



CHEMICAL MANUFACTURERS ASSOCIATION

ROBERT A. ROLAND
President

April 1985

TO: Recipients of the Community Awareness and
Emergency Response Program Handbook

CMA member company representatives have designed this handbook for your use. It suggests ways to renew or start a community emergency response effort. I encourage you to use it and share it with members of your community.

As a supplement to the handbook, CMA will hold 6 regional workshops in June 1985. You will receive specific information about the workshop from your company's CAER Coordinator.

If you have any questions, please contact your company's CAER Coordinator, or call CMA's CAER Coordinator, Christopher Cathcart at (202) 887-1265.

Sincerely,

BOR 007596

COMMUNITY



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① Dr. Cummin
② for review
③ ASE.

~~Dr. Cummin
for review
for review
for review~~

Jay
P. 11-20-85

June 10, 1985

Dr. Cummin:

This is a copy of the CMA program handbook.

Since we ordered only a limited count for plant managers, could you please make a copy of the text and return the original to me for our distribution later this month?

Thank you.

Chris

RECEIVED

JUN 11 1985

DR. A. S. CUMMIN

**COMMUNITY AWARENESS AND EMERGENCY RESPONSE
PROGRAM HANDBOOK**

Prepared by:

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Chemical Manufacturers Association
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PREFACE

The chemical industry is one of the safest industries in the United States. This is a result of the excellent job that we do in preventing accidents. Accidents, however, can occur. For many years, the chemical industry has had emergency response plans. The Community Awareness and Emergency Response (CAER) Program has been adopted by member companies of the Chemical Manufacturers Association (CMA) to integrate these plans with community emergency response plans.

Member companies will rely upon you, the plant manager, to help make this program work. This handbook will assist you in this task.

The handbook was prepared by a group of member company emergency planning experts, an emergency planning consulting company and CMA staff. The handbook explains the program, suggests ways to get started, and presents a step-by-step approach to implementation. Although the approach to implementing this program will vary from plant to plant, this handbook will be useful in your situation.

BOR 007599

April, 1985

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COMMUNITY AWARENESS AND EMERGENCY RESPONSE PROGRAM

INTRODUCTION

The CAER Program

The Community Awareness and Emergency Response (CAER) Program is a chemical industry initiative designed with two related purposes:

1. To develop a community outreach program and to provide the public with information on chemicals manufactured or used at local chemical plants. This effort is described in the section titled COMMUNITY AWARENESS (p. 12).
2. To improve local emergency response planning by combining chemical plant emergency plans with other local planning to achieve an integrated community emergency response plan. The section titled EMERGENCY RESPONSE PLANNING (p. 16) provides a procedure by which you, as plant manager, can serve as a catalyst to get this process started.

The American public is concerned about chemical hazards, the possibility of a serious chemical emergency and the steps industry is taking to prevent such an occurrence. The member companies of CMA recognize the need to provide the community with information on chemicals manufactured or used locally. The member companies also realize that, while most chemical plants have adequate emergency plans, there is room for improvement by more effectively integrating plant emergency response plans with those of the community. The CAER program is a critical element in dealing directly and expeditiously with the public's concern.

The Objectives of the CAER Program

The overall goal of the program is to improve the protection of public health and safety in the community. The specific objectives are:

1. Provide information to the public on hazardous chemicals.
2. Review, renew or establish emergency response plans.
3. Expand the chemical industry's involvement in community response planning and emergency networks.
4. Integrate chemical plant* emergency response plans with other community emergency response plans to form an overall plan for handling all emergencies.
5. Involve members of the local community in the development and implementation of overall emergency response planning.

* The term "chemical plant" used in this handbook includes all chemical industry facilities including manufacturing plants, distribution facilities, warehouses and transportation systems.

The Plant Manager's Role

You, as the plant manager, are asked to:

1. Develop a community outreach program and provide a means for responding to community requests for information on chemical hazards as described in the section titled COMMUNITY AWARENESS (p. 12).
2. Assure that the plant risk assessment and emergency response plan are in order. APPENDIX 1 (p. 41) provides an outline of typical components of a chemical plant emergency response plan.
3. Serve as the catalyst to initiate integrated community emergency response planning. This doesn't mean you have to do the plan yourself or necessarily be the task force leader. It means you should present the program to key officials and enlist their support and assistance in developing a Coordinating Group. The section titled EMERGENCY RESPONSE PLANNING (p. 16) begins with suggestions on how to get started in this "catalyst" role.

Figure 1 illustrates the anticipated flow of information to the plant manager and on to the community. The roles of the Chemical Manufacturers Association, the Company CAER Coordinator, and the Coordinating Group are discussed below.

The Chemical Manufacturers Association's Role

The CMA will continue its support of the program throughout the implementation period. Specific actions will include:

1. Regional workshops designed to aid the plant manager in understanding and implementing CAER.
2. Compilation of status reports submitted by plant managers and Company CAER Coordinators and periodic transmittal of industry-wide progress reports.
3. Direct response to plant manager questions on the program.
4. Onsite assistance where specific problems require special expertise.
5. Additional written guides when a specific need for clarification or additional information is identified.

In addition, CMA has initiated activities to inform national media of the program, to brief legislative and executive branch contacts at the national and state levels and to brief other trade associations and organizations.

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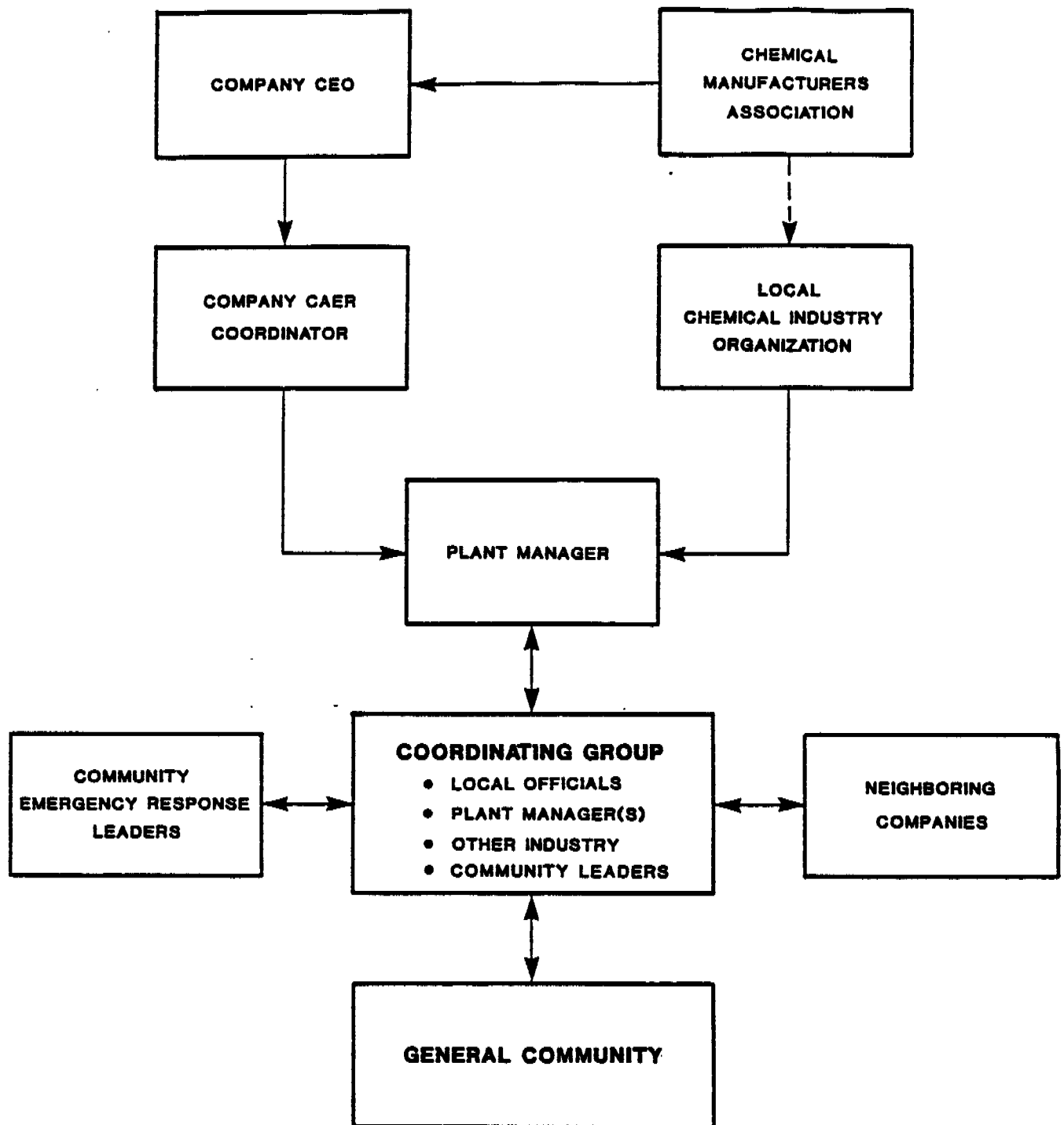


FIGURE 1 **FLOW OF EMERGENCY RESPONSE INFORMATION TO EXPECTED PARTICIPANTS**

The Company CAER Coordinator's Role

Member companies have been asked to assign a Company CAER Coordinator to work with their facilities and the CMA and to assist in providing company support where necessary.

The Coordinating Group's Role

Integrated community planning requires the cooperative efforts of both industry and local government. Industry is primarily responsible for protective actions "inside the fence" while local government is responsible for the safety of the general public. The role of the Coordinating Group (or whatever name it is called) is to provide the bridge between industry and local government (see Figure 2) and develop a unified and coordinated approach to emergency response planning and communication with the community.

The Target Dates for Implementation

The following are target dates for completing pertinent milestones in the CAER program:

<u>Milestone Event</u>	<u>Target Date</u>
1. Plant manager completes review of this handbook and attends a workshop.	7-1-85
2. Plant manager initiates discussions with local officials to set up a Coordinating Group.	7-1-85
3. The Coordinating Group completes a draft of the integrated community emergency response plan.	12-31-85
4. The Coordinating Group completes the plan and it is approved by local officials.	6-30-86
5. A comprehensive test of the integrated community emergency response plan has been successfully completed.	12-31-86
6. The Coordinating Group conducts an annual review, revises the plan and successfully retests it.	Annually

The following pages present tear-out status reports for each milestone. The plant manager is asked to submit these to his Company CAER Coordinator who will forward them to CMA. These reports are necessary to determine the overall status of industry emergency response efforts.

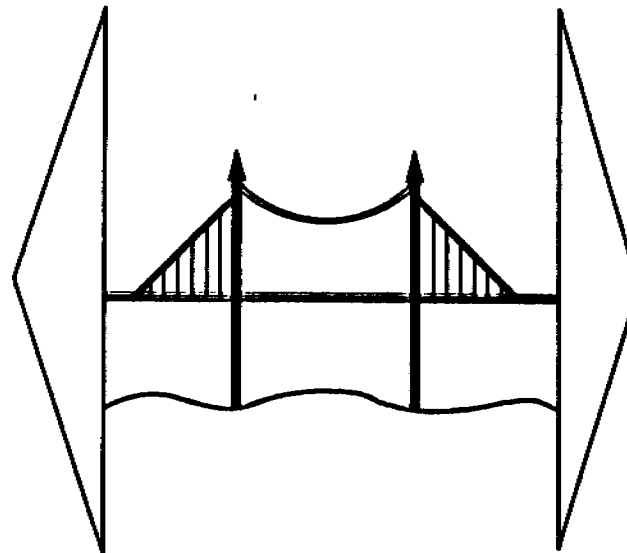
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FIGURE 2
RESPONSIBILITY BRIDGE

INDUSTRY
RESPONSIBILITIES

1. Assure safe work practices.
2. Assure employees personal safety and the safety of visitors.
3. Establish safety programs.
4. Protect lives and property onsite.
5. Coordinate all plant personnel during an emergency.
6. Develop plans and procedures to respond to emergencies.
7. Provide security, safety equipment, general training, and information on chemical hazards.

COORDINATING GROUP
BRIDGING ACTIONS



LOCAL GOVERNMENT RESPONSIBILITY

1. Provide a safe community.
2. Assure the safety and well being of all residents and transients within community.
3. Establish public safety programs.
4. Protect lives, as well as private and public property.
5. Coordinate community emergency response forces during an emergency.
6. Develop plans and procedures to respond to emergencies.
7. Conduct training, drills, and exercises with other response agencies within the community, area, or state.

- * Open lines of communications.
- * Information sharing.
- * Coordinate emergency plans and procedures.
- * Interact with other emergency response agencies.
- * Joint education and training.
- * Common problem solving group.
- * Mutual aid assistance.

CAER STATUS REPORT NO. 1

COMPANY: _____	MILESTONE: Program review and workshop attendance
PLANT: _____	
LOCATION: _____	
PLANT MANAGER: _____	TARGET DATE: 7-1-85

STATUS:	☐ I received the CAER Handbook _____ (Date)
	☐ I completed my review on _____ (Date)
	☐ _____ attended a CAER Workshop on (Name) _____ (Date)

COMMENTS:

Date

Plant Manager Signature

NOTE: Submit this report to your Company CAER Coordinator when the milestone has been completed.

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CAER STATUS REPORT NO. 2

COMPANY: _____	MILESTONE: Initiate discussions on CAER with local officials
PLANT: _____	
LOCATION: _____	
PLANT MANAGER: _____	TARGET DATE: 7-1-85

STATUS: ☐ I have initiated discussions on the CAER program with local emergency response officials including (list):

COMMENTS: -

Date _____

Plant Manager Signature

NOTE: Submit this report to your Company CAER Coordinator when the milestone has been completed.

BOR 007607

CAER STATUS REPORT NO. 3

COMPANY: _____	MILESTONE: A draft of the community plan is complete
PLANT: _____	
LOCATION: _____	
PLANT MANAGER: _____	
	TARGET DATE: 12-31-85

STATUS: ☐	A draft of the integrated community emergency response plan was completed on _____ (Date)
----------------------------------	---

COMMENTS:

Date

Plant Manager Signature

NOTE: Submit this report to your Company CAER Coordinator when the milestone has been completed.

BOR 007608

CAER STATUS REPORT NO. 4

COMPANY: _____	MILESTONE: The community plan has been approved by local officials
PLANT: _____	
LOCATION: _____	
PLANT MANAGER: _____	TARGET DATE: 6-30-86

STATUS: ☐	The final integrated community emergency response plan was completed on _____ and approved by local officials (Date) on _____. (Date)
----------------------------------	---

COMMENTS:

Date

Plant Manager Signature

NOTE: Submit this report to your Company CAER Coordinator when the milestone has been completed.

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CAER STATUS REPORT NO. 5

COMPANY: _____	MILESTONE: Successful completion of a comprehensive test of the plan
PLANT: _____	
LOCATION: _____	
PLANT MANAGER: _____	
TARGET DATE: 12-31-86	

STATUS: ☐ A comprehensive test of the integrated community emergency plan was successfully completed on _____. Participants included (check all that apply): _____ (Date)

☐ Plant ☐ Town/City ☐ County

☐ State ☐ Neighboring Companies

☐ Other _____

COMMENTS:

Date

Plant Manager Signature

NOTE: Submit this report to your Company CAER Coordinator when the milestone has been completed.

BOR 007610

CAER STATUS REPORT NO. 6

COMPANY: _____	MILESTONE: Annual plan review, revision and successful retest
PLANT: _____	
LOCATION: _____	
PLANT MANAGER: _____	TARGET DATE: Annual

STATUS: ☐	Formal annual review of the integrated community emergency response plan was completed on _____. (Date)
☐	The plan revisions were completed on _____. (Date)
☐	A successful retest was completed on _____. (Date)

COMMENTS:

Date

Plant Manager Signature

NOTE: Submit this report to your Company CAER Coordinator when the milestone has been completed.

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COMMUNITY AWARENESS

The basis of any effective community awareness and emergency response program is an informed public familiar with the operations of local chemical plants. Such a public will be better able to understand the emergency response plans that plant managers will help communicate to it. Community awareness is a recurring theme in the CAER program. One of the first steps is to go into the community and contact the people who are needed to participate in emergency planning. This initial contact will include a description of the facility, its safety and accident prevention programs, its emergency response capability and its safe operating history. (See STEP 2 of the section titled How to Get Started, p. 17). The CAER handbook stresses the need to continue to involve the community and to educate the public during the entire implementation process (see STEP 10 of the Implementation checklist, p. 38, and the section titled Community Involvement, p. 39).

Therefore, the plant manager should consider outreach programs as a general response to the public's demand for information, and as a means to create an educated community that is able to participate effectively in the emergency response program. The plant manager's role as a catalyst in any planning effort will be easier if the community knows what goes on inside facilities and what safety measures are in place and what emergency preparedness measures are taken. The public's fears about chemical hazards also will be diminished.

Outreach programs could include speaking at community meetings (e.g., school and church groups, service clubs and City Council meetings), plant tours and brochures explaining the facility. The Louisiana Chemical Association's Community Awareness Project is a good example of an outreach program (see APPENDIX 5, p. 50).

Outreach programs not only help the plant manager carry out the emergency preparedness effort, they will also help carry out CMA policy on the public's right to have access to information. (See attached policy statement on Community Right-to-Know, p. 14). The member companies of CMA believe that the chemical industry has a responsibility to provide information on hazardous materials to the public. Members of the public (emergency responders, physicians, the general public) are most likely to turn to the local chemical plant manager for the information they need. The plant manager must be prepared to respond to these inquiries. The information provided should be tailored to the needs of specific groups. For example, emergency responders may want to know not only what chemicals are present, but also in what amounts, so the potential danger in an emergency can be assessed. Physicians may need to know specific chemical identity if a trade secret claim has been made for a chemical to which a patient has been exposed.

Information available to workers under the federal hazard communication standard should also be used to respond to public inquiries. The standard requires manufacturing employers to make workplace lists of hazardous chemicals and Material Safety Data Sheets (MSDS) available to workers. This same information is a practical means of responding to many requests from the public. In regard to the MSDS, many emergency response personnel, members of the community and federal, state and local governments feel the MSDS is the most appropriate form of information to be provided. Since the MSDS, as a

result of the hazard communication standard, will be available to about one million chemical workers alone, the MSDS can be considered to be in the public domain. Therefore, when the public requests an MSDS or MSDSs, that information should be given. Chemical companies may wish to supplement the MSDS with other information, such as product safety bulletins or special training programs to help the layperson understand the information. Again, outreach programs will serve these needs.

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CHEMICAL MANUFACTURERS ASSOCIATION POLICY ON
COMMUNITY RIGHT-TO-KNOW

Background

- o The public is concerned that hazardous chemicals produced in or transported through their communities may have an adverse effect on their health and safety and the health of future generations. This concern is becoming more widespread and emotional.
- o The public perceives that information on hazardous chemicals is being hidden from them. This perception is precipitating the right-to-know legislation. In 1985, several bills have been introduced in Congress, and over 25 states are considering legislation which contain provisions mandating public access to information.
- o Inconsistent requirements in community right-to-know legislation could be burdensome on industry while simultaneously creating confusion for the public.

CMA Position

- o Implementation of CMA's initiatives on Community Awareness and Emergency Response (CAER) and the establishment of a National Chemical Response and Information Center (NCRIC) is dependent upon a consistent position on the public's right to information on hazardous chemicals.
- o CMA member companies have a responsibility to provide information on hazardous chemicals to the public. This information should be tailored to the needs of specific groups (e.g., emergency responders, physicians, general public).
- o Trade secrets must be protected while at the same time providing necessary hazard and health care information to the public.
- o Information generally available under the federal hazard communication standard should be used to respond to public inquiries. The material safety data sheet or equivalent information is a practical means of responding to many requests.
- o Industry, state and local government leaders must work together in developing community right-to-know programs.
- o In the event of any legislation, public access to information should be through a designated state agency. Chemical manufacturers, distributors and importers would provide the required hazardous chemical information to the designated state agency. All community right-to-know legislation should be consistent in its requirements so that the public's awareness of potential hazards will be enhanced.

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- o Additional information on potential health and environmental hazards posed by chemicals is available to the public through agencies that administer laws such as the "Toxic Substances Control Act" (TSCA), the "Resource Conservation and Recovery Act" (RCRA), the "Comprehensive Environmental Response Compensation Liability Act" (CERCLA), the "Clean Water Act" (CWA), and the "Clean Air Act" (CAA).

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EMERGENCY RESPONSE PLANNING

How to Get Started

The CAER program is based upon the concept that the local plant manager will serve as the catalyst for initiating the integrated community emergency response planning process. For those plant managers who have already worked with local officials on emergency planning efforts, it is probably fairly clear as to how to get started on this. For others, the process of community interaction and involvement will be new. Following are some suggested steps that you can take simultaneously within your company and outside in the community. These start-up steps as illustrated below in Figure 3 should help you get through the ice-breaking period into full-scale planning.

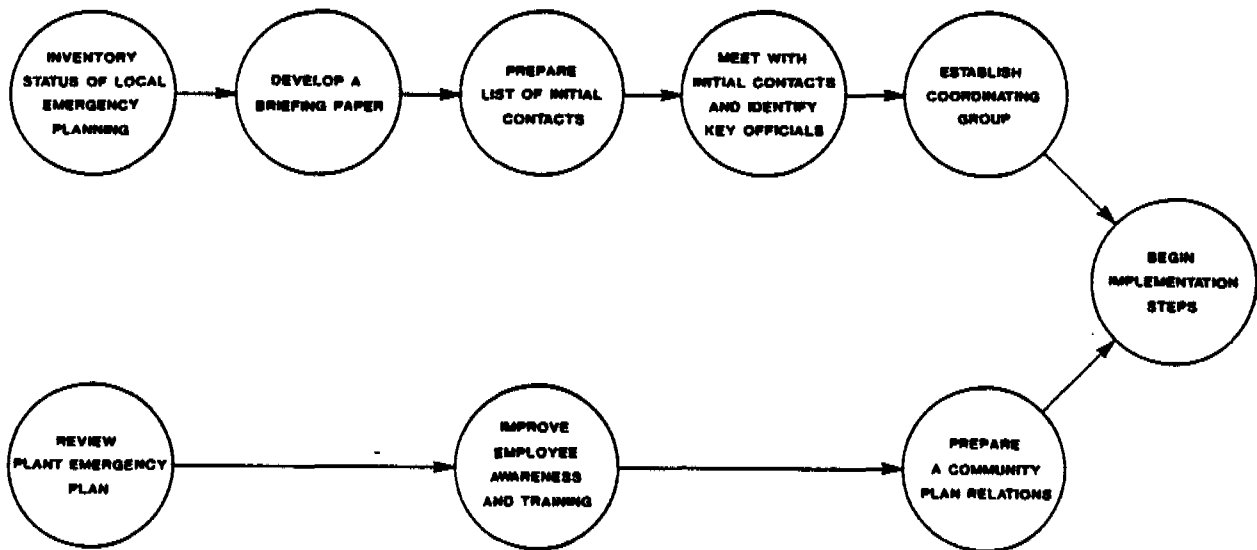


FIGURE 3 HOW TO GET STARTED

1. Take an inventory of your current knowledge of the status of local emergency planning in communities within a few miles around your plant. Based on your current state of knowledge, try to determine if integrated community emergency response planning is a complex activity (multi-facility/hazard) or basically a local chemical plant function. You can do this by determining the following:
 - o Are there significant natural disaster risks in your area and do emergency plans exist for these risks?

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- o Are there other industrial risk activities such as nuclear power generation, hazardous waste disposal or significant transportation activities and do emergency plans exist for these risks?
 - o Are there other chemical facilities in your area?
 - o Does your own emergency response plan clearly define the roles and responsibilities of community officials and offsite responders?
2. Develop a standard briefing paper. The briefing paper should describe the facility, its economic position within the community, the key elements of the plant emergency response capability, the excellent safety record of the chemical industry and the objectives of the CAER program. Stress the need for offsite response planning to be integrated with the existing plant response capability. Stress that an integrated community plan can be used to improve emergency response to all hazards. Make the briefing paper suitable for distribution.
 3. Prepare a list of useful initial contacts. The purpose of initial contacts is to share information. You tell them about the CAER program and they tell you who is or should be involved in community emergency response planning. Some suggestions include first responders with whom you have current relationships (fire chief, police chief, ambulance service), mutual aid program participants, local officials you have met, business leaders in the community, and plant employees who may also be elected officials. You may be able to identify useful initial contacts through on-going community relations efforts. The most direct approach is to identify local disaster preparedness officials and use them as initial contacts. Prepare a list and a schedule for meeting with them or holding telephone discussions.
 4. Through these initial contacts, identify the appointed and elected officials, whose cooperation will be necessary to complete the integrated community emergency planning process. Meet with these key officials individually, if possible, to explain the program and to enlist their support in establishing a Coordinating Group. In many locations, there may already be the equivalent of this group in place or a well-defined emergency response planning agency. If this is the case, take advantage of that source to initiate this program.

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5. Hold a preliminary organizational meeting for the Coordinating Group. Participants should include chief elected officials of the governments that should be involved in planning (county/town/city), key first responders (fire chief, police chief), the local disaster preparedness/civil defense officer, other industry managers, and the plant manager. Other participants could be public health officials, hospital administrators, Red Cross, or local civic leaders. In most areas, chief elected officials have a general charter to protect public safety. Gaining official charter from the local community is an important prerequisite for the Coordinating Group. This will give the group the necessary muscle to begin the integrated planning process described later in this document.

The plant manager should also review internal operations. In addition, some suggested activities include:

1. Review the company emergency response plan to assure that interactions with offsite agencies and responders are clear. Responsibilities should be clearly defined and notification procedures should be well understood. APPENDIX 1 (p. 41) provides an outline of typical components of a chemical plant emergency response plan. Plant managers can use this to assure that internal plans are in order before the community planning process begins.
2. Improve employee awareness of emergency response planning. Assure that basic emergency concepts are included in initial training and periodic safety training. Use the plant newspaper or bulletin boards to announce that you have completed a new or revised company plan and have started an integrated emergency response planning process.
3. Prepare a written community relations plan. Begin by compiling a list of local organizations, government agencies, community groups (business, civic, public interest) and local media who should be briefed on the CAER program. Review past local media coverage of the plant and national industry issues. Review past and ongoing plant communications efforts and determine if the community and its leaders are likely to be knowledgeable about the plant.

Using this information, prioritize community awareness efforts. Pay special attention to relations with local officials, offsite responder groups, neighborhood associations and labor groups. It may be appropriate to obtain expert assistance in community relations if this is a new activity for you.

At this point you, as plant manager, have assured yourself that your internal emergency planning activities are in order and you have either initiated the development of, or identified, the appropriate Coordinating Group. You are now ready to participate as a member of the Coordinating Group. Your first contribution should be a presentation to the Coordinating Group of the ten step implementation process described in the next section.

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Community Emergency Plan Implementation Steps

Based upon industry experience, we have identified a ten step implementation process leading to a useful and effective integrated community emergency response plan. Some communities will have emergency plans in place and will require little effort for some of these steps. In those cases, a review of the guidance associated with each step is necessary to assure that the plan is complete and usable. For example, a well-written plan may exist but training may be weak or there may be no provision for testing the plan. In other cases, significant effort will be required to complete each step. This section describes each step and provides some checklists and other tools which the Coordinating Group will find useful. Figure 4 presents a flow diagram for the planning and implementation process.

The implementation steps are as follows:

1. Identify the emergency response participants and establish their roles, resources and concerns.
2. Evaluate the risks and hazards that may result in emergency situations in the community.
3. Have participants review their own emergency plan for adequacy relative to a coordinated response.
4. Identify the required response tasks which are not covered by existing plans.
5. Match these tasks to the resources available from the identified participants.
6. Make the changes necessary to improve existing plans, integrate them into an overall community plan and gain agreement.
7. Commit the integrated community plan to writing and obtain approvals from local governments.
8. Educate participating groups about the integrated plan and assure that all emergency responders are trained.
9. Establish procedures for periodic testing, review and updating of the plan.
10. Educate the general community about the integrated plan.

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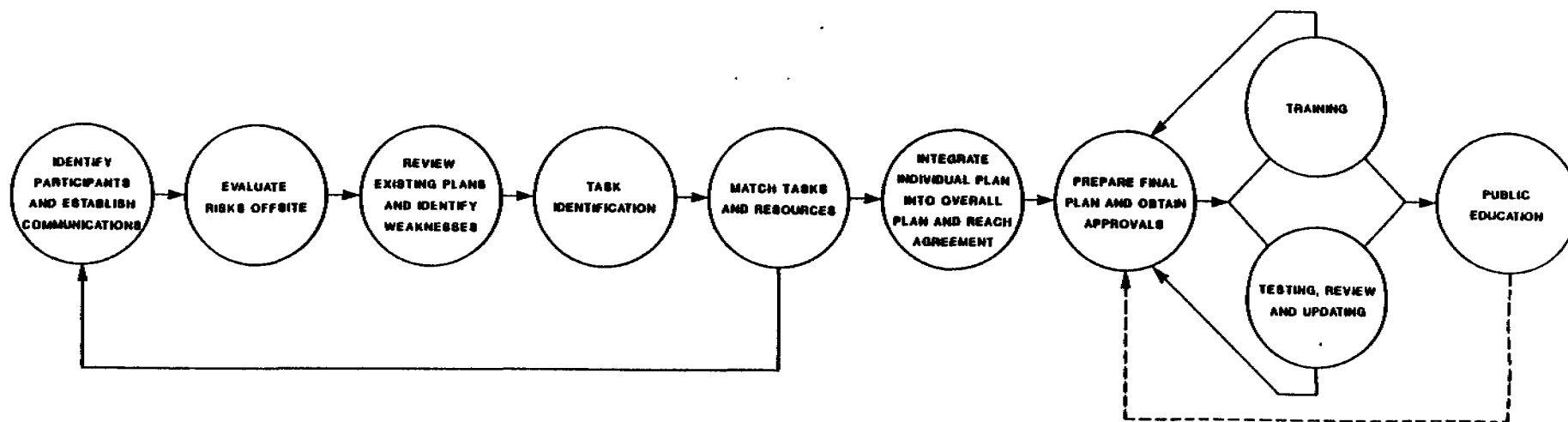


FIGURE 4

**COMMUNITY EMERGENCY PLAN
IMPLEMENTATION FLOW CHART**

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COMMUNITY EMERGENCY PLAN IMPLEMENTATION STEPS

Each of the 10 steps is described in more detail on the following pages. For ease of use, each step is described in a three column format. Column 1 describes the step. Column 2 provides a checklist useful in completing the step and Column 3 presents the results of some industry case studies. Where appropriate, a reference is made to the other tools available in this handbook to assist in completing each step.

STEP 1

Identify emergency response participants and establish their roles, resources and concerns.

There is a wide range of potential participants in emergency response. It is important to identify them early so that their resources can be factored into the planning and their concerns can be addressed. Some may have existing emergency plans which should be obtained.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 1:

- ☐ a. Using the knowledge of the Coordinating Group, compile a list of potential participants in emergency response activities. TABLE 1 on the following page identifies possible participants.
- ☐ b. Obtain copies of existing emergency plans and review these for additional participants.
- ☐ c. Prepare a brief written description of all participants, their expected roles and the resources they have available (personnel, equipment, facilities, special knowledge, etc.).
- ☐ d. Go on to STEP 2.

INDUSTRY CASE STUDIES

Coordinating groups comprised of a broad base of officials will be in the best position to understand the resources available in the community. Some communities may have to reach beyond the usual emergency responders, using volunteer groups where large numbers of responders are needed (e.g., coordinating evacuation).

Industry mutual aid agreements may also expand the base of participants where utility personnel can assist in chemical response and chemical plant personnel assist in a utility failure.

TABLE 1

EXAMPLE LIST OF
POTENTIAL EMERGENCY
RESPONSE PARTICIPANTS

- o Industry
 - nuclear power plants
 - other chemical plants
 - warehouses
 - other industries that use chemicals
 - utilities
 - transportation companies
- o Government
 - elected officials
 - disaster preparedness agencies
 - law enforcement
 - first responders
 - specialized response teams
 - management
 - fire fighters
 - first responders
 - specialized response teams
 - management
 - health department
 - public works
 - environmental protection
 - transportation
 - highway
 - rail
 - maritime (port authorities, Coast Guard, COE)
 - military groups (National Guard, Civil Air Patrol)
- o Other institutions
 - Red Cross
 - hospitals, clinics and ambulance services
 - material and equipment resource suppliers
 - professional societies (physicians, engineers, toxicologists)
 - clubs and fraternal groups
 - print media
 - broadcast media
- o Public and community at large
 - advisory committees
 - public interest groups
 - sensitive and high density sites (hospitals, schools, etc.)
 - labor groups

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STEP 2

Evaluate the risks and hazards which may result in emergency situations in the community.

Possible events should be identified, and their probability of occurrence and the consequences must be addressed in order to set priorities for planning.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 2:

- ☐ a. Using the concerns of the Coordinating Group, compile a list of potential hazards which may result in emergency situations in the community. Consider the following:
 - o chemical plants
 - o nuclear facilities
 - o natural disasters
 - o industrial facilities
 - o transportation activities
- ☐ b. Define the magnitude of the risk and the potential severity of impact by evaluating:
 - o size of potential zone of impact
 - o number of people at risk
 - o type of risk (toxic, chronic, injury)
 - o long term impacts
 - o impacts on sensitive environmental areas
- ☐ c. For determining probability of occurrence, decide if a qualitative approach is sufficient or whether a quantitative risk assessment is useful. Factors to consider include:
 - o probability of individual events
 - o probability of simultaneous events (e.g., natural disaster resulting in release of hazardous materials)
 - o complications from unique environmental considerations such as severe terrain, location in flood plain, or valley wind conditions
- ☐ d. Prepare a list of scenarios that could reasonably be expected to occur. Refer to these throughout planning to assure that emergency response could meet the challenges of these scenarios.
- ☐ e. Go on to STEP 3.

INDUSTRY CASE STUDIES

One community used a questionnaire, developed by industry and sent out by the fire department, to establish contact with local industries, develop preplanning information, and assess the nature and location of fixed facility risks.

State transportation departments, the Federal Railroad Administration, U.S. Coast Guard, airport authorities and local police and fire departments can help establish the nature, quantity and mode for transported materials.

In one city, this type of study identified one specific Interstate Highway interchange that had a high frequency of tank truck rollovers and improved warnings are planned.

In one county, the risk evaluation lead to the development of specific product references, training and the formation of a chemical hazards information team from a broad base within the community.

One community spent little time on evaluating risk, deciding to focus its energies on better organization for response on the assumption that there was a wide range of chemicals present in the area.

STEP 3

Have participants review their own emergency plan for adequacy relative to a coordinated response.

Emergency plans exist in various forms for most areas. Participants in the planning process should review their own plans for adequacy and also for how the plan contributes to a coordinated response. Interrelationships, responsibilities and communications are important issues for discussion at this point.

Plans requiring review are state and local emergency management plans, police and fire plans, county and city plans, industrial plans, hospital plans and others.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 3:

- ☐ a. Contact the potential participants identified in STEP 1 and have participants review their own plans.
- ☐ b. TABLE 2 (p. 25) can be provided to participants to assist them in the review of their plans relative to a coordinated response effort.
- ☐ c. Evaluate the results of the independent reviews to determine overall strengths and weaknesses of the current status of coordinated emergency response. A summary evaluation matrix such as TABLE 3 (p. 29) may prove useful. TABLE 4 (p. 30) presents an example of a completed matrix. This will provide an overall sense of the areas where additional work is required to develop an integrated plan.
- ☐ d. If plan review reveals additional participants, revise the list of potential participants generated in STEP 1.
- ☐ e. Go on to STEP 4.

INDUSTRY CASE STUDIES

One group "piggybacked" hazardous materials response in an existing and workable natural disaster plan for traffic control, evacuation and shelter.

The Federal Government requires communities around nuclear power plants to have detailed community emergency response plans. If there is a nuclear facility nearby, integration of hazardous materials into the existing community plan should reduce the overall planning workload.

One group based their proactive, broadbased efforts on the foundation provided by an industrial mutual aid organization that shared equipment and resources.

Coast Guard and EPA Response Team plans can be integrated into the community plan when these resources are readily available.

One city's 13 hospitals already had a mass casualty plan. However, industrial medical resources (doctors, protocols, antidotes) were not included until community-wide hazardous materials planning was done.

In one state, four separate groups were charged with hazardous materials emergency responsibility by the legislature and state law had to be changed to clarify roles. In this case, a consulting team from three of the groups was established as a compromise, with the fourth group agreeing that their role was subordinate to the consulting team.

TABLE 2

EMERGENCY RESPONSE PLANNING ELEMENTS

These planning elements can be used for two purposes:

- o Each participant can review his or her existing plan to determine where work is needed relative to a coordinated response.
- o The Coordinating Group can use this to review any existing community plan for improvements or as a framework to develop a new integrated community plan where one does not exist.

Review each item and evaluate its status in accordance with the key provided below.

1. Organizational Responsibilities

- ☐ a. Identify key participants and describe the role of each
- ☐ b. Identify by title the person in charge of emergency response
- ☐ c. Define relationships among key participants including who takes the lead for which actions
- ☐ d. Describe organizations outside the community that can be called upon for additional assistance
- ☐ e. Describe how control passes from first responders to the person in charge of overall emergency response
- ☐ f. Define the authority/responsibility interfaces between government and industry

2. Risk Evaluation

- ☐ a. Identify the types and locations of hazards the community can face
- ☐ b. Identify zones of impact and number of people at risk
- ☐ c. Classify severity of impact in accordance with the level of emergency response that will be needed

3. Notification Procedures and Communications Systems

- ☐ a. Identify 24-hour notification means to first responders
- ☐ b. Identify 24-hour notification means to officials who can provide direction and control to the response effort and who can authorize evacuation
- ☐ c. Describe communications systems and redundancy

KEY: A - Acceptable
B - Minimal work needed

C - Substantial work needed
N - Not applicable

BOR 007625

- ☐ d. Describe the mutually agreed format and content for initial notification messages (to eliminate misunderstandings)
- ☐ e. Describe means for emergency responders to call for additional assistance
- ☐ f. Describe the means for notifying the public and identify, by title, the person responsible for notifying the public
- ☐ g. Describe the standard, pre-planned message formats and signals available for notifying the public

4. Emergency Equipment and Facilities

- ☐ a. Identify command posts for response groups
- ☐ b. Describe facilities available including office space, communications, emergency supplies
- ☐ c. List the emergency equipment available at the industrial facilities, police, fire, public works, health and disaster preparedness departments
- ☐ d. Describe the interface with medical facilities including current disaster plans, first aid stations, hospitals, clinics, ambulance services
- ☐ e. Describe hazardous material monitoring equipment available
- ☐ f. List protective equipment (respirators, protective clothing, etc.) available
- ☐ g. List the written agreements that exist for mutual aid, specialized assistance, etc.

5. Assessment Capabilities

- ☐ a. Identify who is responsible for determining potential or actual extent of hazard for each type of emergency (natural, chemical, etc.)
- ☐ b. Describe the procedures to be used to assess the extent of hazard
- ☐ c. Describe the capabilities of participants on assessment teams
- ☐ d. Describe the monitoring equipment available to assess the hazard
- ☐ e. Identify experienced personnel resources that may be called upon to augment regular staff

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6. Protective Action Procedures

- ☐ a. Identify by title the person who can authorize evacuation or sheltering
- ☐ b. Describe the procedure to be used to determine if protective actions are required
- ☐ c. Identify the group(s) responsible for conducting evacuation including notification, transport, traffic control, access control and verification of evacuation
- ☐ d. Describe the arrangements for special facilities, (i.e., schools, nursing homes, handicapped, etc.)
- ☐ e. Describe the arrangements in place for reception centers/shelters for evacuees
- ☐ f. Describe the method for determining when protective actions are no longer needed

7. Public Education and Information

- ☐ a. Identify by title the principal spokesperson for each key group who will communicate with the media and the public during an emergency
- ☐ b. Describe the method for disseminating information to the media and public during an emergency including points of contact and briefing locations
- ☐ c. Describe the public education and community awareness program to be conducted periodically

8. Post-emergency Procedures

- ☐ a. Identify by title the person responsible for determining that the emergency is over and for authorizing re-entry
- ☐ b. Describe the method to be used to declare that the emergency is over
- ☐ c. Describe procedures to be used to return to normal including responsibility for clean-up
- ☐ d. Describe methods to continue monitoring an affected area
- ☐ e. Describe the method for investigating and documenting the emergency and evaluating the response

9. Training and Drills

- ☐ a. Identify the key participants who must be trained

- ☐ b. Identify by title the person in each group responsible for training
- ☐ c. Describe annual training programs
- ☐ d. Describe the drill schedule including aspects requiring periodic drills
- ☐ e. Describe the training available to first responders in the use of protective equipment
- ☐ f. Describe how the plan is tested periodically
- ☐ g. Describe frequency and extent of communications tests
- ☐ h. Describe frequency and extent of public notification tests, and evaluation of its effectiveness
- ☐ i. Describe the frequency and extent of training and update briefings on chemical hazards for first responders

10. Program Maintenance

- ☐ a. Identify by title the person responsible within each group for maintaining an updated plan
- ☐ b. Describe the method for an annual review and revision of the plan
- ☐ c. Describe the method for incorporating lessons learned from drills and tests into the plan

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TABLE 3

**EMERGENCY RESPONSE PLAN
EVALUATION MATRIX***

Plans Evaluated	State(s)			Local Government(s) (County/City/Town)			Other (Industrial/ Institutional)		
Planning Elements									
1. Organizational Responsibilities									
2. Risk Evaluation									
3. Notification Procedures and Communications Systems									
4. Emergency Equipment and Facilities									
5. Assessment Capabilities									
6. Protective Action Procedures									
7. Public Education and Information									
8. Post-Emergency Procedures									
9. Training and Drills									
10. Program Maintenance									

KEY: A - Acceptable
 B - Minimal work needed

 C - Substantial work needed
 N - Not applicable

*TABLE 2 presents detailed information for evaluating each of the listed planning elements. APPENDIX 2 presents summaries of interrelated state/local/plant emergency plans.

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TABLE 4

EXAMPLE OF A COMPLETED
EVALUATION MATRIX*

Planning Elements	Plans Evaluated	State(s)				Local Government(s) (County/City/Town)				Other (Industrial/ Institutional)						
		State A				County A	County B	Town A	Town B	Red Cross	Hospital A	Hospital B	Ambulance Company	Plant A	Plant B	
	1. Organizational Responsibilities	A				B	B	C	B					A	A	A
	2. Risk Evaluation	A				C	B	C	C					N	N	A
	3. Notification Procedures and Communications Systems	A				B	B	B	C					B	B	B
	4. Emergency Equipment and Facilities	A				C	B	C	B					A	A	A
	5. Assessment Capabilities	B				C	C	C	C					N	N	B
	6. Protective Action Procedures	C				C	B	C	C					C	N	B
	7. Public Education and Information	C				C	C	C	C					B	C	C
	8. Post-Emergency Procedures	C				C	C	C	C					B	C	B
	9. Training and Drills	B				B	C	C	B					B	B	B
	10. Program Maintenance	B				B	C	C	B					B	B	B

KEY: A - Acceptable
 B - Minimal work needed

C - Substantial work needed
N - Not applicable

*TABLE 2 presents detailed information for evaluating each of the listed planning elements. APPENDIX 2 presents summaries of interrelated state/local/plant emergency plans.

STEP 4

Identify the required response tasks which are not covered by existing plans.

The review in Step 3 should determine if all reasonable risks have been addressed. If not, then additional tasks necessary to complete the plan need to be identified. This step requires a thorough definition of what must be done, with broad-based input.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 4:

- ☐ a. Using the results of STEP 3, prepare a list for each participant of missing elements or required tasks not covered (using TABLE 2 on p. 25 as the guideline).
- ☐ b. Determine if the missing elements are important to the function of that participant (e.g., police department may not need to have air monitoring equipment).
- ☐ c. In the context of an integrated response, identify and list required tasks which are not being covered by any group.
- ☐ d. Go to STEP 5.

INDUSTRY CASE STUDIES

The most common response tasks/equipment not covered in existing plans include:

- o overall command authority
- o communications equipment which can reach all participants
- o specialized hazard monitoring and associated training
- o alerting the public and coordinating evacuation

STEP 5

Match these tasks to the resources available from the identified participants.

Each defined task should be assigned to the participant who can best address that aspect. Assignments should be made based on authority, jurisdiction, expertise or resources.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 5:

- ☐ a. Evaluate each of the unassigned tasks from STEP 4 separately by reviewing the list of participants from STEP 1 to determine the best likely resource available to complete the task.
- ☐ b. Discuss the task with the identified participant to determine willingness to participate, availability of resources, and the existence of institutional roadblocks preventing use of resources.
- ☐ c. Work out the details of integrating that participant to complete that task in the context of the community plan.
- ☐ d. During review meetings assess the benefits and problems resulting from assigning that task to that participant.
- ☐ e. Determine if any new problems, unassigned tasks or resource constraints will result from that assignment. If so, include these in the resolution process for new assignments.
- ☐ f. Monitor each task separately to assure timely resolution.
- ☐ g. Go on to STEP 6.

INDUSTRY CASE STUDIES

One planning group recognized that police resources were scarce and used volunteer firefighters for traffic and access control.

Another group established a multi-agency "command post" to resolve questions of "who's in charge".

Industry has often been called upon to provide equipment and training for hazardous air monitoring. Specialized firefighting equipment may also be necessary.

Communication resource problems may require sharing of radio networks and equipment.

In one community, communication to the media was recognized as a means to reach large numbers of people quickly and procedures were established to use tone activated monitors on an emergency frequency to alert and update radio and TV stations directly. These monitors are being purchased by the individual stations at no cost to the community.

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STEP 6

Make changes necessary to improve existing plans, integrate them into an overall community plan and gain agreement.

Completion of STEPS 4 and 5 should eliminate the resource-related problems. Integrating all plans into the community plan will reveal problems with overlapping responsibilities and complicated interfaces.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 6:

- ☐ a. Prepare a draft of the integrated plan using a format acceptable to the lead government agencies.
- ☐ b. Review the plan against the planning elements in TABLE 2 (p. 25) to assure completeness.
- ☐ c. Conduct a tabletop role-playing exercise to test the plan (i.e., key participants should sit around a table and describe how they would respond and interact for various emergency scenarios).
- ☐ d. Identify plan weaknesses and repeat STEP 4 and STEP 5, if necessary, to resolve these problems.
- ☐ e. Assure that the integrated community plan is consistent with the state disaster preparedness plan and chemical/utility/industrial plans. APPENDIX 2 (p. 43) provides summaries describing the interrelationships among the chemical plant, community and state plans.
- ☐ f. Revise the draft plan as often as necessary until all deficiencies are eliminated and members of the Coordinating Group agree on the approach.
- ☐ g. Go on to STEP 7.

INDUSTRY CASE STUDIES

Key concepts at this step are "keep it simple" and "compromise".

Successful plans have been brief, supplemented with appendices where detailed information is necessary.

Successful plans have generally included the following based on community need:

- Telephone roster
- Action guide/checklist
- Resource/capabilities list with agreement to share
- A coordinating plan with action checklist for field use

Comprehensive response plans are often burdensome due to their depth of detail and lack of flexibility. One such plan developed for a nuclear power station constituted five 3-ring binders with unwieldy detail. However, another nuclear power station plan was distilled into a few pages for general training and execution.

One community that was having difficulty gaining agreement assembled their chief public and private officials to develop a "strategy" rather than resolve conflict. The resultant "strategy" was to assemble a high level planning team (Deputy Chiefs, Assistant Directors, Assistant Plant Managers, etc.) and assign them full time to the task. The team met at a training academy conference room and developed an acceptable plan in five 9-hour days. This was an extreme measure that worked.

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STEP 7

Commit the integrated community plan to writing and obtain approvals from local governments.

Once agreement on the integrated plan has been reached, the final plan should be documented either by revising an existing community plan or preparing one where it doesn't exist.

Approvals from local governments must then be obtained.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 7:

- ☐ a. Using a small group of preparers, commit the plan to its final writing.
- ☐ b. Begin arrangements for written agreements among participants where necessary (mutual aid, notification formats, use of media notification outlets such as Emergency Broadcast System (EBS), specialized response personnel and equipment).
- ☐ c. Prepare a standard presentation to make to those officials where approval is needed to implement the plan.
- ☐ d. Make presentations, hold meetings and review sessions and obtain signature approval of local elected officials in all appropriate jurisdictions.
- ☐ e. Go to STEP 8.

INDUSTRY CASE STUDIES

The key organizers for obtaining approval will vary from community to community. In our study cases these have been:

- o A fire chief
- o A state senator
- o A plant manager

A high level "champion" of the plan will expedite community government approvals.

Written agreements are often necessary when private companies are expected to provide emergency assistance such as technical expertise or specialized equipment.

STEP 8

Educate participating groups about the integrated plan and assure that all emergency responders are trained.

Community involvement is important throughout the planning process. However, by the time this step arrives, the coordinating group should have a definite plan for presentations. Such presentations should stress the importance of training for emergency responders.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 8:

- ☐ a. Compile a list of participating agencies or groups who will need to know more about the integrated plan.
- ☐ b. Make presentations to these agencies and groups to explain the plan, their role and the type of training they should institute.
- ☐ c. Identify who must be trained and prepare a schedule.
- ☐ d. Develop and implement classroom training where necessary.
- ☐ e. Complete field drills for hands-on training in monitoring, use of communications, traffic control, etc.
- ☐ f. Complete comprehensive tabletop exercises to train leaders in coordination and communications among participants.
- ☐ g. Prepare a method for evaluating the effectiveness of training and monitor all training activities periodically.
- ☐ h. Go to STEP 9.

INDUSTRY CASE STUDIES

One county planning team included a half day seminar to educate and train mayors, commissioners and department heads on their roles, including media relations. Principal spokespersons for the company and all key response agencies were assigned and trained.

One state planning group used training in the plan as an opportunity to "cross train" agencies, so that, as an example, the environmental resources department was trained by firefighters in the use of protective clothing and breathing apparatus, while the firefighters were trained by the environmental and industry experts on airborne contaminant monitoring strategies and practices on containment and diversion diking. An extra benefit was a shared awareness of the value of both functions.

Another community followed their planned communication and training with simulation exercises conducted by the state fire training agency and a local community college. The exercise was covered by the media, who also participated, as a demonstration that the community, including industry, was doing something to improve preparedness.

One community established "speaking teams" of public and private officials, who visited public group meetings, schools, the Chamber of Commerce, and others to discuss progress.

STEP 9

Establish procedures for periodic testing, review and updating of the plan.

Emergency responders should test their plans on a regular basis. Initial testing should be done internally before "going public" with the program. Test drills should be designed to uncover deficiencies in coordination among groups and training. Any deficiencies should be corrected in the plan or the training program.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 9:

- ☐ a. Designate a committee to prepare a test drill scenario. Members should not be part of the emergency response group.
- ☐ b. Prepare a written scenario which identifies objectives of the drill, components of the plan to be tested, expected participants, sequence of events, simulated hazard levels. TABLE 5 (p. 37) presents an example outline for emergency plan test drill scenario.
- ☐ c. Designate a group of non-participating observers to evaluate the test drill using prepared evaluation checklists.
- ☐ d. Using appropriate local officials, media, and other outlets, alert the public and all participants that a test of the plan is scheduled.
- ☐ e. Conduct the test using the prepared scenario.
- ☐ f. Immediately after the test, hold critique sessions to present the results of the evaluations.
- ☐ g. Assign appropriate parties to correct deficiencies.
- ☐ h. Revise the integrated plan to correct deficiencies.
- ☐ i. Prepare a procedure for a formal, annual review of the plan to assure that it is kept current.
- ☐ j. Go to STEP 10.

INDUSTRY CASE STUDIES

Nothing can replace a full scale emergency response drill as a means of identifying further improvement areas. Preplanning the drill, preparing a drill scenario, and its evaluation process are critical elements to a successful test.

One community conducted media workshops, two days before the drills, to explain the drill, allow the media to develop a work schedule to cover the drill, and assure that their needs were met. This included recommendations on where to obtain good action-oriented visuals, background statements, and drill scenario details. Radio stations required regular updates from the scene. A mobile telephone at the scene was patched to all the interested radio stations.

Several communities have used elected public officials, who were involved in the planning, to serve as spokespersons. They are generally skilled at dealing with the media and they represent the public interests. It also establishes them as part of the response effort. However, to assure that key points are reinforced, spokespersons should be provided with a "Key Talking Points" outline, stressing the cooperation of all involved and the drill's purpose of identifying further areas of improvement.

Interagency cooperation has been a key focus in many drills. For example, designating one fire engine to provide decontamination services to paramedics and ambulance crews, plant physicians response and support at designated emergency rooms, industrial response team support of public agencies, Coast Guard spill control activities, simulated community alerting/evacuation/return, etc.

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TABLE 5

EXAMPLE OUTLINE FOR
EMERGENCY PLAN TEST DRILL SCENARIO

1. Introduction

Include a schedule, list of participants and purpose of the test.

2. Objectives and Extent of Testing

State, in detail, the objectives that the test was designed to evaluate. Define what parts of the emergency response team will be tested and what parts will simulate actions.

3. Guidelines

3.1 Safety precautions

General precautions necessary to protect the public, emergency responders and plant personnel.

3.2 Controller/Evaluator Instructions

Information to assist controllers and evaluators in performing their functions.

3.3 Instructions to Participants

Information to assist participants in performing their functions.

3.4 Performance Evaluation Standards

Evaluation criteria and a standard grading system.

4. Scenario

4.1 Initial Conditions

Set the stage for pre-emergency conditions.

4.2 Narrative Summary

A brief description of the sequence of events leading to the emergency and continuing to the end of the test.

4.3 Major Sequence of Events

A detailed timetable of when events will occur.

5. Appendices

Various additional information including cue cards, controller/evaluator guides, plant data, meteorological data, hazards data (air contaminants, etc.), evaluation forms.

BOR 007637

STEP 10

Educate the general community about the integrated plan.

Opportunities for community involvement and public education should be pursued at all the previous steps in the planning process. A critical element in effective community emergency response is educating the public on what they should do during an emergency, where to turn for additional information, and how and when to evacuate, if necessary.

COMMUNITY EMERGENCY PLAN IMPLEMENTATION CHECKLIST

Follow these suggested actions to complete STEP 10:

- ☐ a. Prepare a standard emergency response brochure for distribution to all residents within the potentially affected area. APPENDIX 3 (p. 48) describes the development and use of one such brochure.
- ☐ b. Distribute the brochure by most appropriate means (mail, door-to-door deliveries, etc.).
- ☐ c. Prepare a standard media kit which identifies local government and chemical plant information contacts, provides background on the plant and the integrated plan and explains where to get information during an emergency.
- ☐ d. Conduct a media briefing/training session to present the kit and explain what is expected of the media during an emergency.
- ☐ e. Implement other elements of a public education program as described in the section titled Community Involvement. Possibilities include:
 - o a speaker's bureau for local civic groups, school assemblies, etc.
 - o a hazardous materials advisory committee (see APPENDIX 4 on p. 49 for a summary of such a committee)
 - o media coverage of drills, training activities, presentations to local officials, etc.
 - o plant tours
 - o special symposium on chemical industry, its benefits and risks (see APPENDIX 5 on p. 50)
- ☐ f. Periodically review the status of public education and community awareness programs.

INDUSTRY CASE STUDIES

More than one community has established a MESAC, Media Emergency Services Advisory Council, as an ongoing forum to address issues and improve media relations in general.

In a cooperative environment, one company embraced the media as partners in emergency response planning, resulting in higher quality communications during emergencies and improved coverage otherwise. This may not be possible at all locations.

Several communities have used fire service and industrial personnel to instruct a course on "Media Safety at the Emergency Scene", to enhance their safety, describe operational procedures and jargon and establish relationships. This type of course must have the support of assignment editors and be repetitive since reporter turnover is high.

Plant newspaper articles are important to assure that industrial employees are aware of and support preparedness efforts.

Community Involvement

Community involvement activities have already been described at pertinent points in the sections titled How to Get Started and Community Emergency Plan Implementation Steps. However, the concept of community involvement may be relatively new to some plant managers and some additional guidance may be useful.

The COMMUNITY AWARENESS section discusses the chemical industry's commitment to providing information on chemical hazards to the public. As community awareness increases about local chemical hazards, it is essential that a like awareness of emergency response planning activities and risk management increases as well.

The process of developing an integrated community emergency response plan in and of itself will promote community involvement because some leading members of the community will be participants in the process. However, it is incumbent on the plant manager to maintain a sensitivity to community relations throughout the process. The plant manager should identify opportunities to discuss the integrated emergency response plan and the CAER program and follow through at each step of the implementation process. Suggested activities are described below. Most of these have already been included in either the ten step implementation process or the suggestions on how to get started. They are summarized here to emphasize their importance. Additional suggestions are contained in APPENDIX 5 (p. 50), which is a summary of the Louisiana Chemical Association's Community Awareness Program.

1. Prepare a written community relations plan with goals and a schedule. Begin by compiling a list of local organizations, groups and individuals who should be directly involved in emergency response planning or kept current on its status. Decide if the company needs outside assistance in community relations efforts.
2. Keep plant employees aware of new developments in emergency planning, both through training and periodic announcements in the plant newspaper or on bulletin boards.
3. Develop a standard briefing paper describing the plant, its place in the local economy, the status of its emergency plan and the plant's involvement in integrated community emergency response planning.
4. Identify opportunities to meet with local civic, business and public interest groups to relate the status of emergency planning.
5. Develop contacts within the various media and provide background information and news releases as appropriate.

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6. Determine if a local hazardous material advisory group would be useful to local government officials and first responders. Provide technical expertise to this group. APPENDIX 4 (p. 49) presents a summary of such a group.
7. Arrange for the Coordinating Group to have available a standard presentation on the integrated community emergency response plan. This will be useful for government leaders to use at public meetings and other functions.
8. The Coordinating Group (and the plant manager) should also have available a media kit to use during interviews or media briefings.

BOR 007640

APPENDIX 1

TYPICAL COMPONENTS OF A CHEMICAL PLANT EMERGENCY RESPONSE PLAN

1. Plant Emergency Organization
 - Designated person in charge/alternates
 - Functions of each key individual and group
 - Telephone numbers (office and home) for key people/alternates
2. Plant Risk Evaluation
 - Quantity of hazardous materials
 - Location of hazardous materials
 - Properties of each (MSDS sheets)
 - Location of isolation valves
 - Special fire fighting procedures (if any)
 - Special handling requirements
3. Area Risk Evaluation (other industries near plant)
 - Properties of hazardous materials at nearby plants
 - Contacts (names, telephone numbers) at other sites
 - Established procedures for notification of chemical releases at other sites in area
4. Notification Procedures and Communications Systems
 - Alarm systems
 - Communication equipment (radios, hot lines, etc.)
 - o Emergency organization
 - o Plant management
 - o Local officials and response agencies
 - o Neighboring industry
 - o Nearby residents
 - Names and telephone number (with alternates) list
 - Designated person for media contacts
 - Procedure for notifying families of injured employees
 - Central reporting office
5. Emergency Equipment and Facilities
 - Fire fighting equipment
 - Emergency medical supplies
 - Toxic gas detectors (where needed)
 - Wind direction/speed indicators
 - Self-contained breathing apparatus
 - Protective clothing
6. Procedure for returning to normal operations
 - Interface and lines of communications with offsite officials

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TYPICAL COMPONENTS OF A CHEMICAL PLANT
EMERGENCY RESPONSE PLAN (continued)

7. Training and Drills

- Knowledge of chemicals (properties, toxicity, etc.)
- Procedures for reporting emergencies
- Knowledge of alarm systems
- Location of fire fighting equipment
- Use of fire fighting equipment
- Use of protective equipment (respirators, breathing air, clothing, etc.)
- Decontamination procedures for protective clothing and equipment
- Evacuation procedures
- Frequent, documented simulated emergencies

8. Regular tests of emergency organization/procedures

- Simulated emergencies
- Documented, frequent alarm system checks
- Frequent tests of fire fighting equipment
- Evacuation practice
- On-going emergency preparedness committee

9. Plan Updates

- Annual or more frequent if needed
- Reflect results of drills and tests

10. Emergency Response Procedures

- Communications
- Evacuation
- Medical (include handling of multiple injuries)
- Special procedures for toxic gas releases (chlorine, etc.)
- Hurricane procedures (coastal areas only)
- Utility failure procedures
- Individual unit emergency procedures
- Bomb threat procedures

11. Detailed Operating Manuals (for each process unit and utility system)

- Start-up/Shut-down emergency procedures
- Analysis of potential incidents
- Emergency response and action to be taken for each incident

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APPENDIX 2

HIGHLIGHTS OF INTERRELATED PLANT, COMMUNITY AND STATE PLANS

The following sections 2(A), 2(B) and 2(C) present highlights of plant, community and state plans which have been developed to integrate community response with industry response.

APPENDIX 2 (A)

HIGHLIGHTS OF A LARGE CHEMICAL MANUFACTURING SITE EMERGENCY PLAN

1. The Site Emergency Plan dictates that each unit (plant, lab, shop, office area) on the site have an emergency plan for dealing with emergencies that initiate within the unit and for those that initiate elsewhere. All types of emergencies must be considered, e.g., chemical gas release or spill, fire or explosion, weather, flood, radiological incident, acts of terrorism, sabotage or transportation incident.

The site and unit emergency plans all have response matrices, or decision-trees, based on incident type and magnitude. Function and task responsibilities are assigned, and coordination and authorities defined for the various response levels.

2. Each unit and the site itself has an extensive "on-call" system in place. On a rotating basis, unit and site line management and staff groups have a person "on-call". This total call list is maintained current at each unit and the site emergency control center. The on-call person is available 24 hours a day by telephone, telephone page and two-way radio. Many utilize 4-wheel drive company vehicles while on-call. This system provides rapid notification and response during any incident by key management and staff functions. Unit personnel respond to the scene and bring the situation under control while site personnel control activities for the remainder of the site and coordinate with local authorities.

All response functions have representation in the "call-system", including, but not limited to:

- | | |
|-----------------------------------|---------------------------|
| a. Management/Supervision | f. Utilities Distribution |
| b. Emergency Service (Sec., Fire) | g. Public Relations |
| c. Industrial Hygiene | h. Legal |
| d. Environmental Services | i. Distribution & Traffic |
| e. Safety | j. Maintenance Crafts |

3. Notification plans and equipment have been automated to assure rapid and complete notification. All site phones can be activated at once, or in a selected area, to receive a pre-recorded alert message from the emergency control center. All sensitive or high density institutions near the site fenceline also have an automatic telephone alert message mechanism controlled by the emergency control center dispatcher. This includes schools, other businesses, retirement homes, apartment complexes, etc.

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Additionally, direct link hot-line telephones are installed from the site emergency control center to local law enforcement and fire dispatch control centers. Also, a computer plume modeling system is installed at the site emergency control center with duplicate display screens at local law enforcement and control center locations.

4. If a site incident will or does impact the community, several key site personnel respond to the local government emergency operations center to act as advisors and liaison. These include line management, safety/security, public relations and industrial hygiene personnel. Additionally, environmental service personnel respond in the community to gather data on concentration and location of the hazardous material. These personnel are in contact with each other and the site control center by radio.

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APPENDIX 2 (B)

COUNTY AND CITY OF MIDLAND
EMERGENCY PLAN HIGHLIGHTS

1. In Michigan, overall control during a disaster rests with the County Government. While cities or municipalities with a population over 10,000 may establish an emergency plan of their own, all smaller units are covered by the county plan. In an actual emergency, cities operating under their own plan revert to the county plan if the disaster extends beyond the city's boundary. Finally, state government gets involved only on request of the local government and the local government would still retain control. State involvement is as a technical and material resource. In this case, the city and county each have an established plan that covers a broad range of disasters.
2. Coordination and similarity between the city and county plan is evident throughout both. This aids in transition as the extent of the emergency changes in that familiarity with one plan breeds familiarity with the other.
 - a. Each is composed of a basic plan with annexes. The basic plan details authority and activation of the plan, as well as a synopsis of the content of each annex.
 - b. The annexes of each plan are actually the detailed emergency plan prepared by each responding agency or function. The annexes are titled, numbered, structured, and arranged in the same order in both plans.
 - c. Primary responsibilities are assigned to the corresponding agency in each jurisdiction. For example, initial notification of emergency services directors and warning the community are done by the county sheriff and city police agencies.
 - d. Telephone fan-out list, lists of available resources and prepared lists of response activities for various types and magnitudes of possible disasters are used extensively in the annexes.
 - e. Each plan contains the other jurisdiction's entire plan as an appendix to their own plan.
3. Emergency response is coordinated between the city and county in several ways.
 - a. There is a common radio frequency used by both of their law enforcement agencies.
 - b. The emergency operations center for both is in the same location.
 - c. There are many mutual aid procedures and use of resources across jurisdictions. For example, city fire conducts a fan-out telephone calling for both; the City uses the County Health Department and County Shelter Services; law enforcement agencies notify each other of emergencies in their area as part of their fan-out.

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4. Both plans spell out responsibility for periodic hypothetical exercises, review and updating of the plan.
5. Response tasks are assigned by a matrix. Agencies are listed across the top with tasks down the side. A "p" or an "s" under the agency indicates that the task is a primary or secondary (assistance) function of that agency.
6. Both plans include procedures and responsibilities for a "return-to-normalcy" as the emergency winds down, with specific tasks spelled out. Some functions have primary duties only during this phase, such as damage assessment (Building Inspector).

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APPENDIX 2 (C)

MICHIGAN HAZARDOUS MATERIALS
RESPONSE PLAN HIGHLIGHTS

1. This plan is, in reality, an annex to the State of Michigan Emergency Preparedness Plan. Thus, although it deals only with hazardous materials, it has been coordinated with all other types of disasters. This reflects a recognition that hazardous materials are only one type of disaster that local and state agencies must prepare for in a coordinated manner.
2. The role, responsibilities and authority of the various state and local agencies are clearly spelled out. Local authorities maintain control and responsibility at the scene while state agencies provide technical assistance and additional resources. State agencies assume control only at the request of local authorities or the declaration of a State of Disaster by the Governor, as requested by local authorities.
3. Notification of the various state and local agencies is handled in a consistent pre-planned manner by the appropriate level of law enforcement. Each local or state agency then has its own fan-out notification list and response procedures. The level of response or involvement by any given agency, either state or local, is determined by the agency itself through a pre-planned response matrix or decision-tree based on the type and magnitude of the disaster.

This method has proved very efficient in providing rapid effective response, since:

- a. Law enforcement notifies a single representative at various agencies and concerns itself with primary first response and securing the scene.
- b. Various response agencies then conduct fan-out notification and respond according to their function and resources in a pre-planned manner.

Thus, notification and response are rapid and not determined by one individual or agency that may be fallible.

4. This plan recognizes and uses the resources of the industrial sector extensively. CHEMTREC and chemical companies in the state with expertise in handling hazardous materials are listed with prime phone contacts identified. Broad categories of hazardous materials have been assigned by region and company for response and aid purposes. (A voluntary cooperative effort by industry with government).
5. An extensive training program for transportation emergencies is detailed in the plan. There are four levels of training, from "first responder" through "special response teams" and "industry response teams". Industry provides much of this training voluntarily to local police, fire and other industry personnel.

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APPENDIX 3

MULTI COUNTY PLANNING AND PUBLIC EDUCATION IN NEW YORK STATE

BACKGROUND

The counties of Rockland, Westchester, Orange and Putnam in New York State have completed an integrated planning process. The area of about one million people is located approximately 20 miles north of New York City. It is located along the Hudson River and includes transportation links for the Northeast, serving both as an access by the Hudson River for ships and barges, and as a major highway link.

There are mixed industrial/commercial facilities with a heavy residential community. In the center of the area, on the Hudson River, is the Indian Point Nuclear Power Plant operated by Con Ed for over 12 years.

PROGRAM

Following a four year effort a plan was tested and implemented in October 1984. A booklet describing the plan was made available to all households within the planning area. Following is a summary of key points incorporated in the booklet:

1. Special sirens have been installed to alert the community of an emergency. This signal informs the citizen to tune in the emergency broadcast services (EBS) on TV/Radio on 28 area stations for emergency instruction.
2. Emergency instructions, based on the hazard (Radiation, Hazardous Materials, Natural Disasters) are given over the media.
3. Evacuation plans and public reception areas are highlighted, in map form.
4. Evacuation routes and emergency transportation systems are established.
5. Institutional procedures, hospitals, schools, special facilities are included in the plan.
6. A procedure is established for disabled people.
7. An educational booklet is available to every household in the planning area.

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APPENDIX 4

MEMPHIS-SHELBY COUNTY, TENNESSEE HAZARDOUS MATERIALS ADVISORY COUNCIL

A voluntary, cooperative, multi-agency effort to enhance emergency preparedness and, thereby, public protection was developed in the Memphis-Shelby County, Tennessee area in the early 1980's. Serious hazardous materials incidents, public apprehension and adverse media attention coupled with a desire on the part of response agencies and industry to improve response to hazardous materials emergencies led to formation of a broad based Task Force which evaluated risks to the community and suggested improvement strategies. A key improvement strategy was the formation of an on-going Hazardous Materials Advisory Council (HMAC).

The HMAC represents a broad community base from industry, emergency response agencies and elected governmental leaders. The Council's purpose is to:

1. Provide a forum to define and address community hazardous materials risks and concerns;
2. Suggest strategies to the appropriate groups to reduce risks and concerns;
3. Maximize the use of available federal, state, local and industry resources during hazardous materials emergencies;
4. Promote a greater shared awareness of problems and resources; expand the use of mutual aid agreements; encourage greater inter-agency, inter-jurisdictional, and industry involvement and cooperation; sponsor community-wide drills; and
5. Encourage a higher level of preparedness and public protection in general.

The HMAC has achieved a high level of success with this voluntary, but focused, approach; the management of hazardous materials emergencies has measurably improved. Ancillary benefits include: the development of positive working relationships that reduce conflict among industry, regulatory and political spokespersons; the development of a public awareness that real emergency response needs are being met; and concerns being channeled into the appropriate resource of the council.

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APPENDIX 5

LOUISIANA CHEMICAL ASSOCIATION COMMUNITY AWARENESS PROJECT SUMMARY

CHEMICAL OPERATIONS AWARENESS SEMINAR

Host onsite familiarization seminars focused on safety and emergency procedures aimed at demystifying chemical operations in the eyes of public officials, community leaders, and the media. Seminar agenda will include segments on: accident prevention, design and engineering safeguards, emergency response in-plant, and community protection offsite. Seminars will be conducted separately for the media and officials to prevent newspeople from covering as a media event for the public officials.

BOOKLET - "PROTECTING PEOPLE AND THE ENVIRONMENT"

Develop a concise, readable booklet to familiarize the general public with chemical industry operations and procedures that help protect them from chemical hazards. Approximately 30-page booklet will include all aspects of safety and emergency procedures of concern to the public, including: occupational safety, security, design features, regulatory guidelines, transportation, etc. Should be a general purpose booklet, written in laymen's terms.

CHEMICAL EMERGENCY PREPAREDNESS SYMPOSIUM

Host a high-visibility symposium to make community leaders and public aware of emergency procedures and precautions already in place to prevent and mitigate chemically related accidents, and discuss needs for the future. Key audience will be local public officials, community leaders, environmentalists, health care providers, emergency responders, and media. Would like to attract about 500 participants. In conjunction with the symposium, an exhibition area would be set up to display emergency response equipment and resources.

PROGRAM EVALUATION AND MONITORING

Effectiveness of Chemical Operations Awareness Seminars would be measured by opinion surveys. Evaluation would involve conducting baseline and follow-up opinion surveys of media, officials, and community leaders. Both surveys would focus on opinions/perceptions of chemical industry safety, emergency response ability and effectiveness, and community protection.

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APPENDIX 6

SELECTED READING LIST

1. U.S. Federal Emergency Management Agency, Planning Guide and Checklist for Hazardous Materials Contingency Plan, FEMA-10, July 1981.
2. 1984 Hazardous Material Spills Conference Proceedings, Government Institutes, Inc., April 1984.
3. Student, P.J., ed., Emergency Handling of Hazardous Materials in Surface Transportation. Bureau of Explosives, Association of American Railroads, Washington, D.C., 1981.
4. U.S. Department of Transportation, Hazardous Materials Emergency Response Guidebook. DOT-P-5800.2. Research and Special Programs Administration, Materials Transportation Bureau, 1980.
5. U.S. Environmental Protection Agency, National Oil and Hazardous Substances Contingency Plan. Federal Register, July 16, 1982.
7. Quarantelli, E.L., Sociobehavioral Responses to Chemical Hazards: Preparations For and Responses to Acute Chemical Emergencies at the Local Community Level, Book and Monograph Series #17, Disaster Research Center, University of Delaware, 1984 (especially Chapters 10-15).

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