**

Engelhard All Fluid Cracking Catalyst (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Engelhard Sulfurgate, Naphthaclean, X15 Grades, 1500 Series (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Exxon Mobil Diesel #2 on-Road (Low Sulfur) (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Fairmount Minerals Silica (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
FBS 5804 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
FMC Sodium Carbonate, Anhydrous (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Grace Molecular Sieve Silica (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Hach High Range Plus COD Reagent 0-15,000 ppm Range (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Hach Molybdovanadate Reagent (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Haldor DNX (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Haldor Hydroprocessing Catalyst, TK-550 (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Haldor Hydroprocessing Catalyst, TK-551 (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Haldor Hydroprocessing Catalyst, TK-711 (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Haldor Inert Topping Material, TK-10 (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	2 2	1 4	**42**
Hamler Ammonia (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	1 4	**54**
Honeywell Hydrofluoric Acid, Anhydrous (MPC)	3 18	2 6	3 3	4 16	1 2	4 20	2 2	2 8	**75**
Huntsman JTM Jefftreat M (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Huntsman JTMP Jefftreat MP 9MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Johnson Diversey Dujel 870 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Johnson Diversey Expedite (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Koch Ammonia, Anhydrous Ammonia (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	1 4	**54**
Lawson Light Oil Lubricant (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Linde Nitrogen (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Mallinckrodt Baker Sulfuric Acid, 52-100% (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Mallinckrodt Baker Tetrachloroethylene (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
MPC Acid Soluble Oil (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
MPC Alkanes, C4-C-6 (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Clarified Oil, Catalytic Cracked (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Condensate, Fuel Gas (MPC)MPC Condensate, Hydrocarbon C6-C30 (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Ctalytic Cracked Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Catalytic Cracked Intermediate (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Catalytic Cracked Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Hydrocracked Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Hydrotreated Light C5-C10 (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Straight Run Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate, Thermocracked Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Distillate,	2	1	3	2	1	4	2	2	

Thermocracked Light (MPC)	12	3	3	8	2	20	2	8	**58**
MPC Gas Oil, Full Range (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas Oil, Hydrodesulfurized Vacuum Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas Oil, Straight Run Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
MPC Gas Oil, Vacuum Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas Oil, Vacuum Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Acid Scrubber (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Alkylation Feed (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Alkylation Olefin Feed (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Amine System Feed (MPC)MPC Gas, Ammonia/Hydrogen Sulfide/Water (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Desulfurizer Stripper H2 Rich Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Distillation Off (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Fuel (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Fuel Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Hydrocracked Depropanizer Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas,	2	1	3	2	1	4	2	2	

Hydrocracked H2 Rich Sour (MPC)	12	3	3	8	2	20	2	8	**58**
MPC Gas, Hydrogen Rich C1-C5 Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Reformate Hydrotreater H2 Rich Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	3 12	**62**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
MPC Gas, Reformate Separator w/H2 (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Saturate Gas Plant Butane/Isobutane (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Saturate Gas Plant Tail (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Stabilizer (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Thermocracked Vacuum Tail (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Gas, Vent Sour Hydrogen Sulfide (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Hot Water/Condensate, Refinery (MPC)	1 6	1 3	1 1	1 4	1 2	1 5	1 1	1 4	**26**
MPC Hydrocarbons, C2-C4 (MPC)	2 12	2 6	3 3	2 8	1 2	4 20	2 2	2 8	**61**
MPC Hydrocarbons,	2	1	3	2	1	4	2	2	

C4-C6 C5 Rich (MPC)	12	3	3	8	2	20	2	8	**58**
MPC Isobutane/Butane Mix (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Kerosene, Straight Run (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Lean Methyldiethanolamine (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Middle Distillate, Full Range Straight Run (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Middle Distillate, Hydrotreated (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
MPC Middle Distillate, Straight Run (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Alkylation Full Range (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Catalytic Cracked Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Catalytic Cracked Heavy Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Catalytic Cracked Intermediate (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Catalytic Cracked Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha,	2	1	3	2	1	4	2	2	

Catalytic Reformed Full Range (MPC)	12	3	3	8	2	20	2	8	**58**
MPC Naphtha, Catalytic Reformed Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Full Range Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Hydrocracked Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Hydrocracked Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Hydrodesulfurized Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Hydrotreated Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Hydrotreated Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
MPC Naphtha, Isomerization (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Light Sour (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Solvent Refined Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

MPC Naphtha, Straight Run Full Range (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Straight Run Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Straight Run Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Sweetened (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Thermocracked Full Range (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Thermocracked Heavy (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Residuum, Atmospheric Tower (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Residuum, Vacuum (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Rich Methyldiethanolamine (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Slop Oil, Dewatered (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
MPC Slop Oil, Waste Water Treatment (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Sour Water, Refinery (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

MPC Spent Caustic, Sodium Cresylate (MPC)	2	1	3	2	1	4	2	2	
	12	3	3	8	2	20	2	8	**58**
MPC Spent Caustic, Sodium Hydroxide (MPC)	2	1	3	2	1	4	2	2	
	12	3	3	8	2	20	2	8	**58**
MPC Spent Cobalt/Moly Catalyst (MPC)	1	1	1	1	1	4	2	1	
	6	3	1	4	2	20	2	4	**42**
MPC Spent Nickel/ Moly Catalyst (MPC)	1	1	1	1	1	4	2	1	
	6	3	1	4	2	20	2	4	**42**
MPC Spent Platinum/ Rhenium Catalyst (MPC)	1	1	1	1	1	4	2	1	
	6	3	1	4	2	20	2	4	**42**
MPC Spent Silica/ Alumina Catalyst (MPC)	1	1	1	1	1	4	2	1	
	6	3	1	4	2	20	2	4	**42**
MPC Steam, Low, Medium & High Pressure (MPC)	1	1	1	1	1	4	1	1	
	6	3	1	4	2	20	1	4	**41**
Marathon Molten Sulfur (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Marathon Premium Unleaded Gasoline (MPC)	2	1	3	2	1	4	2	2	
	12	3	3	8	2	20	2	8	**58**
Marathon Propane (MPC)	2	2	3	2	1	4	2	2	
	12	6	3	8	2	20	2	8	**61**
Marathon Refinery Grade Propylene (MPC)	2	1	3	2	1	4	2	2	
	12	3	3	8	2	20	2	8	**58**
Marathon Regular Unleaded Gasoline (MPC)	2	1	3	2	1	4	2	2	
	12	3	3	8	2	20	2	8	**58**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING	FREQUENCY OF OCCURRENCE RATING	SEASONAL PATTERN RATING	AREAS AFFECTED RATING	DURATION RATING	SPEED OF ONSET RATING	WARNING SYSTEMS RATING	LOCAL RESPONSE CAPABILITIES RATING	**CHEMICAL HAZARD SEVERITY RATING**
	wf = 6	*wf = 3*	*wf = 1*	*wf = 4*	*wf = 2*	*wf = 5*	*wf = 1*	*wf = 4*	(Automatically calculated)
	X	*X*	*X*	*X*	*X*	*X*	*X*	*X*	

Marathon Sub-Octane Gasoline (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Marathon Hydrogen Sulfide (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Marathon Natural Gas, Raw Liquid Mix (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Marathon Petroleum Crude Oil (MPC)	2 12	2 6	3 3	2 8	1 2	4 20	2 2	2 8	**61**
MGI Nitrogen, Cryogenic Liquid (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
MOC Produced Water, Sour (MPC)	2 12	1 3	1 1	1 4	1 2	1 5	1 1	1 4	**32**
Morton Salt (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	1 1	1 4	**41**
Nalco EC2452A (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Nalco Re-Solv EC2345A (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Octel Stadis 425 Conductivity Improver (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Oil Dri Floor Absorbent (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	1 1	1 4	**41**
Ondeo Nalco EC1005A (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ondeo Nalco Ec1010a (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Ondeo Nalco Ec1014a (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING	FREQUENCY OF OCCURRENCE RATING	SEASONAL PATTERN RATING	AREAS AFFECTED RATING	DURATION RATING	SPEED OF ONSET RATING	WARNING SYSTEMS RATING	LOCAL RESPONSE CAPABILITIES RATING	**CHEMICAL HAZARD SEVERITY RATING**

	wf = 6	*wf = 3*	*wf = 1*	*wf = 4*	*wf = 2*	*wf = 5*	*wf = 1*	*wf = 4*	(Automatically
	X	*X*	*X*	*X*	*X*	*X*	*X*	*X*	calculated)
Nalco Re-Solv EC2425A (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Ondeo Nalco Ec3301a (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Nalco EC9254a (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Oxychem Caustic Potash Anhydrous (All Grades) (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Oxychem Caustic Soda Anhydrous (All Grades) (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Oxychem Caustic Soda Liquid (All Grades) (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Oxychem Phosphoric Acid, 80% Solution (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Oxychem Potassium Hydroxide, Liquid (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Porocel Activated Alumina (MPC)	1	1	1	1	1	4	2	1	
	6	3	1	4	2	20	2	4	**42**
Pro-tex-all Power Shot (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Ribbon Technology Stainless Steel Fiber (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Robins Aqua Ammonia 26 Degree Baume (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Robins Degreaser A (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Saint-Gobain Norpro Denstone 2000 (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Saint-Gobain Norpro Denstone 57 (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	1 1	1 4	**41**
Scott Hydrogen Sulfide (MPC)	2 12	2 6	3 3	2 8	1 2	4 20	2 2	2 8	**61**
Stellar Thermbond Tabular 301 Series Dry Mixes (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Sud-Chemie C125-1-02 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Sud-Chemie C29-2-03 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Sud-Chemie C29-2-04 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Synetix Katalco Puraspec 5040 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Tremco Roof Preservative, Tar (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
Univar Sodium Hypochlorite 7-15% (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
UOP Activated Alumina 9139A 5x8 (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	1 1	1 4	**41**
UOP Adsorbent Types P180 Series (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP HC-24L Unicracking Catalyst (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP 1-82 Penex Catalyst (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP Merox No. 31	1	1	3	1	1	4	1	1	

Catalyst (MPC)	6	3	3	4	2	20	1	4	**43**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
UOP Molecular Sieve Type 4a (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP Moisiv Adsorbents ADG-401 1/16 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP Molsiv Adsorbents Org-e (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Calgon Carbon Sorbamine (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Criterion Dn-140 Catalyst (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Criterion Dn-200 Catalyst (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Criterion DN-3100 Catalyst (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
EMD Chemicals Buffer pH 4.0 Red (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Fuller Specialty Construction Childers CP-10 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
GLT Pipe and Tank Insulation (Mineral Wool) (MPC)	1 6	1 3	1 1	1 4	1 2	4 20	1 1	1 4	**41**
Graver Crystalline Silica in the form of Quartz (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Graver Filter Grade	1	1	3	1	1	4	1	1	

Coal (MPC)	6	3	3	4	2	20	1	4	**43**
Marathon 1-K Kerosine (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Marathon Aviation Turbine Fuel Jet A (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**

CHEMICAL HAZARD ANALYSIS WORKSHEET

CHEMICAL HAZARD	POTENTIAL MAGNITUDE RATING *wf = 6* *X*	FREQUENCY OF OCCURRENCE RATING *wf = 3* *X*	SEASONAL PATTERN RATING *wf = 1* *X*	AREAS AFFECTED RATING *wf = 4* *X*	DURATION RATING *wf = 2* *X*	SPEED OF ONSET RATING *wf = 5* *X*	WARNING SYSTEMS RATING *wf = 1* *X*	LOCAL RESPONSE CAPABILITIES RATING *wf = 4* *X*	**CHEMICAL HAZARD SEVERITY RATING** (Automatically calculated)
Marathon No. 1 Diesel (0.05% Sulfur Max) (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Marathon Normal Butaine (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Marco Coal Slag Roofing Granules, Black Magnum (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	2 2	1 4	**44**
MPC Gas, Desulfurizer Stripper H2 Rich (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
MPC Naphtha, Thermocracked Light (MPC)	2 12	1 3	3 3	2 8	1 2	4 20	2 2	2 8	**58**
Zeochem Z3, Z4, Z5, Z10 Molecular Sieve Zoelite (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP Molsiv Adsorbents 13x4x8 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
UOP Activated Alumina A-2 12x32 (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**
Unicat SR-110C (MPC)	1 6	1 3	3 3	1 4	1 2	4 20	1 1	1 4	**43**

Unicat SR-109, SR-110, SR-111 (MPC)	1	1	3	1	1	4	1	1	
	6	3	3	4	2	20	1	4	**43**
Thermal Ceramics Refractory Ceramic Fiber Product 201 (MPC)	1	1	3	1	1	4	1	1	
	6	3	3	4	2	20	1	4	**43**
Tanner Industries Ammonia Anhydrous (MPC)	2	1	3	2	1	4	2	2	
	12	3	3	8	2	20	2	8	**58**
Supelco 4-Chlorotoluene (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	4	**44**
Philip CI-20 (MPC)	1	1	3	1	1	4	2	1	
	6	3	3	4	2	20	2	0	**40**

APPENDIX B

FACILITY-SPECIFIC EMERGENCY RESPONSE PLANS

B.1 "SAMPLE" CHEMICAL EMERGENCY RESPONSE PLAN

B.2 MARATHON PETROLEUM COMPANY "ONE PLAN"
(available under separate cover at EOC office)

B.3 FACILITY-SPECIFIC EMERGENCY RESPONSE PLANS
(available under separate cover at EOC office)

" [facility name]"
Chemical Emergency Response Plan

I. Purpose

The purpose of the Crawford County Local Emergency Planning Committee (LEPC) is to:

- Develop chemical emergency preparedness programs for the citizens, responders, and owner operators of hazardous materials facilities.
- Assist response organizations and the regulated facilities to communicate and assist each other with planning, information, and community affairs.
- Develop and implement chemical emergency planning to mitigate or lessen the affects of a chemical emergency.
- Develop response protocols for responding to hazardous materials incidents at regulated facilities.
- Develop recovery protocols to assist the community in recovering from chemical emergencies.
- Develop and issue public information to the citizens and regulated facilities within Crawford County concerning chemical emergencies.

II. Situation and Assumptions

A. Situation

Crawford County is located in southeastern Illinois along the Indiana border. Crawford County borders the Wabash River to the east and the Embarras River to the West. Crawford County is approximately 120 east of St. Louis, Mo. and 225 miles south of Chicago Illinois. The County covers approximately 450 square miles and has a population of approximately 20,000.

The City of Robinson, located in the central part of Crawford County is the seat of County Government. The Villages of Hutsonville, Palestine, Oblong, and Flat Rock are the other population centers located within the County.

Crawford County is intersected by Illinois Route 1 and Illinois Route 33. The Indiana Railroad has a main line that runs through the Village of Palestine, the City of Robinson, and the Village of Oblong. Due to the petroleum industry located in and around the County, there are numerous pipelines that are used to transport Crude Oil, finished hydrocarbon products, and natural gas.

Crawford County industry is primarily agricultural with several elevators, fertilizer dealers, and farming enterprises throughout the County. There are several major production and industrial sites within the County. These would include the Marathon Refinery, Hershey Foods, Dana Corporation, Fair-Rite, Lincoln Land Agri-Energy, and the Ameren-CIPS Generating Station.

B. Assumptions

1. Due to the geographical location, topography, transportation, and weather history, Crawford County can be assumed to be subject to a chemical emergency due to any of the following conditions:

a. Spill or Release of a hazardous chemical at a regulated facility or in transportation. This would include any of the regulated facilities or accidents involving motor vehicles, the railroad, pipelines, or aircraft.
b. Fires involving hazardous chemicals at a regulated facility or in transportation.
c. Spills, Releases, or Fires caused by a natural disaster such as a tornado, severe thunderstorm, earthquake, or winter storm.
d. Vandalism or other illegal actions at a regulated facility.
e. Chemical emergencies in an adjoining County.

2. Chemical emergencies will be detected in a timely fashion allowing time for evacuation or shelter in place protective measures to be implemented.

3. Regulated facilities will implement emergency procedures as soon as they become aware of a chemical related incident.

III. Concept of Operations

A. As soon as a chemical emergency is detected or suspected, the regulated facility will notify the Crawford County 911 Center of the incident.
B. The first arriving organization on scene, will determine the scope of the incident, the level of danger to the responders and citizens, and the need for the establishment of a Unified Command and Incident Command Post. In order to gain information concerning the facility, the facility contact/coordinator will be included in the Unified Command.
C. As soon as practical, the Incident Commander or Unified Command should make contact with the designated facility contact/coordinator and determine if the established facility response plan and resources are sufficient to manage the incident.
D. As soon as practical, an Incident Management chain should be established to implement all of the required branches to manage the incident.
E. As soon as practical, the Unified Command should determine the need for evacuation or sheltering in place for the citizens adjacent and downwind of the incident. If an evacuation or sheltering in place is deemed necessary, immediately implement the Evacuation Annex in this EOP.
F. A Safety Officer will be selected by the Unified Command to provide overall safety guidance for the responders and citizens. A specific Hazardous Materials Safety Officer will be selected to provide guidance and safety information to the response organizations at the scene of the incident.
G. Initially, all response activities should be directed to life safety, information gathering, and security of the incident scene.
H. If the existing facility response plans are insufficient to safely and effectively manage the incident, an Incident Action Plan should be facilitated by the Unified Command or Incident Commander.
I. In order to effectively plan and respond to a chemical emergency, certain task Elements should be identified as defined in the EPCRA rules and regulations. The following matrix defines the Task Element and the organization responsible for assuring that the Task Element has been completed:

Task Element	Responsibility
Element 1: Identification of EHS facilities subject to the requirements of this subchapter that are within the emergency planning district (Crawford County), identify routes likely to be used for the transportation of substances on the list of extremely hazardous substances referred to in section 11002(a) of this title and identification of additional facilities contributing or subjected to additional risk due to their proximity to facilities subject to the requirement of this subchapter, such as hospitals or natural gas facilities. 11003(c)(1).	
1. Identification of the regulated facilities	1. Facility operators based upon EPCRA rules and regulations.
2. Identification of facilities contributing or subjected to additional risk due to their proximity to facilities subject to the requirements of this subchapter.	2. Facility operators with input from the Crawford County LEPC (CCLEPC).
3. Identification of transportation routes utilized to transport hazardous materials.	3. CCLEPC
4. Maintain a database of the regulated facilities, copies of the facility plans, and inventory information.	4. CCLEPC and IEMA
5. Review of the facility response plan on a yearly basis.	5. CCLEPC
6. Notify the Crawford County 911 Center of a chemical emergency.	6. Facility operator
7. Notify IEMA of a chemical emergency and submit all necessary forms.	7. Facility operator
8. Notification of the Crawford County Emergency Response Coordinator.	8. Facility operator
9. Implementation of a facility response plan.	9. Facility operator and Unified Command
10. Development of an Incident Action Plan.	10. Unified Command
11. Development of a clean-up/recovery plan.	11. Unified Command
12. Critique of the incident	12. Unified Command
Element 2:	

Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to any release of such substances. 11003(c)(2).	
1. Notification of the Crawford County 911 Center of a chemical emergency.	1. Facility operator
2. Notification of all response organizations.	2. Crawford County 911 Center
3. Development of an incident security plan.	3. Facility operator and Law Enforcement
4. Accountability and access restriction plan.	4. Unified Command
5. Offensive actions taken on scene	5. EMA Rescue
6. Decontamination	6. EMA Rescue
7. Treatment of injured responders and citizens.	7. United Life Care and CMH
8. Implementation of the Evacuation Plan	8. Unified Command
9. Acquiring additional resources	9. Unified Command
10. Establishing shelters for evacuees	10. American Red Cross
11. Establishing incident related public information.	11. Unified Command and the PIO
Element 3: Designation of a community emergency coordinator and facility emergency coordinators, who shall make determinations necessary to implement the plan. 11003(c)(3).	
1. Designation and identification of the facility emergency contacts/coordinators.	1. Facility operator
2. Submission of facility plan	2. Facility operator
3. Notify the Crawford County 911 Center, IEMA, and the Emergency Response Coordinator (EMA Coordinator) of an incident.	3. Facility operator
4. Implementation of the facility plan, County EOP, or Incident Action Plan.	4. EMA Coordinator
5. Activation of the County EOC or activation of an Incident Command Post.	5. Unified Command
6. Determine incident closure	6. Unified Command

Element 4: Procedures providing reliable, effective, and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the emergency plan, and to the public, that a release has occurred (consistent with the emergency notification requirements of section 11004 of this title. 11003(c)(4) 1. Establish a facility emergency notification procedure(s). 2. Establish a procedure for the Crawford County 911 Center to notify the EMA Coordinator. 3. Notification of all organizations of a chemical emergency. 4. Determination of potentially affected citizens to a chemical emergency. 5. Notification of all government agencies 6. Prepare public information to be released to the citizens.	 1. Facility operator 2. Crawford County EMA Coordinator and the 911 Center. 3. Crawford County 911 Center 4. Facility operator 5. Facility operator 6. Unified Command and the PIO
Element 5: Methods for determining the occurrence of a release, and the area or population likely to be affected by such release. 11003(c)(5). 1. Identify facility detection methods and the chemical(s) that can be identified. 2. Identify alternate detection methods in the event the primary method is out of service. 3. Based upon the quantity and hazards posed by the chemical(s), determine the area and population that could be affected.	 1. Facility operator 2. Facility operator 3. Unified Command
Element 6: A description of emergency equipment and facilities in the community and at each facility in the community subject to the requirements of this subchapter, and an	

identification of the persons responsible for such equipment and facilities. 11003(c)(6). 1. A list of equipment and personnel that exists at a regulated facility or response to a chemical emergency. 2. A list of community resources that can be deployed to respond to a chemical emergency. 3. A list of facilities that can be utilized as emergency mass care shelters. 4. Acquire additional personnel and resources for a response to a chemical emergency.	 1. Facility operator 2. EMA Coordinator 3. American Red Cross 4. Unified Command
Element 7: Evacuation plans, including provisions for a precautionary evacuation and alternative traffic routes. 11003(c)(7). 1. Develop agreements (MOUs) for additional transportation. 2. Implementation of the Evacuation Annex. Notification of transportation resources. 3. Establishment of evacuation and alternate evacuation routes. 4. Maintenance of evacuation routes	 1. EMA Coordinator 2. Unified Command 3. Law Enforcement 4. Public Works
Element 8: Training programs, including schedules for training of local emergency response and medical personnel. 11003(c)(8) 1. Develop a training matrix for a facility based upon the chemical hazard and response expectations. 2. Develop a training matrix for response organizations based upon response expectations. This would include hazardous materials training and NIMS training. In addition, all response organizations should receive training to familiarize themselves with the various regulated facilities.	 1. Facility operator 2. All response organizations
Element 9:	

Methods and schedules for exercising the emergency plan. 11003(c)(9) 1. Each facility should internally exercise their facility plan at least yearly to identify planning and training issues. 2. The community and one regulated facility will conduct either a table-top exercise or full scale exercise yearly.	 1. Facility operator 2. CCLEPC

IV. Organization and Assignment of Responsibilities

A. The Incident Commander or Unified Command

1. Establish direction and control for the incident
2. Incorporate the facility coordinator into the Unified Command
3. Evaluate the scope of the incident and either implement the facility plan or begin the development of an Incident Action Plan (IAP).
4. Determine the need for evacuation or shelter in place.
5. Establish an Incident Command Post or activate the EOC.
6. Select personnel to fill the roles within the ICS. This would include an Incident Safety Officer and Hazardous Materials Safety Officer, PIO, Liaison Officer, and the necessary Branch Chiefs.
7. Develop public information pertinent to the incident.

B. The Facility Operator

1. Develop a facility response plan, train their personnel in the plan, and exercise the plan in preparation for a chemical emergency.
2. Notify the Crawford County 911 Center of a chemical emergency or suspected chemical emergency.
3. Notify IEMA of the chemical emergency and make all other notifications as required.
4. Implement their facility response plan.
5. The facility coordinator will become a part of the Unified Command.
6. Establish a line of succession for the facility coordinator position.
7. Based upon the scope of the incident and the chemical(s) involved, determine the community impact and the population that would be affected.
8. Assist the response by dedicating personnel, facilities, and equipment for tactical operations.
9. Supply inventory data, chemical information, and facility information as required.
10. Provide clean-up and recovery support and funding.

C. The EMA Coordinator

1. During a chemical emergency assume the position of emergency response coordinator.
2. Act as a liaison between the facility and other governmental organizations.
3. Participate in the Unified Command.
4. Commit Crawford County assets for the response effort

5. Request equipment, personnel, and technical expertise from IEMA

D. The Crawford County LEPC
   1. Assure that all facility response plans are current and valid.
   2. Assure that the chemical emergency response plan has been exercised

E. The American Red Cross
   1. When requested, send a representative to the Unified Command
   2. Establish mass care for any citizens that have been evacuated due to the incident.

F. Crawford County EMA Rescue Squad
   1. When requested, send a representative to the Unified Command.
   2. Select a Hazardous Materials Safety Officer
   3. Provide decontamination for responders and citizens requiring decontamination.
   4. If necessary, establish a Hazardous Materials group within the Operations Branch.
   5. In coordination with the facility, determine PPE requirements for the Incident

G. United Life Care
   1. When requested, send a representative to the Unified Command
   2. If required, establish a triage area for injured citizens
   3. In coordination with CMH, determine the best treatment option for citizens and responders exposed to any chemical hazards.
   4. Establish transport of injured citizens and responders for medical treatment.
   5. If required, activate mutual aid agreements for additional EMS personnel and equipment.

H. The Crawford County Health Department
   1. When requested, send a representative to the Unified Command
   2. Coordinate with the facility operator, IDPH, CMH, and United Life Care to evaluate any incident related health affects.
   3. Evaluate the incident site for any environmental health affects.

I. Law Enforcement
   1. Send a representative to the Unified Command
   2. Assist in the development and implementation of a security plan
   3. Assist in the implementation of an evacuation
   4. Assist in the development and implementation of a traffic plan.

J. Fire Departments
   1. Send a representative to the Unified Command or in a small incident assume the position of Incident Commander.
   2. Assist in establishing and operating decontamination
   3. Assist in the implementation of an evacuation.
   4. Provide fire suppression as required
   5. Provide fire personnel and equipment to support the response and recovery effort.

K. All organizations
   1. Provide hazardous materials training commensurate with their duties assigned in the Plan.

2. When required, actively participate in the formulation of an Incident Action Plan.
3. Provide equipment and personnel as required for the incident.
4. Maintain exposure records for all personnel potentially exposed to a chemical(s) during the response and recovery.
5. Maintain an accurate record of all expenses incurred during the incident.

V. Administration and Logistics

A. Administration
   1. All facility plans will be stored in the following locations:
      a. A copy will be maintained at the facility
      b. A copy will be maintained at the EOC
      c. A copy will be maintained at the Fire Department responsible for that particular facility.
      d. A copy will be filed with the CCLEPC
      e. A copy will be maintained in the Mobile Command Post
   2. All changes to a facility plan must be communicated in writing and noted in all copies of the facility plans.
   3. All facilities will maintain copies of their MSDS for each chemical that is within their facility. Copies of the MSDS for each chemical must be accessible during an emergency.
   4. Reference and resource material for hazardous materials will be maintained in the Mobile Command Post and EOC.
   5. All forms required by the State and Federal Government that are required for the incident will be obtained through IEMA.

B. Logistics
   1. All resource requirements will be coordinated by the Logistics Branch as established by the Unified Command.
   2. All consumables expended during the incident will be the responsibility of the facility or in the event of a transportation incident, the shipper.
   3. All incurred costs should be tracked and forwarded to the Finance Branch.
   4. Any follow-up medical care for the citizens or responders required as a result of the incident will be recorded and forwarded to the facility, IEMA, Crawford County EMA, and to the State's Attorney.

VI. Development and Maintenance of the Chemical Emergency Response Annex

A. The responsibility for revisions, keeping attachments current, and developing necessary documents for the annex belongs to the CCLEPC.
B. The responsibility for revisions and maintaining SOPs/SOGs belongs to the various organizations.

APPENDIX C

AVAILABLE EMERGENCY RESPONSE EQUIPMENT

ENGINES

Department	Unit #	Pump Size	Tank Size	Supply Line(s)		Comments
		gpm	gal	Size (")	Feet	
Oblong FPD	651	1250	1000	2.5"	1500	25 gal AFFF ground mount monitor
	652	1250	1000	2.5"	1550	25 gal AFFF 1250 deckgun
Robinson FD	551	1500	1000	5"	1000	1250 gpm deckgun, 500 gpm ground
	552	1250	400	5"	600	1000 gpm elevated Master stream
	553	1500	1000	5"	800	1250 deckgun
Hutsonville FPD	850	1250	1000	2.5"	1200	
	851	750	850	2.5"	1200	
LaMotte FPD	752	750	900	3"	1200	
	753	750	1000	3"	1200	Generator
	754	1000	1000	3"	1200	Generator
Flat Rock FPD	951	750	750	2.5"	1200	
	954	1250	1000	2.5"	1200	4 KW gen 6 SCBA
Prairie Licking FPD	1151	750	1000	2.5"	1200	in-line foam eductor
						15 Gal AFFF foam
						4 SCBA's (Scotts)
Marathon Petroleum Company	1	2000	500	3” 5” 6”	950 1250 2-10’	2000 gpm Deck Gun (remote control)
	4	3000	500	1-3/4” 3” 5” 7-1/4”	500 600 1200 110	
	3	1250		3” 5” 6”	800 1400 2-10	2-400’ of 1-3/4” Crosslays 100’ of 1-3/4” Hi-Rise Hose Pack 2000 gpm Deck Gun

TANKERS

Department	Unit #	Tank Size gal	Portable Tank gal	Pump Size gpm	Comments
Oblong FPD	653	1600	1500	500 gpm	50 gal AFFF
Robinson FD	557	1800	2100	750 gpm	
Hutsonville FPD	854	2000	2000	500 gpm	
LaMotte FPD	756	2000	2500	250 gpm	2-1/2" rear tank fill, 100' 1-1/2" preconnect
Flat Rock FPD	953	3500		250	
Prairie Licking FPD	1153	3200	2100		
	1154	2100	2100	750	

AERIALS

Department	Unit #	Aerial		Pump Size	Tank Size	Supply Line(s)		Comments
		Type	Length	gpm	gal	Size (")	Feet	
Robinson FD	552	water tower	55'	1250	400	5"	600'	6 - 100 ft joints
	554	Snorkel	80'	1250	400	5"	150'	3 - 50' joints in comp
Marathon Petroleum Company	2	Aerial ladder	75’	1750		1-3/4” 1-3/4” 3” 5” 6”	2-400’ 100’ 150’ 350’ 2-10’	Crosslays Hi-Rise Hose Pack 1250 gpm Aerial Monitor

BRUSH TRUCK

Department	Unit #	Pump Size gpm	Tank Size gal	Comments
Oblong FPD	650	250	225	200' reel hose
				200' forestry hose
				652-300' forestry hose
Robinson FD	558	300	300	
Hutsonville FPD	852	250	300	5 gal foam tank
LaMotte FPD	750	250	250	Inline foam eductor, 5 gal foam, 100' Hose reel
Flat Rock FPD	955	250	250	inline foam eductor
Prairie Licking FPD	1152	400	400	in-lin eductor 20 gal foam
				2 scott packs 4 spare bottles

SCBA AND AIR SUPPLY

Department	Vehicle Cascade			Compressor/Cascade		SCBA Type		RIT Pack
	Unit #	# Bottles	Bottle Psi	# Bottles	Bottle Size	Manf.	Psi	
Oblong FPD				4	4500	MSA	2216	
Robinson FD	556	3	6000	4	6000	MSA	4500	1
Hutsonville FPD				4	4500	MSA	3000	1

SCBA AND AIR SUPPLY (CONT.)

Department	Vehicle Cascade			Compressor/Cascade		SCBA Type		RIT Pack
	Unit #	# Bottles	Bottle Psi	# Bottles	Bottle Size	Manf.	Psi	
LaMotte FPD	755	4	4500	4	4500	MSA	2216	1
Flat Rock FPD				3	2500	MSA	2215	
Prairie Licking FPD						Scott	2216	

FOAM

Department	Unit #	Type	Gallons	Comments
Oblong FPD	651	AFFF	25 gal	1-125 gpm eductor
	652	AFFF	25 gal	1- 95 gpm eductor
	653	AFFF	50 gal	2- 60 gpm eductor
	Sta	AFFF	150 gal	
Robinson FD		Class A	20 gal	high expansion
		Class A	10 gal	
	551	AFFF	20 gal	4-5gal
	553	AFFF	25 gal	5-5 gal
	556	AFFF - Alcohol	20 gal	4-5 gal
	557	AFFF - Alcohol	15 gal	3-5 gal Alcohol 1-5 gal 3%
Hutsonville FPD	850	AFFF	10 gal	2-5gal
	852	Class A	5 gal	
	854	Class A	30 gal	6-5 gal
LaMotte FPD	755	AFFF - Alcohol	30 gal	

FOAM (CONT.)

Department	Unit #	Type	Gallons	Comments
	755	AFFF	5 gal	
	755	Vapor Suppressor	5 gal	
	750	AFFF	5 gal	
Flat Rock FPD	950	AFFF	20 gal	
	951	AFFF	10 gal	
	954	AFFF	10 gal	
	955	AFFF	20 gal	Tank
	Sta	AFFF	10 gal	
Prairie Licking FPD	1151	AFFF	15 gal	
	1152	AFFF	20 gal	
	Sta	AFFF	20 gal	
Marathon Petroleum Company	Firehouse #3	3M 3% x 3% AFFF - Alcohol	9760 gal	32 – 305 gal Totes
	Firehouse #3	Thunderstorm 1% x 3% AFFF - Alcohol	4125 gal	15 – 275 gal Totes
	Firehouse #3	Alcoseal 3% x 6% AFFF – Alcohol	1650 gal	6 – 275 gal Totes
	Eng. 1	Alcoseal 3% x 6% AFFF – Alcohol	1500 gal	
	Eng. 2	3M 3% x 6% AFFF – Alcohol	750 gal	
	Eng. 3	Alcoseal #% x 6% AFFF – Alcohol	1000 gal	
	Eng 4	Thunderstorm 1% x 3% AFFF – Alcohol	800 gal	
	“Green” Box	Alcoseal 3% x 6% AFFF – Alcohol	4000 gal	Roll-off Tank
	“Purple” Box	Thunderstorm 1% x 3% AFFF - Alcohol	4000 gal	Roll-off Tank

UTILITY SERVICE VEHICLE

Department	Unit #	Type	Comments
Oblong FPD	654	Equipment truck	TIC Rit Pack Vent Saw gas & elect fans
			6 MSA 2216 SCBAs 11 spare bottles
			3500 Watt generator 9-portable radios
			Mobil Command Unit
Robinson FD	555	F-550 4 Door	Mass Casualty / Decon Trailer
	556	Equipment truck	Rit pack backboard Stokes basket
			4500 SCBA's cascade system
			3 6000psi bottles
Hutsonville FPD			
LaMotte FPD	755	Chevy 1 ton	TIC, AED
			Vent Saw, Vent fans (1 gas/1 elect)
			SCBA Fill Station 4 bottle cascade
			6 SCBAs, 1 RIT, 6 bottles
			Foam, bubble cup, 2-1/2" Foam eductor
			Generator, Lights
Flat Rock FPD	950	Step Van	AED, thermal imager, 3000 gal port tank
			5 kw gen with 2 pot lites, bunker gear,
			1 fan, 4-5 gal pails AFFF
Prairie Licking FPD	1155	Equipment Van	4 SCBA's
			8 spare bottles
			AED & Command Center

APPENDIX D

SPECIFIC RESPONSIBILITIES FOR THE NINE ELEMENTS

SPECIFIC RESPONSIBILITIES FOR THE NINE ELEMENTS

Task Element	Responsibility
Element 1: Identification of EHS facilities subject to the requirements of this subchapter that are within the emergency planning district (Crawford County), identify routes likely to be used for the transportation of substances on the list of extremely hazardous substances referred to in section 11002(a) of this title and identification of additional facilities contributing or subjected to additional risk due to their proximity to facilities subject to the requirement of this subchapter, such as hospitals or natural gas facilities. 11003(c)(1).	
1. Identification of the regulated facilities	1. Facility operators based upon EPCRA rules and regulations.
2. Identification of facilities contributing or subjected to additional risk due to their proximity to facilities subject to the requirements of this subchapter.	2. Facility operators with input from the Crawford County LEPC (CCLEPC).
3. Identification of transportation routes utilized to transport hazardous materials.	3. CCLEPC
4. Maintain a database of the regulated facilities, copies of the facility plans, and inventory information.	4. CCLEPC and IEMA
5. Review of the facility response plan on a yearly basis.	5. CCLEPC
6. Notify the Crawford County 911 Center of a chemical emergency.	6. Facility operator
7. Notify IEMA of a chemical emergency and submit all necessary forms.	7. Facility operator
8. Notification of the Crawford County Emergency Response Coordinator.	8. Facility operator
9. Implementation of a facility response plan.	9. Facility operator and Unified Command
10.Development of an Incident Action Plan.	10. Unified Command
11.Development of a clean-up/recovery plan.	11. Unified Command
12.Critique of the incident	12. Unified Command

SPECIFIC RESPONSIBILITIES FOR THE NINE ELEMENTS (CONT.)

Task Element	Responsibility
Element 2:	
Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to any release of such substances. 11003(c)(2).	
1. Notification of the Crawford County 911 Center of a chemical emergency.	1. Facility operator
2. Notification of all response organizations.	2. Crawford County 911 Center
3. Development of an incident security plan.	3. Facility operator and Law Enforcement
4. Accountability and access restriction plan.	4. Unified Command
5. Offensive actions taken on scene	5. EMA Rescue
6. Decontamination	6. EMA Rescue
7. Treatment of injured responders and citizens.	7. United Life Care and CMH
8. Implementation of the Evacuation Plan	8. Unified Command
9. Acquiring additional resources	9. Unified Command
10.Establishing shelters for evacuees	10.American Red Cross
11.Establishing incident related public information.	11.Unified Command and the PIO
Element 3:	
Designation of a community emergency coordinator and facility emergency coordinators, who shall make determinations necessary to implement the plan. 11003(c)(3).	
1. Designation and identification of the facility emergency contacts/coordinators.	1. Facility operator
2. Submission of facility plan	2. Facility operator
3. Notify the Crawford County 911 Center, IEMA, and the Emergency Response Coordinator (EMA Coordinator) of an incident.	3. Facility operator
4. Implementation of the facility plan, County EOP, or Incident Action Plan.	4. EMA Coordinator
5. Activation of the County EOC or activation of an Incident Command Post.	5. Unified Command
6. Determine incident closure	6. Unified Command

SPECIFIC RESPONSIBILITIES FOR THE NINE ELEMENTS (CONT.)

Task Element	Responsibility
Element 4: Procedures providing reliable, effective, and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the emergency plan, and to the public, that a release has occurred (consistent with the emergency notification requirements of section 11004 of this title. 11003(c)(4)	
1. Establish a facility emergency notification procedure(s).	1. Facility operator
2. Establish a procedure for the Crawford County 911 Center to notify the EMA Coordinator.	2. Crawford County EMA Coordinator and the 911 Center.
3. Notification of all organizations of a chemical emergency.	3. Crawford County 911 Center
4. Determination of potentially affected citizens to a chemical emergency.	4. Facility operator
5. Notification of all government agencies	5. Facility operator
6. Prepare public information to be released to the citizens.	6. Unified Command and the PIO
Element 5: Methods for determining the occurrence of a release, and the area or population likely to be affected by such release. 11003(c)(5).	
1. Identify facility detection methods and the chemical(s) that can be identified.	1. Facility operator
2. Identify alternate detection methods in the event the primary method is out of service.	2. Facility operator
3. Based upon the quantity and hazards posed by the chemical(s), determine the area and population that could be affected.	3. Unified Command

SPECIFIC RESPONSIBILITIES FOR THE NINE ELEMENTS (CONT.)

Task Element	Responsibility
Element 6: A description of emergency equipment and facilities in the community and at each facility in the community subject to the requirements of this subchapter, and an identification of the persons responsible for such equipment and facilities. 11003(c)(6).	
1. A list of equipment and personnel that exists at a regulated facility or response to a chemical emergency.	1. Facility operator
2. A list of community resources that can be deployed to respond to a chemical emergency.	2. EMA Coordinator
3. A list of facilities that can be utilized as emergency mass care shelters.	3. American Red Cross
4. Acquire additional personnel and resources for a response to a chemical emergency.	4. Unified Command
Element 7: Evacuation plans, including provisions for a precautionary evacuation and alternative traffic routes. 11003(c)(7).	
1. Develop agreements (MOUs) for additional transportation.	1. EMA Coordinator
2. Implementation of the Evacuation Annex. Notification of transportation resources.	2. Unified Command
3. Establishment of evacuation and alternate evacuation routes.	3. Law Enforcement
4. Maintenance of evacuation routes	4. Public Works

SPECIFIC RESPONSIBILITIES FOR THE NINE ELEMENTS (CONT.)

Task Element	Responsibility
Element 8: Training programs, including schedules for training of local emergency response and medical personnel. 11003(c)(8)	
1. Develop a training matrix for a facility based upon the chemical hazard and response expectations.	1. Facility operator
2. Develop a training matrix for response organizations based upon response expectations. This would include hazardous materials training and NIMS training. In addition, all response organizations should receive training to familiarize themselves with the various regulated facilities.	2. All response organizations
Element 9: Methods and schedules for exercising the emergency plan. 11003(c)(9)	
1. Each facility should internally exercise their facility plan at least yearly to identify planning and training issues.	1. Facility operator
2. The community and one regulated facility will conduct either a table-top exercise or full scale exercise yearly.	2. CCLEPC

APPENDIX E

TRAINING

TRAINING

The Crawford County LEPC recommends the following training:

RECOMMENDED	AVAILABILITY
ICS 700	FEMA Online
ICS 800	FEMA Online
ICS 100	FEMA Online
ICS 200	FEMA Online
*ICS 300	Illinois Fire Service Institute (IFSI)
*ICS 400	IFSI
HazMat Awareness	IFSI
HazMat Operations (for Response Personnel)	IFSI
HazMat Technician (HAZWOPER)	IFSI

* For Command Level Personnel