UNITED STATES OF AMERICA

CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD

PUBLIC MEETING RE
DPC ENTERPRISES PLANT

JUNE 9, 2004
6:00 P.M.

The meeting was held at the City of Glendale Council Chambers, 5850 West Glendale Avenue, Glendale, Arizona, John Bresland, presiding.
MR. BRESLAND: Good evening. Welcome to this public meeting of the U.S. Chemical Safety and Hazard Investigation Board. I'm John Bresland, a member of the Board.

Before we begin, we have put some safety information in terms of if there is an emergency how do you exit the building, and there are exit doors at the ones you came in both my right and my left. And then behind me there are two more exit doors that eventually will lead outside. So, if we have to use them, hopefully we won't. That will be the way for you to exit.

Again, I'm John Bresland, a member of the Board of the Chemical Safety Board. We'd like to welcome you all to this public meeting to bring the community up to date on the CSB's investigation into the chlorine release last November 17, 2003 at the DPC Enterprises Plant here in Glendale, Arizona. I would especially like to thank the City of Glendale for their very kind hospitality in making these really wonderful facilities available to us for this important meeting. The cooperation of local officials in our investigation has been much appreciated, and we
are very, very grateful for that.

Later in the public meeting we will have a public comment period and we'll hear from anyone who wishes to speak about this investigation. I would remind you to please sign the sign-up sheet that is at the front entrance and if you haven't signed there's still plenty of time to do so. That sign-up sheet is on the table outside as you came in. Also, on the table outside is more information about the CSB and it's investigations and you're welcomed to take any of that information away with you.

With me at this table is another member of our five-member Board at the CSB, Rixio Medina. We also have the lead investigator in this instant that we are discussing tonight, Mr. John Murphy, who is sitting over here. He is accompanied by investigator Michael Morris, who's standing in front of us here. And also next to me is our general counsel, Mr. Chris Warner. In the audience is our chief operating officer, Mr. Charles Defras (phonetic). I believe Charles is outside right now welcoming people. And our public affairs person, Mr. Sandy Gilmore. At this time we'd like to recognize Glendale City Councilman, Phil Lieberman, and ask him if he'd like to give some brief remarks.
MR. LIEBERMAN: Thank you, Mr. Bresland.

You will pardon my appearance. I didn't know I was going to do this until exactly eight minutes ago, but it's alright. I like it. Last September 17th, I got a call on what I would call my hotline from our city public relations director who said, Phil, there's a chemical spill. A chemical spill? Yes, and it's in your district. Uh-oh. And, we're even getting around to where we may have to evacuate homes. You better get over there. Believe me, I did in nothing flat. And then I discovered that I really couldn't get there if I wanted to because road after road after road was blocked. I did go to the baseball park where facilities were going to be set up and were being set up, and we had a nice audience there of people who had been asked to leave their home. There was food. There was services. There was information. I thought for the very first effort of this type everything was working.

I do at this time want to publicly thank the Board, the U.S. Chemical Safety and Hazard Investigation Board. I'm delighted and I'll use that term again delighted, to find that they are with the City of Glendale, with the City of Phoenix, they are doing the investigation to tell us what we can do
hopefully about the incident and more importantly what we can do to make sure that something like this never ever happens again. I also want to take this time to welcome you into Glendale, into the Glendale council chambers, which is where you're at.

And we are delighted, and I would tell you as a representative of the council, personally, I'm also delighted to see so many of you here. I hope to learn from this meeting. We are certainly learning from this incident. We had a meeting just last week where we were discussing this incident. We hope that it never happens again.

We also hope that should there be anything like it that does happen again we will no more about what to do. We will know more about what to do with the people who are in the area. We'll know more about, of course, the prevention of it, and I'm going to tell you with that, that I again want to welcome the Board. I want to welcome all of you. I want to welcome Claude Mattox, who just arrived, who I understand is going to speak to you a few works at the minute. And, again, please forgive my informal attire. Claude, it's your turn. Thank you.

MR. BRESLAND: Thank you, Councilman Leiberman. And now I'd like to introduce Phoenix city
councilman for District 5, Mr. Mattox. Thank you for coming.

MR. MATTOX: Thank you very much. Good evening. I'm going to be very brief. Thank you, Phil, for recognizing that I had shown up late. I appreciate you bringing that to everyone's attention.

PHIL LIEBERMAN: Better late than never.

MR. MATTOX: Absolutely. I am Claude Mattox, Phoenix City Council. I happen to share a border with Mr. Lieberman. The City of Phoenix shares the border with Glendale and while the incident occurred in Glendale, those who were affected as far as the residential communities is concerned are in the City of Phoenix and were in my district. This evening, my interest is threefold. I would like to know what happened.

The second thing is, is I would like to know what preventative action can be taken to keep it from happening again in the future but, more importantly, how can the City of Phoenix and the City of Glendale work together inspecting these facilities and preventing this from happening in the future. As I look at what's out there in the City of Phoenix and surrounding communities, there are many of these facilities that surround our border. Phoenix does not
go into those facilities and inspect because they're
outside of our jurisdiction, so a lot of the
discussion that Phoenix has been having is how can we
improve that, what can we do as far as working with
our border communities to help them in identifying
problems, preventing those problems from happening. I
appreciate everyone coming this evening and I'm very
interested in hearing what has to be said. So, thank
you all for being here.

[Applause]

MR. BRESLAND: Thank you very much, Mr.
Mattox. Before we begin with the formal presentation,
I'd like to very quickly tell you a little bit about
the Chemical Safety Board, and I've asked Mike Morris
to move ahead a couple of slides that we're going to
show you. Let's go to the first slide, Mike.

As you can see, the Chemical Safety Board
is an independent federal agency. It's mission is to
investigate chemical accidents and when we talk about
chemical accidents we talk about accidents in
facilities that are using chemicals. And that's much
broader than perhaps you would think. It's not only
oil refineries, chemical plants. It could be steel
mills. It could be paper mills. And in this case
here it's a distributor of chemicals. And as part of
our investigation we determine root causes and we issue recommendations, and one of the most important things we do is make sure that those recommendation are implemented. Our goal is to safe lives. Our goal is to protect the environment. And our ultimate goal is the prevention of more accidents in the future.

As you can see we're not a regulatory agency. We're not like EPA or OSHA. We don't issue fines or penalties. We have five Board members who are appointed by the President. Mr. Medina is the most recent appointee and he's been on the Board for several months now. Our investigations are conducted by the professional staff that is headquartered in Washington. We've a budget of about $9 million a year, and our investigations typically take about a year to complete. And we normally investigate about 12 significant incidents a year. Coming across our desk and coming through our information services, we're seeing perhaps 500 to 1000 incidents a year, but we pick -- because of our limited budget, we pick the most serious of those incidents to investigate.

So, tonight here's what you're going to hear. First of all, you're hear a presentation of the preliminary findings from the investigation into the chlorine release at DPC. This is what we call our
mid-term meeting. We'll come back at the end of our investigation and do a final meeting and that will be done in about six months. So, after the presentation by Mr. Morris and Mr. Murphy, we'll have a panel of emergency responders and we'll discuss who those are in a few minutes, then we'll have a panel of people from citizens groups and then the company, DPC, has accepted an invitation to make a statement about the incident.

Then there's going to be a public comment period where any member of the public may speak for up to three minutes on matters that are relevant to our investigation. And I should say when I talk about timing, we have a little machine here that is set up to hopefully keep you on time. It'll go from green to orange to red, and green is typically three to four minutes, and then we'll give you a little leeway and then it'll turn to red. We're not going to tell you what happens when it turns to red.

[Laughter]

It'll be quite a -- quite a non pleasant sensation.

[Laughter]

So, we're here to report to the community and to listen to the members of the community because
of an accident that occurred in which a quantity of chlorine was released to the environment. Chlorine, as you may know, is one of the major building blocks for thousands of products made throughout the world, from compact discs to PVC piping. Another very important aspect of chlorine is that it's used in the treatment of drinking water and the treatment of wastewater.

And, in this particular case, the truck that was being loaded was going to be shipped to the City of Glendale for the disinfection of their -- I'm sorry, the City of Scottsdale for disinfection of their drinking water. About 12 million tons of chlorine are manufactured every year. As well as being a very important chemical it's also a very toxic chemical and in high concentrations it can kill a person in just a few minutes. So, the CSB takes very seriously accidents that involve the release of chlorine. Fortunately, in this case no one was seriously injured and the amount released was limited.

In August of 2002, DPC had another incident in Festus, Missouri about 30 miles south of St. Louis, in which 40,000 pounds of chlorine were released. There, only favorable winds kept the chlorine from blanketing a nearby mobile home park.
The CSB investigated that incident and our report is available on our web page at www.csb.gov. I would recommend that if you're interested in the issue of chemical plant safety, it's got a wealth of information including a very interesting update on chemical process incidents around the world and it's updated to within incidents that have probably happened in the last hour or two.

So, the work of the CSB is to find out what happened in these kinds of accidents and then make safety recommendations to prevent them from happening again. That's why this meeting is important tonight. So, I'd like to thank you for your attendance here this evening. Now, I'd like to ask if my colleague, CSB Board Member, Rixio Medina, has any comments.

MR. MEDINA: Thank you, John. Good evening. I would like to echo John's welcoming comments and would like to thank you for being here tonight. We hope to have a very productive meeting that will assist the Chemical Safety Board in completing it's investigation. We have made special efforts and preparations to ensure that the Spanish-speaking only members of the public would benefit from this meeting, and we have a translator
who will be available to assist during the public comments period. And also, we have the slides that will be presented by the investigators translated into Spanish and Mr. Jeffers (phonetic) will be able to provide them at your request.

Thank you.

MR. BRESLAND: Thank you, Mr. Medina. I'd like now to introduce our lead investigator, John Murphy and Mike Morris, who will present the preliminary findings. The first presentation is by Mr. Murphy.

MR. MURPHY: Thank you, Board Member Bresland, and good evening. As John has stated, we are here to discuss the DPC chlorine release of November 17, 2003 and to give you some preliminary findings. What happened that day was the chlorine was being transferred from a rail care to a tank truck. A chlorine scrubber was overloaded and chlorine was released to the environment. First we need to discuss a little bit about the DPC of Glendale operation. It is basically a chlorine repackaging facility. They receive rail cars of chlorine and repack into one ton and 150-pound cylinders. On occasion, approximately monthly, they also fill tank trucks of chlorine. An important part of the process is a
scrubber, which is a safety and environmental device that prevents chlorine vapor releases and produces bleach as a byproduct. The plant also has a separate bleach facility.

This is a picture of the tank car that was being unloaded on the day of the incident. Upon arrival, it contained approximately 180,000 pounds of chlorine. This is a picture of the tank truck that was being filled, that as John stated, for shipment to Scottsdale for municipality water treatment purposes.

This is a picture of the chlorine scrubber. This is a very important part of our story. It's basically, just a 4000-gallon tank. It contains 3500 gallons of scrubbing solution, which we'll talk about later. You might notice at the bottom of the picture you see water in the containment area. This is water that was deluged on the toxic cloud for mitigation purposes by the fire department.

This is an overview of a profile of the incident. We have calculated that up to 3500 pounds of chlorine gas was released when the scrubber was overloaded. Over 4000 people were told to evacuate. Businesses in the surrounding area around the facility were also evacuated. Two elementary schools had to shelter-in-place. By shelter-in-place, we mean the
people at the school were told to stay in the schools. The ventilation system was shut down and they were to stay there until the event had passed on. Also, 14 people including 10 police officers went to the hospital and were evaluated for chlorine related symptoms.

Now, a little bit about the characteristics of chlorine. At normal temperatures and pressures, chlorine is a greenish-yellow gas. It has the smell of household bleach. When it's shipped like in tank cars or tank trucks, however, it is in the form of a liquefied gas under pressure. As Board member Bresland has stated, chlorine can have adverse health effects if inhaled. In low concentrations, the effects are rather mild, but at higher concentrations they can be deadly. At one to three parts per million, there is mucous membrane irritation. From five to 15 parts per million, there are moderate respiratory tract irritation.

From our reports, people that were exposed to gas, they were probably exposed to these lower concentrations. However, at higher concentrations at 30 parts per million there can be immediate chest pain, vomiting and coughing. At even higher concentrations the chlorine gas can be deadly. At 430
parts per million, there can be death after 30 minutes. At 1000 parts per million, there can be death within a few minutes.

Now, a little bit about the DPC scrubber process. The scrubber is an environmental or safety device used to prevent chlorine gas from escaping into the environment and the process that feeds chlorine vapors into a caustic solution. Again, you see the picture of the caustic scrubber, basically a 4000-gallon tank with 3500 gallons of scrubbing solution. This produces bleach, which can be sold as a product.

A little bit more about the scrubber process. Chlorine gas is normally vented into a solution which starts off at 20% sodium hydroxide, commonly called caustic. As the chlorine enters the scrubber, the concentration drops as the process continues. If the concentration reaches 0%, the scrubber stops working and chlorine gas is released into the atmosphere. This is what happened on November 17th.

With that, I'd like to turn the presentation over to Mike Morris, who'll talk a little bit about the procedures for scrubber operation at DPC. He will talk about the events of November 17,
and some of our preliminary findings regarding the
operations. Mike.

MR. MORRIS: Thanks, John. First of all, I want to discuss a little bit about what we found as the DPC written operating procedures that we found so far during our investigation. During the transfer process when low-concentration safety alarms sound, chlorine flow is to be shut off and caustic is to be tested to determine the percent concentration. When concentration is less than 0.5%, scrubber is emptied and caustic is added to bring the solution back to 20% caustic. What we found is common practice at the DPC Glendale facility. After hearing the low-concentration safety alarms, operators typically would not shut off the chlorine feed while testing the caustic solution. The scrubber solution was run down to as low as 0.2% also, and this is significant because once it reaches 0%, all the caustic is reacted away and there's nothing left to treat the chlorine vapors that are being emptied into the caustic scrubber.

A little bit of timeline about the day of the incident the Chemical Safety Board found. During the morning they tested the caustic solution concentration and found it to be somewhere around 2%.
They began the chlorine transfer to the tank truck at around 8:30. Low-concentration safety alarms later sounded in the morning and, again, as practice that we found the operators did not shut off the chlorine flow. Operator at this time left to get a sample bottle to do a test on the amount of caustic remaining in the scrubbing system. Upon returning to the scrubber tank, and this was about 11:30 in the morning -- upon returning to the scrubber tank, the operator witnessed the scrubber tank shaking and heard a rumbling sound. At this point the operator pressed the emergency shut-down button, which stopped chlorine flow to and from the tanker truck. The rumbling stopped at this time but the chlorine continued to vent into the air from the caustic scrubber, and this was due to once the caustic and the scrubbing medium is depleted, it's all used up and once that happens it gets down to 0, there's another reaction that occurs and it releases the chlorine and the caustic breaks down again over several chemical reactions.

This is animation of the normal chlorine tank loading process, simplified animation. I just want to point out to you that this is the rail tanker truck car with liquid chlorine, chlorine vapor piping. This is the tanker truck that was being filled, and
this is the scrubber. How the operation normally occurs is dry air is pumped into the rail tank car which forces the liquid chlorine up through this pipe, through the chlorine piping and fills the tanker truck to be sold or sent away as product. Upon filling the tanker truck, the vapor and the vapor space has to go somewhere and we don't want that released to the atmosphere. So, it goes through chlorine vapor piping down, injected into the caustic solution, where it's reacted away with the caustic solution and it forms bleach, as John talked about earlier. The recirculation line on the caustic scrubber, it continuously recirculates the solution past sensors in the recirculation line. And these sensors let the operators know that alarms at certain set points to tell them that they're getting close to using up the caustic.

The next animation is of scrubber venting from over-chlorination. This is what happened the day of the incident. Again, the rail tank car, the tanker truck and the chlorine scrubber operation was working. They put dry air into the tank car, sent the liquid chlorine into the tanker and the vapor was going into the caustic scrubber. Once all the caustic was depleted in the scrubber, at this time the
chlorine vapor was now released into the atmosphere, it wasn't being scrubbed. The scrubber continued venting even after the operator hit the emergency shutdown system. When the operator hit the emergency shutdown system it closed valves automatically, stopped the liquid chlorine from entering the tanker truck and it also stopped the flow of vapor to the scrubber. However, once the caustic in the scrubber is depleted, several chemical reactions occur, and all the chlorine that had previously been scrubbed was now being -- through the chemical reactions, it was being released and the bleach was breaking down.

The Chemical Safety Board's preliminary findings of the DPC operations, it was common practice for DPC operators not to shut off the chlorine flow as required by the written procedure after a safety alarm. Allowing the caustic to drop to 0.5% concentration left a very limited safety margin. Also, no automatic shutdown systems were in place to prevent this over-chlorination. Again, John Murphy would like to come down and speak to the emergency response, and also steps forward for the CSB.

MR. MURPHY: Thank you, Mike. Now, some of the preliminary findings regarding the emergency response. There was some question as to whether the
emergency shutoff valves operated as they were supposed to. DPC's emergency shutdown system was tested and did work as designed. Second finding is there was a large multi-agency emergency response which was very timely and largely effective. There were some communication problems between the responders and the public. Maybe the panel can speak to some of these. Also, ten police officers were evaluated at the hospital following mild exposure to chlorine gas. And this evening, one of the purposes of the meeting here, is for us to welcome further information from the responders.

Now, what is the path forward, what are the next steps? The investigating team is now working on what we call root cause analysis. We're looking at the key findings, putting a timeline together, asking the questions why did these different events happen. But with asking the why questions, we come up with management system deficiencies. Once these are identified, this leads us to recommendations. The second thing the Board investigative team needs to do is to complete a review of the DPC corporate safety culture. Due to the fact that the Board has two DPC chlorine releases, the Board has some concern about the safety culture at DPC, and we want to do some
exploration of this topic. Another thing we're waiting for is the result of a Chlorine Institute survey on what is the industry practice on operating chlorine scrubbers. The Chlorine Institute is an industry that is working side by side with the CSB, helping us with the survey so we can find out what is good practice for operating chlorine scrubbers. And, finally, like what was said before, before the end of 2004, we will produce a CSB investigative report. The report will include recommendation and there will be a report by the investigative team to the Board here in Glendale at the end of the report writing process. So, with that, that concludes the presentation by the investigative team, and I'll turn the podium back to John Bresland.

MR. BRESLAND: Thank you, Mr. Murphy and Mr. Morris. There are actually two reasons for this meeting this evening. One is to tell the community, tell the people who are here this evening, what we have found out so far in our investigation. The second purpose of the meeting is to hear from the community about any concerns that they may have, any information that they may have that would be of use to us in our investigation. And to do that we'd like to introduce our first panel. And that panel is of
emergency responders and someone from the local
emergency planning committee. And we'd like them to
come up and take seats up here on my right. And we're
pleased to have Glendale Assistant Fire Chief, Tom
Shannon. Chief Shannon was the ranking fire chief on
the day of the incident at the incident. We also have
Assistant Glendale Police Chief, Andrew Kirkland, who
was on duty that day, Phoenix Police Commander, Steven
Forster, who ran the Maryvale precinct command on the
day of the accident. And, we also have the Executive
Director of the Maricopa County Local Emergency
Planning Committee, Tim Newbill. I'd like to welcome
each of you and thank you for coming. I would like
each of you to give us a brief opening statement,
keeping it to three to four minutes, and that'll give
us plenty of opportunity and time for questioning. S
o, let's start with Chief Shannon.

MR. SHANNON: Okay. My name is Tom
Shannon. I'm the Assistant Fire Chief for the City of
Glendale. My role in this incident was twofold. I
serve as the emergency manager for the City, and in
addition the chief over operations, which includes
largely the hazardous materials and fire response. I
would like to welcome the Board and the citizens and
feel as though this is an opportunity to not only give
you an idea that this type of response is, while quite concerning, is something we plan for and train for literally on a daily basis. The response that occurred was an integrative response between several cities. And that is not unique to this location. The fire service industry in the valley is essentially a jurisdiction less response, which means that Glendale and Phoenix and Peoria and Tempe assets all work together very seamlessly. So, I'll be prepared to answer any questions regarding any procedures that anyone might have and feel confident that with the counterparts from the cities that are here, we can very aptly answer any questions you might have. From the emergency management point of view, in the activation of the emergency operations center, this is also a coordinated effort that included both a communications strategy for the citizens as well as an overall incident management plan. That was largely completed by the law enforcement group in Glendale, in as much as they were the emergency operations commanders on this day, given the fact that a large number of the fire command staff were at the incident. So, between myself and Chief Kirkland, I think we can very adequately respond to questions regarding the emergency operations center. So, in closing, I'd like
to just welcome you and I look forward to a good
discussion.

MR. BRESLAND: Why don't we go right
through the brief presentations and then we can pose
some questions to each of you at the end of that. So,
Assistant Chief Kirkland.

MR. KIRKLAND: Thank you. My name's
Andrew Kirkland. I'm Assistant Chief of Glendale, and
I want to thank the Chemical Safety Board for the
representatives that you sent out that worked with us.
They did a great job and we appreciated working with
them. I also want to take a moment to thank all the
responders that day, all the emergency responders from
Phoenix, our partners in the fire department as well
who helped us that day.

The police department takes these
incidents seriously and we attempt to learn as much as
we can as a public safety agency. We are committed to
protecting our community. We are here to share what
we've learned from this incident and to hear others
and how things could have worked better. We
understand, you know, our role in law enforcement as
first responders having a great deal of responsibility
at the ground level and responsible for evacuation.
Again, we take that very seriously, and we welcome you
and look forward to sharing more.

MR. BRESLAND: Thank you. Commander Forster from the Phoenix Police Department.

MR. FORSTER: Thank you, Mr. Bresland, members of the Board. The Phoenix Police Department's involvement was primarily was as an assistive unit to Glendale PD and Glendale fire units and supportive of a hazardous material incident. As both Chief Kirkland and Chief Shannon have stated in the past, organizationally intra-agency, intra-operability, we drill these incidents quite frequently. We partner. We share information. And we try to make each incident a learning experience prior to if a subsequent incident should occur. The primary role of law enforcement in this particular case relating to the Phoenix Police Department, as I stated, was traffic control and evacuation system. Police always defer to fire in these types of situations for their expertise and their direction. Our primarily responsibility was a significant commitment of manpower, technical apparatus, aircraft and coordination evacuation. When that was decided, assisting and arranging for a reception area for those citizens that were asked to evacuate, and dealing with both individual notifications and use of the CEN
system, which is Community Emergency Notification System that was done through regional fire dispatch. I would be glad to take any specific questions that you might have. The general role was the commitment of about 80 Phoenix police officers of various levels of expertise to that significant event.

MR. BRESLAND: How many police officer?

MR. FORSTER: About 80 police officers, roughly.

MR. BRESLAND: Okay. Mr. Newbill from the LEPC.

MR. NEWBILL: Good evening, Mr. Bresland and to the Board. I am Tim Newbill with Maricopa County Emergency Management. I want to first start by saying that I will be speaking this evening on behalf of -- as a Maricopa County Emergency HAZMAT planner, not the LEPC. Our bylaws state that without our committee voting on speaking on the behalf of the LEPC, and since we don't meet until next month, we didn't have that opportunity. So, I will be speaking this evening as the HAZMAT planner for Maricopa County. And just our role was to receive the information as whenever there is some type of release, we receive the call and then to pass that information on through the circ, as well as to just make sure that
we're in communications with the Public Health Department, and just to make sure that we are on stand-by if for some reason it was to have escalated to a larger situation, we were in communications from that standpoint. Thank you.

MR. BRESLAND: Okay. We have several questions that we'd like you to think about, and Mr. Medina and I will kind of take it in turns to. One question that I have, the number of evacuees has been quoted at 4000 and I wondered is there any more exact information as to how many people actually did evacuate and how many people left their homes or their places or business or their schools or their shops. Do we have any more accurate information on that.

MR. FORSTER: I don't think we have an exact number for you.

MR. SHANNON: I would defer to the reception center run by Phoenix to give you an idea of how many folks actually used that. I believe, Chief, it was the 100s.

MR. FORSTER: Mr. Bresland, if I could address that briefly. The 4000 number comes from, I believe, what was the CENS, the Community Emergency Response Notification System. As you know, that system has the ability to make a significant number of
calls. On that particular incident, when that system was activated, there were 4128 phones identified in the matrix that was used to define the parameters of the evacuation. That activation resulted in 7762 actual calls being made in 16 minutes. Now, those calls go out in English and Spanish and they go for the hearing impaired. The actual number of people that went to the John F. Long Community Center, the Maryvale baseball park south of Indian School on 51st Avenue, was about 200 people. Other folks had left their homes, but I believe it was significantly less than the 4000 number that is quoted.

MR. BRESLAND: Can you explain the different between the 4128 phones and the 7000 phone calls?

MR. FORSTER: The calls are made -- when CENS activates, it calls that number three times if there's no answer. So, the number of persons that actually receive full delivery of the message, where somebody actually answered the phone, were 1286. So, that would be 30% of the calls that were made. There were several where only a partial message was delivered, where there was no answer, where there was a hang-up and in some cases some of those numbers actually went to fax machines. We use QWEST as the
database for that system, the telephone subscriber
system.

MR. BRESLAND: What did the message say, did it direct people to evacuate or to shelter-in-place?

MR. FORSTER: The message can be custom made to whatever the incident is. It can be preprogrammed for a normal incident or a repetitive incident that might be of interest to the community but it's also tailor made to whatever the event is. In this case, I don't have the exact verbiage -- a transcript of that recording, but it basically tells people that there is a chlorine leak incident, it gives them directions to evacuate and where to go.

MR. SHANNON: Mr. Bresland, to clarify, on that day there was the benefit of two systems working. The Glendale system is slightly different in that the way the message was constructed was done by folks in Glendale and without coordination between the CENS folks, because there was a time lapse between the two systems being implemented, but the Glendale emergency notification system utilized both Spanish-speaking messages and English-speaking and deferred the Spanish speakers to a separate number where they would actually speak to a live body and they would provide
information regarding the area of evacuation, the location of the reception centers and any updated information that came along.

MR. MEDINA: Since we're talking about the community notification system, I would like to ask a question. How is it then that we heard that the Spanish-speaking people got the message in English and the English-speaking people in Spanish. And, have (sic) that issue been addressed and has it been resolved to prevent from happening again?

MR. FORSTER: I believe that's a CENS issue. I can't comment regarding that because I speak to the Glendale issue. I would defer to the CENS system, and I just couldn't comment regarding that.

MR. SHANNON: Mr. Bresland, Mr. Medina, I'm not aware of the amount of cross linguistics went and what the issue was. Again, CENS is run from Phoenix Regional Fire Dispatch, and those particular numbers, if that did occur, I don't know to what level that is. If we were made aware of it, if CENS was made aware of it, I believe they would have moved forward to correct it.

MR. BRESLAND: Now, one of the advantages of an incident like this is, if there is such a thing as an advantage from an incident like this, is that
there are lessons to be learned. Now that you've thought about it, are there any changes that you have made or you would like to make in your whole emergency response system, and I'm thinking in the specifics of an emergency response to a toxic gas release like this. Are there any things that you'd like to change or any changes that you have made?

MR. KIRKLAND: I'll go first speaking for law enforcement. And there are several changes that -- at least things that we've learned from here. And one is to continue training of our officers about emergency response. Getting there, not arriving in a hot zone, working with our dispatchers in dispatching the call correctly, learning how to do that, continually working with them to do that, but also bringing in the other agencies in this valley, because we had about 40 officers out there and Phoenix, they had 80. If we needed more assistance -- our partners in the west valley, we work with them very closely and we're putting together our own system amongst law enforcement agencies that will allow us to train and work and communicate more effective together. So, it's a learning process not for us, but we've expanded that throughout the western part of this valley to incorporate all of the agencies out here.
MR. SHANNON: From the fire and emergency management perspective without question, like law enforcement, we take every incident like this and do a self evaluation. Whether or not things went very well or if they don't go so well. And particular issue that comes up in incidents like this is communication. Communication between disciplines: law enforcement, fire. And communication between sectors within an incident. In the fire service we will sectorize an incident into the specific needs. Hazard sector is a forward placed sector that operates the technical side of making entry and gaining values and things like that. And they communicate back to the incident commander, who then communicates to other sectors as well as our law enforcement partners in the unified command process. We can always do better in making that a very seamless process, either by improving the technology, understand the language that is being used so that there are not lapses of understanding. In this particular case there were some semantic issues in understanding by perimeter folks of the appropriateness of using personal protective equipment based on what they were hearing from the incident commander. Really came down to semantics. And so what we need to do and we will always continue to do
is look at incidents like this and say are we talking the same language at an incident. Are we using the technology that's available so that the minimal amount of lapse occurs between getting the message across, because ultimately that transfers into impacting the citizens. We need to make sure that we're very flexible and adaptive to evacuation procedures and making sure that we can predict very accurately the cloud movement and so, overall, I would say communications, integration of disciplines in terms of what they do, and that will easily transfer into a more efficient seam. But, this is an ongoing process. This is something that we do after every incident and, in particular, this incident has really just got us focused a whole lot more on the unified command process and the discipline communication process.

MR. BRESLAND: Okay. Thank you. Anybody else like to comment on that?

MR. FORSTER: Yes, Mr. Bresland. To echo Chief Shannon's comments and Chief Kirkland's both. There are significant things that were learned -- some procedural, some communications as was stated, some additional opportunities to grow from this incident to do two things, to protect the community and provide better service to the community and to protect the
first responders who, if they're not protected will not be able to serve the community. That has led to several ongoing issues in Phoenix per se. The West Phoenix Fire District, which is through the leadership of Chief Brunasini (phonetic) an Deputy Fire Chief Russ Bovay (phonetic). We partnered with fire closer than we ever had to do joint training exercises for specific type incidents such as this, but incidents where there are role reversals. As I said earlier, hazardous materials fire incidents, fire takes the lead, police become the support. Law enforcement incidents, the roles switch. So, this has given us some impetus to better understand our roles, to do better joint training and to communicate to the level that we don't -- not only do we not have organizational misunderstandings but at the line level, at the first responder level, that that level understands each other's language and communicates in an immediate environment.

MR. MEDINA: Mike, I have a request and a question. First, to Commander Forster. I understand that, and we have a community notification system that has some specific functionality and another one that's kind of a regional. We heard again that there were difficulties in sending the right message to the right
people and we don't know how to address that. I would
like to request that whatever agency's in charge, take
this opportunity to review what happened and, in fact,
that situation was a factor in this incident and what
can be done to have the correct numbers in the correct
system in order to prevent from sending the wrong
message from the wrong type of residents, because it's
critical. We understand it's critical that people
receive the right information when they most need it.

So, I would like to make that request and for the
agency responsible to help us and send to our
investigation team the result of that review, if
possible. If, in fact, it happened, what can be done
to prevent from happening again?

MR. KIRKLAND: Mr. Bresland, Mr. Medina, I
will absolutely follow up on that to clarify that for
the Board and for the community that I believe
deserves a response to that. In addition to the CENS,
there were multilevel response tactics that were used.
That included police officers and fire fighters going
door to door. That included police officers both in
Spanish and English using police cruiser PA systems
and it included the police helicopter, Phoenix's
police helicopter doing loudspeaker broadcasts trying
to assist in that. But your point is well taken. I
will find the answer out for that, sir.

MR. MEDINA: Thank you. And my question to Chief Shannon, do you have authority -- this is more on the preventative side, do you have authority within your jurisdiction to conduct inspections or audits at chemical facilities?

MR. SHANNON: Well, certainly there are -- as businesses, there are permits required for specific types of operations. My fire marshall is here to speak specifically if you need to know details as to the DPC facility and what permits are required. However, what is philosophically required and legally required is evaluated and then during the inspection process on an annual or semi-annual basis based on the hazard potential, it is confirmed again. So, the difficulty for a fire department is to -- once a permit is given without technical expertise, a fire protection engineer that specializes in chemical safety, to know whether or not the there is additional issues related to their permit. So, I don't know if I'm answering your question directly. This company satisfied all permit requirements for the type of business that they do. We have had a longstanding relationship with them in terms of preplanning, knowing what's at their facility when they were both
this company and a previous company. So, our fire
department and our inspectors are aware of what this
industry does in both permit and in pre plan, but in
terms of specific operations and whether or not that
follows an industry standard, I would have to defer to
my fire marshall.

MR. MEDINA: And my final question to
Chief Kirkland here, I understand from Chief Shannon
that perhaps the officers did not use the respirator
or the personal protective equipment that they had
because there could be some confusion in the
instructions or in the -- command. So, the bottom
line is why were these officers not using -- why did
they not use the proper respiratory protection
equipment?

MR. KIRKLAND: As Chief Forster mentioned,
there was communication issues, I think between -- as
people started to respond, about whether or not the
masks they had were actually -- would be effective in
that environment. And so that leads to what the point
that was made about how people at the ground level --
how our staff at the ground level -- we have to work
out those communication issues and what is said and
what is responded to and how they do what they do when
they arrive on scene, and that was simply a
communication issue between the people with the boots
on the ground when they first got there.

MR. MEDINA: Thank you.

MR. KIRKLAND: Can I add just two things
that were not mentioned that should be addressed and I
think -- we talk a lot about our staff and training
and doing the education and that component of it, but
the two pieces that we've left out and should be at
the forefront as well as what we do is the business
community and talking with those businesses and not
only DPC but others and educate them on what happens
or what they should do. And also the citizens. We
take a lot of time -- we do a lot of education about
water safety, about all of these other things that we
do on a day-to-day basis and we should be talking to
them about this. We should not let those go. So,
those two components as lessons learned for us in law
enforcement is something that we're going to look at
as well.

MR. BRESLAND: This is a follow-up to a
question that Mr. Medina asked. And it's an issue
that comes up not only with this incident but comes up
quite commonly with the investigations that we do and
that is how does a local community -- there isn't a
simple answer to this question but I'd be interested
in your thoughts, how does a local community that may or may not have the expertise, how do they determine if a facility in their community that is dealing with hazardous materials, how do they determine if that facility is being operated in an appropriate and a safe way?

MR. SHANNON: I believe that to tag on what Chief Kirkland was saying, it's the responsibility of the fire department to assure that they are an appropriately operating facility, but also to educate the public in terms of just safe living in their community. So, we can't put the onus on the community to ask the question first. We can do a better job of informing them. But, specific to your question, citizens should feel very comfortable whether they be from Phoenix or Glendale in calling their fire department and asking to talk to the fire protection department and get to the specifics. It's essentially like calling the better business bureau. Find out what kind of things are going on in this industry and have you had problems and if you have had problems what is your plan. I think that there's not an agency within the automatic eight system, over 22 cities, that would deny citizens direct contact with the folks who are doing the leg work at these
facilities. So, it's a two prong deal. We certainly want to hear from the citizens when they have concerns, but we can do a better job of informing them of safe living in their community, whatever the issue is.

MR. BRESLAND: But you're the -- the fire fighters are the people with the expertise in going in and looking at the potential for fire fighting issues, but -- the fire fighters are the people who can go in and look at the facility if there's a fire risk, but how do you determine without -- as you said without the expertise if it's a chemical operation, how do you determine -- how do you feel comfortable about its operation and who would you call upon or who could you call upon to give you that expertise?

MR. SHANNON: As a citizen you're saying?

MR. BRESLAND: No, as a member of the --

MR. SHANNON: Fire fighting community?

MR. BRESLAND: As a member of the fire fighters or as a -- as a person who is running the City of Glendale.

MR. SHANNON: Very clearly, you rely upon you inspection programs. The facilities are inspected on a regular basis. This facility was inspected two years prior. As I mentioned before, we target
facilities like this that are chemical producers and chemical distributors as being high potential facilities anyway. So, our front line folks, our HAZMAT teams, make regular visits to them. They have a direct relationship so they understand the process. They understand -- they have a personal relationship with the responsible parties there so should there be an incident as was the case here, you can say I am aware of your off loading procedures and give me an idea of what was different about this. And so, it's an ongoing education piece for the technicians that are there, the first fire responders and certainly an integration between what the field knows and what the fire prevention folks are finding out in their inspection process. So, it's a very dynamic process that's ongoing. We never feel satisfied with what we know about a agency (sic).

MR. BRESLAND: I'm thinking of a facility in Ohio that had an incident and the fire department there had actually hired a chemist to get some understanding of what the issues were around the --

MR. SHANNON: There is a city -- Tempe has done just then. We intend to hire a fire protection engineer to look at specialized systems. And we use the knowledge that's gained by technicians who are
specifically trained in chlorine systems or industrial systems within the HAZMAT response -- hazard sector, if you think of it, is a collective group of specially trained folks. And so not everybody's got a single answer, but several folks have exposure to the industry.

MR. BRESLAND: Do you have some questions?

MR. MEDINA: Yes. We go to other communities where there's always discussion between appropriateness of short term place versus evacuation. I'm interested to know how that decision -- what is the process used to make the decision in this particular case and what do you use to make that decision?

MR. SHANNON: In this particular case, it was a two-pronged consideration. We go into every response knowing that it's very dynamic and you need to be prepared for wind changes and not knowing exactly how the situation is for some period of time. So, we take a very pessimistic approach at first. And we say this is the area that we know is impacted and given that we're going to evacuate in a very pessimistic mindset. In this case it was approximately one square mile. As you gain more information you make changes to the decisions about
sheltering. Obviously, the most critically impacted, we try to make -- we're essentially in rescue mode and we're going to rescue those people. Those that are on the fringe but in the case of a school that needs to release children to go potentially into the hazard zone, we're not going to let them do that. We're going to shut off AC systems and ask them to shelter-in-place and be very aware that we now have a potential problem should any conditions change. The decision to evacuate a grid is made based on not only technical information we gain using software that these specialists will use to say we know how much is being released, we know what the wind conditions are, and these folks could potentially be exposed, and then we literally start using notification system, the door to door. We use the media extensively to make those connections. So, it's a very dynamic process that we simply don't ever stop looking at. Very quickly, an incident commander will try to move that into an emergency management function as the incident gets bigger, but at the most basic levels, fire fighters, and I'll let Chief Kirkland speak to the law enforcement community, we're looking at those most likely to be effected in determining whether or not it's safe to move them or just safe to protect them.
MR. KIRKLAND: And I will echo that. And it's our job to do the evacuation piece of working with the fire folks to get that critical information. But, he's right. That's the view we take and that's the direction we like to go.

MR. BRESLAND: I think we are out of time for Q&A. Just a couple of closing comments. One, is there anything else that we've missed -- any other thoughts that you have that you'd like to express. I know we've covered a very complex issue in a very short period of time. We could spend several days talking about this.

MR. SHANNON: I would just say that we welcome any recommendations that the Board might have as a learning tool and certainly any input that the citizens have in terms of their needs because, frankly, that's why we're here. So, anything you might offer at least from my perspective we would welcome.

MR. BRESLAND: I think the other comment that I have is that as I go around the country and we're investigating other incidents and as I go around the country talking to groups about the work that we do, I have been using the response here that I saw as an excellent example of first class response to an
incident.

MR. FORSTER: Thank you.

MR. BRESLAND: I'm not an expert in this area, but I certainly was very impressed by what I saw and what I've heard from everybody.

MR. FORSTER: We appreciate that.

MR. BRESLAND: I think the community should be happy with what you have here. You always learn from the incident and hopefully the next time anything happens you'll have learned from the one before and things will be better. But, certainly, I was very impressed by what I saw here.

MR. FORSTER: Thank you. We appreciate it.

MR. BRESLAND: And thank you all for coming. And I will turn to the second panel. The next panel I would like to introduce will discuss local emergency and local community issues. Because of their ongoing involvement in local emergency planning committee meetings, we've asked the following people to join us. Mr. Steve Brittle is head of the organization Don't Waste Arizona. The Reverend Ron Friesen is Chairman of Black Canyon CLOUT, which stands for Community Leaders Organizing for Urban Transformation. And we also have Ms. Jamie Johnson,
who's president of the Sevilla Neighborhood Organization and the neighborhood association, who I also understand has a business in the community.

JAMIE JOHNSON: Yes.

MR. BRESLAND: I'd like to thank you all for joining us again. If you would limit your opening remarks to three or four minutes. And let's start with Ms. Johnson.

JAMIE JOHNSON: Yes. Thank you, Mr. Bresland, Mr. Medina. Welcome to Arizona and thank you so much for letting me speak before you today. My name is Jamie Johnson and I am the president of the Sevilla Neighborhood Association, and I'm involved with a business called Atsco (phonetic throughout) Products, Inc., which was one of the businesses that was evacuated during this chlorine spill. So, I have the unusual opportunity to bring two perspectives to the table tonight. The Sevilla neighborhood is located directly east and north of 43rd Avenue and Camelback in Phoenix and was immediately downwind from the chlorine spill. A quarter square mile of our community was evacuated through the Community Notification System. In addition, I was the employee that accepted the order from the Glendale police officer, who requested our immediate evacuation at
Atsco. The biggest problem that I observed was communication. The Community Notification System was -- the reports I got from the residents is it was hard to understand. And as Mr. Medina brought forth, English speakers received Spanish messages and vice versa. The other observation is that they didn't include actual travel directions. They were told where to go, however, several of our community members would have actually had to drive back into the heart of the spill in order to take the shortest route going to the Maryvale Stadium. So, it didn't include any information as to how to circumvent increasing their exposure to the chlorine. We also noticed that our Hispanic residents were very bewildered by it. With it being hard to understand and being so out of an ordinary kind of thing, I think it frightened a lot of people that they were getting some kind of odd manifestation of a bad joke. So, I'm sure several of them did what I did, was turn immediately to the media. In Phoenix, KTAR has a very long history of providing very timely and accurate information if there's something severe enough to warrant our attention. Quite frankly, I've seen more information relayed on a thunderstorm moving through the valley than I did on this chlorine spill where several lives
were at stake. The police officer also didn't provide any information on where to go, just said to evacuate. And some of our employees actually drove back in towards the spill. Maryvale Hospital was turning away patients because they were overwhelmed with, again, no clear indication where these patients should go for medical attention. I do believe the number that were probably seeking medical attention exceeded the number that was previously presented. I understand the command center was moved several times and our police officers didn't have sufficient equipment to handle the situation, although they were expected in some cases to go door to door without any protection asking people to evacuate. The people that were on the ground, they did a wonderful job. I'm very proud to say that I am a member of this community, and they've always served us very well. But, I'd like to take this as a learning experience, as we mentioned before, and improve the method as well as our preparation. Thank you.

MR. BRESLAND: Thank you very much.

Reverend Friesen.

REVEREND FRIESEN: Yes, I'm the chairman of the Black Canyon CLOUT Neighborhood Association Group. We represent the community directly east of
the DPC spill, Indian School to Dunlap, 43rd Avenue to I-17, approximately 10 square miles. After hearing of the spill I began to do some research and found that there was something called Local Emergency Planning Commission, which is a department and a part of the Maricopa County Emergency System, which is a Board comprised of primarily people who work with emergency issues as first responders. And Mr. Shannon, who was here earlier, is on that Board as well as Mr. Newbill, who serves as staff to that Board. And so I went with a lot of questions to that Board on January the 7th. I took along with me several people from the community who were affected by the spill. One lady complained of some of the symptoms you mentioned on one of your slides today related to parts per million, five to 15 parts per million, moderate respiratory irritation, and she lived approximately a mile and a quarter northeast of the spill. And I'm sure she was one of the few people, not only many other people, other people were there complained of smelling the smell, etc., over to 27th Avenue and Camelback area. So, we had a large affected area. And so I took a lot of these questions I had. I have also been pursuing with Glendale Fire Department and the City of Glendale, the AAR report, which is the after accident report, which
I have not yet received to date. I've received lots of e-mails saying well it's on its way bit I have not yet seen it. And that is a concern I have that I have not yet seen that report which details some of the information that we talked about tonight. There was an ad hoc committee formed by the LEPC that was supposed to address some of the public concerns. And I have a concern about the HMMP, the Hazardous Material Management Plan, which has also not been shown to us by DPC Enterprises. And so there's a lot of concerns I have as a community member as to exactly the community's responses and also some of the learnings that should be coming out of this. Thank you again for allowing us to come, Mr. Bresland and Mr. Medina.

MR. BRESLAND: Can I just clarify on point you made. The ad hoc committee to review the incident. Can you explain?

REVEREND FRIESEN: Well, the LEPC formed a little ad hoc committee out of some of its board members, the purpose of which to represent and to explore not only DPC but another facility down the road approximately a mile, which is actually in Phoenix, which has a similar situation, is the same kind of a company, it's a repackaging company. It
also has 90-ton car loads of chlorine sitting on its railroad crossing every day. And so we as concerned citizens say, here we have 180 tons of chlorine sitting in our neighborhood virtually every day and we have a lot of concern about the safety of our neighborhood related to that.

MR. BRESLAND: Okay. Thank you. Mr. Brittle.

MR. BRITTLE: Thank you for the opportunity to speak here tonight. I am a member of the Maricopa County LEPC, but I will make clear I don't represent them here tonight per our rules. We did push. I was behind a push for this ring down system and it took several years to get people to do that. The thing that bothered me right away when I heard about this incident is we specifically designed the bid for this ring down where you could tell one section near an incident to evacuate, because obviously sheltering wouldn't work, but that a larger area around it should have been told to shelter, and I understand that didn't occur. It kind of goes back to a problem that's recurring throughout the valley, and this is just another example of it. Fire fighters are real good about handling the incident right there, but it seems that what's out of sight is beyond their --
they don't think about it. We're constantly hearing from people that are a little bit further downwind who get ill. Now, with chlorine, I think part of this has to do with the way that the emergency planning is put together, particularly with the type of modeling that they use to determine what area should be evacuated and what area should be sheltered. They focus on something called the immediate danger to life and health. For chlorine, that's 10 parts per million. But, let's take a look at the OSHA standard. That's only .5 parts per million. So, you're looking at a level 200 times less that is an industry standard that says you can't really expose people to that without, you know, some kind of harm appearing. So, obviously, when we have a chlorine incident you have to wait for it to dissipate. There's nothing else you can do. They should have told a much larger segment of the population, probably an area three to four times larger than the evacuation zone to shelter and to avoid exposure and they missed that opportunity. We for years have had problems with police officers. They're often called blue canaries in the field of emergency planning and response. They don't have the training, they don't have the equipment. They go to the hospital. And this keeps happening. And it will
until there is sufficient outrage raised about it. They should have not had this happened. They should not have been sent in without the right kind of equipment. And the LEPC did hear their concerns. I don't think they properly responded. I think there's a problem with the LEPC here. They have been historically unwilling to critique a response to a chemical incident, partly because its dominated by fire departments who really don't want to say we didn't do things right. The people who handle the law enforcement that are no there don't show up to the meetings and they're really not particularly friendly to public input. They kind of do a dodge ball thing and that's really unfortunate. The City of Glendale, I went there asking for their hazardous materials management plans for several facilities. They couldn't find any of them. So, they had passed up an opportunity to do electronic reporting using some free software from EPA. They were given a computer. And they ignored it. Until they, you know, kind of come into the modern age, these kinds of incidents are going to occur and it could be a lot worse. If that railroad car had gone, then we would have lost a lot of people. Thank you.

MR. BRESLAND: Thank you very much. We do
have some time for questions and I will let Rixio --

MR. MEDINA:  Question for the Reverend Friesen. All these comments and you said you've had a lot of communication by e-mail. Have you gone before the LEPC and actually made publically those requests?

REVEREND FREISEN: Yes, on two occasions I have attended. January 7, 2004. I presented about 14 questions to the board. They responded on an undated memo to me approximately the end of February. I was not happy with the answers I received so on April the 7th, I returned to the LEPC with another set of questions. To date on now June 9th, I have not received any answer to those questions at all. So, they relate really to LEPC planning laws, to the ERCA laws that relate to what the community has to provide, what the right to know laws relate to what the community needs to be informed about. The LEPC is charged, as I understand it, with the task of ensuring that the community is aware of the community's response and it's capability to respond and to date they've not satisfied me in saying to me, well, these are the things that we are doing and these are the learnings we have to date related to this spill. So, I guess I'm saying I'm a dissatisfied customer/community member in terms of this group, as I
Mr. Bresland: Getting back to the ad hoc committee to review the incident which, as you say, was formed by the LEPC. Was that formed with the specific purpose of looking at the incident and looking at the response to the incident and coming up with suggestions for improvement?

Reverend Friesen: As I understand it, the primary task of that ad hoc committee was actually to look at the response, to look at the capability of the community to respond to incident, and then to also sit down with the community and tell the committee this is what we have in our committee. We have large quantities of chlorine sitting here. This is what we have done to respond to that. And that committee has not met -- and one of the things that they were charged with is actually have a community meeting in which they would sit down with the community and actually tell the community what exists in a neighborhood, what the dangers are, and what the community can do to satisfy that. It should be interesting to you gentleman to know that I have chosen this week, in fact, to move eight miles closer to the intended place. You call me foolish. But, I
also like to choose the neighborhood I am living in and I'm enjoying my new 50-year-old house. But, the point is is that I would like to feel that I'm safe and my neighbors are safe choosing to live where we do, even though we are within a very short distance of two major tank cars of chlorine at two different facilities.

MR. BRESLAND: Mr. Brittle, you are on the LEPC?

MR. BRITTLE: Yes, sir.

MR. BRESLAND: So, what do you know about this ad hoc committee?

MR. BRITTLE: There was one meeting that was called with about two days of notice in a weekday morning. I don't think that he was notified of it even though he'd asked to be. And after the meeting he was told that it had occurred. And I find these kinds of things happen, unfortunately, with the LEPC. I'm the only person on that that's supposed to represent a community and community groups and I'm always outvoted. But, there was a meeting. DPC refused to come and talk about their incident because they felt there was an EPA enforcement action coming and the chairman of the committee decided not to discuss the DPC matter at that time.
MR. BRESLAND: Who is the chairman of that committee?

MR. BRITTLE: Dr. Richard Thomas, who is an LEPC member.

MR. MEDINA: Ms. Johnson, you mentioned some of the opinions regarding notification and your views of how things went that day. As a business owner and as a member of the community, how well do you think the public is being informed or trained on what to do in case of an emergency?

MS. JOHNSON: The information's available, but unless individual community groups like ours or individuals in their home make a special effort to maybe invite Red Cross or somebody else who's involvement with disaster preparedness is pretty deep, it's kind of hard to dig out. It was not totally surprised that a large number of our residents have no idea the magnitude of the chemicals that are located near our community. The second location that the Reverend to is Hills Brothers, which happens to be right across the railroad tracks from the business that I spoke of. And so when the police officer first came to talk about a chemical spill we were concerned it was right across the railroad tracks from us, as opposed to being about a half a mile away. But, as
far as finding out what to do, unless individual
businesses or individuals actually take it in hand
that by golly I'm going to learn this and be
moderately aggressive about that because they have to
take time from here or there, we aren't really getting
a lot of good instruction from any other source.

MR. BRESLAND: If you had a magic wand,
what would you do to ensure that communities are aware
of the potential hazards in their community from
chemical processing, and following up on a question
that I expressed to Chief Shannon, how do you think
communities should develop the expertise to understand
how the operations in their community work and do they
work safely and appropriately?

MS. JOHNSON: I do believe that community
members should be able to get access to find out the
scores and how the results are when these various
governmental agencies go in and inspect. I have to
admit that when I heard that two years prior that this
particular location had been inspected, somehow seems
very lax to me given the magnitude of the harm. As
far as communities, I always have appreciated when the
news media has brought forth preferably not exactly
the same day, when there are events and opportunities
for people to go and get information about how to
protect themselves from a variety of things. And I think some of it is as far as on the most local level in terms of those entities that are close to us is something that's going to fall in any kind of organized or semi organized block watch or maybe neighborhood group. But if the information is available to those groups fairly easily without spending hours and hours and hours of digging them out from somewhere, that would help us greatly in terms of communicating that to our residents.

REVEREND FRIESEN: Can I follow up on that, Mr. Bresland?

MR. BRESLAND: Uh-huh.

REVEREND FRIESEN: As a member of the community and as a resident in the community, it's disconcerting to me to hear what we did hear from Mr. Shannon, who I consider a friend, that the knowledge that Glendale Fire does not currently have expertise to do the inspections, that their experts in preplanning and in zoning and making sure that the business meets code at the time when they open their doors and lock the doors and get the occupancy permit, but after that the fire department is at this point unequipped and untrained to actually do the inspections. That is a great concern to me, and I
think that is something I would like the Board to address or to at least somehow take note of. And that we then, you know, deal with that in terms of the inspections as well.

MR. BRITTLE: If I might also. The LEPC actually had a discussion about this telephone ring down system that we'd like to put together an event when it debuted that we would try to get every TV station, every newspaper of every language have a day basically awareness of the ring down system because we're the largest county in America to have this, and it just never happened. The Department of Environmental Quality wound up awarding the contract to QWEST to do this and they were supposed to do a public education outreach. I have had several discussions with the DEQ contractor who awarded it and said no one's had any training and he said, well, I'll have them call you and they never have. We have a real problem.

MR. BRESLAND: Okay. Well, thank you very much for your attendance. We appreciate your very interesting comments. We're now scheduled to hear from the company, DPC Enterprises, and we understand that DPC has prepared a statement for the purposes of this hearing. And while we welcome the statement, I
want to point out that our investigators have been interviewing and gathering much more information from company officials, operators and other employees during the course of this investigation and we welcome Mr. Wayne Penick, who's DPC's Manager of Health, Safety, and Security.

MR. PENICK: Good evening. My name is Wayne Penick. I'm the Manager of Safety, Health and Security for DPC Enterprises LP. We appreciate the investigative work of the Chemical Safety Board regarding the Glendale incident and the opportunity to participate in this community meeting tonight. Because litigation is currently pending with respect to this incident, we are not able to answer questions at this time, but we do think it is important for our company to make a statement to this community. DPC is committed to the safety of our employees and our communities. We are proud to provide an essential service to many residents in and around Glendale. For example, DPC manufactures and distributes products necessary to produce clean drinking water and properly treat wastewater. Our company sincerely regrets the incident that occurred at our Glendale, Arizona facility on November 17, 2003, and we have taken appropriate and immediate steps to prevent a
reoccurrence. It should be noted that the DPC Emergency Response System and the community emergency network, worked and worked as they were designed to and worked well together. Our emergency response plan and exercises paid off as a result of a combined effort of DPC employees and local responders and the incident resulted in minimal exposure to the public and our employees. DPC has determined and the Chemical Safety Board concurs that the release occurred as a result of an over-chlorination of a batch of bleach that was being made in a scrubber. The scrubber itself did not fail in any respect. Rather, the concentration of chemicals placed in the scrubber was not properly monitored resulting in the over-chlorination. DPC has written procedures in place which are designed to prevent over-chlorination during the production of bleach. Had those standing procedures been followed this incident would not have occurred. Immediately after the incident DPC began an aggressive investigation of the incident to determine the cause and implement any necessary corrective preventive measures to ensure the health and safety of the public and our employees. I can report that three specific steps have been taken based on this investigation. Number one, appropriate disciplinary
action was taken. All operations personnel have once again received intensive and comprehensive training on the proper procedures to be used for all operations. Furthermore, DPC has reviewed those procedures with all our employees at all of our facilities that execute the same process in order to prevent a repeat of this incident. Before the facility was put back in service, all the equipment and systems were thoroughly inspected and tested. All were found to be in proper working order. As a result of additional safeguards, DPC revised its procedure to shut off the flow of chlorine to the scrubber well before the bleach batch is finished. In addition, each batch is now finished in an automated bleach production unit, reducing the opportunity for the operator error during the finishing process. We remain dedicated to the safe handling and distribution of products that help ensure a reliable supply of clean drinking water and properly treated wastewater for the communities that we serve.

Again, we appreciate the efforts of the chemical safety board and the opportunity to speak at this meeting. Thank you.

MR. BRESLAND: I understand, Mr. Penick, from your presentation that you're not able or willing to take any questions, is that correct?
MR. PENICK: Right. At this time we're not able to answer questions because of the pending litigation.

MR. BRESLAND: Thank you, Mr. Penick. The Chemical Safety Board is continuing its investigation of this incident and obviously we will continue to be in discussions with DPC and we'll be following up with you with additional questions that we may have. Now, we come to the public comment period. If anybody has not yet signed up who wishes to speak, please do so now. And since we've had people sign up we'd ask you to be as brief as possible. We're keeping the same rules on presentation of three to four minutes, and if you have any additional information please submit it to us by writing to our Washington offices and our address is outside. So, we have a list of people from the public and the first one we have here is Mr. Larry Franklin. Is Mr. Franklin here?

MR. BRESLAND: We have a microphone up here. Mr. Franklin, if you would state your name and then spell it for the record, please.

MR. FRANKLIN: My name is Larry W. Franklin. F-r-a-n-k-l-i-n.

MR. BRESLAND: Thank you.

MR. FRANKLIN: And most of my questions...
have been answered in the course of your presentation, sir. At this time, no further questions.

MR. BRESLAND: Okay. Thank you. That was easy. Does that mean this meeting has been good?

[Laughter]

MR. BRESLAND: The second person on the list is Mr. Barry Reed. Mr. Reed, again can you state your name and spell it and your affiliation if you have an affiliation that would be appropriate.

MR. REED: My name is Barry, B-a-r-r-y, Reed, R-e-e-d. I am one of the senior partners of the law firm of Zimmerman Reed, and I represent members of the community in Festus, Missouri and in Phoenix, Glendale, in litigation against DPC. Obviously, I will have no questions directed to DPC, but there were a couple of fact questions if I might ask a couple of questions of the people engaged in the investigation. I think a great many of my clients are very interested in a couple of the points. The first would be -- there was a mention of automatic shut-off valves and I did some research on the internet, and I think these basically operate with a computer sense, within seconds which shut down any leak once it senses the presence of chlorine. My question is, based on your knowledge of the systems, would such a system have
stopped this leak, this release? Perhaps I could
address that to Mr. Murphy?

MR. BRESLAND: We're not here to answer
questions this evening.

MR. REED: Oh, I see.

MR. BRESLAND: We're here to hear your
comments on the investigation and on the incident. We
will take your questions under advisement and we may
address them in the final report. But, the issue of
emergency shutdown -- automatic shutdown, is a very
broad topic and it's a complex topic and we will
discuss that if it's appropriate in our final report.

MR. REED: Well, if I can just perhaps
then put my questions on the record --

MR. BRESLAND: Please do.

MR. REED: I am very familiar with the
Board's report on the Festus matter that was released
in late May and one of my questions is whether your
investigation revealed compliance or noncompliance
with the recommendations of page 75 that were made to
DPC. My other question really concerned whether there
was any community alarm. My clients are not aware of
having heard any. And I was wondering whether your
investigation had revealed whether that did or did not
occur.
MR. BRESLAND: Can you clarify that?
Without a community alarm here in Glendale or in Festus?

MR. REED: In Glendale. I am aware there was none in Festus, but I was wondering about Glendale, since that was an issue that had come up there. Those are my only questions.

MR. BRESLAND: Mr. Warner, did you have a comment?

MR. WARNER: I would just like to point out for the community that the Chemical Safety Board is a non regulatory agency. We do a root cause analysis. We try to find out what happened and make broad safety recommendations. To do that we need the cooperation of all parties, company, public. We do not assess blame or reports may not be used in civil litigation.

MR. REED: Understood. Yeah, it was not about assessing blame. What I was simply trying to find out is what had happened in terms of the relationship between the two incidents.

MR. BRESLAND: Mr. Larry Krieger. I hope I pronounced it properly. Again, can you state your name and spell it and give us any affiliation that you may have.
MR. KRIEGER: Yes. That's Larry Krieger, K-r-i-e-g-e-r. You were right the first time, Mr. Bresland.

MR. BRESLAND: Thank you.

MR. KRIEGER: Well done. I am an investigator who has served several of the attorneys firms that are involved with the litigants against DPC. I would like to begin by offering to you my expression that the people of Glendale and police and fire department and Phoenix police and fire department from all examples that I have been able to determine, performed in a very exemplary fashion and they should be congratulated as such. I would like to bring before this Board one matter that has not been discussed this evening. On September 12, 2001, the District of Columbia, in light of the terrorist activities of the previous day, suspended all transportation, handling and storage of chlorine in the District of Columbia on a permanent basis. Given their recognition of the difficulties that this very dangerous chemical can provide when it is placed in close proximity to personal residences and occupied areas, I would like the Chemical Safety Board to consider the necessities for increased security with regard to companies that handle, transport and in any
way utilize chlorine and have the potential of spilling chlorine gas as a result of damage to any of their facilities. Thank you, sir.

MR. BRESLAND: Can I ask you a question?

MR. KRIEGER: Certainly.

MR. BRESLAND: When you say increased security, do you have some suggestions as to what -- what would you have in mind?

MR. KRIEGER: I do, sir. Night time security at these facilities to prevent people from tampering with equipment where a spill occurring in the middle of the night would go undetected and would have a much greater effect on the populous, for instance, surrounding DPC in Glendale than took place because of the immediate response that was capable from the Glendale and Phoenix fire and police departments. Additional security for tanker cars and travel and transport. And I know this is a process that's being studied by other groups at this time. And more importantly, for those facilities that have storage capabilities of chlorine in large containers, where those containers could be damaged in any way and cause leaks that would create additional danger to the public that surrounds these plants. Obviously, we're not going to be able to place plants only in places
where people do not live. People want to live close to their jobs and many of them work at the plants. With that in mind, however, some form of increased security, especially in the transportation and handling of chlorine should be recommended, and I believe it is within the purveyance of your Board to make such recommendation and I would urge you to consider them in your further deliberations with regard to chlorine spills.

MR. BRESLAND: Are you aware of some of the work that's being done on security vulnerability analysis for chemical plants?

MR. KRIEGER: Yes, sir.

MR. BRESLAND: By the trade organizations such as the Chlorine Institute or the American Chemistry Counsel or --

MR. KRIEGER: I'm sorry, I couldn't hear that.

MR. BRESLAND: The work that's being done on assessing the vulnerability of chemical plants to terrorist attacks or criminal attacks by the major chemical trade associations on the facilities and companies that belong to them?

MR. KRIEGER: Yes

MR. BRESLAND: And also in Washington, the
issue of chemical plant security is a topic of ongoing
debate it the Congress right now, and there are a
couple of bills being considered and have been
considered for about a year, but which have not been
resolved?

MR. KRIEGER: Yes, sir, I am aware of
that.

MR. BRESLAND: But your point is well
taken and certainly this is an issue that is an
important one in today's world and it's one that is
under continuing discussion.

MR. KRIEGER: Your Board performs a very
important function, sir, and your ability to influence
those individuals who might bring this legislation
forward is certainly well recognized. I thank you for
your time here in Glendale.

MR. BRESLAND: Thank you very much. We
don't have anybody else who wrote down their name. Do
we have anybody else who would like to stand up and
make a few comments or make a comment? We've got two
people at least. Why don't you come down to the
microphone please. Again, if you'd state your name
and spell it and your affiliation, please.

MR. MEYER: My name is Scott Meyer,
M-e-y-e-r. I'm with an organization called Don't
Waste Arizona also. I've been dealing with a lot of emergency planning issues for about 15 years now in what I'll call the Valley, which is about seven or eight cities, which includes Glendale. I'll be real quick. I would hope that the Board would make a recommendation that the CEN system or the citizen's alert, the system that alerts citizens to chemical incidents, that there be some education on that. I noted that Mr. Bresland in his opening remarks took the time to explain what the meaning of shelter-in-place is. We don't have that here. One of the people on the citizen's panel mentioned that, you know, people when they got the phone call thought it was joke. They don't even know the system exists. And unless citizens know it exists and now how to respond and know what it means, it'll never work.

So, hopefully, there will be that recommendation. Thank you.

MR. BRESLAND: Okay. Thank you, Mr. Meyer.

MR. KREIS: Mr. Bresland, I'm Steve Kreis. I'm an assistant chief with the Phoenix Fire Department. The first thing I'd like to do is thank all of you for extending your valuable time and helping us with this event that took place on November
17, 2003.

Just a couple quick comments, if I could.

There have been references made to the Community Emergency Notification, CEN system. That system was not scheduled to go on line until January of 2004. In essence, this was baptism by fire for that system. It was not scheduled to go on line at the time that we used it. We felt it was an option that we couldn't overlook and tried to take advantage of it as best we could. We found that there were some small things that we need to work on and we have continued to work on that and will continue to work on that because it serves the valley so well.

Another comment though that I would like to make is that over the last 20 years, and thank you for your nice comments on how the emergency responders played that day, over the last 20 years here in the valley there has been a strong relationship between the fire departments and the police departments and we've had a good relationship with the City of Glendale. We were one of the very first automatic aid partners.

So, I think that that relationship continues to work and it showed itself very well. One of the opportunities, I think, that's going to come
out of this event for us is the same sort of relationship in the areas of fire prevention and inspections and joint sharing of resources, and Glendale has acquired some resources and Phoenix is doing some things to kind of address these problems. So, again, let me just thank all of you for spending your valuable time looking at this and helping us with the situation. But there were a couple of comments that I kind of wanted to pass along to the Board. So, thank you.

MR. BRESLAND: Okay. Thank you. Do we have any other -- anyone else in the audience who would like to say something? Before we get to the conclusion of the meeting and a few concluding remarks, there have been some comments made by the speakers, by the second panel and by some of the citizens, about the emergency response and I'd like to give the members of the initial panel, if they have anything that they'd like to respond to and any comments they'd like to make, especially on -- I guess most of the comments were on the emergency notification system. If you have any additional comments or any rebuttals that you'd like to make, we'd be happy to hear from you.

Mr. Shannon?
MR. SHANNON: I don't know that I would rebut, but I would expand on some of the information. The emergency notification systems that are being used now are being integrated so that you don't have one brand not able to be utilized by another. That process is ongoing. As Chief Kreis mentioned, it's a work in progress. So, we will continue to address that and will not be satisfied, not only as a result of what could be seen as areas of concern at this incident, but for future incidents. We simply just don't know the limits to which that tool can be used.

Reverend Friesen indicated that he's quite concerned with the City of Glendale's inability to be able to predict whether or not the systems being used in industry are appropriate. I don't necessarily take that as a criticism at all. I would share his concern. Any time we have industry we want to make sure that that industry's providing whatever product they produce in a very safe manner. The City of Glendale, like every city, is challenged with resources. We have inspectors that do a body of work that oftentimes needs to be massaged as we become a larger city or as industries change their methods of business. So, I would welcome comments such as that and, in fact, I believe that our fire protectin deputy
chief has taken aggressive steps -- actually prior to this incident, in terms of trying to predict how best we can prevent events like this from happening by being aware of the system. So, it's an integrated system. It's a dynamic system. And I just want to assure not only the Reverend, but the citizens that we don't take that as a criticism. We take it as an opportunity to do what we're tasked to do, and that is predict where events could occur and be aware of them.

So, that's really all I have.

MR. BRESLAND: What about the issue of training the residents on the use of the call down system?

MR. SHANNON: Well, I certainly would agree that residents need to know what tools they have in their tool box or should expect to hear from them. I don't feel fully required to speak about the CIN system, essentially because I'm not a manager of that program, but I would not suggest to you that the comment made is inappropriate. The citizens need to know what tools are going to be used on them. And keeping asking questions. Hold our feet to the fire. I mean, we are your public servants and so if you're not happy with what you're hearing, keep letting us know and we will work on it.
MR. BRESLAND: Okay, thank you. Mr. Mattox, did you want to say something?

MR. MATTOX: Thank you, Mr. Bresland and Mr. Medina. We appreciate you coming out and having this public hearing tonight.

Just a couple very quick comments in closing. One of the things that we in the City of Phoenix have been doing is discussing this issue very specifically from a preventative perspective. There's been a lot of discussion about the emergency response, what were the shortcomings of the emergency response to the CIN system, what were the problems with the CIN system. My interest, as I said earlier, is what was the problem, what's been done to correct the problem, and how do we prevent the problem from happening in the future. The City of Phoenix has been very proactive in this process as far as taking experiences that we've had in the past and capitalizing on them.

One of the things that I think has been brought up tonight is that inspections, especially with companies such as DPC, Hill Brothers and some of those who have the larger quantities of hazardous materials. City of Phoenix implemented a fee program predicated on the types of chemicals you have, the amounts of chemicals you have, in order to fund
additional inspectors so that we can get around to these properties more frequently. I would submit to you as a suggestion that this is something that you take into consideration in your recommendations.

One of the things that we from Phoenix's perspective want to do is work with our fellow communities, Glendale, Scottsdale and others who have hazardous facilities that are on our border, work with them to implement more inspections and to assist us in working with them. We have a great cooperative effort between the City of Phoenix and the communities that surround us. This is another opportunity that we can partner and work together to prevent problems, especially those where something that occurs in one city such as this event in Glendale would directly affect the residents and the businesses in another city. I appreciate you being here and I look forward to your report on your recommendation. Thank you.

MR. BRESLAND: Thank you. If there are no more public comments then that will bring our public meeting to a close. Let me just say how much we appreciate everybody's participation. To our panel members, to the company, to members of the public, I want to thank you for your attendance. The information that we receive tonight will help us a
great deal as the Chemical Safety Board investigation continues its work. And this meeting will be posted on the CSB website within the next week or so. We'll determine the root causes of the accident at DPC in Glendale and we'll formulate recommendations to the company, to trade organizations, to workers and perhaps to other government agencies so that these kinds of accidents may be better prevented. Because chlorine is in such wide use in this country and because it can have such serious health effects we at the CSP believe that it is imperative that companies that manufacture or use chlorine should constantly review their safety procedures and work to make sure that operators are actually following those procedures.

I have had several media interviews today, and one of the comments that I've made in all of them is if companies are taking on the responsibility of handling a chemical as toxic as chlorine, they also have to take on the responsibility of handling it in the safest possible manner so that people in the community are not impacted by an accident such as the one that happened at DPC. The CSB works to prevent accidents but we know that accidents will happen. When chemical accidents happen involving toxic releases of
chemicals into the atmosphere it's imperative that local emergency agents be prepared to respond effectively.

And I think we saw an effective response here in Glendale from all of the agencies. We've heard testimony that there were some glitches in the response and the community notification, but overall the response appears to have been timely and effective. It's heartening to hear that your local emergency response agencies have already reviewed what happened and are taking steps to improve their operations. This is doubly important given the homeland security issues involved with chemical plant safety. I'd like to give Mr. Medina the opportunity for a closing comment.

MR. MEDINA: Well, we heard that many Spanish-speaking members of the community were impacted or some way involved in this incident. We made a significant effort to invite them to this meeting. Over 4000 invitations were distributed in the community. We went to the Spanish media to invite them. I'm sad to see that they weren't here today. We will continue working and will have information in Spanish available to them so they know where we're going with this investigation, and the final report
definitely we'll make a big effort to translate it and make it available to them. Thank you.

MR. BRESLAND: With that, I'd like to thank you again for coming this evening. Thank you to all our participants and drive home safely.

Thank you.

[Applause]

[Proceedings Concluded]