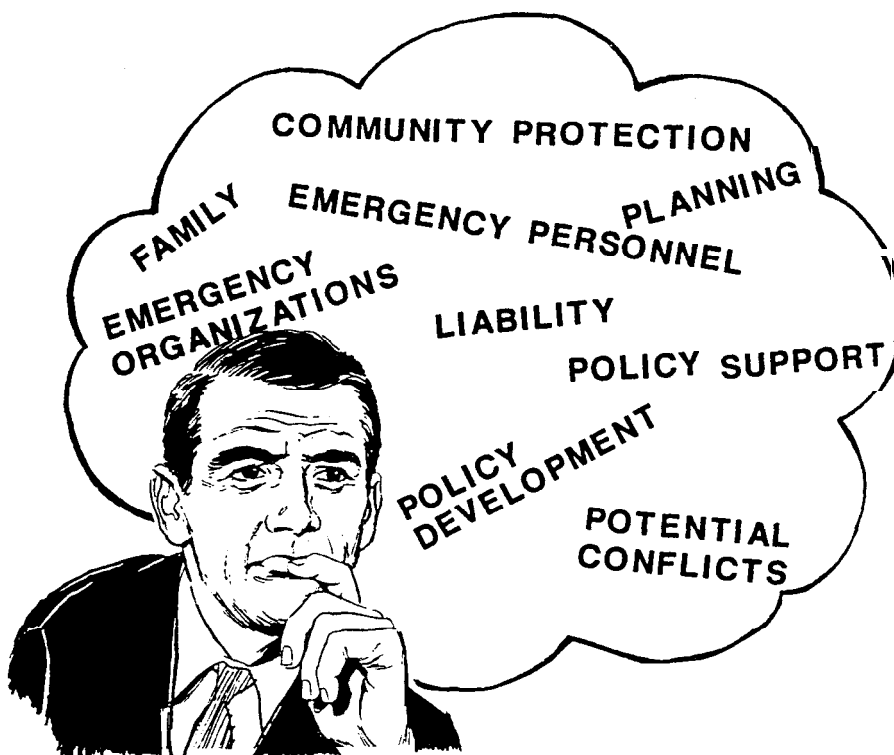




# UNIT IV

## Role Analysis



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## UNIT IV

### ROLE ANALYSIS

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*After completing this unit, you will know how to use role analysis to describe the interacting roles and relationships which occur in emergency management. Your instructor will summarize the importance of role analysis and define several terms--role definition, role competence, role conflict--that are included in the exercise. In completing the exercise, you will be asked to describe your tasks during an emergency. Once your tasks have been determined, you will analyze the various relationships and determine how they relate to the others in your group. Space is provided for taking notes.*

## UNIT IV: ROLE ANALYSIS

### ROLE ANALYSIS IN EMERGENCY MANAGEMENT

Role analysis is critical in emergency management. The emergency, family, and community organization shapes the behavior and attitudes of emergency personnel and creates the **social positions** that define an individual's roles. Because standard sociological views reflect that human beings play multiple roles, this view provides the foundation for introducing the conceptualization of role analysis and examines its relationship to the field of emergency management.



Role analysis can be defined as the **examination of a specific role in terms of requirements, performance skills, and potential role conflicts**. It allows emergency personnel to outline and **confirm** what they are to do, with whom they need to interact to perform the role, and what the benefits are in performing the role.

This unit will define terms such as role definition, role competence, and role conflict, and will provide examples which show how these concepts relate to emergency management.

#### Role Definition

Role definition is outlined by describing what an individual is to do, with whom an individual should interact in performing the role, and what the desired benefits/accomplishments are of the role performance.

To perform within a role, an individual must first be able to define that role. Components which directly affect role definition include values and expectations. "Emergency personnel share a common value system, both among themselves and with those people with whom they are closely associated" (Rogers, 1985). Because individuals tend to select roles that support their own underlying values, the emergency personnel organization is based on a similar value system. Mechanisms to further enhance the emergency management field include selective recruitment and thorough training. Commitment of training through the policies and programs of emergency organizations will foster strong internalization of this common value system.

When defining an individual's role, role expectations provide some influence. For example, emergency personnel associated with organizational memberships (such as police, fire, EMS) have similar role expectations. Comprised of both paid and volunteer professionals, these emergency personnel are expected to respond and provide emergency services during crisis situations because of their position in the community. In order to meet role expectations and lessen or avoid role conflict, individuals sometimes depend on assistance from other individuals within their organization. By establishing policies emphasizing teamwork and back-up systems within various

emergency disciplines (such as EOC operations and Incident Command System), role definitions are integrated, personnel dependency is enhanced, and role expectations are met more easily.

Another application of role definition in emergency response is during the convergence of volunteers on a disaster scene. Unless a system exists to integrate the volunteers into the response effort so that they know what to do, with whom they are supposed to interact, and what the benefits are in performing the role, confusion, conflict, and inefficiency will exist.

Role definition also can be applied to reduce organizational *turf*. A common problem in emergency management is competition among first response organizations. By defining roles through emergency plan development meetings, a community can reduce potential conflict through common understanding of roles, responsibilities, and interorganizational relationships.

#### Role Relationships

It is further worthwhile to specify the "knowledge of relationships" as a part of the role definitions. For the rescue worker in a disaster, these include both relationships with "clients," people to be rescued, and with collaborators in the rescue effort. The community-oriented volunteer has no definitely assigned set of collaborators. The father of a trapped child may be perfectly clear about who he should rescue, but not know which other people he can get to help him. Being a rescue worker is actually a status (specific position) with a whole set of role relationships to other statuses. The problem is that many or all of these roles in the role set (group) are socially undefined.

#### Role Competence

Role competence means that people possess the required skills to perform the role to which they are assigned and have the ability to adapt those skills to unique emergency situations. A major factor in emergency management role performance is the competence and sense of duty of the emergency worker or leader. This appears particularly in voluntary associations, but also where position in public agencies is ascriptive rather than achieved through competence, such as when it is obtained through general social status (position) or particular social ties.

It is not always possible to find ideal personnel for each emergency role; therefore, volunteers who lack some of the necessary skills often may be used. The community status of the individual may dominate the official evaluation of his/her competence. Consequently, high-status roles within the organization often are delegated to volunteers with elevated status in the community, rather than to those persons who may possess higher technical competence.

Examples of role competency also can be found in paid emergency personnel. Inadequate role definition and response and the inability to communicate with others in the organization, thus decreasing the chances of effective administration, have been cited as types of behavior exhibited by some professionals. It can be speculated that if roles were practiced under the intense stress and confusing stimuli of a simulated disaster exercise, role definitions and competencies could have been clarified and increased, and role conflicts would have been reduced.

In a study of medical care in a tornado-stricken community, an interesting phenomenon among highly trained medical personnel was discovered. Without warning, hospitals suddenly were inundated with casualties of all degrees. Under these conditions of stress and confusion, even experienced personnel demonstrated hasty judgment in the exercise of technical skills (such as abandonment of sterile surgical techniques). Most of the hospitals-performed the same number of operations as in a normal working day, but the operations were carried out at an accelerated and continual rate.

Although professionals may possess expertise in meeting the emergency needs of one client at a time, they may require training and experience in order to cope with a massive overload of clients. Their confidence in their abilities under normal situations actually may make them overconfident about what they can accomplish in a disaster. The problem of to whom they should provide service and how rationally to schedule different degrees of treatment to many clients, all seeking help at once, is crucial to an effective professional role in disaster; this relatively infrequent aspect of the professional role typically is not part of the training of doctors--it is emphasized only in military medicine. The report on medical care in disaster notes that "certain surgeons of great experience and a wartime medical background" were able to function more adequately than those lacking such experience.

Role competence is applicable to the mitigation and preparedness of disaster situations. For example, when examining the role of the local emergency manager, the competency within the role influences the effectiveness in the position. Criteria affecting competence include "a comprehensive understanding of the importance of mitigation; an extensive knowledge of the physical conditions created by a disaster; an understanding of human behavior as individuals and groups interact under the unique circumstances of a catastrophic emergency; exact and up-to-date knowledge of sources of emergency financial assistance available from State and Federal governments and the local requirements for obtaining such assistance; a thorough knowledge of the community and its resources; and the ability to plan effectively and to adapt to the changes and unforeseen developments beyond just the scope of preparedness planning" (Haines, 1989).

What can be done to improve role competence in emergency management personnel?

- Volunteer programs can be established in which volunteers are interviewed and past experience and training are aligned with selected roles prior to an emergency situation.
- Emergency management personnel can be sent to training and development programs to acquire knowledge and enhance skills.
- Most importantly, drills and exercises can be held which simulate emergency conditions and provide an opportunity to practice the skills required to perform the role.

### Role Conflict

Role conflict occurs when simultaneous demands affect two or more roles held by one person. It occurs when the role expectations associated with a role or a set of roles are impossible to fulfill at the same time. For example, people (emergency personnel) participate in the emergency social system as members of a formal organization (for example, fire, police, Red Cross, public works), as members of a primary group (such as family), or as community members engaged in voluntary activities to help others. Having membership in numerous groups, in which many roles are expected, is a normal condition. Usually, there is a time and a place for each status and its activities; time is scheduled between work, family, organizations, friends, and so on. A disaster breaks down this normal scheduling of status responsibilities by creating simultaneously urgent needs for many of these groups. Many organizations, families, and neighborhoods may be in trouble at the same time. The individual, as he/she sees or guesses at the scope of the disaster, becomes aware of the multiple urgent demands upon him/her. From the viewpoint of the individual, this can create psychological conflict and possible interpersonal conflict. From the viewpoint of the community, there is the possibility that essential organizations will lose their personnel, and maintenance of disaster services necessary to reduce loss of life and property may fail.

Studies have shown that emergency personnel have described various forms of role conflict in disaster situations and have admitted that the problem is a serious one, but report that such conflict seldom disrupts community response (Rogers, 1985). "In over 150 different disaster events and in the course of interviewing over 6,000 different organizational officials, we found that role conflict was not a serious problem in the loss of manpower in emergency situations" (Quarantelli, No. 49). These current findings refute traditional thinking that postulates the tendency to abandon and fail to activate organizational roles in favor of family roles. Essentially, it was thought that if emergency personnel were preoccupied with their own **primary groups**, effective emergency response to crisis situations would be disrupted. Current research (Rogers,

1985; Quarantelli, No. 49; Drabek, 1984; and Dynes, 1984) reports that role conflict in disaster situations does not frequently create behavioral implications such as role abandonment. Instead, it may be said that a major problem could be the presence of excess emergency personnel who are motivated to help, but who have no relevant role assignment.

Characteristics of role conflict can be found in emergency response personnel. When personnel are called upon to respond to disaster situations, an initial period of information searching occurs. This process usually includes verifying information concerning the disaster's effect and confirming organizational response expectations and information to ascertain the security and safety of families and others. A study conducted by Rogers (1986) on the emergency responders' physical location and proximity during disaster impact, showed a direct relationship to the type of emergency response possible, its implications, and the nature of any associated conflicting role expectations. A pattern of potential importance emerged from this study, such as emergency responders reported that they ensured their family's safety prior to emergency response. This pattern does not emphasize role abandonment, but indicates that the response to the emergency organization could be delayed, especially by emergency workers who are single parents or members of dual-parent emergency roles. To tackle these issues, it has been suggested that managers of emergency personnel should assist in the information searching process; for example, a volunteer program could be established whereby spouses contact other spouses to periodically report the status of responder families.

Another method to assist emergency personnel in minimizing role conflict during disaster involves a rehearsed plan of action which is flexible and provides means for informing workers of their families' safety status. Depending on emergency role and family responsibilities, these plans will vary among individuals and organizational disciplines. If possible, emergency response should be initiated by those people with the fewest conflicting roles.

When organizing plans of action, it may be useful to consider the type of disaster agent and its characteristics pertaining to time of impact. For example, both floods and hurricanes have greater forewarning than earthquakes. This allows greater time for information searching and family safety verification.

In addition to organizational plans of action regarding emergency personnel, family plans should be developed and rehearsed by all family members. Role conflict can be minimized if workers know that their families are prepared to respond and that designated protective actions have been implemented in the home.

Plans of action and other support activities that define transitions from normal conditions to emergency conditions provide emergency personnel with a framework for

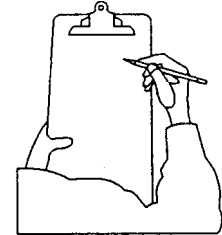
establishing priorities and meeting the expectations of both family and the emergency organization. Anticipating the needs of emergency personnel through policy program establishment will help reduce the potential for role conflict and make overall response more efficient (Rogers, 1986).

Role conflict may occur prior to as well as during a disaster. This type of conflict can be outlined in local emergency management agencies. For example, local emergency managers are supposed to incorporate the organized principle of comprehensive emergency management and are expected to be advocates of disaster mitigation. In doing so, they are to expand their concerns beyond flood response and press for the proper use of flood-prone lands. Direct conflict can occur when sectors of the community perceive such planning efforts as economically threatening. The local emergency manager may experience role conflict as his/her interests as a community supporter for economic growth clash with his/her compliance to comprehensive emergency management and mitigative planning. As managers comply with Federal directives, support from elected officials is needed to reduce such potential conflicts.



## ROLE ANALYSIS EXERCISE

The objective of this exercise is to enable you to define and analyze your policymaking roles in various emergency management activities and to determine if you develop policy, support policy, and/or execute policy.



To do this, you will fill out a sample role analysis worksheet to ensure that you understand the concept. Then, you will be instructed to complete additional analysis of your role in the phases of emergency management-- mitigation, preparedness, response, and recovery. Once you have completed the material, your instructor will explain the reporting process to be used in your small group as well as for the entire class.

**Explanation of Terms**

|                            |  |
|----------------------------|--|
| Responsibility             | <i>What is your defined or implied 'duty' in accomplishing this emergency management goal?</i>                           |
| Authority                  | <i>What law, statute, or other legislation empowers and/or requires you to carry out this responsibility?</i>            |
| Level of Responsibility    | <i>Does this responsibility require you to formulate policy and/or make policy decisions, or simply to support them?</i> |
| Responsibility Shared With | <i>With whom, if anyone, do you share this responsibility?</i>   |
| Policy Tasks               | <i>What tasks must be completed at the policy level in order to accomplish this emergency management goal?</i>           |
| Policy Decisions           | <i>After identifying the tasks required, what policy decisions must be made?</i>   |
| Potential Role Conflict    | <i>How might these policy decisions conflict with the other roles you fulfill in the community?</i>                      |

ROLE ANALYSIS EXERCISE

Sample Worksheet

What is your role (position) in emergency management? \_\_\_\_\_

Think of some of the things you do with regard to your role in emergency management. Depending upon your position in local government, you are involved in different tasks. You may be involved in establishing ordinances, or you may be involved in establishing, or, perhaps, enforcing codes. You may have a role in emergency response such as traffic control, or evacuation, or in recovery, such as damage assessment.

1. With the above in mind, choose one of the emergency management tasks in which you are involved and briefly describe it in the space below.

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2. Into which phase (or phases) of emergency management does this task fall (mitigation, planning, response, recovery)?

- Mitigation
- Preparedness
- Response
- Recovery

3. Is the task or function you have selected related to *developing* policy, *supporting* policy development, and/or *executing* policy in emergency management?

Developing Policy  
 Supporting Policy Development  
 Executing Policy

4. From which of the following does your authority to carry out that task originate?

Federal Law

Local Law

State Law

Local Codes

Costate es

Local Emergency Operations Plans

Implied Authority based on history

5. What is your level of participation in this task? Do you

Delegate?

Perform?

Direct?

Coordinate?

Other?

N/A?

6. Are you the only person to perform this task or do you share this responsibility with someone else (for example, the mayor might share law making with the city council). With whom must you coordinate in developing, executing, or supporting policy development (for example, other department heads, CEO, attorney)?

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7. What potential conflicts with others (government, private sector, volunteers) might arise?

Potential Conflict Situation

With Whom

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Your Position \_\_\_\_\_

Mitigation Task Prevent the occurrence of hazardous situations by establishing land use and density regulations.

V-12

| RESPONSIBILITY             | AUTHORITY         | LEVEL OF PARTICIPATION | SHARE RESPONSIBILITY WITH | POLICY DECISIONS | CONFLICTS |
|----------------------------|-------------------|------------------------|---------------------------|------------------|-----------|
| Develop Policy             | Federal Law       | Delegate               | CEO                       |                  |           |
| Support Policy Development | Local Law         | Perform                | Department                |                  |           |
| Execute Policy             | State Law         | Direct                 | Attorney                  |                  |           |
|                            | Local Codes       | Coordinate             | Other                     |                  |           |
|                            | State Codes       | <u>O t h e r ,</u>     |                           |                  |           |
|                            | Local EOPs        | N/A                    |                           |                  |           |
|                            | Implied Authority |                        |                           |                  |           |

Your Position \_\_\_\_\_

Preparedness Task Develop coordinated response plans and procedures for responding to hazardous materials incidents.

| RESPONSIBILITY             | AUTHORITY         | LEVEL OF PARTICIPATION | SHARE RESPONSIBILITY WITH | POLICY DECISIONS | CONFLICTS |
|----------------------------|-------------------|------------------------|---------------------------|------------------|-----------|
| Develop Policy             | Federal Law       | Delegate               | CEO                       |                  |           |
| Support Policy Development | Local Law         | Perform                | Department                |                  |           |
| Execute Policy             | State Law         | Direct                 | Attorney                  |                  |           |
|                            | Local Codes       | Coordinate             | Other                     |                  |           |
|                            | State Codes       | Other                  |                           |                  |           |
|                            | Local EOPs        | N/A                    |                           |                  |           |
|                            | Implied Authority |                        |                           |                  |           |

IV-13

Your Position \_\_\_\_\_

Response Task Open community shelters to house and feed evacuees.

| RESPONSIBILITY             | AUTHORITY         | LEVEL OF PARTICIPATION | SHARE RESPONSIBILITY WITH | POLICY DECISIONS | CONFLICTS |
|----------------------------|-------------------|------------------------|---------------------------|------------------|-----------|
| Develop Policy             | Federal Law       | Delegate               | CEO                       |                  |           |
| Support Policy Development | Local Law         | Perform                | Department                |                  |           |
| Execute Policy             | State Law         | Direct                 | Attorney                  |                  |           |
|                            | Local Codes       | Coordinate             | Other                     |                  |           |
|                            | State Codes       | Other                  |                           |                  |           |
|                            | Local EOPs        | N/A                    |                           |                  |           |
|                            | Implied Authority |                        |                           |                  |           |

IV-14

Your Position \_\_\_\_\_

Recovery Task Complete the tasks needed to deal with the effects on the community of an earthquake.

| RESPONSIBILITY  | AUTHORITY  | LEVEL OF PARTICIPATION                            | SHARE RESPONSIBILITY WITH                         | POLICY DECISIONS | CONFLICTS |
|---|--|---|---|------------------|-----------|
| <p><input type="checkbox"/> <b>Develop Policy</b></p> <p><input type="checkbox"/> <b>Support Policy Development</b></p> <p><input type="checkbox"/> <b>Execute Policy</b></p> | <p><input type="checkbox"/> <b>Federal Law</b></p>       | <p><input type="checkbox"/> <b>Delegate</b></p>   | <p><input type="checkbox"/> <b>CEO</b></p>        |                  |           |
|   | <p><input type="checkbox"/> <b>Local Law</b></p>         | <p><input type="checkbox"/> <b>Perform</b></p>    | <p><input type="checkbox"/> <b>Department</b></p> |                  |           |
|   | <p><input type="checkbox"/> <b>State Law</b></p>         | <p><input type="checkbox"/> <b>Direct</b></p>     | <p><input type="checkbox"/> <b>Attorney</b></p>   |                  |           |
|   | <p><input type="checkbox"/> <b>Local Codes</b></p>       | <p><input type="checkbox"/> <b>Coordinate</b></p> | <p><input type="checkbox"/> <b>Other</b></p>      |                  |           |
|   | <p><input type="checkbox"/> <b>State Codes</b></p>       | <p><input type="checkbox"/> <b>Other</b></p>      |   |                  |           |
|   | <p><input type="checkbox"/> <b>Local EOPs</b></p>        | <p><input type="checkbox"/> <b>N/A</b></p>        |   |                  |           |
|   | <p><input type="checkbox"/> <b>Implied Authority</b></p> |   |   |                  |           |

IV-15



NOTES

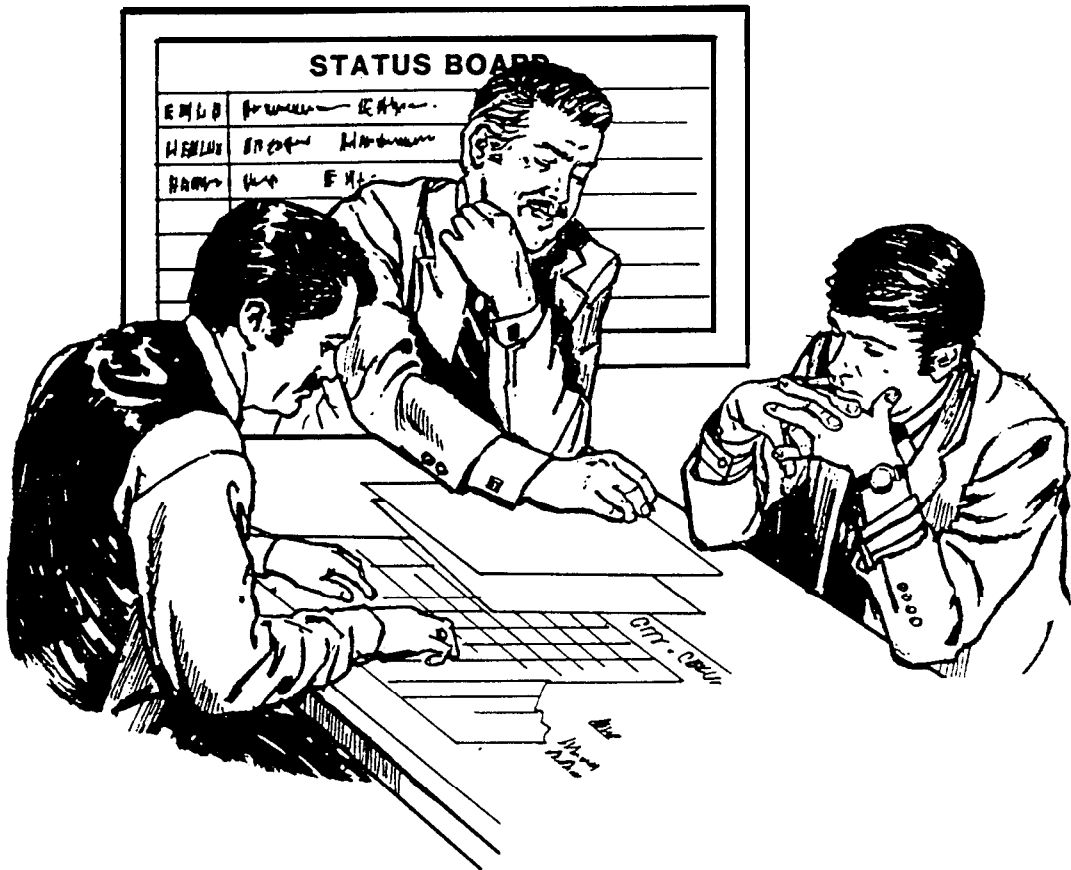
## UN-IT SUMMARY

It is evident that the implications of role analysis and its relationship to the field of emergency management bear directly on the kind of policies and programs which can be formulated within a community. It is essential that public officials have and maintain an outlook which embraces a community's emergency organizations, a working knowledge of their functions, and an acquaintanceship with emergency officials. Most importantly, it is vital that the official possess a clear and detailed understanding of the demands faced by emergency personnel in a disaster and the potential effects emergency situations may have on their roles and behavior.

## NOTES

# UNIT V

## Policy Analysis Exercise



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## UNIT V

### POLICY ANALYSIS EXERCISE

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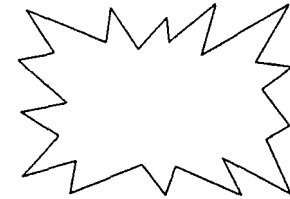
*After completing this unit, you will know how to analyze public policy from a perspective that considers the effect on a community before, during, and after an emergency. This section consolidates the concepts and ideas presented in Units I, III, and IV. A videotape and a case study will be used to illustrate a variety of issues with which public officials must deal before, during, and after an emergency. Specifically, you will analyze the selected incident from the standpoint of role analysis, hazard analysis, and policy analysis. Space is provided for taking notes.*

## UNIT V: POLICY ANALYSIS EXERCISE

### SEWER EXPLOSION CENTRAL CITY, COLUMBIA JANUARY 18, 1983

#### BACKGROUND

Central City is a medium-sized city in South Central Columbia. The city covers a land area of 35 square miles and has a population of 149,000. Located in the county of Liberty, the city is one of nine incorporated areas.



The government of Central City is the council-manager form with seven council members making up the legislative body. The council is elected at-large on a non-partisan-ballot for four-year terms. It elects one of its own members as mayor to preside over meetings and to vote on matters before the council, but the mayor has no veto power. The manager, who is the chief administrative officer of the city, is selected by the council and serves at its pleasure. The manager carries out the ordinances of the council, makes recommendations to the council, prepares and executes the annual budget, negotiates with labor unions, and appoints and removes department heads and other administrative personnel. The manager has no vote in council meetings.

Central City is served by separate police, fire, and ambulance services. There are two private ambulance companies serving the city, with transport made to the three local hospitals.

The Central City police and fire dispatch centers are located in the city operations center. The city emergency management center (**EMC**) is in the same facility.

The Central City Fire Department has an authorized field strength of 216. The department is organized into three battalions, operating eleven engines and four truck companies. The Central City Police Department has an authorized field strength of 295. The department has a 20-member **SWAT** team and four trained bomb technicians.

#### EVENT

On January 18, 1983, a number of violent and destructive explosions ripped through the south central portion of Central City. The affected area is north of the Great Atlantic and Pacific Railroad and east of the Roaring River. The area has a mixture of residential, business, and industrial occupancies.

Initial damage surveys indicated visible surface damage to three miles of streets and sewers. Parts of the roadway collapsed into major sewer trunk lines. Water, gas, electric, and telephone lines were severely damaged by the explosions. Manhole covers were blown out of place along 11 miles of sewers, indicating the possibility of more extensive subterranean damage. Private property damage included moderate to severe structural damage to many buildings.

The explosions resulted in seven deaths and 23 injuries. If the incident had happened two hours later, hundreds of serious injuries could have been expected because of the normal morning traffic flow through the area. The weather conditions recorded at the Liberty County Airport were cloudy skies, temperature of 35° F, winds from the northwest at ten mph, and a 30 percent chance of snow later in the day.

The incident described above had its true beginnings two days earlier at the ABC Solvent Extraction Plant located at the intersection of Z and 23rd Streets. The concerned facility used hexane to extract the oil from soybean flakes. A freeze-up of several components of the plant's extraction system resulted in a 500-gallon spill of hexane into the public sewer system.

At 5:36 a.m., a series of devastating sewer explosions took place in Central City. The first call received by the dispatch was from a security officer at the railroad yard who reported smoke in the vicinity of the Minnich Oil Company at S and 23rd Streets. At 5:39 a.m., Engine 6, Engine 8, Truck 8, and Car 36 were dispatched to the scene.

At 5:43 a.m., Engine 8 reported that the sewer system at T and 23rd Streets had blown up. Because of the reports from several locations about the explosion, Car 36 requested the response of three more engine companies. By 5:45 a.m., all utility companies were notified to respond to the area.

At 5:47 a.m., Car 36 requested the response of all available police units to the area to seal it off. Units were told to stay clear of 23rd Street because of street damage and isolated residential and business fires. Fire companies on the scene began to search the area for victims and to update information.

At 6:01 a.m., Car 2, Deputy Police Chief, asked Car 36 about setting up a command post. By 6:36 a.m., the command post was set up at the Central City Police Station at X and 20th Streets. Representatives from the Central City Sewer Authority, Columbia State Police, Central City Water Company, Edison Electric Company, and the Central City Gas Company were present.

At 6:50 a.m., the Central City Police Chief was interviewed at the command post by a reporter from the *Central City Times*. The police chief mentioned that the explosions

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might have been caused by a terrorist group. This statement led to widespread rumors and the spontaneous evacuation of several areas in Central City.

At 7:25 a.m., Central City police units reported to dispatch that the increased traffic flow out of the city caused several gridlocks at major city intersections (H and 5th, H and 15th, H and 30th, Q and 20th, and Q and 30th Streets).

At 7:30 a.m., first responders reported conflicting information to the command post about what caused the explosions. Fire personnel believed that some type of chemical in the sewer system caused the explosions, while police personnel believed that the explosions were caused by isolated terrorist bombings.

At 7:40 a.m., coordination between operations personnel at the command post and coordination personnel at the city operations center was interrupted because of telephone line overload and saturation of radio frequencies.

At 7:50 a.m., the mayor of Central City arrived at the command post and stated that he was in charge. First, the mayor barred all news media from the command post and immediate threat area, causing the media to demand access to additional information. Initial news comments stated that terrorists initiated the disaster and that government officials were preventing the news media access to critical information that would protect the public.

At 8:05 a.m., the city manager arrived at the city operations center and ordered a survey and assessment of damage of the affected area. A Liberty County Sheriffs Department helicopter was dispatched to the site.

At 8:10 a.m., a report of another sewer explosion at X and 24th Streets was received by dispatch. Engine 10 was dispatched and reported a manhole cover had blown out of place. Also, sewer officials at the command post started receiving reports from their field units that enabled the Central City Fire Department to trace the path of the explosions in the system. Also, reports of explosive readings in the affected sewer system downstream of the blast area necessitated the flushing of the system with open hydrants at different locations.

At 8:30 a.m., the mayor of Central City declared a local emergency and activated the EMC.

At 8:45 a.m., the city manager, in conjunction with the on-scene fire commander, ordered the evacuation of a three-block area on both sides of 23rd Street between R and Z Streets. U.S. Grant High School was designated and equipped as the evacuation center for displaced persons from the blast area. The city manager issued an emergency broadcast system announcement reflecting the current conditions of the situation and

actions taken to control it. A rumor control center was established through the city's public information officer and volunteers from the local chamber of commerce. A media room was set up at the EMC.

At 9:00 a.m., after repeated attempts, the mayor finally contacted the city manager and asked him, "Who in the hell is in charge of the situation?" Conflict about roles and responsibilities ensued between the mayor and city manager.

At 9:10 a.m., the Health Department was notified of the explosions and the fact that the sewer authority was diverting the flow directly into the Roaring River instead of through the treatment plant south of the city. Also, the series of blasts was traced to the area of the ARC Solvent Extraction Plant.

At 9:30 a.m., an official from the Columbia Emergency Management Agency called the EMC requesting the current status of the situation and inquiring if state assistance would be needed.

At 9:45 a.m., plant officials from the ABC Solvent Extraction Plant were interviewed by the news media. Plant officials stated that the explosions could not be generated by chemicals from their plant.

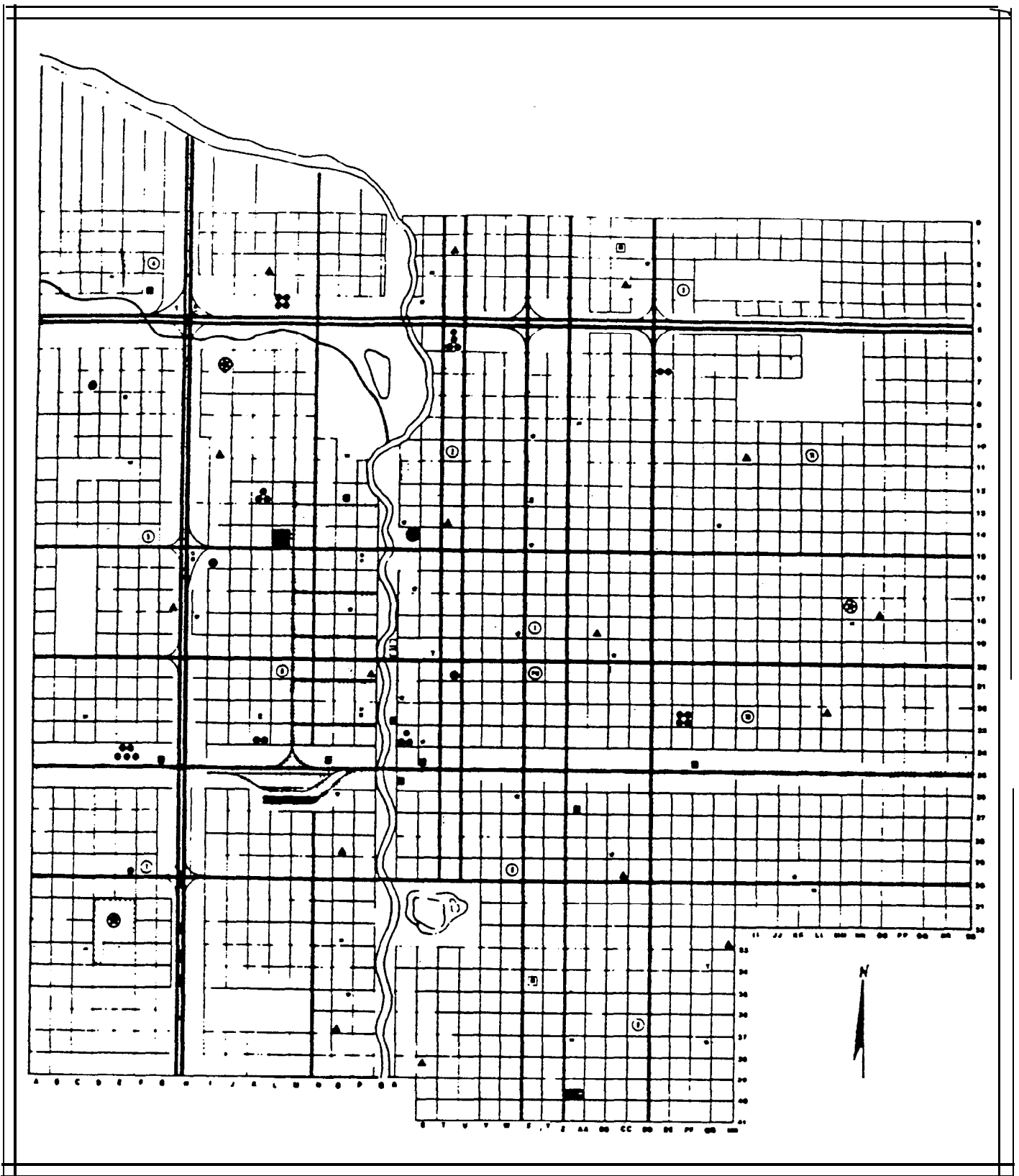
At 10:15 a.m., various utilities were called together at the EMC by the city manager and mayor to discuss the situation. Notes were taken on the meeting among all the agencies present to assess the damage and to prepare a press release. Also, a tour of the blast area by different agency heads was scheduled.

At 10:45 a.m., the mayor's request for a meeting between city and ABC Solvent officials was denied by company officials who stated that they were preoccupied with plant safety at this time.

At 12:00 noon, State fire marshal's representatives and city arson squad personnel visited the soybean processing plant for a firsthand inspection of the facility. At this time, it was discovered that hexane was flowing from a separation basin into the sewer system.

Throughout the afternoon, city, State, and plant officials worked to stop the flow of hexane into the sewer system. At 6:00 p.m., sewer authority crews requested an air bag to plug the plant's effluent to the city sewer system. This plugging of the effluent caused the high readings to eventually drop. Car 23 and Engine 10 were left on the scene until the separation basin was pumped dry.





- |                                |                               |                           |
|--------------------------------|-------------------------------|---------------------------|
| ○ CENTRAL CITY POLICE STATION  | ① FIRE STATIONS               | ▲ SCHOOLS                 |
| ● SHELTER COMPLEX HEADQUARTERS | ■ CITY EQUIPMENT YARD         | † TELEPHONE SWITCHBOARDS  |
| ● RELOCATION CENTERS           | ○ HEAVY EQUIPMENT AREAS       | ⊥ ELECTRIC POWER STATIONS |
| ■ NATIONAL GUARD FACILITIES    | ● PULP STORAGE TANKS          | ■ RESERVOIRS              |
| ⊕ HOSPITALS                    | ○ CITY TRANSPORTATION CENTERS | ● RADIO AND TV STATIONS   |
| ● FOOD STORAGE FACILITIES      | ■ EMERGENCY MANAGEMENT CENTER |                           |
- SCALE 7 BLOCKS = 1 MILE

# CENTRAL CITY