

AN EXAMINATION OF ELITE ATTITUDES TOWARD
THE EMERGENCY PLANNING AND COMMUNITY
RIGHT TO KNOW ACT REGARDING THE
DISSEMINATION OF INFORMATION

By

RITA SUZANNE GRAY ANDERSON

Bachelor of Arts

Harding University

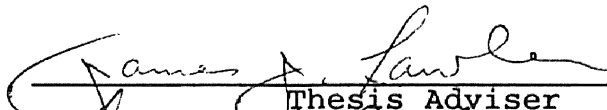
Searcy, Arkansas

1975

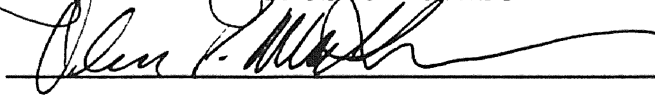
Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
July, 1993

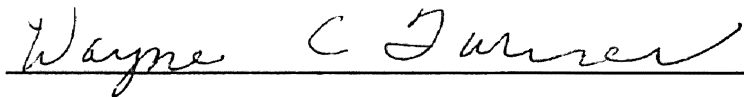
AN EXAMINATION OF ELITE ATTITUDES TOWARD
THE EMERGENCY PLANNING AND COMMUNITY
RIGHT TO KNOW ACT REGARDING THE
DISSEMINATION OF INFORMATION

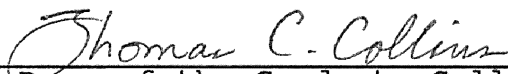
Thesis Approved:



Thesis Adviser







Dean of the Graduate College

PREFACE

In Oklahoma, Local Emergency Planning Committees (LEPCs), have completed five years of effort toward implementing the Emergency Planning and Community Right to Know Act of 1986 (EPCRA). This quantitative study examined the elite attitudes of dissemination of information collected by LEPCs. Chairpersons of eight north central Oklahoma LEPCs were interviewed in-depth to discover how these elites viewed requirements of dissemination of information as well as what public outreach efforts LEPCs had undertaken. Data collected during the interviews was compared to existing literature regarding LEPCs' communication and outreach activities, policy implementation theories and information dissemination by elites in various "communities". The study revealed that LEPCs should develop programs to inform the public of the availability of information but to accomplish this LEPCs must receive more support from the Environmental Protection Agency, the Oklahoma Hazardous Materials Emergency Response Commission, local industry and the public. Current outreach patterns reveal most outreach activities are targeted for regulated industry and that neither the number of industries involved in nor the level of resources available to an LEPC impact the amount of committee interaction with the general public.

I wish to express my sincere gratitude to the individuals who assisted me in this project and during my coursework at Oklahoma State University. In particular, I wish to thank my major adviser, Dr. James J. Lawler, for his guidance, inspiration and interest in my research. I am also grateful to the other committee members, Dr. Paul Matthews and Dr. Wayne C. Turner, for their advisement during the course of this work and especially for finding a way to work with me during their very busy schedules.

Special thanks are due those LEPC chairpersons and regulators for their time, patience and frankness during the sometimes lengthy interview process. I would like to express my gratitude to Mr. Steve Mason of EPA, Region VI (Dallas) for providing me with literature, information and encouragement during the course of my study and my involvement with LEPCs.

I would also like to thank the members of the Kay County LEPC for allowing me to express my concerns for public outreach (as chair, as an emergency manager and as a citizen) during meetings and for their continued efforts to uphold the mandates of EPCRA. I would also like to express appreciation to the Kay County Commissioners who allowed me to take the time away from duties as Emergency Manager to attend courses at OSU. I greatly appreciate the assistance of Dr. R. Lee Maril in shaping this research.

Thanks are also due to Orva Rothgeb (who shared rides, hopes and dreams and also had to proofread this effort) and Doris Foiles for her assistance in the reproduction of this

paper (and many other papers).

I also appreciate my parents' encouragement for many years; the litany "you can do anything you set your mind to do" has sometimes been the only reason I went to class.

Finally, I would like to express deep gratitude to my husband and children for enduring countless nights of sandwiches, stacks of books and papers with little complaint. Without their support, none of this could have occurred.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
An Overview of the Law.	1
The Emergency Planning and Community Right to Know Act and Local Emergency Planning Committees.	1
LEPCs and Problems with Public Outreach	5
Definition of Terms	7
Hypothesis	10
Assumptions	11
Limitations of this Study	11
Organization of the Study	12
II. REVIEW OF LITERATURE	14
EPCRA Programs in the Literature.	14
EPA Writings/Studies Provide Some Information.	15
Fewer Request for Information Than Expected	17
LEPC Membership.	18
Goals of EPCRA as Seen by LEPC Members.	19
Working with the Media	19
Benefits of Working with the Public.	20
A Review of Policy Implementation Literature.	21
The Cycle of Public Policy	22
Various Conditions Affecting Implementation	23
Top-Down and Bottom-Up Approaches.	25
Literature Regarding Dissemination of Information	25
Everyone is Influenced by Elites	27
Two-Step Flow of Communications.	28
Other Communication Systems.	28
III. METHODS.	29
In-Depth Interviews	29
Comments From the LEPCs	31
Occupations of Interviewees.	32
Involvement with the LEPC.	33

Chapter	Page
LEPC Makeup and Organization	33
Compliance	34
Defining the Terms of the Law.	35
Communicating With the Public.	36
Outreach Activities at the Local Level.	38
The Challenge of the Future.	40
The Regulators Speak	42
Involvement with LEPCs.	42
Defining the Law.	43
Communicating with the Public	44
Suggestions for Low-Cost Outreach	46
IV. ANALYSIS OF DATA.	48
Common Factors	48
Defining the Law	49
Communicating With the Public.	52
Outreach to Others	53
Outreach that Didn't Reach Out	56
Challenges for the Future.	58
V. CONCLUSIONS	61
Findings	61
Conclusions Unrelated to the Hypothesis.	68
Suggestions for the Challenging Future of LEPCs	69
Risk Communication Programs	69
What About Funding?	71
Industry and Business Can Positively Impact LEPC Activities.	72
Leadership is Needed from EPA and OHMERC.	74
Conclusions	77
BIBLIOGRAPHY	79
APPENDIX: QUESTIONS FOR IN-DEPTH INTERVIEWS	83

CHAPTER I

INTRODUCTION

An Overview of the Law

The Emergency Planning and Community Right to Know Act and Local Emergency Planning Committees

In Middleport, New York, children and teachers at a grammar school are located just 1,000 yards from a pesticide plant. A small leak from one of the company's processing units found its way into the school ventilation system during November, 1984 (Weir, 1988). Five hundred children were evacuated with nine requiring hospitalization, two teachers were also hospitalized. Later, the citizens of Middleport found that the chemical leaked was methyl isocyanate, commonly know as MIC. A month later, leaking MIC in Bhopal, India, reacted with the cool night air to cause 2,500 deaths (Weir, 1988).

Before 1980, it was next to impossible to get much information about chemical safety at a local plant. In fact, until recently, even accidents and major spills were not considered anyone's business unless they caused serious injury or death (Smith, 1981). Things began to change during the 1970s as Americans began to distrust traditions more, they were becoming more concerned about health issues.

Black lung disease was at last being traced to coal dust. Questions were being raised not only about U.S. presence in Vietnam but about the far reaching effects to those exposed to Agent Orange defoliant used extensively there. Some health professionals were beginning to discuss the long-term dangers of exposure to asbestos and other hazardous materials.

In 1980, the Department of Labor's Occupational Safety and Health Administration (OSHA) adopted a regulation called the Access to Employee Exposure and Medical Record Standard. Then in 1984, OSHA developed the Hazard Communication Standard (29 CFR 1910.1200) which required all U.S. companies to collect and provide access to data about chemicals in the work place to the very people working with the chemicals, the employees.

The tragic events at Bhopal further changed American concerns for the use and storage of chemicals. The death of 2,500 people focused the world on the horrors and possibilities of a chemical accident. The media and those in industry assured the U.S. public that nothing like that could happen in the United States. But the next year, a gasket failed on a 500-gallon storage tank, releasing a cloud of MIC, the same chemical that killed in Bhopal, on the city of Institute, West Virginia (Hadden and Bales, 1989). The leak occurred at another Union Carbide plant which featured a new \$5 million leak detecting system. Not only did the system fail to detect the leak, once detected,

the system sent incorrect data indicating a different location of the vapor cloud. One hundred twenty people were injured in the West Virginia incident (Weir, 1988) and it became clear that "it could happen here!"

During the process of reauthorizing the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, commonly called Superfund) in 1986, Congress passed the Superfund Amendments and Reauthorization Act (SARA) and added Title III, the Emergency Planning and Community Right to Know Law (EPCRA).

EPCRA established a complicated reporting criteria for industry with a local collection point for the information. The law put much of the implementation burden on the states. The Governor was required to appoint a State Emergency Response Committee (SERC) which had a responsibility to designate "planning districts". Within each planning district, usually counties, Local Emergency Planning Committees (LEPCs) were to be appointed. SARA set minimal criteria as to membership of an LEPC. Each LEPC was entrusted with collecting information from industry and developing a plan to deal with chemical emergencies likely to occur in that community.

The LEPC was established not only to gather information but to dispense information to the responders and the public. LEPC obligations include: receiving notification from area facilities regarding the status of the facility's subjectivity to planning, completion of an emergency plan,

and gathering information as provided by the law. The LEPC is one of two local points for notification for unpermitted releases or releases of substances exceeding certain levels established by the Environmental Protection Agency (EPA). The LEPCs receive copies of annual inventories of chemicals on federal forms "Tier I" or "Tier II." The LEPC also receives copies of Material Safety Data Sheets (MSDS) of all chemicals stored at certain levels at each facility. In some cases, the LEPC may prefer a list of the chemicals instead of the MSDS.

Having all this information, local groups can plan more accurately for possible accidents in their jurisdiction. The prevention of "over response" is a key issue during times of tight budgets; conversely, knowing what the hazards are gives a response agency better documentation for the need to acquire needed training and equipment.

This use of the information is good and noble, but Section 312 (e) (3) states that "any person" may request information from the SERC or LEPC for Tier information. Section 324 requires all information gathered by the committee (plans, MSDS or list, toxic chemical release forms and follow-up emergency notice information) to be made available to the general public during normal working hours. Additionally, LEPCs "shall annually publish a notice" in local newspapers that this information is available.

While it can be clearly documented through examination of the Act that the ground work has been laid to inform

citizens of what chemicals are in their community, it cannot be clearly documented that EPCRA has been effective.

There has been some variability in the methods for organizing and developing LEPCs. In keeping with most legislation passed in the 1980's, implementation and development of LEPCs was left to the states. While states established planning districts along county boundaries, others utilized regional divisions (Alaska has 14 regional LEPCs, Minnesota has seven, California has six and Georgia has two - greater Atlanta and the rest of the state) to one (in Oregon) (Solyst and St. Amand, 1993).

There is considerable difference in the capacity of LEPCs to collect, compile, understand and utilize the information made available to them through SARA. One major problem is that no funding exist for LEPC activities. Many LEPCs met the membership requirements but did no more. Others met, developed a rudimentary plan and never met again. Other met regularly, developed by-laws, elected officers, developed plans with regular updates and exercised that plan (Solyst, 1991).

LEPCs and Problems With Public Outreach

LEPCs have struggled with public outreach for many reasons. In the typical non-funded LEPC, there are few resources. The make-up of the LEPC also dictates some of the activities as most LEPCs consist of local emergency response personnel, health officials and facility

representatives. Few elected officials attend LEPC meetings, local media seldom attends as the ins and outs of EPCRA has not been viewed as front page news. Few participating members of LEPCs have public relations, advertising or educational backgrounds. Translating the particulars of EPCRA to the general public cannot be accomplished through the recitation of requirements under Section 304, 312 and 313. Still, some have excelled at informing the general public, yet, examples of outreach programs are rarely featured in the literature.

Examples of successful programs in the literature include a multi-media approach by the Community Education Task Force (Mason and Clark, 1992). This task force, consisting of representatives from 10 LEPCs in the Houston Ship Channel/Galveston Bay area, worked with a professional public relations/graphic design firm to develop a series of communication tools designed to explain to the public "the function and value of an LEPC." Available in letterhead/envelope combinations, print and outdoor materials, bumper stickers, flyers and posters, the graphic has been used on T-shirts and on over four million grocery bags in the greater Houston area.

Some LEPCs have developed brochures or flyers explaining certain aspects of their function, although many of these are directed to industry rather than the general public. Other LEPCs have developed public safety videos and

conducted community-wide full-scale exercises (Mason and Clark, 1991).

These few examples of outreach may not represent most LEPCs. As mentioned above, some LEPCs have no plan to share with the public and the few that have gathered all the required data cannot depend on volunteers to have marketing expertise to efficiently disseminate the information in a meaningful way, much less the resources to pay for advertisements.

Are there other reasons LEPCs do not share the information they receive? Are LEPCs aware of the requirements under Section 324 of EPCRA? Do functioning LEPCs have policies and procedures for sharing information? Are these policies open or restrictive? Or are LEPCs waiting to be asked for data before they share any information?

Definition of Terms

This list of terms is composed of words and phrases that may not be familiar to many or which could have varied meanings. The following definitions will be used in this study:

Ad-Hoc Committee - a special committee appointed by the OHMERC to represent industry and local issues at OHMERC meetings; Ad-hoc committee members have no vote but have input on policy issues.

Elite - a minority group or stratum that exerts

influence and authority over decisions of the group; is this report Chairman and state and federal officials having impact on LEPC activities are considered elite.

EPCRA - Emergency Planning and Community Right-to-Know Act. Title III of The Superfund Amendments and Reauthorization Act (SARA) passed in 1986. EPCRA establishes reporting procedures for facilities storing certain levels of extremely hazardous chemicals designated by EPA. A local repository of information on chemicals in the community is also established.

EPA - Environmental Protection Agency is an executive level agency established by Executive Order under President Nixon. The agency is assigned responsibility to protect human health and the environment.

Exercise - simulation of a real emergency to test personnel and procedures. Exercises are conducted on four levels ranging from orientation to full-scale. Sometimes called drills, but drills are usually limited to one agency and exercises usually include many different response and support agencies.

Functional LEPC - term used to denote that the LEPC has regular scheduled meetings and has prepared a plan to respond to hazardous material incidents that could occur in that planning district. In Oklahoma, a copy of this plan must be placed with the Department of Civil Emergency Management.

Full-scale - exercise involving many levels of

participation designed to involve one or several agencies in a scenario that mimics response to a real event. Actual resources are utilized during the exercise and time is represented as "real-time".

LEPC - Local Emergency Planning Committee. Local groups assigned responsibility for developing emergency response plans for chemical hazards within designated planning district. Statutory requirements for membership and other activities outlined by EPCRA.

MSDS - Material Safety Data Sheets. Written report for chemicals or mixtures which explains contents, safety and health considerations regarding safe handling and storage of the chemical, exposure limits, fire and explosions hazards and proper response to emergencies involving said chemical. Chemicals requiring MSDS are designated under the Department of Labor -- Occupational Safety and Health Administration.

OHMERC - Oklahoma Hazardous Material Emergency Response Commission; legal name for the SERC in Oklahoma.

SARA - Superfund Amendments and Reauthorization Act of 1986. The legislation which extended and amended the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) better known as superfund. Title III of SARA is known as EPCRA.

SERC - State Emergency Response Commission. Statutory provisions under EPCRA, the commission is designated by the Governor under Executive Order Responsible for designating

planning districts within the state and for providing technical assistance to LEPCs.

Successful LEPC - term EPA applied to several LEPCs in Region VI during the fall of 1991 at a Regional conference in Albuquerque, New Mexico. No official definition exist of this term, but recipients of this designation had in common: regular meetings, a completed plan, participation in OHMERC ad-hoc committee and efforts to work with local industry.

Table-top - exercise which can involve only one agency or many. A scenario is presented but participants do not respond physically to the situation but rather sit at the same table or in the same area. Participants are given as much time as necessary to discuss courses of action and possible consequences to these actions.

Tier forms (Tier I, Tier II) - Inventory forms required to be filed annually under Section 312 of EPCRA with local Fire Departments, LEPCs and the SERC. Tier I provides information on chemicals divided only by hazard class (for instance: sixty thousand pounds of flammable liquid). Tier II forms break down the inventory by chemical name (twenty thousand pounds of diesel, twenty thousand pounds of gasoline and twenty thousand pounds of kerosene). Forms identify quantity and location of chemicals.

Hypothesis

This paper will discuss these hypothesis:

H1 Local Emergency Planning Committees in

North Central Oklahoma are failing to inform the general public of the existing chemical risk in their communities.

H2 These LEPCs are concentrating any outreach activities to facilities which are regulated under SARA Title III.

H3 Size, attendance and preparation of a plan have no bearing on an LEPC's involvement with the public.

It is hoped that through analysis of the data, a reason for these failings can be identified and perhaps a few solutions presented.

Assumptions

This paper assumes that every community has citizens that would be interested in some of the information collected by the LEPC. It also assumes that every community has the expertise to organize an active LEPC, if desired; it is also assumed that some communities will need more help than others in getting the LEPC off and running.

Finally, it assumed that the LEPCs examined in this paper do not represent all LEPCs, although they may have a little in common with all LEPCs and much in common with a few LEPCs.

Limitations of this Study

Little research has been recorded in the area of LEPC

activities in general, even less information is available regarding the dissemination of information collected by LEPCs. Additionally, this paper represents a qualitative study and therefore any conclusions drawn for this study will be the opinion of the researcher and not quantifiable.

Organization of the Study

A brief history of the Emergency Planning and Community Right to Know Act and its creation "Local Emergency Planning Committees" has been discussed in the introductory section of this paper. A review of literature found few references to EPCRA or LEPCs and was thus enlarged to include literature on policy formulation versus policy implementation. The causes of variances in implementation of policy will be discussed in the Review of Literature section. Additional literature was reviewed regarding the dissemination of information in various communities, with communities being defined broadly as any group from a small organization in a single neighborhood to a national organization to all groups in between. At the LEPC level, decisions as to how and what information to be shared is left to the most active in the group, usually the chairperson or other elites. The impact of elites on information dissemination will be discussed based on the literature.

Following this information, the Methods section will include a description of subjects and the administering of

in-depth interviews of elites representing nine LEPCs in Oklahoma and four regulatory personnel with influence over information sharing practices of the LEPCs. The data gathered from this study will be presented and analyzed. Concluding remarks will summarize the findings and recommendations of this study.

CHAPTER II

REVIEW OF THE LITERATURE

EPCRA Programs in the Literature

There is very little written material addressing activities of EPCRA programs and LEPCs is available in the literature. References from technical periodicals or text are usually directed to industry and concern reporting requirements of SARA Title III. EPA and the Federal Emergency Management Agency (FEMA) have published various documents on organization, reporting requirements, deadlines for plans and more information directed specifically toward LEPC development at the local level. EPA and some SERCs have published industry specific information pertaining to reporting and planning requirements under SARA Title III.

Most of the documents available from EPA, as mentioned above, addresses the implementation of the planning process required under SARA -- who should be involved in planning, what information must be in the plan, who should have a copy of the plan and what dates are required for turning in the plan. Other subjects covered in EPA literature includes who is subject to providing information to the LEPCs and at what quantities materials or substances can be stored without meeting reporting requirements.

As more LEPCs met the initial plan formulation requirements, more emphasis has been placed on other aspects of LEPC activities such as conducting hazard analysis, zonal planning within the jurisdiction and conducting drills and exercises to "practice the plan."

EPA Writings/Studies Provide Some Information

While the majority of EPA and FEMA literature emphasis the requirements of LEPCs as stated above, EPA is still the best source for literature specifically addressing the public outreach programs of LEPCs. Studies of risk communication practices at Superfund sites have been seen as parallel to the type of communication LEPCs should be providing. In an 1989 study, all LEPC members in ten states were surveyed to assess risk communication efforts of LEPCs (Conn, Owens, Rich and Manheim, 1990) equated risk communication needs of jurisdictions subject to SARA Title III to "those found in Superfund." An earlier report (Conn, Owens, Rich and Manheim, 1988) concentrated on LEPCs in Virginia and the abilities (as perceived by the members) of LEPCs to communicate risk to the public. Conn et al. (1990) concluded that LEPCs conduct risk communication in the strictest sense; rather communications tended to focus on matters emergency response procedures (evacuation routes, shelter in place rules, etc.) or basic information regarding the LEPC (meeting place/time and current officers). Addressing levels of risk or public health concerns were not

part of the risk communication process for most LEPCs.

Earlier studies of risk communication programs summarized that risk communication options "have only a slight impact" on public relations in Superfund cleanup sites (Bord, Epp and O'Connor, 1989). However, the same study (Bord et al., 1989) concluded that waiting to communicate scientific-technological (risk) information until a hazardous response action has occurred "is simply too late."

Conn et al. (1990) found that LEPC members generally have a "narrow" concept of risk communications in nonemergency situations, tending to "focus exclusively on preparing the community to respond to accidents."

In building a risk communication program, Conn et al. (1990) suggested LEPCs should "start small" and build on a foundation of trust by sharing risk information with the public to avoid misunderstandings and to communicate risk information before an emergency. This could be accomplished in many ways including providing information about commonly occurring and accepted risk in the community (smoking, household hazardous waste, etc.) and through the conduction of emergency response drills which attract community attention to the issues of hazardous material risk and provide an opportunity to educate the citizenry on how to protect itself during such an event.

Weinstein, Sandman and Roberts (1989) reported that no format met all the needs of risk communication but

suggested that even small changes in the order of information could change the way such information was perceived.

According to Conn et al. (1990), the various formats of risk communication prepared by LEPCs in the study could be divided in four categories: publications, press releases and video-tapes; public presentation and forums; communicating through schools and libraries and by providing public access to hazardous material response planning information.

Fewer Request for Information Than Expected

A manual for local officials (Hadden et al., 1989), distributed on a limited basis by EPA, was in response to the anticipated high level of citizen request for information and provided examples of response to press release containing Toxic Release Information and a response to citizen review of the local hazardous material emergency response plan. As Director of EPA's Office of Toxic Substances, Charles Elkins (1987) suggested that LEPCs would provide information and guidance for interpreting and understanding Title III data and anticipated that public concern and attention would focus on particular hazards and threats. He saw the public "armed" with a "tidal wave of new information" and able to make "informed, reasoned ... decisions" which would reflect the needs and values of citizens.

Very few request for this "tidal wave" of information had been received (Conn et al., 1990) because people didn't know how to get the information, with 88% of the LEPCs surveyed receiving fewer than 10 request since organization. The study also concluded that few LEPCs have made an effort to involve the public, spending less than one hour a month to secure input from or provide education to the public. LEPCs attempting advertising the availability of information public had received more request for information.

Again, making citizens aware of the program in a common theme among EPA studies. A study of public knowledge of chemical risks in six communities (McCallum, Hammond, Morris, and Covello, 1990) that eight percent of respondents had never heard of an LEPC. Yet, when the concept of LEPCs was explained, respondents looked favorably on the organization and considered LEPCs a community group.

LEPC Membership

While membership criteria for an LEPC was outlined in the statute but few LEPCs include a member from all groups. Most are dominated by a combination of emergency responders (fire, police or other emergency response organizations) and governmental (emergency management, planners or health department representatives), closely followed by business and industry representatives (Conn et al., 1988). In the 1990 study, Conn et al. gave the following description of LEPC members: 86% male; 64% ages 30 - 50; 83% had some

college education (with 56% graduating and 32% attaining a graduate level degree); 57% were from the public sector (government, response agencies) and 36% were from business or industry. Only 10% of all LEPC members were persons from the media, environmental groups or community organizations. Those holding office within the LEPC represented a similar profile (Conn et al., 1988).

Although no theories were presented as to the reasons media, environmentalist and community groups were not recruited as LEPC members, one answer might appear in the make-up of SERCs (Solyst et al., 1993). Only three SERCs count a representative of the media as a member; seven have a representative of an environmental association although 16 have either private citizens or members of the general public listed as official members.

Goals of EPCRA as Seen by LEPC Members

In addressing the stated goals of EPCRA, literature reveal that most LEPC members see the major reason for LEPCs is to prepare a plan for response and feel that the technical sufficiency of the plan is the mission (Conn et al., 1990).

Working With the Media

Some EPA literature provided information on working with the media (Hadden et al., 1989) and the Environmental Health Center of the National Safety Council has prepared a

guidebook for journalists entitled "Chemicals, The Press, and the Public: A Journalist's Guide to Reporting on Chemicals in the Community," 1989 (EPA, 1991). Some individual LEPCs have developed complete communication programs and may be willing to share information on working with the media.

Conn et al. (1990) reports that LEPCs often have difficulty working with the media because nonemergency information about LEPC activities are not generally regarded as newsworthy and LEPCs often submit long, detailed press releases instead of (or in addition to) a summary. This is especially important if reporters are not environmental specialist. Most LEPC members feel that the media gives less than enough coverage and is not always fair in its coverage.

Benefits of Working With the Public

Although numerous text developed to provide information to industry contain reporting requirements and additional information on EPCRA (Carson and Cox, 1992), few detail benefits of working with the LEPC or the general public. EPA provides some data on such benefits outlining the events surrounding public notification by Union Camp Corporation in Dover, OH, that the plant handled ammonia and was installing a sensor system with alarms (EPA, 1992). The decisions to go public was met with concerns from both plant management and city officials. Following a three-step plan, the public

notification concluded with a successful and positive public meeting with about a third of the local homeowners present. Such activities (EPA, 1992) build bridges to the community and allows the companies to see communities as "long-term investments" while building support.

Many corporations had community awareness programs in place prior to the 1986 passage of SARA. The Community Awareness and Emergency Response (CAER) Program was initiated by the Chemical Manufacturers Association (CMA) with goals to develop community outreach and improve local emergency response planning to integrate community emergency response plans (CMA, 1985). Participating industry members were provided with specific step by step information on how to develop both aspects of the CAER program. Time lines were included with 18 months allowed for implementation of the program with annual revisions to the plan.

A Review of Policy Implementation Literature

In the 1973 book Implementation, Jeffery L. Pressman and Aaron Wildavasky examined the literature about policy implementation and found it limiting in depth and quantity. While the quantity and depth of literature available on the subject has increased dramatically in the last 20 years, it is still perhaps most important to understand that it is a "minor miracle that implementation is ever accomplished" (Peters, 1982). Peters further states that there are so many ways to block policy implementation that legislatures

should be pleased to see a project passed into law, but most pleased to see it put into effect. Peters is not alone in his assessment; the bulk of literature on the subject is "generally quite pessimistic" (Sabatier and Mazmanian, 1979).

Policy implementation has been defined as encompassing "those actions by public and private individuals (or groups) that affect the achievement of objectives set forth in prior policy decisions" (Van Horn and Van Meter, 1976). This study shall not attempt to review all aspects of policy implementation but rather present a general over-view as they relate to the implementation of SARA Title III.

The Cycle of Public Policy

Briefly, Rosenbaum (1981) presented a cycle of public policy which includes five stages: "agenda-setting, policymaking, implementation, assessment and (sometimes) termination". The first three stages will be discussed, with an emphasis on implementation.

Certainly, the concern of the safety of hazardous materials in the work place and in the community were made more salient by events such as the MIC incident in Bhopal, India, and other incidents within the United States, notably the MIC leak at Institute, West Virginia (Weir, 1988). A concern cannot move toward a solution without being on the agenda. National media coverage indicates that the proper storing and handling of hazardous materials is at a high

level of saliency today. Yet, this alone is not all there is to agenda setting; Peters warns that some type of solution must be presented before the problem can legitimately be placed on the agenda (1982).

Once an issue has been placed on the agenda, a policy of sorts must be formulated and policymaking can take years to formulate and may involve a few decision makers or many. And any program suggested through policy must be legitimated (either by legal actions such as the President signing a law, the issuance of regulations by an agency or public acceptance) (Rosenbaum, 1981).

The transition from policy to implementation is sometimes barred by "log-rolling" and trade-offs of various coalition forces among competing interest and cross purposes (Peters, 1982).

It is at the "implementation" stage of that government and bureaucracy takes charge. The development of regulations and administration of programs are compromised by the role of interest groups (Rosenbaum, 1977) as well as the length of time it takes for regulations to be finalized and the often inadequate budgets for agencies to accomplish implementation (Rushefsky, 1990).

Various Conditions Affecting Implementation

Sabatier et al. (1979) detailed five conditions of effective policy implementation which overlap with conditions set forth above. Expanding the concerns of

interest groups, the two researchers suggested that groups most affected by policy be involved or considered as policy is developed.

Other conditions include the clarity of policy directives. Van Horn et al. (1976) indicate that implementation is directly affected by the agency's (given responsibility to implement the program) comprehension of policy standards; malfunction may be due to ignorance. If the policy is ambivalent and results in policy that is may take years to implement. Regulation that is presented in variable forms is more difficult to implementation (Lester and Bowman, 1989).

Thirdly, the provision of supportive structure for the implementing agency which relates to the budgeting aspects addressed by Rushefsky, above. Thomas (1976) suggests that the past practice of implementing EPA projects with grant-in-aid may cause conflict in policy formulation and implementation if such budgeting is not consistent. Additionally, Thomas expresses a concern that grantees seek to fulfill objectives to get more federal funds and are less concerned about fulfilling policy objectives. This supportive structure also expands to include citizen support and the allowance for citizen suits. According to Lester et al. (1989), financial resources for implementation play an important role in policy.

Implementing agencies should possess substantial managerial and political skill. In other words, the agency

should not only be provided funds to carry out the policy but should apply the funds to that task as well as seek strong leadership for the implementation process, someone Sabatier et al. (1979) refer to as a "fixer." Lester et al. (1989) speak of the importance of the "receptivity of the agency" who must implement the program. Additionally, Lester et al. state that a clear hierarchial integration should be in place especially when federal statues rely on other agencies to administer the policy.

And, finally, that the policy has broad based support where it counts - which may include the chief executive, the courts or the public. And that the task must be possible (the problem has a solution) and relevant to current conditions. A policy requiring massive inspectors with no criteria or procedures or budget established to hire the inspectors could not be implemented (Peters, 1882).

Top-Down and Bottom-up Approaches

Early approaches to implementation studies focused primarily on top-down approaches, which begins analysis of implementation from the point of policy decision. Primary conditions for implementation supported by top-downers include: clear and consistent objectives; adequate casual theory; implementation process structured to enhance compliance (through citizen suits, for example); committed and skillful implementing officials; support of interest groups and legislative and executive sovereigns; and changes

in socio-economic conditions (Sabatier, 1986).

Many of these conditions were cited in literature presented above, supporting top-down implementation structures.

Sabatier continues in a review of the of bottom-up analysis and cites studies on manpower training programs at the local level, including the interaction of unions, governmental employees and industrial firms. These various studies concluded that implementation of policies depends on "specific individuals." Sabatier further concludes that bottom-up studies concentrate on "actors" rather than the policy or institutional structure.

Literature abounds with evidence that "actors" can impact implementation. Van Horn et al. (1976) cite studies of mental hospital attendants and maintenance workers in factories. Peters (1982) notes that the "real criminal justice policy" is determined by the enforcement practices of local police officer just as social welfare policy is determined by a caseworker or perhaps "even a receptionist in social service agency."

Sabatier (1986) supports arguments that policy makers must consider the resources of the implementing agency at the lowest level as well as the "incentive structure" policy presents to target groups. This implies a "synthesizing" of the two approaches. Other top-downers support synthesizing. Van Horn et al. (1976) suggested a local implementor may accept or reject certain policy goals based on "types of

need within the community."

Literature Regarding Dissemination of Information

Vast amounts of literature exist regarding communication and limiting the scope of literary review was difficult to accomplish. However, a brief overview of literary comments regarding the power of elite communications in community settings as well as elite control of the diffusion of information follows.

Everyone is Influenced by Elites

Lowry (1965) states that a vacuum of information is created when an issue is avoided by one group; another group can control on information regarding that issue. Kresh (1969) gives many examples of the power of a single citizen to make a change in society by effectively communicating his/her needs. But Kresh acknowledges that it is far more tendency to let somebody else take care of the issue, somebody with "sufficient influence and power" to bring about effective community response (Lowry, 1969).

Hunter's study of community structure (1963) found that a relationship exist between policy determining groups and the operating units of government and that these relationships have often been seen as "unethical" and "manipulative"; however, a channel of interaction must be opened for decisions to flow down and for issues to rise.

Two-Step Flow of Communications

As early as 1944, studies of the sociology of mass communication indicated a "two-step flow" of information. The two-step flow can be illustrated by an early study of Katz (McQuail, 1961) illustrating the flow of "ideas from radio and print to opinion leaders (elites) and from the elites to the less active sections of the population." Many sociologists point to the negatives of two-step flow as "manipulation" and "propaganda" (McQuail, 1961), and many studies utilize Soviet control of information (and elites themselves) to show problems that can develop with two-step flow of information (Inkeles and Bauer, 1966; Schein, 1966). Much literature regarding this flow relates to non-Western communications and is perhaps not relevant to the decidedly Western structure of LEPCs and the Community Right to Know Act.

Other Communication Systems

Elites must depend on information flowing to them (Lasswell, 1966). Hunter theorized that issues must rise from the population and decisions must flow down from the elite (1963) and outlined the development of channels of communication which must be opened through institutions and associates to provide this exchange of information. Hunter further stated information flows up and down the scale in increments, in other words, "men of decision" will not go far up or down the scale of leadership to find someone to share information with.

CHAPTER III

METHODS

In-Depth Interviews

In-depth interviews with representatives of eight north central Oklahoma LEPCs and representatives from four separate regulatory agencies involved with LEPCs were conducted in the fall of 1992. The three state officials included a sitting member of the Oklahoma Hazardous Material Emergency Response Commission (OHMERC), a staffer for the Chairman of the OHMERC and a designee for another OHMERC member who attended most OHMERC meetings. An interview was also conducted with the EPA Regional VI liaison to the State of Oklahoma SERC and LEPCs. In-depth interviews provided detailed and variable information to questions about LEPC activities. The promise of anonymity, the shared experiences and depth of knowledge of the researcher (the researcher has served as chair of an LEPC and has experienced many of the problems and the frustrations encountered) and the access to LEPC chairpersons throughout the area prompted the choice of in-depth interviews as the best method to gather detailed data on public outreach.

A list of open-ended questions used for the interviews can be found in the appendix. One set of questions was

asked of LEPC chairpersons; another set was prepared for regulators. Questions were tested with individuals with a working knowledge of SARA Title II programs. Probing questions were utilized where necessary but were dependent on the progress and content of the individual interviews and are not included as part of the questionnaire. After interviews were transcribed, responses were separated by question/response and were given no identity as to the responder. The anonymity aided in preventing conclusions from being unduly influenced by "who" said what and allowed the researcher to concentrate on "what" was said.

Most of the interviews were conducted in the office of the interviewee. Three were conducted over a meal at a local restaurant when time constraints made meeting any other time difficult. The time of meetings ranged from a breakfast meeting at 7:00 a.m. to the conclusion of the interview after 5:00 p.m. As much as possible, interviewees were allowed to choose dates, times and locations of the interviews.

Interviewees represent ten percent of the 77 LEPCs within the state of Oklahoma, although conclusions are drawn only for the eight LEPCs participating in the project. Interviewees were listed as the local contact by OHMERC and in five of the LEPCs, the contact was the chairperson. Although OHMERC had all contacts listed as chairs, three merely filled the role of the permanent mail drop for the LEPC and in all three instances, a name could not be provided for the current chairperson.

Of the regulators interviewed, three of the four agencies with membership on OHMERC were interviewed. The fourth agency has very little contact with LEPCs. The EPA representative is one of five working with LEPCs in the five states which make up EPA Region VI and was the only agent assigned to work with Oklahoma.

LEPCs have produced little literature for content analysis (there is limited literature available for historical or any other literary review that specifically deals with EPCRA or LEPCs). While this subject lends itself to participant observation, the method would work best with only one LEPC and would not afford the range of information provided from eight LEPCs. And, not all LEPCs would hold meetings and one meeting with each would not provide enough information to derive a conclusion. Additionally, it is likely that even if there were several meetings of each LEPC studied, the subject of public outreach would never be discussed. A similar argument could be used to reject a case study as the preferred method.

Comments from the LEPCs

The following represents ten interviews of representatives of eight LEPCs in north central Oklahoma. They represent three LEPCs which have been formally considered "successful" by EPA (each 1991 chairman of these local units were presented a plaque for outstanding efforts). Three of the LEPCs are at the other end of the

chart and have little to show for five years work. Two are transitional LEPCs, one heading up with increasing activity, one confused about many issues and meeting less and less often. In all cases, the local chairman was sought as the one with the most information. One LEPC selects new officers annually so the current chairperson and two who formerly chaired the committee were interviewed. In three cases, the state provided a contact for the LEPC as the local emergency manager. Sometimes the emergency manager was the chair, but more often they were simply the mailing address for the LEPC. In these cases, there was often no one serving as the chairman or there had been a recent change but no one was sure who the new chairman was. One chairman had been in that position since the LEPC was organized in 1987. Having recently resigned, he was surprised no one else knew the name of the new chair. However, he was unable to provide another contact so he decided to be interviewed anyway. The following is a summary of their comments.

Occupations of interviewees

Four of those interviewed were environmental officers/analysts with major industries in their respective communities. One of these also serves on the city council. A former chairman was also associated with environmental and public safety with a major industry. These represented the

three award winning LEPCs and a growing committee. Other occupations included one mayor, two fireman and two county emergency management directors.

Involvement with the LEPC

Seven had been involved with the LEPC since 1987, the first year OHMERC designated local planning districts in Oklahoma. One had participated for three years and two had been involved for only two years. Four of those interviewed were currently serving as the LEPC chairman and one was the co-chair, although in fact, he served as the primary contact for citizens and state officials. Three of those interviewed were former chairman (although one was the chairman of record). Two served as emergency manager for the county and were merely the repository of information (in short, the mailing address for required form filing). Three of those in industry were involved to begin with because of their company's proactive stance on environmental issues and three participants were involved because of the nature of their job. One was involved due to his own initiative. Two said they were "rooked into it" or "saddled with the job" while one didn't participate, despite his designation as chairman.

LEPC Makeup and Organization

Two LEPCs met monthly but one of these mentioned moving

meetings to a bi-monthly schedule in the near future. Two LEPCs met bi-monthly although one had met monthly for the first several years and the other group has a sub-committee meeting most months. Another LEPC began meeting monthly but two years ago changed the by-laws to schedule quarterly meetings. One LEPC has tried to meet annually in conjunction with the storm spotting school in the county. Two did not meet at all, although one had met a few times in 1987 and had surprisingly, one that had not met in four years had completed a plan regarding the chemical risk in the community.

Most of the LEPCs had completed and updated a plan several times. One admitted to a very general plan which they are in the process of expanding. Two had no plan, although one of these had developed a risk analysis of the community which was published in the local paper.

Six stated that all groups required by law to be a part of an LEPC are represented on the local committee; they all admit that there is little involvement by many of those required to participate. Four stated that no local citizens groups were represented on the LEPC. In most cases, efforts had been made to recruit citizen groups but few felt they were successful in getting citizen participation.

Compliance

When asked "What percentage of industry in your

community is in compliance with SARA Title III?", estimates ranged from no guess at all to 100%. The 100% claim was qualified by the statement "industry meaning major industry. There are 'Mom and Pop' operators not complying". Five LEPCs estimated compliance rates of 70%-79% with one claiming 100% compliance (see above). The estimated ranges of 30% to 49% compliance and 50%-69% compliance of one LEPC each. Two LEPCs had no estimate of the numbers complying; one of these is considered "successful" and one is basically non-functioning.

Defining the Terms of the Law

Each interviewee was asked to define certain terms used in SARA Title III; each explained their opinion of the intent of the law. Three felt that the major goal of the legislation was to assist emergency responders in planning for a chemical emergency. That the law was an "overreaction to Bhopal" was the comment of another three interviewees. Two stated that the primary mission was to the inform public of chemical hazards and to help responders with emergency plans, while one stated that the law provided a way to inform the public of chemical hazards in their community. One insisted that the law was enacted to force compliance this law.

Most agreed that the phrase "Right-to-Know" referred to the general public or citizens. Two referred only to the

rights of emergency responders and one stated that both citizens and emergency responders had a right to information about chemicals present in the community.

Communicating With the Public

Several questions dealt with the interaction between the members of the LEPC with members of the general public. When the law was drafted in 1986, many politicians envisioned the local groups being swamped with inquiries from the public. Few of those interviewed had been asked a single question about chemicals in the community by a member of the general public; only one LEPC had reported calls and these were about a specific company -- a company often in the headlines for environmental violations. One mentioned inquiries from a consulting group wishing a list of potential clients. Others had received questions from potentially regulated industry regarding how to get started on the path to compliance. One had been approached by a citizen group looking for a "community project" to receive the proceeds of a bake sale. Others had answered questions about specific industries for EPA or answered "how-to" questions from other LEPCs.

Despite the lack of inquiries from citizens, most had policy and procedures in place for citizens' request for information. Only three LEPC's had no policy. The remaining had policies ranging from "the records are

available any time for any one" to stringent procedures requiring a written request to be voted on at LEPC meetings before information could be provided.

Most LEPCs had tried various methods to alert the general public of meetings, the availability of planning documents, etc. Methods include (in descending order of use): publishing an annual schedule in the local paper, following the Oklahoma Open Meeting Act, publishing meeting notices for each meeting or special meetings and one occurrence each of posting signs in downtown windows, sending communications to public officials, depending on word of mouth and publishing annual schedule in a brochure.

Because of the dependency on newspaper articles and public notices, interviewees were asked to describe their relationship with the local media. Half stated that they get along "well," although most acknowledged later the difficulty of getting information published. Three said they have major problems with the media and "beg a lot" to get information used by the media. Two said they do not work well with the media.

EPA literature and training sessions have touted the use of exercises to inform and involve the public. Two of the committees had no exercise program and three had participated in exercises conducted by another agency. Five interviewees (representing three LEPCs) stated that the LEPC conducted exercises ranging from table top to full scale

utilizing LEPC members to plan the scenario. Only one used citizens in the area around the site of an exercise as participants.

Outreach Activities at the Local Level

Asked to discuss public education or public outreach activities of the LEPC, one admitted to no activities. Three had conducted outreach activities through emergency management activities (such as discussing chemical safety issues at the annual storm spotting school and handing out tornado safety literature but reminding people they might someday evacuate for other reasons, for example, a chemical emergency). Of the remaining six interviewees, four LEPCs were represented. Activities for the general public included: publishing a brochure about chemical hazards; publishing at least one newspaper article about the LEPC; publishing newspaper articles about special programs; contacting local elected officials; talking to community groups (Lions' Club, etc.); holding public meetings; handing out literature at county fairs; participating in environmental fairs and providing reference material to public libraries.

Most LEPCs had participated in educational activities for LEPCs including sending representatives to the State LEPC Conference; hosting regional LEPC workshops; and presenting training for members as part of regular meetings.

One LEPC is working with the state to review computerized modules for LEPC members enrichment.

All LEPCs except one had participated in some activities that provided outreach to facilities. These activities included participating in or providing compliance workshops in cooperation with EPA; visiting industrial sites of those who have not complied (or contacting by phone); included regulation material in monthly mailings to all facilities filing any type of form with the LEPC; provided guidance documents and reference material in libraries; worked with the OHMERC Ad hoc outreach committee; provide flyers and brochures; asked for enforcement actions by EPA and publish newspaper articles specifically geared to facilities. Other outreach activities included providing booklets to the media about various story lines related to chemical emergencies and LEPC activities.

Of these various activities, interviewees rated the EPA compliance workshops highest. These were well organized with a great deal of effort by EPA to reach the industries in need of information. Site visits and telephone follow-ups to industry were also rated highly successful. Other facility outreach activities achieving some measure of success included delivery of brochures or flyers to area industry, enforcement actions taken by EPA and the provision of reference and guidance documents in the local libraries.

LEPCs benefited by the State LEPC Conference and

regional workshops, according to those interviewed. Outreach to the general public was least successful but some LEPCs had gotten "good response" through talking to community organizations, preparing brochures for the public and holding a public meeting for some 200 citizens. One LEPC had been successful when dealing with local elected officials -- they recruited one to serve as a co-chair and experienced an upswing in activities.

Over half of the LEPCs represented had no plans for future outreach activities of any kind to any group. The remaining three planned a variety of activities which were geared primarily to facility and LEPC education. These included: continuation of on-going mailings of regulatory material, site visits, working with EPA on local workshops for facilities and working with the Ad hoc committee. More training was planned for LEPC members and facility representatives. For the general public, one chairman said that talks to local community groups would continue and three interviewees stated that newspaper articles and inserts would be utilized in the near future.

The Challenge of the Future

Not surprisingly, five of those interviewed stated that lack of funding is a major roadblock for LEPC advancement. Three interviewees remarked on both the inability to keep current of changing laws and the problems of data management

with the receipt of an increasing number of forms and plans. The same number also expressed a concern for the possible abuse of volunteers due to the burden placed on them; three also expressed concern for the lack of support from locally elected officials.

Two interviewees complained of a lack of meaningful support from state agencies and OHMERC's failure to provide clear leadership. This was followed by the expressed hope that changes with the structure of environmental agencies (in the formation of the Department of Environmental Quality) would be for the better. Two experienced LEPC officers commented on the difficulty of maintaining active members and the problem of burnout. Two stated directly that a full-time staff person should be assigned to an LEPC to make sure things got done. This might provide the education for the public, a concern expressed by two interviewees.

Each of the following concerns were stated by one interviewee: facilities that should be in compliance are not educated; there should be more cooperation between all levels -- industry, citizens and government; maintaining current levels of compliance may be difficult; local government and industries are ignoring SARA in the hopes that it will go away; local government expected industry to handle and fund everything; more facilities should take an active role, not just the major employers in the area and

the LEPC has no real authority. One raised the question "Why is it that it's always left on the busiest people?"

The Regulators Speak

The regulators interviewed were asked some of the same questions regarding the intent of the law and outreach to the general public and agency policies regarding public inquiries.

Involvement with LEPCs

All those interviewed work with agencies that work either directly or indirectly with LEPCs. These individuals are responsible for the delivery of government programs to the LEPCs and sometimes to the general public. Two had worked with the program since late 1986; one had been assigned new duties over two years ago that included providing staff support to the SERC and working directly with LEPCs. One had been working with LEPCs since an agency reorganization to increase its role within OHMERC, approximately a year earlier.

All regulators provide some type of technical assistance to the LEPCs, although they specialize in different areas. One provides data management assistance, one oversees compliance related activities and provides enforcement, one provides training for LEPC members and works to make sure plans have been completed for each

planning district.

Defining the Law

As would be expected, all four interviewees were knowledgeable of the law and each was more knowledgeable in areas that coincided with their specializations. Asked to define "community" in the phrase "Community Right-to-Know," all agreed that community included everyone in the area -- living there, working there or traveling through the specific planning district. The group also agreed that what the community had a right-to-know included what chemicals are in their community. One added that there is no limit to what citizens have a right-to-know regarding chemicals (beyond the "trade secret" restrictions of the law); another added that what people really have a right-to-know is what is in the community and what procedures are in place to protect the community should there be a release of some of the chemicals. Three felt that everyone had a right-to-know this information but one suggested that the information was meant primarily for planning safer response to emergencies, thus benefiting first responders.

Only one believed that the law requires LEPCs to conduct certain outreach activities such as publishing annually a notice of where the planning information can be obtained and where and when the LEPC meets. All stated that it is "advisable" or "implied" that LEPCs conduct outreach

activities. However, one stated that the general public should be the primary beneficiary of outreach conducted by the LEPC. Another felt facilities should be the primary recipient of outreach. Another thought both should be educated. Finally, one felt that both needed education but that the law really intended first responders to benefit.

Communicating With the Public

Only one interviewee was familiar with the OHMERC policy for public inquiries, although all knew there was a policy. EPA has no specific policy but refers the inquirer to the best source for the information, usually the SERC. Three stated that there was no SERC or agency policy on outreach. One stated that by virtue of the Ad-hoc committee's sub-committee on outreach, there was an "implied" policy.

All agreed that there had been only two problems with citizen inquiries about any facet of SARA Title III: 1) the lack of citizen inquiry, and 2) the request by consultants for list of anyone who should comply with the law.

When asked for specific outreach or education programs geared to the general public, none gave examples of outreach geared specifically to the general public. The ad-hoc committee has been working on brochures for "concerned" citizens that would explain how to get information about an LEPC and newspaper articles published in state papers which

dealt primarily with compliance issues.

Most outreach activities initiated by OHMERC were aimed at educating the LEPCs. In fact, the State of Oklahoma Department of Pollution Control had received a grant from EPA to further the capacity of Oklahoma LEPCs through: the development of LEPC Handbooks to explain the basic how-tos for getting an LEPC organized (from recruiting members, meeting the requirements of the Open Meeting Act and writing by-laws); the development of computer modules explaining the law; holding five regional LEPC meetings and funding an annual State LEPC conference. One agency was meeting at least once a year with all LEPCs in the state.

Both OHMERC and EPA had emphasized outreach programs to the regulated community through EPA Compliance Workshops, presentation at industry trade shows, designing industry specific brochures and training, newspaper articles regarding compliance and through activities by the ad-hoc committee.

The EPA Compliance Workshops were well spoken of by all four interviewed. Industry specific training was also highly regarded. Outreach efforts to the LEPCs were mildly praised including the State LEPC conference and the regional conferences. The handbooks and computer modules were recently introduced and could not be rated.

One interviewee commented that all of the outreach had been as successful as could be expected given the resources

in time and money available, stating "we got as much as we gave." One noted that one particular regional LEPC meeting was not well attended. Another had made efforts to reach a certain industry group through another state agency, not involved with OHMERC, and had gotten no response from that group. An effort had been made to write letters to the editors of several Oklahoma papers; few if any published the letters and there was no response to any letters that were printed. One commented on EPA organized "public" meetings held this past summer to allow citizens to find out more about hazardous chemical concerns, LEPCs, etc. In two of the four meetings, there were more EPA employees and contractors present than members of the public. None of the meetings were well attended. This was credited to the meetings being poorly organized and not properly promoted. And, it was admitted, they sent such "dull people" to do the speaking.

Only one regulator expressed a real concern with the type and content of outreach being conducted by the OHMERC or LEPCs. They all agreed that more outreach is needed.

Suggestions for Low-Cost Outreach

Each agency representative was asked to consider the monetary restrictions most LEPCs face and recommend methods of public outreach that can be conducted at little or no cost. Suggestions included: Seek donations from

facilities; get a facility to host your activities; use industry groups as forums; speak with local community organizations (Lions' Club, Women's League of Voters, etc.); work with fire departments; give out material at county fairs; attend town meetings or other public meetings and speak when given the opportunity and conduct exercises involving the public.

CHAPTER IV

ANALYSIS OF DATA

Common Factors

The data clearly indicates a wide disparity in the capabilities and approaches to outreach by various LEPCs. No two LEPCs are identical although the more active LEPCs have at least one thing in common. The four most active LEPCs are currently chaired by industry. One of these LEPCs changes chairman each year and has been chaired by industry and public service employees alike (two of each) but the program has always had strong support of industry and at least one industry representative has been an officer each year. The EPA representative stated that sometimes industry involvement "may seem like 'the wolves watching the chicken coop' and that's a valid concern but without them there would be no LEPC" in many places. Indeed, the four communities with the least active LEPC have little or no involvement from industry.

Length of experience has less significance to successful outreach than might be expected. The LEPC that met only to approve a plan and never again has a chairman who claim five years of involvement with the LEPC. Two other LEPCs that are relatively inactive are chaired by five

year veterans of the EPCRA program. The LEPC with no plan and no meetings and no chair is "run" by the emergency management office by two individuals with two years or less experience with LEPCs. At the other extreme, three of the most active chairmen are veterans of the program but the LEPC making the most progress has a chair with two years involvement with LEPCs.

The same can be said of the regulators experience; two are veterans of SARA Title III and two are new comers to the arena. The two most active in LEPC and public outreach include one with five years experience and one with two plus years experience. Two regulators expressing the largest degree of frustration with the lack of accomplishments by the SERC and LEPCs were those newest to the program, although neither were new to state government.

Defining the Law

Many of those interviewed displayed a thorough knowledge of the law. Again, the industry representatives interviewed are tasked with keeping current with compliance issues as part of their job. Regulators were familiar with the law as part of their job, as well. Others working with the LEPC were busy with many other jobs, primarily in the public sector. In one county, the local emergency management office also handled county planning, county engineering functions and distributed food stamps in addition to serving as the repository for SARA Title III

filings. In another county, the Mayor chaired the committee until recently and was concerned with so many environmental issues (from closing the landfill to getting funds to upgrade the water plant) that he found no time to deal with the LEPC. The other needs were more immediate and he saw the LEPC as only planning for something that might never happen. As one chairman who acted as Assistant Fire Chief and Emergency Manager said, "It's always 'the busiest people' who are asked to do more."

To that end, knowledge of the law was less intense among those involved in public service. In one instance, the interviewee insisted that the county had several LEPCs including some that met at local factories. More descriptions of the meetings indicated that these were safety committee meetings in factories and rural volunteer fire meetings in the smaller cities and communities of the county. One chairman tried to explain compliance by stating that "gobs of those forms" had been turned in. Asked if he meant the Tier forms, he responded "Yes, the Tier IIIs." (The forms are Tier I or Tier II.) One local representative thought the intent of the law was to make people comply with the law; additionally, this representative had prepared brochures for the LEPC which did not describe the LEPC or its functions, chemical hazards in the community, or what actions to take in response to a chemical accident in the community. Instead, the brochure outlined how to report spills in rivers and creeks.

Activities described dealt with responding to fish kills and illegally disposal of hazardous waste. Both of these matters are covered under laws other than SARA. Another interviewee had a basic knowledge of the law but was unaware of recent changes in interpretation and often mentioned a state employee who had retired more than three years ago.

Regulators and local committee members alike agreed that everyone has a right-to-know about hazardous chemicals in their community. But the intent of the law was not clear to many. One felt that the law was provided to make people comply with it (meaning SARA Title III). Others expressed that the law was to provide planning information to emergency responders or to inform citizens of chemical hazards in their community or a combination of these. Three local interviewees expressed a concern that the law was merely an overreaction to the MIC incidents in Bhopal.

LEPC chairmen were not asked if the law required them to conduct outreach activities for the general public but to describe these activities. Regulators were asked this and only one stated (correctly) that the law requires a minimal effort of outreach which includes advising the public of the location of the planning information and what hours the information is available to the public. Others stated that it is "advisable" or "implied." One regulator not only saw no requirement for LEPCs to conduct outreach activities, but stated that the SERC should be responsible for outreach because few LEPCs had the resources or desire to conduct

outreach activities.

Communicating With the Public

In only two instances did the regulators or LEPC representatives respond first with the information about outreach efforts to the general public when asked specifically for public education or outreach activities for the general public. Examples of community outreach included a surprising number of activities ranging from presenting talks to community organizations to printing brochures for distribution to providing reference materials in all public libraries in the county.

Community talks were considered successful because "people keep asking for more." Three local committees published brochures and only one thought they were successful and plans to include them as an insert in the local newspaper during 1993. One group had handed them out at the county fair with little response and another had spent at least forty-five minutes arguing about where to put the brochures because some industry objected to having them in every hotel; as a compromise, the brochures are currently available only at convenience stores. Several years ago, one city had a large public meeting to explain the LEPC program and about 200 of the general public attended.

Not only were few outreach activities aimed at the general public, not all LEPCs made an organized effort to alert the public to meetings. One LEPC depended on "word of

mouth" and posted notices in store windows. Others depended on the Open Meeting Act and an annual publication of scheduled meetings. Others tried to get meeting information in the papers prior to each meeting and published meeting times and places in brochures readily available throughout the planning district.

Outreach to Others

Almost all examples of outreach were conducted for the regulated community or the LEPC members. In many cases, the committee may have recognized that without industry compliance and participation, there will be few resources at the disposal of the LEPC. At least one entity on the SERC has worked almost exclusively with industry outreach.

The ad-hoc committee and several LEPCs have prepared brochures for industry. One LEPC prepared a one-page flyer with very general information regarding SARA Title III compliance. They were swamped with telephone calls which included "threats!" and accusations that the LEPC was trying to put their company out of business. But the flyers also yielded questions about the mechanics of compliance and a few more reportings and new members.

EPA has sponsored numerous compliance workshops in the state which have been preceded by an intense research effort by EPA to identify all industries which might need to comply with reporting requirements in SARA Title III. Each company is sent a packet containing compliance information

and forms as well as an invitation to attend a four-hour workshop. Five have been conducted throughout the state with plans for more in 1993.

This series of workshops was mentioned consistently by local representatives and regulators alike as the most successful outreach program ever. Many LEPCs expressed an interest in hosting another similar training. As an example of success, the EPA staffer stated that the first workshop increased compliance dramatically. Prior to the workshop, only 36 facilities in the county were reporting to the LEPC. Now 230 facilities report. The program also yielded two enforcement actions which gave the county two new members who have contributed "tremendously" to the continued success of the program, according to the local chairman. The LEPC chairman further stated that among major industry, compliance rates are approximately 100%. (This is qualified, however, by the term "major." The chairman felt that many smaller "Mom and Pop operators" were not in compliance.) As one respondent cracked, "The EPA letterhead carries more weight" than the letterhead of the local LEPC.

Other successful outreach efforts to industry included industry specific training presented by the SERC, providing reference and guidance material in public libraries, site visits and telephone follow-ups and enforcement actions.

The state regulators admitted that outreach to LEPC members had been a primary concern because there are a number of counties where no functioning LEPC exist. There

may be a committee but it exists only as a list of names. It doesn't meet and it doesn't develop (or update) a plan. In other words, the LEPCs interviewed are somewhat typical of LEPCs around the state. The SERC felt citizens would have no place to go with concerns about chemicals without an existing LEPC.

To this end, one agency on the SERC secured an EPA grant used to meet several LEPC enrichment goals. Activities included funding the second State LEPC conference which featured speakers from other states and federal agencies and gave LEPC members a chance to ask questions and learn from each other. At least one LEPC member per county was funded to attend the conference, although many did not attend. All but one of the LEPC representatives interviewed attended or had someone else from the local committee attend the meeting this past July. The grant also funded five regional LEPC meetings throughout the state. The SERC located an LEPC willing to host the meeting and then invited LEPC representatives and agencies who should be represented on the LEPC from surrounding counties. The one-day program consisted of several presentations from SERC and EPA representatives with open sessions for questions and comments. Recently, the state began distributing LEPC Handbooks, a "how-to" binder for new (or ineffective) chairman. The books, funded by the grant, outline how to run an LEPC from getting the best people on the committee, how to comply with Oklahoma's Open Meeting Act, and more.

The funds were also used to fund research and development of interactive computerized modules to explain LEPCs to local officials, facilities and LEPC members.

Several LEPCs also mentioned providing training to LEPC members either through the state Civil Emergency Management agency, EPA training or other available training.

Outreach That Didn't Reach Out

One former LEPC chairman stated that none of the outreach activities conducted by the LEPC had been particularly successful but felt that all had been "appropriately conducted at the time they were presented." An OHMERC member echoes sentiments stating that no outreach was really a failure. Others had doubts about several outreach activities. One staffer had contacted the Corporation Commission to work with the underground storage tank industry who, in large numbers, had failed to comply. Correspondence was sent to this industry group but with virtually no response. Others recalled meetings that were badly organized with no prior notice to those who should be involved. Presenters and participants came away feeling that they had wasted their time.

A major complaint of almost all LEPC and SERC representatives was that the media, especially local newspapers, had failed to work with them. "Media is not particularly interested" in what an LEPC does was the consensus. One large, active LEPC had drafted one of the

emergency response agencies' Public Information Officer as access to the media. It was hoped this recognized gateway would afford a professional relationship. It hasn't worked and the chairman finds working the media "frustrating." One summed it up: "We beg a lot."

In fact, one former chairman expressed anger at the stance taken by the media representative in a recent LEPC meeting. The media representative had suggested that the LEPC and Fire Departments already knew too much about local businesses. Although the current chairman of this declined to say anything beyond that the media representative "attends infrequently"; other former chairmen of this LEPC also expressed a lack of cooperation from the media.

Although some local committees had received some cooperation with the media for publishing annual meeting and planning data or, in one case, a risk analysis, most expressed concern that the newspaper would not accept press releases, attend meetings or include information on a regular basis. OHMERC expressed concern that a state-wide letters to the editor campaign had brought no response; not one editor had called to clarify the information. Only one LEPC seems to get much space in the local rag and this is due to a recent environmental problem regarding the city's water supply. A local environmental group "has raised the sensitivity in the city to these issues and has heightened the awareness of the press so they focus on what we do." Still, this group wishes to get more space. With limited or

non-existent budgets, most LEPCs must depend on coverage by the local media to get their message to the people in a cost-efficient manner.

Challenges for the Future

In response to my request to interview the local chairman, most were happy to discuss the activities of their LEPC. One was not happy and asked me to talk to the "new" chairman who was not located. He didn't want to discuss the last five years, filled like the top of his desk with things to do that were never done. The LEPC under his tutelage had struggled briefly to adapt a part of the existing Emergency Operations Plan, turn that in to the state Civil Emergency Management, and let it go. But the paper work kept coming and the reminders were always there that a lot more needed to be done.

That a lot more needs to be done was agreed upon by all, even those who chaired or had chaired very active LEPCs. For each LEPC, activities and involvements are different because so much is dependent on the resources available to each LEPC. In many cases, the resources are practically nil. When the duty of LEPC chair is tacked on to one more list of duties, it is often tacked to the bottom of the list and the chore goes undone. This seems to be particularly true for those in public service who wear many hats at once.

Feeling overwhelmed is not restricted to public service

employees. Industry representatives also expressed concerns for the amount of work involved with an LEPC. One said that local governments expect too much of industry. Another expressed a concern that maintaining the level of interest needed to keep an LEPC focused on the goal was difficult. Another said she saw signs of "burn out" among those who had been involved for any period of time. Still another keeps abreast of many environmental subjects and is awaiting the assignment of still more duties to the LEPC as EPA and Congress had indicated a willingness to allow the LEPC to serve as a local collection point for plans required under many Federal regulations, including the Spill Prevention, Control and Countermeasure plan (SPCC) under the Clear Water Act of 1990 (Carson et al., 1992).

Where will it all end? Probably not with funding. One interviewee suggested that if each LEPC could be funded at \$100.00 per month (or \$1,200.00 per year), the impact of the LEPC could be felt for the first time. Many expressed major concerns with the increasing duties and the continuing absence of money. The lack of activity is not so much a "Don't want to" problem but a "where with all" problem, according to one SERC member. This lack of funding problem is not limited to localities. The state has no one devoted strictly to maintaining LEPCs or collecting SARA Title III data, although significant amounts of time are spent on both activities. EPA has one person to work with the entire state and has considered cutting that position in the past.

Locally, those in charge of the LEPC are often responsible for many different functions.

Hiring a full time person to staff the LEPC would be nice but just a little money could go a long way to getting meeting notices mailed and plan updates printed. The conducting of exercises is costly and may be the reason more full-scale exercises were not conducted by the LEPCs interviewed.

CHAPTER V.

CONCLUSIONS

Findings

- H1 Local Emergency Planning Committees in North Central Oklahoma are failing to inform the general public of the existing chemical risk in their communities.

Although the reasons given are many and there are probably more reasons not touched on in this paper, the data gathered appears to support the hypothesis that Local Emergency Planning Committees are failing to inform the public of the existing chemical risk in their communities and concentrating any outreach activities to facilities who are regulated under SARA Title III.

Without probing, few of the LEPC's representatives could list outreach activities directed toward the general public. Many had not conducted any outreach activities at all or only facility outreach.

In discussing how the LEPC in their jurisdiction related to the public, either as a provider of information or educator or receiver of information from the public, three LEPC chairpersons were able to cite a policy for

providing the public with information regarding existing chemical risk in their communities. Without analyzing the restricting nature of some of these policies, it would appear that these LEPCs are meeting the basic criteria for public outreach as presented in EPCRA. Conn et al. (1990) agreed that the majority of LEPCs have in place the basic mechanism to communicate risk and emergency response information to the public. However, Conn et al. concludes that few LEPCs have actively advertised the availability of this information. It would appear that these three of the eight Oklahoma LEPCs represented in this study have the "basics" of a risk communication program in place, but all acknowledge that there is little public awareness that such information exists.

Elites of LEPCs may act as editors of a magazine who view stories and articles and then qualify what is "real" and "salient" even though this practice could lead to claim of "reality distortion," as indicated in a 1964 study of the ability of magazine editors to shape public opinions (McQuail, 1969). This practice of taking in massive amounts of risk information and sharing very little is an example of "two-step flow" theory of information dissemination.

Oklahomans agreed with LEPC members in ten states surveyed by Conn et al. (1990) that there is little public interest in what an LEPC does. This has often been used as an excuse for inactivity, yet response to case studies in four Virginia communities indicate that people would attend

a public meeting if presented by the LEPC (Conn et al., 1990). As indicated earlier, LEPCs putting more emphasis on outreach to the public have experienced an increase in request for information.

Unfortunately, many LEPCs interviewed were conducting few outreach activities because they felt no one was interested. Two of the committees had recently reduced the frequency of meetings (although three did not meet with any frequency). This corresponds to a general trend of LEPCs cutting back on the frequency of meetings once plans were completed (Conn et al., 1990).

Despite the low quantity of outreach programs, some efforts were being made. The various activities in Oklahoma were similar to those conducted by other LEPCs throughout the nation: publishing brochures, providing press releases to the media, holding public presentations (one), communicating through libraries, and providing a policy for public access to information regarding hazardous material response planning.

The statement by three regulators that LEPCs were not required to conduct any outreach was disappointing. Perhaps the term "outreach" implied to them a more proactive stance than publishing locations of the planning information, hours of availability and meetings. These agencies were perhaps imagining grandiose requirements of large public meetings with dog and pony shows.

Also surprising were who the comments came from. Some

interviewees from industry or from pro-industry agencies, who might be considered to be conservatively geared toward outreach to facilities only expressed concerns for community outreach. Others, including many government or emergency responders with some successful experience with public outreach, tended to be sympathetic to more inclusive policies expressed exclusive views.

Responses to questions regarding the intent of the law illustrated that few thought the law was designed to provide information to the public and again, this corresponds to the Conn et al. (1990) study which indicated that most LEPC members felt that the major goal of the LEPC was to complete a plan for response to hazardous material incidents. As indicated in the responses of both LEPC chairpersons and the regulators, there is wide disagreement on the purpose of EPCRA. With such disagreement, it is not realistic to expect LEPCs to place the same emphasis on outreach.

Perhaps Kresh's theory (1969) that people believe someone else will take care of the matter can be applied here. LEPCs consist of people who volunteer their time and have other full-time responsibilities. Conducting outreach activities may be something they support but they believe that if it is really important, somebody else will initiate such a program. Unfortunately, few LEPCs have a "somebody else" within the membership and SERCs and EPA have not stepped forward to fill this gap.

Therefore, the hypothesis can be supported: little in

the way of public information or outreach is being conducted in a meaningful way. This is not to say that LEPCs have not made some attempt to alert the public to the activities of the LEPC, only that most LEPCs are failing to reach the public with this information.

H2 These LEPCs are concentrating any outreach activities to facilities which are regulated under SARA Title III.

In most instances, interviewees responded that public outreach activities were being conducted to facilities. These activities included ranged from presenting compliance workshops in cooperation with EPA; contacting industrial sites of those who have not complied to providing guidance documents and reference material in libraries. To some extent, LEPCs driven by industry were more likely to have conducted a variety of outreach activities, however outreach was not substantially different in target audiences and content than those outreach activities conducted by other LEPCs.

In fact, the more active LEPCs worked with the OHMERC ad-hoc outreach committee; provided flyers and brochures; and included reporting industries with routine information regarding compliance issues. Although industry might argue to the contrary, one LEPC considered asking for enforcement actions by EPA as an outreach to facilities. This action, it was reported, did increase the number of reporting facilities and attendance at LEPC meetings.

Most LEPCs at least attempted to publish newspaper articles specifically geared to facilities. As described above, few LEPCs felt that they were successful in working with the media.

Literature is relatively silent regarding the types of outreach programs conducted for industry needs. Perhaps researchers consider this a function of EPA or the SERCs. Unlike some states, there is no funding structure for LEPCs in Oklahoma. Both EPA and OHMERC interviewees suggested LEPCs build a close worker relationship with industry in hopes of securing additional funding. Indeed, the three most active LEPCs represented in the Oklahoma study were currently chaired by industry representatives, had representatives on the ad-hoc committee (which consist primarily of industry reps) and had some services supplied by industry (assistance with training material, printing of the plan, mailing of meeting announcements or other information).

One regulator did state that there are inherent problems in asking industry to provide most of the man-power and funds for an active LEPC. "It's sort of like having the fox guard the hen-house" was the conclusion. However, there are instances in were no LEPC would be present if industry did not take the lead role. For example, one regulator noted that one facility was fined for not reporting to an LEPC even though no organization existed in that county expect on paper. Part of the fine included having the

company furnish a chair and operating funds for the new LEPC for a two-year period.

Although it must be concluded that LEPCs are concentrating any outreach activities to facilities who are regulated under SARA Title III, it is surprising to note that outreach to facilities was almost equaled by outreach efforts to LEPC members emanating both from the state and from the LEPCs themselves.

H3 Size, attendance and preparation of a plan have no bearing on an LEPC's involvement with the public.

LEPCs with the smallest activity level were also LEPCs with the slowest pulse. Left to chairman with limited knowledge of the law and limited time to spend on the problems of the LEPC, the organization has lain nearly comatose for two to five years. By contrast, the largest, most populated and best funded LEPC was one of the more active LEPCs interviewed. Although the active LEPC had held a public forum during the initial formation of the LEPC, both now have about the same level of involvement with the general public.

Conn et al. (1990) concluded that "There is no statistical relationship between the number of facilities within an LEPCs jurisdiction and the degree to which the LEPC had been aggressive in its efforts to communicate with the public."

Therefore, the data and literature support this hypothesis.

Conclusions Unrelated to the Hypothesis

Conducting any type of outreach activity strengthens the LEPC. LEPC training provides members with a broader base of understanding, compliance outreach to facilities brings new members and new resources. Outreach to citizens can also bring new members and talents to the committee.

The benefits of including citizens in the circle of information or as members of the LEPC are numerous. The broader the understanding of the goals and objectives of the LEPC, the easier the job will be for the organization. From a bottom-up perspective, those citizens concerned daily with hazardous material risk can be the difference in implementing the public awareness requirements of EPCRA and it should be important to each LEPC to search the community for people with such an interest. As Peters remarked (1982), "participation has a long tradition in America..." while acknowledging that this level of participation may be difficult to achieve with complex issues.

Public administrators as well as managers in industry and business know that unless the people with the money believe in your project, funding for that project will decrease over time. Taking the project to the people (the general public) could be the best way to build political support for LEPC activities. Once the support is in place,

adequate financial support is more likely to occur (Conn et al., 1990). Reasons for the increase in funds include the influence of the public during budget procedures for local governments, particularly if the public concerned is vocal. However, this study was not designed to describe how LEPCs could improve their financial status.

Another conclusion unrelated to the hypothesis was presented by Sabatier (1986) and Sabatier et al. (1979): policy implementation cannot be judged in a short period of time. Perhaps fifteen years should pass before the implementation process can be adequately reviewed. In Oklahoma, LEPCs were established in 1987 and are now into their sixth year of existence. It is perhaps too soon to know the extent of implementation of EPCRA in Oklahoma. Perhaps these same LEPCs should be revisited in 1997 or 2002, when adequate time has been allowed for full implementation or clear failure of the process.

Suggestions for the Challenging Future of LEPCs

Risk Communication Programs

In view of the findings regarding the lack of outreach to the public, research cannot conclude that all LEPCs (even most) should conduct an extensive risk communication program. This is not to say that a risk communication should not be planned for and developed by the LEPC; however, one should realize that risks are not static and neither is the population needing risk information.

Therefore, a one-time shot at providing risk communication to the population will not meet the real needs of the community.

Recognizing the importance of a risk communication plan has been summarized in five points (Conn et al., 1990): sharing risk information with the public will avoid misunderstanding and build trust; risk information should be communicated before an emergency; risk communication should make use of existing organization in the community (building trust and taking advantage of existing conduits for information); starting with smaller, less threatening issues will allow easier discussion of larger issues; and the inclusion of emergency response drills in the program can effectively attract media attention to issues of hazardous material risk and personalize educational information for the citizens.

Assuming an LEPC had the resources to finance a multi-media advertising blitz of risk communications and information availability, such a program would need repeated at least annually to be effective. It would be better to coordinate with existing communication plans and then look for a way to fund an on-going program. Looking within the membership of the LEPC, someone with communications or marketing background might be located. If not, an industry member may be able to "loan" a public information officer or marketing manager to the LEPC for development of an on-going

program which makes the best use of media available in the community.

A budget for the program may be administered by the LEPC provided there is staff available for the task. Volunteers may also administer the program, but time availability should be a major concern when selecting the right overseer for the project.

What about Funding?

Most LEPCs chairpersons interviewed, as well as the regulators who participated, expressed a concern for the lack of funding. Although EPCRA mandates certain activities from SERCs and LEPCs, no funding has been provided for these tasks. With the current budget crisis, it is unlikely that additional funds will be provided. The passing of the Hazardous Material Transportation Uniform and Safety Act of 1990 was to provide funds from a national hazardous material transportation permit for planning and training activities related to emergency response to hazardous material incidents. Seen as the possible solution to the funding quagmire of LEPCs, this program, initiated in 1992, has failed to generate anywhere near the \$17 million income anticipated in the first year of operation. Like many states, Oklahoma has enacted "filing fees" for Tier form submissions. Filing fees can be as high as \$150.00 per regulated chemical stored (in Wisconsin, for instance), but in Oklahoma the fee is \$15.00 per form and monies collected

are utilized to support OHMERC activities.

Instead of depending on federal or state monies, LEPCs will probably need to depend on their own abilities. Some cities and counties provide at least partial support for LEPC activities and most LEPCs meet in no-cost public spaces. Some are "staffed" by emergency management personnel who may handle all filing, correspondence, speak at functions, etc., or merely answer the phone or collect the mail.

Some LEPCs have sought financial donations from reporting facilities but most on donated services from LEPC members. In some locals, a variety of industry may contribute to LEPC activities; in others, one company will provide the bulk of donated services and personnel to keep the LEPC functioning.

Often overlooked, LEPCs need to consider building support within the community that may eventually result in forcing local officials to provide funds for the LEPC (see above discussion).

Industry and Business Can Positively

Impact LEPC Activities

To repeat, LEPCs often concentrate most of their activities on outreach to industry. Yet, as noted above, such outreach and the increased participation of industry that results from such outreach are certainly not negative. While some may argue that domination of the LEPC by industry

may resemble "the fox guarding the hen house," Oklahoma LEPCs have benefited from such domination. The most active LEPCs are chaired by industry representatives and have accepted financial assistance (often through the provision of services) from industry. Additionally, in rural areas, large companies are more likely to have a broad spectrum of talents and abilities in their employees than will local governments and response agencies. Few county or small city governments have a formal public information officer or any policy regarding interviews with the media. Industry may have trained public information specialists, a communications department and even speech writers. Although some government offices now have computers, many do not. When a computer is not available to the LEPC through governmental or private resources, businesses can often supply such equipment at a very low cost when upgrading current capacity or by utilizing bulk purchase arrangements to include equipment purchase for the LEPC. Companies may have graphic departments or small publishing facilities (some printing facilities may be required to report under EPCRA and may have a representative on the LEPC). Someone with this capacity could assist in setting type for brochures, posters, etc. and may be able to offer printing services at low or reduced cost.

While much of the above suggestions include financial outlay, some require only a little time from industry representatives. If industry is already purchasing

regulation update material (from a commercial source), sharing the relevant information with the LEPC can benefit all members at no additional cost. Business representatives may find themselves meeting with others who are involved in LEPCs in different counties or states. Spending a few minutes asking questions about problems and challenges LEPCs have faced in these locations could provide needed information to the local committee, perhaps resulting in a more informed response to upcoming problems or just sharing the news that recent decisions were correct and the organization had not suffered the same problems as other LEPCs taking a different route.

The most important contribution industry can make to the LEPC is to meet the reporting requirements established by EPCRA. Willingly share this information with the LEPC - don't make them beg. At the heart of EPCRA is an effort to protect lives from harm. This includes the citizens and the responders who may choose the wrong response to an incident at a facility if the correct, required information was not provided.

Leadership is Needed from EPA and OHMERC

As noted in Chapter II, EPA has published a wealth of material regarding LEPCs activities including a risk communication program guidebook, guidebooks for local media, extensive studies of risk communication practices in LEPCs and more. However, much of this is not made available to

LEPCs. Admittedly, the length of some of the documents are such that extensive reproduction could increase the national debt. But many LEPCs would benefit from at least a summarization of the findings of these studies. Guidebooks are often dated with the one example reviewed here prepared in 1988 (Hadden, et al., 1989) with an emphasis on controlling and responding to numerous public inquiries. Oklahoma (indeed, most) LEPCs need guidelines on increasing public participation as the forecasted onslaught on request did not materialize.

It would be wonderful if EPA could fund all LEPCs (approximately 4,700) at \$1,000.00 per year. This would enable committees to mail information, publish the plan and perhaps purchase advertising space when press releases were ignored or left unpublished. Increasing the number of agents working with EPCRA programs in regional offices would be as beneficial, but this would also require additional funds.

Without increasing budgetary requirements tremendously, EPA must continue to provide technical assistance to LEPCs and the SERCs on the intent of the law and other "how-to" aspects of an on-going program.

Although many of the chairs interviewed had negative feelings about OHMERC support in the past, all expressed hope that changes in the organization's structure (through the creation of the Department of Environmental Quality) would provide positive benefits to LEPCs.

Funding prospects from OHMERC to the LEPCs is less optimistic than are the prospects of federal funding and perhaps even less realistic. But the SERC and LEPCs would benefit from additional staff support for LEPCs including more people in the office when a question arises as well as more people available to work with LEPCs in the field. Currently, the SERC has one staff person who can devote a major portion of time to LEPCs if needed (the staffer has other duties as well).

Some of the participating agencies of OHMERC have provided some contact to LEPCs by attending meetings, providing funds for some training or making presentations to the LEPC regarding reporting facilities in the community or other related information. Although these agencies are currently making an attempt to provide more direct contact with LEPCs, both have been much less accessible in the past. This is particularly true of one agency which has seen three agency directors in three years and as many policy changes regarding LEPCs and hazardous material issues in general.

Membership in OHMERC could be expanded to include a local LEPC representative and a member of an environmental group or the media. This would require some legislative changes but actively recruiting an environmentalist and/or media representative to sit on the ad-hoc committee would not and would also increase the likelihood that communication is opened in both directions -- up and down the scale (Hunter, 1963).

Conclusion

To summarize, changes in LEPC public outreach activities must be made in order for LEPCs to meet requirements under Section 324. Although the greatest changes would occur in a system providing funds to LEPCs, this is not likely to occur. However, simple things can be done to improve public outreach at all levels:

1. LEPCs should work to increase membership and activity levels of community groups, environmentalists and the media.
2. SERCs should broaden membership to include representatives of LEPCs, environmentalists, community groups and the media.
3. LEPCs should develop a risk communication plan that coordinates with existing plans and utilizes available resources.
3. These risk communication plans must go beyond providing emergency response information (who to call, where to go, evacuation routes, etc.) but should include informing citizens of the nature and source of risk.
5. SERCs and EPA should provide more information to LEPCs regarding simple, boiler-plate risk communication plans that can be adapted for a specific locale.
6. LEPCs may not be the best organization to implement this plan as a plan should be on-going for best results. Resources must then be on-going to continue the activity.

7. LEPCs must not assume that the few inquiries received by the public is indicative of a lack of interest.
8. Industry must realize that public outreach is not an infringement of trade secrets nor will such programs cause a general panic. When the public is well informed, they are less likely to respond incorrectly and are less likely to blame a company for problems arising while responding to a major incident.
9. While SERCs and EPA can provide much guidance to LEPCs, each LEPC must shape any public outreach program / risk communication plan on the individual community they serve.

BIBLIOGRAPHY

- 40 Code of Federal Regulations, Part 300: Superfund Amendments and Reauthorization Act of 1986.
- Bord, Richard J., Epp, Donald J., & O'Connor, Robert E. (1989). *Achieving Greater Consistency Between Subjective and Objective Risks* (Document No. 230/11-89-071). University Park, PA: Environmental Protection Agency.
- Carson, H. Tom, & Cox, Doye B. (Eds.) (1992). *Handbook on Hazardous Materials Management* (4th ed.). Rockville, MD: Institute of Hazardous Materials Management.
- Chemical Manufacturers Association (1985). *Community Awareness and Emergency Response Program Handbook*. Washington, DC: Chemical Manufacturers Association.
- Conn, W. David, Owens, William L., Rich, Richard C., & Manheim, Jarol B. (1988). *Processing Hazardous Materials Risk Information at the Local Level* (No. 230-06-89-063). Washington, DC: Environmental Protection Agency Office of Policy Planning and Evaluation.
- Conn, W. David, Owens, William L., Rich, Richard C., & Manheim, Jarol B. (1990). *Communicating With the Public About Hazardous Materials: An Examination of Local Practice* (No. 230-04-90-077). Washington, DC: Environmental Protection Agency Policy, Planning and Evaluation.
- Elkins, Charles (1987). Risk Communication: Getting Ready for "Right-to-Know." *EPA Journal*, November, 23-26.
- Environmental Protection Agency (1991). *Bibliography of Materials On the Emergency Planning and Community Right to Know Act (Title III of SARA)* (No. 580/CE 91-002). Washington D.C.: Environmental Protection Agency.
- Environmental Protection Agency (1988). *Chemicals in Your Community: A Guide to the Emergency Planning and Community Right-to-Know Act*. Washington D.C.: Environmental Protection Agency.

- Environmental Protection Agency (1992). *Managing Chemicals Safely: Putting It All Together* (No. 510-K-92-001). Washington D.C.: Environmental Protection Agency.
- Hadden, Susan G., & Bales, Barry V. (1989). *Risk Communication about Chemicals in Your Community: A Manual for Local Officials* (No. 230-09-89-066). Washington, DC: Environmental Protection Agency.
- Hunter, Floyd (1963). *Community Power Structure: A Study of Decision Makers*. Garden City, NY: Anchor Books.
- Inkeles, Alex, & Bauer, Raymond A. (1966). Keeping Up With the News. In Bernard Berelson and Morris Janowitz (Eds.), *Reader in Public Opinion and Communication* (2nd ed.) (pp. 556-587). New York, NY: The Free Press.
- Kresh, Paul (1969). *The Power of the Unknown Citizen*. Philadelphia, PA: J. B. Lippincott Co.
- Lasswell, Harold D. (1966). The Structure and Function of Communication in Society. In Bernard Berelson and Morris Janowitz (Eds.), *Reader in Public Opinion and Communication* (Second Edition) (pp 178-190). New York, NY: The Free Press.
- Lester, James P., & Bowman, Ann O'M. (1989). Implementing Environmental Policy in a Federal System: A Test of the Sabatier - Mazmanian Model. *Polity*, 21(4), 731 - 753.
- Lowry, Ritchie P. (1965). *Who's Running This Town? Community Leadership and Social Change*. New York, NY: Harper & Row.
- Mason, Steve, & Clark, Mark (1991). *EPCRA Update*, 4(4).
- Mason, Steve, & Clark, Mark (1992). *EPCRA Update*, 6(1).
- McCallum, David B., Hammond, Sharon Lee, Morris, Louis A., & Covello, Vincent, T. (1990). *Public Knowledge and Perceptions of Chemical Risks in Six Communities: Analysis of a Baseline Survey* (No. 230-01-90-074). Washington, DC: Environmental Protection Agency Office of Policy, Planning and Evaluation.
- McQuail, Denis (1969). *Themes and Issues in Modern Sociology: Towards a Sociology of Mass Communications*. London: Collier-Macmillan.
- National Institute for Chemical Studies (1990). *Citizens' Guide For Environmental Issues* (2nd ed.). Charleston, WV: National Institute for Chemical Studies and the Environmental Protection Agency (2nd ed.), 1990.

- Peters, B. Guy (1982). *American Public Policy Process and Performance*. New York, NY: Franklin Watts.
- Pressman, J. L., & Wildavsky, A. (1973). *Implementation*. Berkeley, CA: University of California Press.
- Rosenbaum, Walter A. (1981). *Energy, Politics and Public Policy*. Washington D.C.: Congressional Quarterly Press.
- Rosenbaum, Walter A. (1977). *The Politics of Environmental Concern* (2nd ed.). New York, NY: Holt, Rinehart and Winston.
- Rushefsky, Mark E. (1990). *Public Policy in the United States: Toward the Twenty-First Century*. Pacific Grove, CA: Brooks/Cole Publishing Company.
- Sabatier, Paul (1986). Top-Down and Bottom-Up Approaches to Implementation Research: A Critical Analysis and Suggested Synthesis. *Journal of Public Policy*, 6, 21-48.
- Sabatier, Paul, & Mazmanian, Daniel (1979). The Conditions of Effective Implementation: A Guide to Accomplishing Policy Objectives. *Policy Analysis*, 5(4), 481 - 504.
- Sikorski, Gerry (1992, April 5). "Should Right to Know Law be Strengthened?" *Arkansas Democrat-Gazette*, Section J., p. 3.
- Smith, Al J. (1981). *Managing Hazardous Substances Accidents*. New York, NY: McGraw - Hill.
- Solyst, James M. (1991). *Developing Ownership: State and Local Implementation of the Emergency Planning Community Right to Know Act*. Washington D.C.: National Governor's Association.
- Solyst, James M. & St. Amand, Melissa, (1993). *Emergency Planning and Community Right to Know Act: Status of State Actions - 1992*. Washington, D.C.: National Governor's Association.
- Thomas, Robert D. (1976). Intergovernmental Coordination in the Implementation of National Air and Water Pollution Policies. In Charles O. Jones and Robert D. Thomas (Eds.), *Public Policy Making in a Federal System* (pp 129-148). Beverly Hills, CA: Sage Publications.

- Van Horn, Carl E., & Van Meter, Donald S. (1976). The Implementation of Intergovernmental Policy. In Charles O. Jones and Robert D. Thomas (Eds.), *Public Policy Making in a Federal System* (pp 39-62). Beverly Hills, CA: Sage Publications.
- Weinstein, Neil D., Sandman, Peter M., & Roberts, Nancy E. (1989). *Communicating Effectively About Risk Magnitudes* (No. 230/08-89-064). Rutgers University, NJ: Environmental Protection Agency, Office of Policy, Planning and Evaluation.
- Weir, David (1988). *The Bhopal Syndrome: Pesticides, Environment and Health*. San Francisco, CA: Sierra Club Books.

APPENDIX

QUESTIONS FOR IN-DEPTH INTERVIEWS

QUESTIONS FOR IN-DEPTH INTERVIEWS

LEPC CHAIR

Date _____ Time _____ Location of interview _____

LEPC associated with _____

Position with LEPC _____

What is your occupation?

How long have you been involved with the LEPC?

How did you come to be involved with the organization?

How often does the LEPC meet?

What are the occupations of your LEPC members? (fire, emergency management, health, police, industry, citizen groups, etc.)

Has your LEPC completed a plan regarding the chemical risk in your community?

What percentage of industry in your community is in compliance with SARA Title III?

What do you think is the intent of this law, Emergency Planning and Community Right to Know?

In your opinion, has the "Right to Know"?

Have you had inquiries from the general public about the activities of an LEPC?

If yes, what types of activities were they interested in?

What provisions does your LEPC have for inquiries from the general public?

How do you let the general public know about your meetings, plans, etc.?

Who participates in planning your exercises?

How does your LEPC interact with the local media?

In what public education or public outreach activities has your LEPC participated, if any?

Please tell me more about each activity: who was your target audience? How many reached (attended, brochures printed, distributed, etc.)? Did you reach the group you meant to? Did you accomplish what you started out to do?

How do you know you accomplished/or did not accomplish this?

How would you improve it next time?

Do you have plans for similar activities in the future?

What are they and who is your target audience?

What is the biggest challenge you see for LEPC's in the next few years?

NOTES:

REGULATORS

Date_____Time_____ Location of interview_____

Agency associated with_____

Position with agency_____

How this agency relates to SERC / LEPCs_____

How long have you been working with the SERC?

Has the SERC conducted public education/outreach programs?

Were they successful? How do you know the programs were successful or not?

Can you explain what made each program successful?

What was the target audience for each activity?

What about unsuccessful attempts for outreach? (Who targeted to, why didn't work, etc.)

Do you believe outreach activities by an LEPC is required under SARA Title III?

If so, what do you think those requirements are?

Who should be recipients of the outreach?

In the phrase "Emergency Planning and Community Right to Know," what group is meant by the word "Community"?

Who do you think has a right to know?

What do they have a right to know?

What is the SERC policy regarding inquiries for chemical information from the general public?

Does your agency have an official policy regarding citizen outreach?

Has citizen request been a problem for the SERC or any LEPC?

Given the monetary restrictions most LEPCs face, what methods of outreach can be conducted at little or no cost?

Are you satisfied with the types of community outreach conducted by various LEPCs?

NOTES:

VITA 2

Rita Suzanne Gray Anderson
Candidate for the Degree of
Master of Arts

Thesis: AN EXAMINATION OF ELITE ATTITUDES TOWARD THE
EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT
REGARDING THE DISSMININATION OF INFORMATION

Major Field: Environmental Science

Biographical:

Personal Data: Married with two children; born in
Lubbock, Texas

Education: Attended public schools in Texas, New
Mexico and Arkansas; received Bachelor of Arts
Degree in Social Sciences from Harding University
in Searcy, Arkansas, in May, 1975; completed
requirements for the Master of Science degree at
Oklahoma State University in July, 1993.

Professional Experience: Member of Alliance for
Uniform Hazmat Transportation Procedures, a
working group for US Department of Transportation,
1992 - 1993; Emergency Management at local level,
including program director, member, Board of
Advisors and volunteer, since 1989; four years as
member of Kay County Local Emergency Planning
Committee, chairperson in 1990; five years
experience in community development (grant
administration, grant writing, program
development) for city and tribal governments; five
years experience in sales and promotions.

Professional Organizations: Oklahoma Emergency
Management Association (OEMA), Secretary, 1991;
National Coordinating Council of Emergency
Managers (NCCEM), Region VI Secretary, 1991 and
liaison to Alliance for Uniform Hazmat
Transportation Procedures.