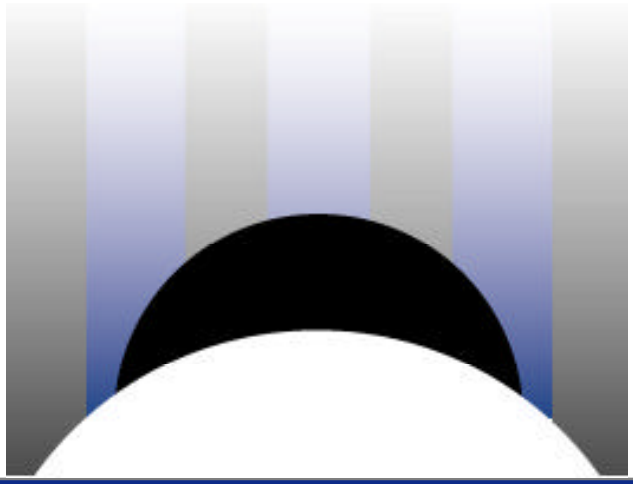

Mary Kay O'Connor Process Safety Center

Measuring and Understanding Public Trust and Awareness to Prevent Chemical Incidents

MKOPSC Report 2002-04
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The Mary Kay O'Connor Process Safety Center was established in 1995 with a goal to improve chemical safety in the chemical process industries. The Center is associated with the Texas Engineering Experiment Station, of The Texas A&M University System, Chemical Engineering Division.

The Center provides a uniquely neutral forum to address chemical process safety for all stakeholders, industry, government, labor, and the general public.

This document represents the collective work of the Mary Kay O'Connor Process Safety Center researchers and staff in support of the National Chemical Safety goals. The ongoing research efforts of the Center will be presented in similar documents as work is continued. Each research document serves as an individual step in achieving the national safety goals. These documents will be included in an overarching document pertaining to chemical safety in the United States.

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Measuring and Understanding Public Trust and Awareness to Prevent Chemical Incidents

1.0 Introduction

Community awareness and public trust are very important elements of chemical safety improvements. A key part is ensuring citizen awareness of both the potential dangers and actions that have been taken to mitigate those dangers. As part of the Chemical Safety Assessment Program, the Mary Kay O'Connor Process Safety Center at Texas A&M University (the Center) developed a survey to analyze the impact of various programs to prevent accidental releases of reactive, flammable, and toxic chemicals during manufacture, processing, packaging, storage, transportation, distribution, and commercial use.

To establish a baseline metric from which to measure future progress toward improved community awareness and public trust, the Center conducted a telephone survey to measure the level of public knowledge and trust of chemical operations near their homes.

The Center conducted the survey with guidance from the National Chemical Safety Program Roundtable. Design of the survey instrument was a joint effort between Center personnel, the Roundtable, and the Public Policy Research Institute (PPRI). The PPRI at Texas A&M University implemented the telephone survey and compiled the initial responses.

2.0 Background

The Center undertook this analysis of indicators as part of the National Chemical Safety Program (NCSP). NCSP drew on the expertise and advice from a Roundtable, which was composed of a diverse group of stakeholders involved in chemical safety. The Roundtable established the following national goals for chemical safety:

- Chemical incidents are zero;
- Chemical enterprises have earned the public's trust; and
- Public, government, and facility interactions improve safety and reduce risk.

Members of the Roundtable recognize that attaining the national goals is a long-term proposition and therefore have not established a timetable for achievement. All stakeholders realize it is important to show progress towards the goal rather than to focus solely on achievement. To show progress, an accurate measurement of chemical safety in the United States first must provide a benchmark against which to measure progress. While a clear understanding of the current state of chemical safety is being established, the stakeholders should work to achieve the national goals. Once a clear understanding of the current state of chemical safety is established, then stakeholders can work to achieve the goals.

At the 1999 Roundtable meeting, the stakeholders provided the Center with a preliminary analysis of chemical safety indicators to measure the status of chemical safety and, specifically, the movement toward the goal of "chemical incidents are zero." The potential measures and indicators were identified as:

- Trends in the total number of incidents
- Trends in the number of facilities reporting incidents, including the percent of facilities reporting
- Trends in publicizing near misses
- Trends in the use of safety culture building programs
- Trends in the level of effort to install prevention programs
- Trends in public awareness and trust

These measures and indicators were the starting point for a series of reports, of which this is one, to assess the current state of chemical safety.

3.0 Methods

The Center employed a survey, which will be repeated over time so that trends and changes can be noted and tracked. Specifically, a telephone survey was conducted to measure the relevant attitudes, knowledge, and experience of people living near sites where chemical releases are possible.

3.1 Survey Instrument

The survey instrument employed included a total of 15 primary questions and 19 secondary questions based upon responses to the primary questions. The questions were divided into three categories: general information questions, questions focusing on community awareness, and questions focusing on public trust. The questions on awareness were to determine the level of awareness of the public about the number and types of chemical facilities located in the community and the efforts made by the facilities and the community to protect the community from a chemical incident. The trust questions focused on the public's perception and belief whether these efforts were adequate to protect public safety and health. A copy of the survey instrument is in the Appendix.

3.2 Sampling Methodology

To determine who to survey, the Center used the U.S. Environmental Protection Agency (EPA) Risk Management Program (RMP) 5-year accident history database to identify suitable chemical facilities. The Center then identified the homes within a one-mile radius of the each of the facilities selected and located the telephone numbers. The Center interviewed 720 randomly selected households from across the United States that are located near facilities that use, manufacture, or distribute chemicals. The sample needed to be broadly reflective of the experiences across several sites so that occurrences at a single site would not unduly affect the analysis of the response.

The sampling approach involved the use of a multistage cluster sample of sites and households within a mile radius of each site. The sample was stratified into two groups: (1) those living within one mile of sites with a high probability of a chemical release occurring, as regulated by the EPA RMP rule; and (2) those living near industries that have a low probability of a release occurring.

Table 1: Number of Releases per Process Unit
Source: EPA RMP 5-year Accident History Database (1994-1999)

NAICS Code	*Process*	*Process Units*	*Releases*	*Releases/ Process Unit*
	High Probability			
322	Paper Manufacturing	249	94	0.38
331	Metal Manufacturing	260	41	0.16
325	Chemical Manufacturing	4,430	495	0.11
311	Food Manufacturing	1,886	215	0.11
324	Petroleum Refining	2,116	169	0.08
	Low Probability			
233 to 235	Construction	4	2	0.50
111	Crop Production	172	15	0.09
112	Animal production	71	6	0.08
211	Oil and Gas Extraction	634	39	0.06
332 to 339	Equipment Manufacturing	328	19	0.06
5xx to 9xx	Services and Government	412	21	0.05
326 to 327	Plastic, Rubber, Non Metal	304	15	0.05
312 to 321	Bev, Tobac,Textile, Wood	207	10	0.05
221	Utilities	4,672	178	0.04
212 to 213	Mining	74	3	0.04
493	Warehousing and Storage	1,316	46	0.03
422	Wholesale, Non Durable	6,041	122	0.02
115	Ag and Forestry	630	10	0.02
44x to 48x	Retailers	560	7	0.01
323	Printing	22	0	0.00
421	Wholesale, Durable	12	0	0.00
Unknown			2	

The EPA RMP 5-year Accident History Database was used to determine a "high" versus a "low" probability of a release occurrence. Table 1 summarizes the number of releases per process unit, classified by the North American Industrial Classification System (NAICS) code.

This information was used to determine a high frequency and a low frequency of incidents in communities. It is assumed that based upon the frequency of incidents, communities with a high frequency of incidents are more likely to have a higher community awareness and a lower level of public trust. An arbitrary cutoff of 0.08 incidents/process was used to distinguish between the high frequency and low frequency strata. Even though construction shows a frequency of 0.50 and animal production a frequency of 0.08, they were excluded from the high frequency strata because of relatively few process units associated with these activities.

In each group, 60 sites were randomly selected. An average of six households per site were surveyed for a total of approximately 360 households from within each stratum. The actual number sampled from each site is proportional to the number of households within a one-mile radius of the site. The households were identified through listed telephone numbers.

3.3 Limitations of Survey Methodology

The 95 percent confidence interval is approximately ± 4 percent for a sample of 720 households, assuming a simple random sample. The cluster sample potentially increases the error, and the amount of the increase is a function of the variability across clusters. The estimated error for each stratum would be no more than ± 6 percent. This error could be lower for estimates in which the two strata are combined, because stratification along a variable providing homogeneity within a stratum tends to increase the precision of the estimates. Under this complex sample design, each sampled household receives a sampling weight through which the sample-based results are generalized to the entire population.

4.0 Community Awareness

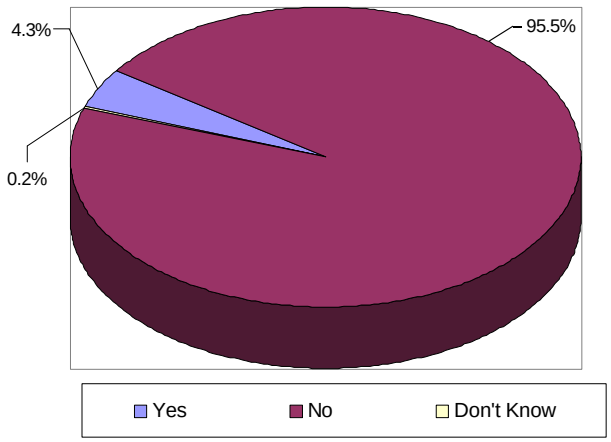
For the purposes of this study, community awareness is defined as the knowledge or awareness of companies within their community that manufacture, use, or distribute chemicals that may be hazardous, any incidents in the community involving these companies, and the attempt by the companies to inform the community.

The community awareness questions are within three general categories. The first, **Perspective**, is designed to identify a biased perspective from a respondent. For example, a member of a first responder group or someone who is an employee of a chemical manufacturing entity would be more likely to have a more informed and higher level of community awareness then someone who is not. The second category, **Level of Awareness**, provides a differentiation tool to gauge how well informed and aware members are of activities taking place in their community. The final category, **Outreach Efforts**, gauges if a community member has been affected by an outreach effort by the chemical industry, government, or other groups concerning chemical safety.

4.1 Perspective

The questions in this section focused on whether respondents might have an unusual level of knowledge concerning chemical safety and chemical incidents. Question 1 specifically focuses on whether a respondent or a member of that household is an employee of a company that manufactures, uses or distributes chemicals, an employee of a government regulatory agency, or a member of a first responder group. In the high strata, less then 15% of the respondents worked for a chemical company, less then 2.5% were employed by a government regulatory agency, and less then 5% were members of a first responder group or agency. In the low strata, less then 9% of the respondents worked for a chemical company, less then 5% were employed by a government regulatory agency, and less then 5% were members of a first responder group or agency.

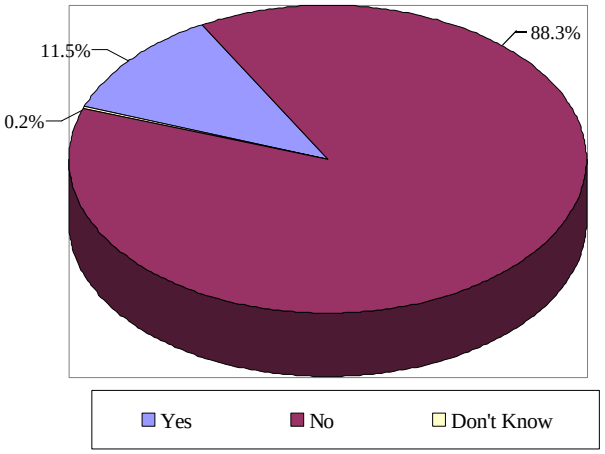
Figure 1: Survey Question 9A
Does anyone in your household participate in the LEPC?
(Figure shows overall data for both high and low frequency strata)



Questions 9(a) and 10(b) both focus on participation in other groups that would have an unusual level of knowledge. In the high strata, 3.8% of the respondents participated in a Local Emergency Planning Committee (LEPC), and less than 11% of the respondents participated in a Community Advisory Panel (CAP). In the low strata, less than 7.2% of the respondents participated in a Local Emergency Planning Committee (LEPC), and 15.6% of the respondents participated in a Community Advisory Panel (CAP). There was no

significant difference between the high and low strata. Responses to Questions 9A and 10B are displayed in Figures 1 and 2.

Figure 2: Survey Question 10B
Does anyone in your household participate in the CAP?
(Figure shows overall data for both high and low frequency strata)

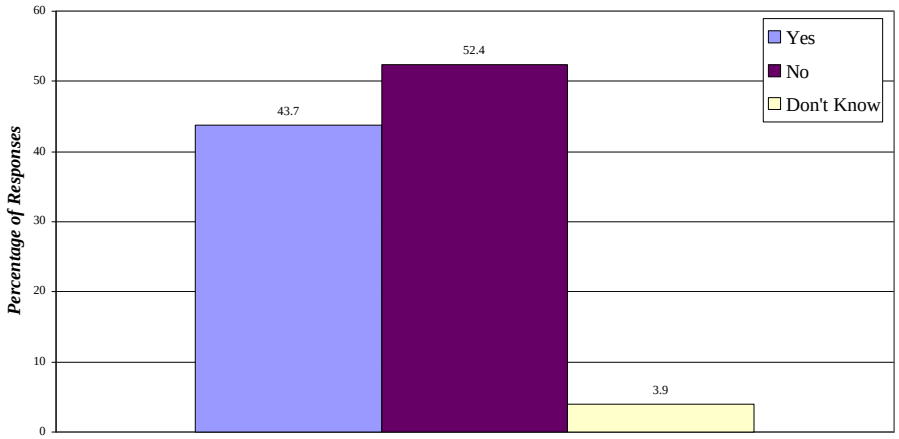


4.2 Level of Awareness

The questions in this section focused on the base level of awareness of respondents concerning chemical safety and chemical incidents in their community. This category encompasses eight questions including awareness of any companies in the community that use, manufacture, or distribute potentially hazardous chemicals, the types of actions that one would take during an incident, the perceived level of awareness, the efforts of external non-regulatory groups and regulatory agencies, past incidents, and potential levels of danger.

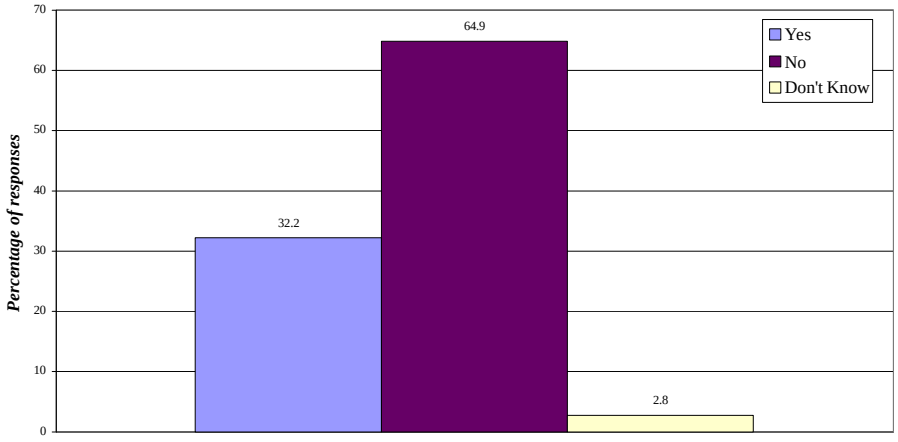
Question 2, represented in Figure 3, focuses on the awareness of any companies in the community that use, manufacture, or distribute potentially hazardous chemicals. In the high strata, 25.2% and in the low strata, 31.0% of the respondents were aware of such companies. In a separate question, in the high strata, 29.0% and in the low strata, 24.5% of the respondents thought that other members of the community were very well informed or adequately informed about where to acquire information during an emergency.

Figure 3: Survey Question 2
Are you aware of any companies in your community that manufacture, use or distribute chemicals that may be hazardous?
(Figure shows overall data for both high and low frequency strata)



Question 11, represented in Figure 4, concerns the level of knowledge of any chemical accidents that occurred in the community during the last five years. In the high strata, 33.7% of the respondents knew of a chemical accident that had taken place in the community during the past five years, and in the low strata, 24.6% of the respondents knew of a chemical accident that had taken place in the community during the past five

Figure 4: Survey Question 11
Are you aware of any chemical accidents that have occurred in your community during the past five years?
(Figure shows overall data for both high and low frequency strata)



years. There was a statistically significant difference between the high-release facilities and the low-release facilities concerning knowledge of an EPA inspection using a Chi-Squared test at a 0.05 level of significance.

Questions 9(b), represented in Figure 5, 10 and 10(a) focus on the knowledge of an LEPC or a CAP. In the high strata, 41% of the respondents knew that there was an LEPC in the area, and about 17% of the respondents had knowledge of a CAP. In the low strata, 37.7% of the respondents knew there was an LEPC in the area, and 13.1% of the respondents had knowledge of a CAP.

Figure 5: Survey Question 9B
Has the existance of the LEPC made your community safer?
(Figure shows overall data for both high and low frequency strata)

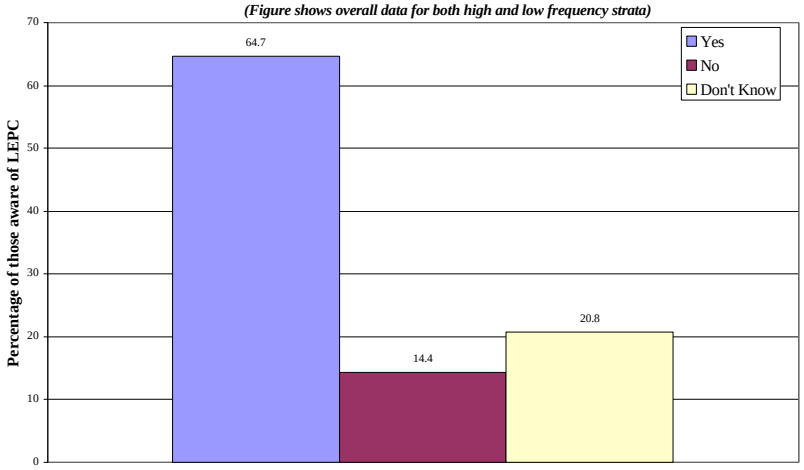


Figure 6: Survey Question 14
(Figure shows overall data for both high and low frequency strata)
Please respond to each of the following (Yes or No) as to whether, to your knowledge, EPA has had contact with any local company regarding:

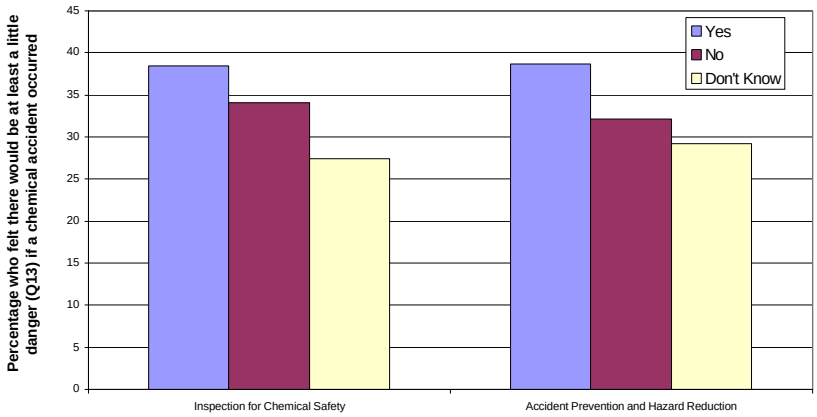
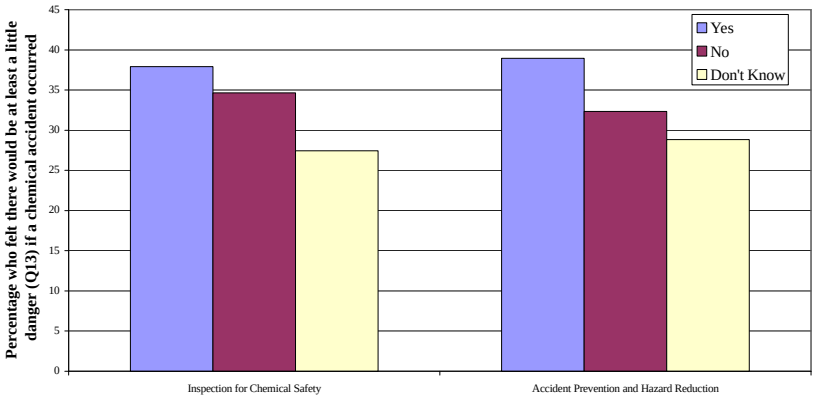


Figure 7: Survey Question 15
(Figure shows overall data for both high and low frequency strata)
Please respond (Yes or No) as to whether, to your knowledge, OSHA has had contact with any local company regarding:



Questions 14 and 15, represented in Figures 6 and 7, gauge the level of impact of the Federal regulatory agencies EPA and OSHA. In the high strata, 41% of the respondents knew that EPA had conducted an inspection concerning chemical safety, about 40.3% of the respondents had knowledge of an effort by EPA to reduce accidents, and 38.8% had knowledge of an OSHA inspection. In the low strata, 26.7% of the respondents knew that EPA had conducted an inspection concerning chemical safety, about 30.1% of the respondents had knowledge of an effort by EPA to reduce accidents, and 33.4% had knowledge of an OSHA inspection. Interestingly, there was a statistically significant difference between the high-release facilities and the low-release facilities concerning knowledge of an EPA inspection using a Chi-Squared test at a 0.05 level of significance.

4.3 Outreach Efforts

The questions in this section focused on outreach efforts concerning the community. This category encompasses types of outreach efforts, including whether the respondents have received information concerning potential accidents, where the information came from, what other types of information is needed, and who is responsible for providing it.

Question 3 presents the general question of whether the respondent has received information on what to do in case of an accident in the community involving the release of chemicals. In the high strata, 25% of the respondents received such information, with 77% of those receiving it feeling that the information would enable them to know what to do in the event of such an accident. In the low strata, 17% of the respondents received such information, with 87% of those receiving it feeling that the information would enable them to know what to do in the event of such an accident. As might be expected, there was a statistically significant difference between the low strata and the high strata in receiving such information.

In both strata, the outlets that provided the information were predominantly the local company, physicians and health professionals, and government agencies. This seemed to meet respondent's expectations, with almost 70% of the respondents expecting the information to come from government agencies or the chemical manufacturers themselves. However, there was a general lack of knowledge about what additional information is necessary, with almost 40% of the respondents not knowing.

5.0 Public Trust

For the purposes of this study, public trust is defined as the perceived level of trust the community places in the agencies and groups that support efforts to increase chemical safety in a community and the information the public receives concerning such efforts or incidents should they take place.

The public trust questions are within three general categories. The first, **Information**, is designed to understand how the community gets its information and where their preferences lie. The second category, **Effects of Efforts**, focuses on how well the efforts of different groups concerning chemical safety are perceived. The final category, **Ability to Respond**, gauges the perception of whether a community has the ability to respond appropriately to a chemical incident.

5.1 Information

A series of five questions gauges aspects of communication regarding a chemical incident, including the method of communicating information, preferred sources of information, the ability of the information to assist in safety, and timeliness of information.

Prior to an incident, the sources for information on chemical safety were the chemical company, a government agency, an LEPC, a CAP, health professionals, and other citizen groups. In the high strata, the most common source was the company, 19.8% of received information came from the company, 15.5% of the information came from a government agency, 13.2% from an LEPC, 5.5% from a CAP, 15.6% from a health professional, and 9.5% from another citizens group. In the low strata, the most common source was also the company, 16.0% of received information came from the company, 14.4% came from a government agency, 11.4% from an LEPC, 5.1% from a CAP, 14.3% from a health professional, and 6.1% from another citizens group.

The preferred source for such information by the respondents was primarily television. 39% of the respondents said the best way to get the needed information was television. This choice was followed by brochures (25.3%), newspapers (14%), radio (11.5%), and the internet (8.7%).

In general, over 25% of the respondents did not know where to acquire up-to-date information during an accident that involved a release of chemicals in the community. Following that, the rest of the top five sources was television with 24.4%, emergency services at 15.9%, the fire department at 8.5%, and the police or law enforcement at 7.8%. The medium of transmittal was primarily television, with almost 73% of the respondents obtaining their information about chemical safety or incidents from television. 66% of respondents received information from newspapers, 56% from the radio, and 51% from emergency sirens. Interestingly, 32% of the information was received from the internet.

Almost 70% in the high strata and over 51% in the low strata of those who were aware of a chemical incident felt that the information they needed to protect themselves and their families was not received in a timely manner. However, over 77% in the high strata and 85% in the low strata felt that the information once received enabled them to know what to do.

5.2 Effects of Efforts

There are numerous groups making efforts to increase chemical safety in the communities. These groups can generally be divided into government and non-government entities. There are other groups, such as the company whose efforts can also affect the level of perceived safety and trust. However, these indicators were not measured as a part of this survey. The effects of these efforts were measured through four questions.

For the purpose of the survey, EPA and OSHA were used to represent all government agencies and may not accurately reflect efforts of state and local agencies. For the government, almost 85% of the high strata respondents and almost 88% of low strata respondents would feel safer if EPA provided accident prevention and hazard reduction assistance to a chemical firm. Almost 81% of the high strata respondents and almost 84% of low strata respondents would feel safer if OSHA provided accident prevention and hazard reduction assistance to a chemical firm.

The second group is composed of non-government entities and is represented by LEPCs and CAPs. Almost 65% of the high strata respondents and almost 67% of low strata respondents felt that the presence of an LEPC makes a community safer. Almost 56% of the high strata respondents and almost 57% of low strata respondents felt that the presence of a CAP makes a community safer. Respondents seemed to prefer and trust the efforts of government agencies more than local, non-governmental entities in increasing the level of safety.

5.3 Ability to Respond

Lastly, the ability of the community to respond is a key component in the level of public trust. If there is the perception that the community, governmental agencies, and other groups are unable to respond appropriately, then there will be a correspondingly lower level of trust.

Almost 62% of the high strata respondents and almost 57% of low strata respondents felt that the community could respond to a chemical accident adequately or very well. However, almost 63% of the high strata respondents and almost 57% of low strata respondents felt that their families would be in some or a great deal of danger should a chemical incident occur.

6.0 Conclusions

There is a need for stakeholder and citizen input into efforts to increase chemical safety in communities through efforts to reduce the number of incidents, reduce the magnitude of incidents, and to inform the public before, during, and after incidents. The purpose of the survey and this report is to provide a baseline metric and to develop a methodology for assessing the levels of community awareness and public trust concerning chemical safety in communities, with the outcome that chemical enterprises have earned the public's trust and public, government, and facility interactions have improved safety and reduced risks.

There seems to be a defined need for additional efforts in community awareness. Less than one-third of respondents were aware of companies in the community that use, manufacture, or distribute potentially hazardous chemicals. Less than half of all respondents were aware of non-governmental organizations to assist in improving chemical safety, and less than half of all respondents were aware of onsite efforts by EPA and OSHA to increase chemical safety through inspections. Recently an Emergency Planning Commission in Louisiana concluded that when emergency sirens sound, many people wander outside and attempt to determine what is going on and what actions should be taken. In this particular community, understanding the loud speaker announcements continues to be a problem.

There also seems to be a defined need for additional efforts to earn the public's trust. Communities turn to television for their information, and the primary source of information is the company. However, during an incident, over one-quarter of the respondents did not know where they could acquire up-to-date information. The communities seemed to feel that efforts by EPA, OSHA, LEPCs, and CAPs were effective in increasing chemical safety. However, very few were knowledgeable about such efforts. Lastly, a majority of the respondents felt that even though their community may be able to respond well to a chemical incident, a majority still felt that their families were at least in some danger.

Appendix - Survey Instrument

Survey of Citizens Near RMP Facilities Regarding Chemical Safety

Hello, my name is _____. I am calling from Texas A&M University. We are conducting a national study of Citizen Awareness of Chemical Safety at nearby facilities that use, manufacture, or distribute chemicals. We are interviewing 720 people living in randomly selected households near these facilities around the United States.

In order to choose one person in each household to interview, I need to know who in your household, 18 years or older, had the most recent birthday. I don't mean who is the youngest adult, but rather who had the most recent birthday. May I speak with that person?

[SKIP TO ALL BEGIN IF THE CORRECT PERSON ANSWERED PHONE]

[IF DESIGNATED RESPONDENT WAS NOT AVAILABLE, RECORD FIRST NAME AND MAKE CALLBACK APPOINTMENT]

ALL BEGIN: *The survey will take about 10 minutes. Would you be willing to answer a few questions?* [IF No, EXIT Interview] *Your responses will be viewed as representative of citizens living near facilities that produce, use, or distribute chemicals. This survey is completely anonymous and there is no way your answers can be identified as yours. You may skip any question you like or end the interview at any time.*

[USE THE FOLLOWING IF ASKED FOR MORE INFORMATION]
If you have any questions regarding this survey, you may call Mr. Charles Isdale at (979) 458-1168 or visit our web site at http://process-safety.tamu.edu/.

1. *Are you or anyone in your household any of the following:* [READ LIST, SELECT ALL THAT APPLY]

An employee of a company that manufactures, uses, or distributes chemicals;	1
Employed by a government regulatory agency *[OSHA, EPA, etc.]*	2
A member of an emergency responder group or agency *[EMT organization, Fire Dept.]*	3

[IF NOT 3 ABOVE, SKIP to QUESTION #2.]

1a. *Are you a volunteer or paid member of this first responder group or agency?*

Volunteer	1
Paid	2

2. *Are you aware of any companies in your community that manufacture, use, or distribute chemicals that may be hazardous?*

Yes	1
No	2
Don't Know	

2a. *Which companies are these?* _____

3. *Have you received information about what to do in case of an accident involving release of chemicals in your community?*

3. *Have you received information about what to do in case of an accident involving release of chemicals in your community?*

Yes	1
No	2

[IF No SKIP to QUESTION #4.]

3a. *How well do you think this information will enable you to know what to do in the event of an accident? Would you say…*[READ LIST]?

Very well	1
Adequately	2
Not very well	3

3b. *If told to Shelter-in-place, what action would you take?* _____

4. *Where would you acquire up-to-date information during an accident involving a release of chemicals in your community?*

Where _____

5. *Please tell me whether you get information about chemical safety or incidents from each of the following sources:* [READ LIST, MARK All RESPONSES]

	Yes	No
Radio	1	2
Television	3	4
Newspapers	5	6
Internet	7	8
Brochures	9	10
Siren	11	12
Automatic telephone system	13	14
Anywhere else	Where	_____

6. *Have any of the following ever supplied chemical safety information to you?* [READ LIST (Scramble List Order), MARK ALL YES RESPONSES]

Local companies	1
Government agencies	2
Local Emergency Planning Committee (LEPC)	3
Community Advisory Panel (CAP)	4
Physicians and Health Professional	5
Other Citizens Groups	6
None of the above	7

[IF 7, SKIP to QUESTION #6b.]

6a. *How well do you think the information you got will enable you to protect your family? Would you say…*[READ LIST]

Very well	1
Adequately	2
Not very well	3

6b. *From which one source would you prefer to receive chemical safety information?* [READ LIST (Scramble List Order), MARK ONE RESPONSE]

Local companies	1
Government agencies	2
Local Emergency Planning Committee (LEPC)	3
Community Advisory Panel (CAP)	4
Physicians and Health Professional	5
Other Citizens Groups	6

7. What types of chemical safety information do you need that you do not have?

_____

7a. *What person, group, or agency should be responsible for providing this information?*

_____

7b. *What do you think is the best way to get this information? Would you say*
[READ LIST, MARK ONLY ONE RESPONSE]

Radio	1	
Television	2	
Newspapers	3	
Internet	4	
Brochures	5	
Anywhere else	6	Where _____

8. How well do you think others in the community are informed about what to do and where to acquire information in case of an emergency?

Very well	1
Adequately	2
Not very well	3

9. *Do you know if there is a Local Emergency Planning Committee (LEPC) that plans for emergencies, including chemical emergencies, in your area?*

Yes	1
No	2
Don't Know	3

[IF No OR Don't Know SKIP to QUESTION #10.]

9a. *Does anyone in your household participate in the LEPC?*

Yes	1
No	2

9b. *Has the existence of the LEPC made your community safer?*

Yes	1
No	2
Don't Know	3

10. *Do you know if there is a Community Advisory Panel (CAP) at a company in your area?*

Yes	1
No	2
Don't Know	

[IF No OR Don't Know SKIP to QUESTION #11.]

10a. *At what company?* _____

10b. *Does anyone in your household participate in the CAP?*

Yes	1
No	2

10c. *Has the existence of the CAP made the local company safer?*

Yes	1
No	2
Don't Know	3

11. *Are you aware of any chemical accidents that have occurred in your community during the past five years?*

Yes	1
No	2

[IF No, SKIP to QUESTION #12.]

11a. *What kind of accident?* _____

11b. *Did you receive timely information about how to protect yourself and your household?*

Yes	1
No	2

11c. *What were the sources of information?*

_____

12. *How well do you think your community can respond to a chemical accident?*
[READ LIST]

Very well	1
Adequately	2
Not very well	3
Don't Know	4

13. *How much danger do you feel there would be to your family if a chemical accident occurred in your community?* [READ LIST]

A great deal of danger	1
Some danger	2
Little danger, or	3
No danger at all	4
Don't Know	5

[IF 4 or 5, SKIP to FINAL:]

13a. *What kind of danger do you think a chemical accident would put your family in*?

_____

14. Please respond to each of the following (yes or no) as to whether, to your knowledge, the EPA has had contact with any local company regarding: [READ LIST; RECORD ALL RESPONSES]

	Yes	No
Inspection for chemical safety	1	2
Accident prevention and hazard reduction	3	4
Don't Know	5	6

14a. *If you knew the EPA was providing accident prevention and hazard reduction assistance to the company, would that make you feel safer?*

Yes	1
No	2
Don't Know	3

15. *Please respond (yes or no) as to whether, to your knowledge, OSHA has had contact with any local company regarding:* [READ LIST; RECORD ALL]

	Yes	No
Inspection for chemical safety	1	2
Accident prevention and hazard reduction	3	4
Don't Know	5	6

15a. *If you knew OSHA was providing accident prevention and hazard reduction assistance to the company, would that make you feel safer?*

Yes	1
No	2
Don't Know	3

FINAL: *Thank you very much for your time. That completes our survey*.

GENDER. [RECORD GENDER]

Male	1
Female	2