

UNITED STATES OF AMERICA

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CHEMICAL SAFETY AND HAZARD
INVESTIGATION BOARD

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PUBLIC HEARING
In the Matter of
TOXIC GAS & FLAMMABLE VAPOR RELEASE
ON APRIL 12, 2004
MFG CHEMICAL, INC., CALLAHAN
FACILITY, DALTON, GEORGIA

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TUESDAY
NOVEMBER 16, 2004

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NW Georgia Trade & Convention Center
2211 Dug Gap Battle Road
Dalton, Georgia

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7:02 p.m.

BEFORE:

Chemical Safety Board Members:

CAROLYN W. MERRITT, Chairman
GARY VISSCHER, Member
JOHN BRESLAND, Member

Assisted by:

CHRIS WARNER, General Counsel

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P R O C E E D I N G S

CHAIRMAN MERRITT: Good evening.

Welcome to this public hearing of the U.S. Chemical Safety and Hazard Investigation Board, the CSB. I'm Carolyn Merritt and I'm Chairman of the Board.

Tonight before we begin, I'd like to make a couple of safety announcements. If you would notice where the exit signs are. This exit sign, you go out this door and turn to the right and these exit signs lead directly outside, in the event of an emergency.

Also, if you have a mobile phone, I'd ask that you please turn your mobile phone off or silence it so that these proceedings are not disturbed. Thank you.

I'd like to welcome all of you here tonight and let you know that our purpose here tonight is two-fold. One -- first, we plan to communicate to the public about an incident that occurred at MFG facility here in Dalton on April 12, 2004.

The Chemical Safety Board has been conducting an investigation of that release and these are our preliminary findings with regard to that investigation.

This was a serious accident involving reactive chemicals that caused a public evacuation and forced 154 people to go to the hospital due to chemical exposure. This accident provides important lessons about handling reactive

1 chemicals, preventing their release and controlling their
2 impact on the public.

3 Secondly, we're interested in learning how Dalton
4 was prepared for this event and what we can learn from their
5 experience and your experience that would help not only
6 Dalton, but other communities to better prepare in the event
7 of a chemical release or a chemical accident.

8 We encourage all of you to participate in this open
9 meeting and we welcome you and are glad that you're here.

10 We're going to present our preliminary findings and
11 then we'll convene a panel of invited guests to represent
12 local emergency response organizations. We hope to learn
13 from their experiences and their observations and concerns
14 and we want to better understand what went well in this
15 emergency response, but what might have gone better.

16 Our agency's mission is not to find fault, but
17 rather to promote greater safety and preparedness in the
18 future.

19 After the panel discussion, we'll have a public
20 comment period and we'll be happy to hear from anyone who
21 wishes to speak about this accident. The Chemical Safety
22 Board Investigator Francis Altimerano is available to assist
23 any member of the public who needs help with Spanish
24 translation.

25 Joining me this evening are our Board members John

1 Bresland, Gary Visscher and next to me is our General
2 Counsel, Chris Warner.

3 We also have our have our lead investigator, John
4 Vorderbrueggen and co-investigator, Mark Kaszniak, with us
5 this evening.

6 Before we begin, I'd like to quickly tell you a
7 little bit about who the Chemical Safety Board is. The
8 Chemical Safety Board is an independent federal agency.
9 We're not part of OSHA or EPA. We investigate industrial
10 chemical accidents and issue safety recommendations to
11 companies, to other government agencies and to trade
12 associations and other people to help prevent this kind of
13 accident from happening again. Our goal is to save lives and
14 to help protect the public and the environment by helping to
15 prevent such accidents.

16 We're not a regulatory agency, we don't issue fines
17 or penalties. Our investigations are conducted by
18 professional, expert staff and our reports are always public.

19 You can find our completed work on our website at
20 www.csb.gov.

21 Our staff tonight is going to report on preliminary
22 findings. This investigation is not completed, so the
23 information that you provide will help us greatly in
24 completing our work.

25 I'd like to also let you know that we have invited

1 a panel of local emergency responders to talk with us this
2 evening and I'll introduce them. We've invited Dalton Fire
3 Chief, Barry Gober; Dalton Chief of Police, Lieutenant Jason
4 Parker; Mr. John Hitchens from the Whitfield Emergency
5 Medical Services; Dr. William Pullen of Hamilton Medical
6 Center; and Whitfield County Fire Chief and EMA Director,
7 Carl Collins. We hope that we'll be able to hear from these
8 gentlemen shortly.

9 So if there's no other opening statements by any
10 other Board members, I'd like to recognize our lead
11 investigator, John Vorderbrueggen, who will begin his
12 presentation.

13 John Vorderbrueggen is a lead investigator. He has
14 more than 30 years of experience in process safety,
15 regulatory program management, business management,
16 maintenance process improvement, quality assurance, quality
17 control, program management, human factors, mechanical and
18 structural design and workforce training program development
19 and instruction. He has extensive experience in process
20 safety management and risk management program assessment and
21 program development, and fitness for service engineering
22 analysis of high energy mechanical systems.

23 Industries served include chemical, refining,
24 pharmaceutical, chemical nuclear and fossil power, aerospace
25 research and launch facilities.

1 He served as a member of the Mary K. O'Connor
2 Process Safety Center Technical Advisory Committee.

3 Mr. Vorderbrueggen holds a Bachelor of Science in
4 mechanical engineering from California Polytechnic University
5 and is a registered professional engineer.

6 His co-investigator is Kaszniak, who is a certified
7 explosion investigator, certified public environmental
8 auditor.

9 Mr. Kaszniak joined the CSB following a 20-year
10 career in health and safety including recent experience as an
11 independent consultant specializing in accident
12 investigations, process safety and federal regulatory
13 compliance. He was Director of Health and Safety for IMC
14 Global, a crop nutrient manufacturer, and has held positions
15 as Corporate Safety Manager for the Vigoro Corporation and as
16 Senior Health and Safety Administrator for Morton
17 International.

18 Mr. Kaszniak also worked for OSHA for eight years
19 as a safety engineer, investigating numerous fires and
20 explosions and chemical and petroleum process facilities.

21 He holds a Bachelor of Science in chemical
22 engineering from the University of Illinois and is a
23 certified fire and explosion investigator and certified
24 professional environmental auditor.

25 With that, I'd like to turn the program over to

1 John Vorderbrueggen. Thank you, John.

2 MR. VORDERBRUEGGEN: Thank you, Chairman Merritt,
3 Mr. Warner, Mr. Visscher, Mr. Bresland, members of the
4 community and emergency response agencies that are
5 represented here. Thank you very much for taking the time
6 out of your busy evenings and days to listen to what we have
7 to say, and we really want to hear what you have to say as
8 well when we get to that point.

9 In the next series of slides, I'm going to
10 summarize the incident, I'm going to provide our preliminary
11 findings on this incident and I'm going to then give a couple
12 of slides on our action items to reach conclusion on our
13 investigation.

14 First, to set the stage and identify specifically
15 the configuration of the system, what we have in this view,
16 the tank truck on the right hand side -- technical name for
17 it is an isotainer -- that's a fancy name for a tanker truck.

18 It contained about 31,000 pounds of allyl alcohol, which is
19 a flammable and toxic chemical. That arrived on site the day
20 of April 12, 2004.

21 On the extreme left hand side is a large chiller
22 system that MFG brought on site to provide cooling to the
23 reactor system, which was part of the chemical reaction
24 process that they were planning on performing later that day.

25 The reactor you cannot see in this view, it's

1 behind this vessel here, but just in general terms, it's
2 about the same size, it's about 15 feet tall, about eight
3 feet in diameter. It had a capacity of about 2000 gallons.
4 The mezzanine floor, which is where the manway is located,
5 which is where you open the vessel to put some chemicals in,
6 is located up on this level. The relief valve release point
7 is down at ground level. And then the last item is in that
8 building in the background is where their control room was,
9 which was just south, almost due south from the reactor.

10 A little bit of background first. MFG developed
11 tri-allyl cyanurate, which we will call TAC to make our life
12 simple tonight. That recipe was developed in their
13 laboratories at one of their facilities here in town. They
14 also conducted some small batch testing in that same facility
15 prior to the incident on April 12.

16 This in fact was the very first production batch for
17 TAC that they were starting to prepare when the incident
18 occurred.

19 There was an uncontrolled runaway reaction about 60
20 minutes or so after the three principal chemicals had been
21 mixed in this reactor. The reactor released flammable and
22 toxic allyl alcohol vapor and possibly toxic hydrogen
23 chloride gas.

24 There were 154 victims that were decontaminated and
25 treated at the hospital. Some of you may be here tonight.

1 Of those, 137 were private citizens or employees of nearby
2 facilities. There were 13 police officers who were involved
3 in the emergency evacuation that were contaminated and had to
4 be decontaminated and treated and there were four ambulance
5 personnel who were there to help evacuate the community and
6 they were also treated at the hospital.

7 Additionally, on the environmental side, there was
8 a nearby creek contaminated by the water runoff. This was
9 partially from fire water runoff and it was partially from
10 the rain that was occurring that night.

11 The next series of slides I'm calling the incident
12 time line. This was taken from 911 call center records, it
13 was taken from interviews that we conducted with more than 60
14 individuals that included police officers that were on scene,
15 that included fire department personnel that were on scene,
16 it included ambulance personnel, it included MFG personnel
17 and various others.

18 I'm going to set the basis for our preliminary
19 findings in this time line. We have chosen some very
20 specific elements as we move through the period of time from
21 the beginning of the release that we have established at
22 approximately 9:30 p.m.

23 The MFG operators in the control room were -- had
24 experienced and identified what was an unexpected temperature
25 increase in the reactor system. They had a device that was

1 monitoring that temperature and the temperature was coming
2 up, it was getting higher than they expected it to be, and
3 shortly after that indication was moving, the reactor over-
4 pressurized and that was identified when of course the manway
5 gasket ruptured on the manway at the top -- and I'll show you
6 a photo here in a second. It then activated the safety
7 relief device that was there to protect the reactor vessel
8 from over-pressurizing beyond its safe limits.

9 MFG then observed a white cloud of vapor escaping
10 very vigorously out of the manway and it was also escaping
11 down below out of the relief vent line. Their only choice at
12 this time -- they attempted to identify what they could do,
13 but they had no choice but to evacuate immediately. The
14 vapor cloud was coming towards them, toward the building. So
15 the six or seven individuals that were there had to evacuate,
16 they had no choice, and they evacuated to a safe area upwind
17 on Callahan Road essentially just outside their gate or
18 thereabouts.

19 This picture shows the two items that were involved
20 in the release itself. The first one is the manway gasket,
21 that's a 20-inch diameter manway on top of the reactor. That
22 gasket failed. That occurred first. Within a few seconds,
23 maybe five to ten seconds, as MFG was evacuating the
24 building, they heard the rupture disk fail. That failed at
25 about 75 psi. The vapor vented through that line and it goes

1 down to the floor and it releases the vapor -- at this time,
2 it was a vapor being released about 18 inches off the ground.

3 Within six minutes, MFG, up in a safe area, were on
4 the phone with the 911 call center and they clearly reported
5 to the 911 center that allyl alcohol was being released from
6 their equipment at the Callahan site. They also clarified,
7 when asked, whether there was a fire, and there was not, and
8 they also clarified that there were no injuries at this point
9 in time.

10 The 911 center immediately notified the city fire
11 department and they were en route. While they were en route,
12 the fire department requested an ambulance to stand by at
13 Callahan Road due to what was noted as a hazmat spill, and an
14 ambulance crew was dispatched to that area.

15 This map shows the relative location of MFG down
16 here at the bottom on Callahan Road and we're about 14
17 minutes into the event, the police are now en route and we
18 also have our first call from one of the residents on
19 Sycamore Circle who reported a very bad chemical -- a bad
20 sickening smell and burning eyes. That's the first report
21 from a resident -- we're about 14 minutes into the event.

22 The red is an approximation of the vapor cloud
23 based on the 911 calls where people are telling the center
24 what they're observing and encountering.

25 The first station, as you will see, is up at the

1 top of this view and the 3.3 mile trip from the fire station
2 to MFG was very quick and the fire truck reported that he
3 encountered a vapor cloud, both observed what he thought was
4 just fog from the lousy night it was, but when they drove
5 through it, they smelled it and they immediately knew that
6 they had something bigger on their hands than a hazmat spill.

7 They also directed the dispatcher to tell any other
8 responding units to come down from the west side of the
9 facility and not come down Callahan Road in any kind of
10 future response.

11 Sixteen minutes into the event, the incident
12 command post is now established. This is the city fire
13 department's incident command post and they're just southwest
14 of the MFG facility essentially up on Callahan Road.

15 We have engine two notifying the dispatcher that
16 allyl alcohol is being released, so this is another
17 confirmation to the 911 call center that we have an allyl
18 alcohol release, not a hazmat spill.

19 We also have a police officer reporting a very bad
20 chemical fumes at the Franklin Place Apartments, which is on
21 Lakeland Boulevard, about three-tenths of a mile from the
22 facility, north-northwest.

23 Twenty minutes after the start, the first
24 department has now established a half mile evacuation zone.
25 This is based on the National Emergency Response Guidebook

1 which is the bible of every fire station in this country and
2 Canada, and they looked up allyl alcohol, it said half mile
3 evacuation zone and it also called for what is called
4 encapsulating suits for emergency response. We also call
5 those Level A suits. And they are needed to protect anybody
6 who has to enter a toxic chemical environment. You literally
7 are closed into a plastic bag and you have your own breathing
8 gear and that's what it called for.

9 We also have a report in the 911 records that a
10 police officer now asks the dispatcher if he needs -- or if
11 the policemen that are proceeding to evacuate the community -
12 - need any kind of protective equipment. That question was
13 never answered but the policemen didn't have the equipment,
14 and we'll get into that a little bit later. So it was
15 somewhat of a rhetorical question.

16 The next item was another police officer reports
17 his eyes are burning and he must leave the area, he has to
18 quit trying to help the community to evacuate. He leaves the
19 area so he can get fresh air and then he returns into this
20 contaminated area. He felt his responsibility was to get the
21 community to safety. That was number one on his list and he
22 put himself in harm's way to do that.

23 Twenty-five minutes after the event -- after the
24 release started -- the 911 call center tells the hospital to
25 prepare for victims that are exposed to allyl alcohol. So we

1 have good communication to the hospital that allyl alcohol is
2 our biggest concern right now.

3 The first ambulance crew that was responding to a
4 home on Sycamore Circle advised their dispatcher not to let
5 any other ambulance come in the area. Ambulance crews don't
6 go into contaminated areas, they're not supposed to. The
7 challenge is how do you alert them so that doesn't happen.
8 That same crew, shortly thereafter, is overcome by the vapor
9 cloud and they're forced to leave the area without giving any
10 detailed aid to any of the residents in the area.

11 We're 30 minutes into the event. The police ask
12 the first department to take over the evacuation and be sure
13 to use breathing apparatus. The police can't handle it, they
14 don't have the equipment, the fire department does, to go in
15 for the evacuation.

16 At this point in time, that same ambulance crew
17 that has left the scene is unable to actually go as far as
18 they had intended. They actually had to pull off the road
19 and ask for assistance from another ambulance crew.

20 We also have a police officer notifying the
21 dispatcher that he no longer can stay in the area and he has
22 to pull out from notifying the public.

23 We're 38 minutes into the event. The triage area -
24 - the triage area is an area set up by the EMT and paramedics
25 to evaluate potentially contaminated individuals to decide

1 who goes to the hospital first and what do we do, can we
2 treat somebody here locally. That triage area was set up at
3 fire station two, three miles north of the facility, and they
4 began evaluating exposed personnel and the 911 center also
5 starts informing anybody that calls them, go to the triage
6 area.

7 Also, the Red Cross set up a shelter at the church
8 across from the fire station down there on Abutment Road,
9 station two, and they started receiving displaced residents
10 who didn't feel they needed to go to the hospital, but they
11 needed a place to spend the night.

12 The fire department now instructs the police
13 officers to leave the neighborhood and that the fire
14 department has now taken over any remaining evacuation
15 activities. The first department is wearing their breathing
16 apparatus as they drive their fire trucks through to assist
17 the community to evacuate.

18 This map shows the relative location of the triage
19 area down in the lower right hand corner, that was set up to
20 evaluate potentially contaminated or injured parties from
21 this release. It shows the Hamilton Medical Center, which is
22 the hospital, and where the hospital set up their own
23 decontamination station to handle personnel or individuals
24 coming there. That's three miles from the triage area and
25 the triage area I showed you before is another three miles to

1 where the incident occurred. We had about half a mile
2 evacuation zone, so we're five miles from the exposure area
3 before we do any decontamination.

4 An hour and a half after the start, the fire
5 department has now reported to the 911 call center that all
6 four ambulances are contaminated from allyl alcohol toxic
7 chemicals. One ambulance actually continues transporting the
8 personnel to the hospital back and forth from the triage.
9 The other three remained at the triage area to act as a
10 triage function.

11 It's also at this point in time that the fire
12 department is requested -- they get a phone call from a
13 resident, we're an hour and a quarter into this event and we
14 still haven't evacuated the community. There's a resident
15 there that needs help and the fire department had to go back
16 in and help get that elderly resident out of the area.

17 Two hours after the start, the first department
18 makes their final sweep of the neighborhoods to verify that
19 everybody has been alerted to evacuate, and the ambulance
20 transports the first three of nine injured policemen to the
21 hospital. There were four more policemen that drove their
22 squad cars to the hospital and that constitutes the 13 that
23 we pointed out earlier in the slides that were treated.

24 Three hours into the event, the fire department
25 reports we still have vapor cloud at the apartment complex.

1 The complicate matters, the winds have now shifted to the
2 south and the fire department is forced to move their command
3 post out of the area and they also are now forced to evacuate
4 some of the businesses in the immediate area to the south and
5 west of the facility.

6 We now jump to the nine hour point in the incident.

7 This is the first time that MFG personnel sample any air at
8 the plant site and they were sampling for alcohol vapor and
9 none was detected. It is at this point in time, based on
10 that activity and the observations of the reactor that the
11 fire department terminated the evacuation order and the fire
12 department stopped the defensive measures that they were
13 taking. They had been spraying water in a fan spray on the
14 reactor at the top as well as they were also concentrating
15 down where the vapor was being released at the bottom,
16 because that was a very effective, and the only method that
17 they could use to try to knock down this vapor cloud. That
18 concluded about nine hours into the event.

19 Finally, 16.5 hours after we had our initial
20 release, which is now 2:00 p.m. Tuesday afternoon, MFG
21 accomplishes resealing the reactor and this ensures that
22 there is no further vapor that can be released from this
23 reactor from this incident. And the fire department at that
24 point in time terminates the incident command post
25 operations.

1 Before I release it to the Board, I just want to
2 point out that that time line was intended to identify the
3 very specific actions that were taken and some of the reasons
4 those actions were taken. The fire department was very
5 timely, the police department was on scene and they moved
6 into harm's way, they said we've got to help get the folks
7 out of the neighborhood. The hospital was actively
8 establishing what they're going to do to help the public as
9 this event moves on. That we will use as we go through the
10 preliminary findings later on in this presentation.

11 I will now turn it over to the Board.

12 CHAIRMAN MERRITT: At this time, are there Board
13 questions for the investigators?

14 Mr. Bresland.

15 MR. BRESLAND: Mr. Vorderbrueggen, you've been to
16 the MFG facility. What level of process control did they
17 have there that you would compare with other facilities doing
18 similar types of operations?

19 MR. VORDERBRUEGGEN: The process controls
20 associated with this particular activity were very minimal.
21 They did have a very large chiller system attached to this
22 reactor. It was essentially an all on/all off, and it was on
23 during this event, to the best of everybody's knowledge,
24 until it was choked out by the vapor release. They had
25 temperature monitoring. Beyond that, there was not much else

1 in the way of controls on this system.

2 MR. BRESLAND: The ruptured disk that blew and
3 caused the release of the allyl alcohol, it's a safety device
4 that's supposed to blow when the pressure gets high. Was
5 that appropriately designed, do you think, for this
6 particular operation?

7 MR. VORDERBRUEGGEN: We have not obtained any
8 documents indicating what level of design that that ruptured
9 disk had received, and that is something that will be part of
10 our ongoing analysis of the results of our testing that Mark
11 will talk a little bit about later.

12 MR. BRESLAND: I know we are going to get into a
13 later discussion of what -- chemically what happens, so I'll
14 leave some questions for later.

15 I was curious about one thing. You said that four
16 ambulances -- the four ambulances were contaminated. How did
17 that happen and is that something that would be expected to
18 happen in a situation like this?

19 MR. VORDERBRUEGGEN: As I mentioned, the goal is
20 never to bring your ambulance crews into harms way like this.

21 Now unfortunately, sometimes that can't be controlled. And
22 this is, I think, one of those events.

23 The ambulance crew were directed to a home based on
24 physical symptoms from a individual or individuals in that
25 home, and they had no way of knowing, it was very early in

1 the incident. So no, we don't want ambulance crews to be
2 contaminated, ideally we ask the fire department with
3 appropriate equipment to come in, get the people out of
4 harm's way and then be picked up.

5 The contamination of the four ambulances, the other
6 part of your question, were really the result of people
7 coming from -- some of them were from the first ambulance
8 being in the vapor cloud, the first responding ambulance.
9 Other contamination occurred when the people that went to the
10 triage station complaining of symptoms because they had been
11 exposed, based on symptoms, they then were transported in
12 these ambulances without any decontamination activities
13 occurring at triage. So the contamination was effectively
14 spread. Now only one of those ambulances was used to
15 transport individuals to the hospital as the evening moved
16 forward.

17 CHAIRMAN MERRITT: Mr. Vorderbrueggen, a question I
18 have is why was the ambulance crews nor the police not
19 prepared for a toxic release. I know that the material allyl
20 alcohol was reported by MFG correctly, that it was being
21 released and the fire department and the hospital knew that
22 allyl alcohol was being released, and yet the toxicity of
23 allyl alcohol, including the reason that this equipment was
24 contaminated and what-not, didn't seem to be communicated.
25 Can you explain what happened there?

1 MR. VORDERBRUEGGEN: Well, as you pointed out, MFG
2 clearly identified exactly what the principal expected toxic
3 was, and that was allyl alcohol. And the hospital, the
4 police, the fire, they in very timely order had the
5 information available to them to tell them that it was toxic
6 and its various characteristics through what we call the
7 Material Safety Data Sheet, MSDS is what it's called in
8 industry, and other mechanisms. And we'll get into a little
9 bit of that later. For example, poison control center was
10 called, but I don't want to jump into that.

11 Again, things are happening so fast, that's part of
12 what happened. I think our investigating team is confident
13 that had the ambulance crews and the police clearly
14 understood what they were potentially putting themselves into
15 when they drove into this zone, I think both the individual
16 as well as their supervisors would have said you can't go in
17 there, we have to bring the fire department in, which
18 ultimately happened. The fire department was brought in, but
19 unfortunately, it was after so many people were contaminated
20 and sickened by the vapor cloud.

21 CHAIRMAN MERRITT: How was this -- what were they
22 prepared for? Were they prepared for -- I know that you
23 indicated that allyl alcohol is flammable. I mean were they
24 not aware or not prepared for this material as a toxic as
25 well?

1 MR. VORDERBRUEGGEN: Would you bear with me and
2 wait until the second part of our presentation and we'll
3 address that very specifically.

4 CHAIRMAN MERRITT: All right.

5 MR. VORDERBRUEGGEN: Thank you.

6 CHAIRMAN MERRITT: Mr. Visscher.

7 MR. VISSCHER: Just a question. The time line
8 shows that the fire department was treating the release for
9 approximately nine hours?

10 MR. VORDERBRUEGGEN: Yes.

11 MR. VISSCHER: Is it your understanding then that
12 the release was continuing that nine hours or it may have
13 ceased earlier and they were continuing to treat it?

14 MR. VORDERBRUEGGEN: Unfortunately there's no hard
15 data that tells us how long the release occurred. The only
16 thing we know is within a minute or so when it started,
17 that's about 9:30 p.m., and that's somewhat based on
18 testimony from MFG employees and the 911 call from MFG, we
19 have that down to the second. The actual time it stopped,
20 that's all dependent on how long that reaction continued.

21 That nine hour period is clearly how long the fire
22 department sprayed water, defensive measures on this reactor.
23 They could only rely on what they were seeing coming out of
24 the reactor for their decision process as to whether they'd
25 completed their actions. So it was reliance on that and the

1 MFG, some of the MFG testing that was done in the area, that
2 they concluded it was safe to stop water spraying.

3 CHAIRMAN MERRITT: I have a question about why was
4 it not possible to go in and stop this release sooner from
5 the facility?

6 MR. VORDERBRUEGGEN: As I mentioned earlier, the
7 Emergency Response Guidebook makes it clear -- and this is
8 typical for a toxic type of release like this -- that the
9 only safe way to enter a toxic cloud is to have what we call
10 fully encapsulating; i.e., Level A, suits to protect the
11 individual from going -- while they go into this.

12 Had the fire department or MFG had such equipment,
13 they could have gone into this toxic cloud and conducted more
14 evaluations as to is there something we can do to stop this
15 release sooner. Now we're not suggesting that there was a
16 solution, we're just suggesting that that opportunity to
17 determine a solution didn't exist at this incident.

18 CHAIRMAN MERRITT: Are there any other questions?

19 (No response.)

20 CHAIRMAN MERRITT: Okay, then at this time, we'd
21 like to introduce Mark Kaszniak, who will talk about the MFG
22 product development phase.

23 MR. KASZNIAK: Thank you, Madam Chair.

24 MFG intended to produce a tri-allyl cyanurate at
25 this facility. Tri-allyl cyanurate is a chemical that is

1 used in the manufacture of plastics and rubber. One of the
2 most important applications of this material is in the
3 development of cable, particularly sheathing, which has a
4 high heat resistance, which is used in motor vehicles and
5 airplanes. The recipe that MFG used was based on an expired
6 patent by American Cyanamid, which means it was in the public
7 domain and could be freely used by anyone. MFG made certain
8 modifications to this patent in order to increase to product
9 yield of tri-allyl cyanurate.

10 Prior to their April 12 production run, MFG spent
11 several months completing laboratory testing via their new
12 recipe and also successfully made several small batches of
13 approximately 30 gallons in their pilot plant.

14 At the time of the release, there were only three
15 components in the reactor. They were allyl alcohol, cyanuric
16 chloride and a catalyst. In this case, the allyl alcohol
17 reacts with the cyanuric chloride to produce the desired
18 product, tri-allyl cyanurate, plus hydrogen chloride. The
19 catalyst, which is used to promote the reaction, does not
20 participate in the reaction, nor is it consumed. It's merely
21 there to aid the reaction.

22 CSB obtained samples of the raw materials that were
23 used in the reaction at MFG and submitted them to an
24 independent testing laboratory, and that laboratory tested
25 those materials and found that all the materials used in this

1 reaction were within specification, and so there were no
2 contaminated reaction materials that could have caused the
3 runaway reaction. Furthermore, the chemical laboratory also
4 took the material and put them in the same proportions that
5 MFG used, but on a much smaller scale, put them in what is
6 known as an adiabatic calorimeter, which is device which is
7 used to test reactives and determine the reactivity of
8 chemicals and the results of those tests showed that
9 excessive heat has to be continually removed from the
10 reactor, as well as the mixture acidity must be closely
11 controlled, in order to prevent this chemical mixture from
12 reacting uncontrollably.

13 This plot of temperature and pressure shows what
14 happened, what is believed to have happened the night of the
15 4/12 production run. If the reaction had gone as intended,
16 the reaction would have followed the dotted line, meaning
17 that pressure would have stayed relatively stable and
18 pressure would have also remained low. However, about 60
19 minutes after the ingredients were mixed, the pressure rised
20 (sic) unexpectedly -- excuse me, the temperature rised (sic)
21 unexpectedly. This caused both the reaction and the
22 temperature and pressure inside the kettle to both rise. As
23 the pressure rose, which was primarily the reaction of the
24 gases inside the kettle and the vaporization of the allyl
25 alcohol, the pressure came to a level where it blew the

1 rupture disk. At that point, the pressure began to subside
2 with the reaction still going on.

3 What happened is after the manway gasket blew and
4 the rupture disk activated, allyl alcohol vapor was released
5 into the community. It is also believed that hydrogen
6 chloride gas was also released. Fortunately, both of these
7 chemicals are highly soluble in water, so the fire
8 department's actions of spraying water on this material was
9 an appropriate measure in an attempt to stop the toxic
10 chemical release.

11 CSB at this point does not believe any cyanuric
12 chloride was released, simply because the cyanuric chloride
13 was present in the reaction in a powder form and the amount
14 of temperature that it would have taken to raise the cyanuric
15 chloride from a powder to a gas would have exceeded the
16 reaction temperatures of this mixture.

17 The impact on the community from the toxic cloud
18 was that 123 people went by private vehicle to the hospital,
19 31 persons were transported by ambulance to the hospital. Of
20 these 154 people, six people were admitted overnight for
21 observation. One of those persons was an MFG employee, who
22 had received first degree chemical burns to his feet when he
23 went back into the facility in an attempt to perform some
24 activity there after the release occurred. Four more people
25 were admitted for observation for respiratory symptoms and

1 they were kept overnight for observation and released the
2 next day. One person, who was an elderly person, whose
3 primary caregiver was admitted due to respiratory concerns
4 was also admitted as a result of not having primary care
5 available.

6 After the 123 people had been decontaminated, they
7 ended up going to the shelter at the church and remained
8 there until the all clear was sounded the next morning at
9 approximately 7:15 in the morning.

10 Now people's exposure to toxic chemicals varies,
11 depending on a number of different factors. In this case,
12 the reported health effect from the MFG chemical release, as
13 was determined by interviews with hospital personnel,
14 ambulance personnel, police, residents of the neighborhood
15 and from 911 -- review of the 911 calls, showed that a
16 majority of the people experienced watering and burning eyes.

17 Some people also experienced stinging and burning sensation
18 in the nose and throat, some people experienced coughing.
19 There were some who also had headaches and dizziness and
20 there was a small number of people who experienced breathing
21 difficulties.

22 When we compare these symptoms against the known
23 health effects of allyl alcohol, we will find some striking
24 similarities. The health effects are divided both into local
25 and systemic effects. Local effects are those where the

1 primary point of effect is where the chemical first contacts
2 the body. In this case, the nose, the eyes, the throat. And
3 in terms of allyl alcohol -- first of all, allyl alcohol is
4 the color of gas, so you can't see it, but it does have a
5 mustard like odor, so it does have a smell associated with
6 it. It is also a very severe irritant to the eyes, nose and
7 throat. This is confirmed by the number of reports from the
8 community.

9 Systemic effects are those effects that happen when
10 the material is actually absorbed into the bloodstream. This
11 occurs after a prolonged exposure and as of this point we
12 have no indications that anybody experienced any systemic
13 effects from these materials because most people were treated
14 and released within one or two days of the incident.

15 But in the reported literature, allyl alcohol can
16 result in a build-up of fluid in the lungs, which is known as
17 an edema. It may also affect the liver and kidneys, but it
18 is not a cancer-causing agent.

19 Similarly, hydrogen chloride has very similar
20 effects. Regarding local effects, it is also a colorless to
21 slightly yellow gas which produces a very pungent odor.
22 Another thing to be noted about hydrogen chloride is that it
23 reacts with the vapor in the atmosphere to produce a white,
24 dense cloud. This cloud was experienced -- was both noted by
25 the MFG personnel when they saw the release from the reactor,

1 and several residents mentioned that there was a white fog in
2 the community when they evacuated.

3 Like allyl alcohol, it is also a severe irritant to
4 the eyes, nose, throat and lungs. And it has very similar
5 effects to that of allyl alcohol with the addition that it
6 may produce a syndrome known as reactive airways
7 dysfunctional syndrome, abbreviated as RAD, which is an
8 asthma like condition, but in this case, one that is induced
9 by chemicals.

10 The Georgia Department of Natural Resources
11 evaluated the extent of the damage to the environment after
12 the incident and determined that the water runoff killed
13 fish, frogs and other aquatic life some seven miles
14 downstream along the Stacey Branch and the Drowning Bear
15 Creek. Also, the vapor cloud burned vegetation up to half a
16 mile downwind from the facility.

17 At this point, I'd like to turn it back over to
18 John to discuss the preliminary findings from the CSB.

19 MR. VORDERBRUEGGEN: Thank you, Mark.

20 In the next series of slides, I'm going to first
21 discuss the preliminary findings based on our investigation
22 data that we've collected so far. I'll address MFG, then
23 I'll address the emergency responders and then I'll close
24 with a brief summary of our actions to reach conclusion on
25 this investigation.

1 On the MFG side, they did not review available
2 literature, detailed literature, on the reactive chemistry
3 associated with the making of tri-allyl cyanurate. There was
4 literature reviewed. As Mark mentioned, it was literature
5 involving patents and other information, but there was other
6 literature that was available that addressed the reactive
7 chemistry associated with this, that we have no evidence that
8 that was done at this point in time.

9 We also have found that MFG did not adequately
10 address the allyl alcohol toxic hazard. We do recognize that
11 MFG did work pretty hard or very hard in understanding the
12 flammable hazards associated with this 31,000 pound delivery
13 of this chemical. It has two characteristics -- flammable
14 and toxic. They did discuss -- there were some discussions
15 and some sharing of literature with the fire department
16 before the material was brought on site. MFG also worked
17 with the supplier of this chemical to identify how they
18 internally could improve their fire defensive measures, and
19 they in fact bought equipment to be better prepared in the
20 hopefully unlikely event there was a fire.

21 The shortcoming though is they never addressed the
22 toxic hazard beyond the depth of a release of possibly, you
23 know, a very small quantity, a couple -- a couple of quarts,
24 a gallon maybe, in the process of connecting and
25 disconnecting hoses. And that was for their personnel.

1 Their personnel were prepared to handle allyl alcohol as long
2 as everything was normal. They were not prepared to handle a
3 toxic spill of any consequence -- or of any volume that could
4 approach what they had in their reactor or what they had in
5 that tank trailer.

6 MFG was also unaware of the EPA's risk management
7 regulation. This regulation has been in effect for about six
8 or seven years now and allyl alcohol is a listed toxic
9 chemical in this regulation. The threshold quantity is
10 15,000 pounds. MFG received 31,000 pounds, so they were well
11 above the threshold quantity. This regulation requires
12 preplanning and actions before receipt of these hazardous
13 chemicals and those elements that are specifically related to
14 this event are the three that I have listed. A hazard
15 assessment that includes release scenarios, what is the
16 likely release that we might have, what is the worse case
17 release that we might have if something goes wrong while we
18 handle this material. That is required by this regulation.
19 This regulation requires a prevention program -- how do we,
20 as a user of this hazardous -- in this case toxic --
21 chemical, prevent an unanticipated release. Is our rupture
22 disk adequate, is the catch system on the end of the rupture
23 disk adequate. And then finally, it requires a very specific
24 emergency response program to address all the hazards, not
25 just fire hazard.

1 On the emergency response activities, as we pointed
2 out in the earlier slides, there was very timely fire and
3 police response to this incident, they were on scene very
4 quickly. The fire department had a very quick and effective
5 assessment of what they were to do and the defensive actions
6 to be taken. And they communicated this information very
7 effectively with the 911 call center. That information was
8 transferred over to the hospital and there's a very effective
9 chain of communication for some of those details as it went
10 forward.

11 Ambulance response. As I mentioned in the earlier
12 slide, the ambulance was asked to respond, to standby at
13 Callahan Road, and they were on the way almost as quickly as
14 the fire department was on the way. The fire department was
15 dispatched and they called for an ambulance crew just in
16 case. They had not yet determined what the problem was.

17 The hospital mobilized for what is called a mass
18 casualty event. That's in their planning process and that
19 addresses any event that might expect to have more than 10
20 victims or 10 casualties that are brought to the hospital.
21 So they're moving forward, in fact their scanner radio
22 traffic alerted them even before the 911 call center, that
23 there is a problem down on the south end of town. And they
24 immediately started mobilizing. They contacted the poison
25 control center, they started communicating with the poison

1 control center and as soon as they knew it was allyl alcohol
2 as the likely release agent, the poison control center was
3 providing information to the hospital on how to react and how
4 to treat -- how to decontaminate and how to treat the
5 individuals that might have been exposed to this chemical.
6 And in fact, they set up that decontamination station at the
7 hospital that some of you folks I'm sure experienced. And
8 that methodology for decontamination was the right
9 methodology for this toxic chemical.

10 The difficulties that the emergency responders
11 encountered also were significant. The fire department does
12 not have the specialized equipment that is needed to handle a
13 toxic release. I mentioned we need encapsulating suits, the
14 fire department needs encapsulating suits in order to go into
15 a toxic spill of this nature, and possibly get the situation
16 under control sooner. They did not have that. MFG did not
17 have encapsulating suits either to handle such a large
18 release of the toxic allyl alcohol.

19 And furthermore, they did not -- the fire
20 department did not have adequate devices for testing the air
21 specifically for allyl alcohol or hydrogen chloride to know
22 very early in the event that we have an allyl alcohol
23 release. The fire departments carry oxygen monitors, they
24 carry carbon monoxide monitors, flammable vapor monitors and
25 hydrogen sulfite gas monitors. That's on virtually every

1 vehicle that a fire crew operates, because those are their
2 principal exposure hazards or lack of exposure if it's lack
3 of oxygen. They had those devices and they were using those
4 devices. Unfortunately, they did not have devices that were
5 sensitive to the chemicals that were being released.

6 Notifying the community. Door-to-door notification
7 was the only method available to the emergency responders to
8 alert the residents -- many of you are here tonight -- the
9 evacuate. Some communities use a shelter-in-place concept
10 but those only work if the community knows what to do when
11 they're told to shelter in place. Do they close their doors,
12 windows and the like. You also need to identify how you get
13 that message to those individuals. There is no callback, no
14 automatic dial out system here in Dalton. Some counties, some
15 cities, some communities have an automatic system that dials
16 all the phone numbers in the neighborhood and says -- and
17 gives specific instructions as to what to do if something
18 like this happens. And then finally, there's no siren
19 system, no permanent siren system.

20 So the police, who were the first to start the
21 evacuation and then ultimately the fire department who had to
22 come in and take over, their only methodology was drive
23 through the neighborhood door-to-door. Some police went to
24 doors and knocked, some police used their PA system to get
25 the neighbors alerted. Unfortunately, that exposed those

1 responders to the toxic chemicals and that sickened the
2 officers and as I said, 13 ended up in the hospital.

3 The limited evacuation details that they could
4 provide their mechanism, through their PAs, didn't give much
5 opportunity for them, especially as they're coughing and
6 gagging, to give much instruction other than get out onto
7 Lakeland and go north or south. And as information
8 transpired, they were also able to start directing people to
9 triage, as they learned themselves triage was available.

10 Also we found that the lifting of the evacuation
11 order was not well communicated to some of the residents.
12 Some people drove into the community late the next morning to
13 discover it was safe to return. And again, it's a problem.
14 How do you tell everybody they can come back.

15 And also the residents didn't know what to do with
16 the food that they left on their tables, the food that's in
17 their pantries. Is this contaminated, is this dangerous for
18 our health. So these are all things in the planning of
19 effective evacuations.

20 Ambulance crews were unaware they were entering a
21 hazardous zone, we've talked about that a little bit. As a
22 result, it sickened personnel and they were unable to perform
23 their functions. We have EMTs, we have paramedics that are
24 now unable to do the job that they're asked to do to protect
25 the public, to help the public get rapid response and rapid

1 care, and they were unable to do that. And as we mentioned,
2 their vehicles and equipment required extensive
3 decontamination over the next few days to prepare them so
4 that they could go back into normal service.

5 We also found that the air monitoring for the toxic
6 chemicals was inadequate. There was no air monitoring
7 performed outside of the MFG property, and certainly within
8 maybe 50 feet of the property, but certainly nothing over in
9 the communities. And in fact, on-site air monitoring, the
10 first air monitoring that was performed was nine hours into
11 the event, as we mentioned earlier.

12 Air monitoring was performed using the wrong
13 equipment. The equipment was cable of detecting alcohols,
14 not allyl alcohol specifically. The level of that detection
15 was not necessarily correct. And finally, the air quality in
16 the community was not verified safe by sampling before the
17 evacuation order was lifted and individuals were allowed to
18 re-enter the area.

19 On emergency planning, I'm going to touch on this
20 very briefly. There are federal regulations in place under
21 40 CFR 300, listed there, that specify for local emergency
22 planning committees. In the state of Georgia, there are nine
23 local emergency planning committees. These committees
24 include the businesses, the emergency responders, interested
25 community leaders and that sort of thing.

1 There is no specific LEPC in Whitfield County;
2 however, within Whitfield County, the Whitfield County
3 Emergency Management Agency has responsibility to implement
4 what is known as the emergency operations plan. Within that
5 operations plan, there are some key elements that are related
6 to this incident and those are as listed here.

7 The emergency operation plan calls for maintaining
8 a facility hazardous material profile for all your businesses
9 in the area based on the types of toxic and hazardous
10 chemicals that they handle.

11 The plan requires an incident -- or it requires
12 that a plan be developed for incident response actions. How
13 do you notify the public, who has first response -- those
14 types of activities.

15 That emergency plan calls for development of
16 evacuation procedures and finally it calls for ensuring
17 resource availability. And what we mean by resources is both
18 people and equipment.

19 The fire department, their hands were tied, they
20 did not have the equipment they needed to effectively
21 minimize this incident. They did the best job they could do
22 with the equipment they had. The police did the best job
23 they could do with the equipment they had, until they were
24 overcome, they had no choice.

25 The operations plan does have provisions for this.

1 We are not at a point where we are making any conclusions as
2 to the effectiveness of the operations plan and the other
3 elements in this plan. This is part of our ongoing analysis.

4 So I must stop at just flagging those points that are in the
5 plan at this point in time.

6 So with that, let me briefly -- on two slides, I
7 promise -- I'm going to identify the remaining action items
8 of our investigation.

9 The investigation team is working to complete the
10 chemical testing and the air dispersion modeling to estimate
11 what extent that release actually was, and the materials that
12 were released.

13 We will then complete our incident analysis. That
14 is a very scientific and analytical analysis that we conduct.

15 We go through rigorous review internally. We bring in, in
16 some cases, external experts to make sure that it is sound
17 and our conclusions are solid.

18 Based on our analysis, we will determine what we
19 call root and contributing causes that either led to the
20 release that led to the severity of the release and also how
21 emergency response actions were handled.

22 Based on that information, we will develop specific
23 and measurable recommendations that will be directed to
24 organizations, to possibly MFG and other local and state
25 agencies to prevent this type of event from occurring here

1 and anywhere else in the United States. That's our goal,
2 that's our charter from Congress.

3 We'll prepare that final report and then we'll
4 present that final report to the Board at a forum similar to
5 this here in Dalton and that's going to occur sometime in the
6 first half of 2005. As I said, it's a rigorous process. We
7 can't get it done overnight unfortunately. So it will take us
8 until the first half of 2005 to accomplish.

9 With that, I ask the Board if you have any
10 questions about the preliminary findings.

11 CHAIRMAN MERRITT: Thank you, Mr. Vorderbrueggen.

12 At this time, I would ask Board members if you have
13 any questions for John on the emergency response and
14 findings.

15 MR. BRESLAND: Just to clarify for the audience,
16 John -- and I don't know if you can answer this off the top
17 of your head, and I apologize for asking you to without maybe
18 knowing the answer.

19 How flammable is allyl alcohol compared to, for
20 example, a more common chemical like gasoline?

21 MR. VORDERBRUEGGEN: I'll defer to Mark.

22 MR. KASZNIAK: Allyl alcohol is not as flammable as
23 gasoline, but it is a flammable liquid. It has a flashpoint
24 below 100 degrees Fahrenheit, by definition. Gasoline has a
25 very low flashpoint, somewhere in the area of minus 26

1 degrees. Allyl alcohol is in the area of 70 to 75 degrees
2 Fahrenheit.

3 MR. BRESLAND: Okay. It's also toxic and its
4 toxicity -- I'll answer this question for you -- its toxicity
5 is comparable to chlorine, for example, in terms of the
6 standards that are used for comparing toxic materials. So it
7 is a relatively toxic chemical in terms of its acute effect
8 on people if they were exposed to fairly high concentrations
9 of it.

10 I just wanted to make that point just for the
11 audience, just to get a clarification of the sort of chemical
12 that we're dealing with.

13 MR. KASZNIAK: John, if I may, the National
14 Institute of Occupational Safety and Health has established a
15 20 part per million immediately dangerous to life or health
16 value for allyl alcohol. So that means when the
17 concentration exceeds 20 parts per million, it is recommended
18 that the area be evacuated and people get out from exposure.

19 MR. BRESLAND: I guess I'm perplexed by certain --
20 or several aspects of this incident. Let me just go through
21 a few of them.

22 Who supplied the allyl alcohol to MFG?

23 MR. VORDERBRUEGGEN: The isotainer was delivered --
24 was supplied by Liondale Chemical out of the Houston area.

25 MR. BRESLAND: We've talked here about the EPA's

1 risk management program, which the company would have been
2 required to comply with, actually before they brought the
3 material on site. What did Liondale have to say about the
4 risk management program in terms of educating MFG about this?

5 MR. VORDERBRUEGGEN: As I mentioned in the
6 presentation, Liondale actually visited the MFG facility back
7 in January of this year. They spent a few hours on site they
8 met with MFG personnel that were going to be dealing and
9 handling the chemical. They also visited the equipment that
10 was going to be used. Bur unfortunately, as I pointed out,
11 they talked about the flammable hazard, that was the focus of
12 this review. And it was pretty comprehensive, it was a
13 comprehensive review and MFG took actions to protect against
14 a fire.

15 What they missed, clearly missed, was addressing a
16 toxic hazard, when in fact a very voluminous document, about
17 50 pages or so, that is a publication by Liondale for allyl
18 alcohol does flag this chemical, unfortunately about the last
19 page of the document, that it is regulated under the EPA
20 regulation, but unfortunately that was missed and not
21 discussed during any of the discussions and negotiations for
22 delivery of the chemicals.

23 MR. BRESLAND: So they weren't in compliance with
24 this EPA regulation when they brought material on site? What
25 was the regulatory or the legal outcome of that

1 noncompliance?

2 MR. VORDERBRUEGGEN: In the state of Georgia, the
3 Georgia Department of Natural Resources has, if you will,
4 day-to-day responsibility for federal EPA regulatory
5 activities and enforcement and in fact, Georgia Department of
6 Natural Resources did issue what is called a consent order to
7 MFG as a result of that noncompliance to the regulation. But
8 as Carolyn -- as Chairman Merritt mentioned, compliance and
9 regulatory issues are not directly our responsibility. We
10 just noted it as an event.

11 MR. BRESLAND: I understand there was a monetary
12 penalty as well?

13 MR. VORDERBRUEGGEN: I do understand that, but I do
14 not know what that number was.

15 MR. BRESLAND: \$26,000.

16 MR. VORDERBRUEGGEN: Okay.

17 MR. BRESLAND: At least that's the reported number.

18 There are questions here that I'm not sure are
19 really appropriate for this stage -- this particular meeting,
20 which is an intermediate meeting and may be more appropriate
21 when we get to the final meeting.

22 But just -- if I'm thinking about the way this
23 process -- I don't mean the chemical process, but the whole
24 management process, the management system here, should have
25 worked that would have prevented this, I could have seen

1 certainly a more detailed discussion between MFG and the fire
2 department in terms of the hazards of this chemical, sitting
3 down and talking about what the toxic hazards were if there
4 was a release and what would the appropriate response be to
5 that release, and then obviously is the fire department
6 appropriately equipped to deal with such a release.

7 Another issue here is obviously the reaction itself
8 that took place, why did it get out of control, what sort of
9 studies did MFG do to determine how reactive was this
10 material, what was the potential for a reaction getting out
11 of control and if it did get out of control, what could be
12 done about it, what other layers of protection were there to
13 mitigate something that may have happened.

14 Those are more comments than questions. So I'll
15 leave it at that for now.

16 CHAIRMAN MERRITT: One of the things that the
17 Chemical Safety Board does is to look at each of the
18 incidents that we investigate and we try to identify how did
19 this happen, why did this happen and how do we help to
20 prevent this from happening again. One of the mechanisms
21 that is used is to report the findings on each of these
22 investigations that we do publicly and to try to communicate
23 that information to others in industry in order that they
24 might review their own information and their own processes
25 and see whether or not similar hazards might exist.

1 I guess I go back to my initial question to you,
2 and that is how was -- I mean did MFG have a Material Safety
3 Data Sheet for this material? Was information available on
4 its toxicity and were they relying on, you know, this system
5 that nothing would go wrong, in order to have what would be a
6 toxic release. Obviously you told us the investigation has
7 shown that they prepared for what might be a fire but they
8 did not prepare for a toxic release, which -- I mean, first
9 of all, did they know about the toxic nature of allyl
10 alcohol, and then there was no preparation for anything to go
11 wrong apparently. Is that correct?

12 MR. VORDERBRUEGGEN: Let me clarify a couple of
13 items. MFG did have the MSDS documentation for allyl alcohol
14 and the other chemicals that were involved in this incident.

15 And that information, MFG reports that they did share that
16 with the fire department when they planned to use allyl
17 alcohol. And of course, an MSDS, Material Safety Data Sheet,
18 which is a fairly comprehensive document, does include the
19 toxic hazards, as Mark mentioned, the IDLH, the immediately
20 dangerous to life and health toxic quantity. That
21 information was known by MFG and again by anybody that reads
22 an MSDS.

23 But there's many chemicals that have very toxic
24 hazards that are down around that level that don't even show
25 up on the EPA's R&P regulation, as I mentioned in this

1 particular incident. Again, it just didn't rise to the level
2 of concern. And we're not sure why and we can't speculate
3 why. MFG did, we believe, work very hard to try to
4 understand what they were dealing with and to try to be
5 prepared for that based on the information that they had and
6 based on their information that they assumed would be
7 involved.

8 And I also want to make it clear, MFG did prepare
9 some level of toxic release consideration, but again, that
10 was focused on a very small release. What if my crew opens a
11 valve inadvertently or disconnects the temporary connection
12 to the reactor before the line is completely empty. So they
13 might have been prepared to handle a small quantity like
14 that, but once they had, you know, a few thousand gallons of
15 allyl alcohol in the reactor and once that rupture disk
16 opened, there was nothing left that they could do. They had
17 no protective measures to stop the incident once it got
18 rolling.

19 CHAIRMAN MERRITT: Okay, thank you.

20 If there are no other questions, at this time we've
21 asked a panel of emergency response organizations to join us
22 and to talk about this event and their preparedness and their
23 feelings with regard to what emergency responders need in
24 Dalton in order to prepare for an emergency like this.

25 At this time, I would ask our panelists -- and I

1 will introduce them -- Lieutenant Jason Parker of the Dalton
2 City Police; Mr. John Hitchens of Whitfield County EMS, Dr.
3 William Pullen of the Hamilton Medical Center and Chief Carl
4 Collins, the Whitfield County Fire Chief and EMA Director --
5 to join us and to comment on their feelings with regard to
6 emergency preparedness in the Dalton area. At this time, if
7 you would join us, I would appreciate that.

8 VOICE: Madam Chairman, we spoke about Chief Gober
9 earlier, Lieutenant Parker is in the same situation. The
10 City did not get the preliminary findings being presented to
11 the Board today. We would be better prepared to discuss
12 those findings and the things that you've talked about once
13 we've had an opportunity to see your findings.

14 I'm sure this panel can appreciate the fact that,
15 as Board member Mr. Bresland said, you want to know what the
16 facts are before you start talking about them. So we will
17 respectfully decline to participate.

18 CHAIRMAN MERRITT: Thank you very much.

19 At this time then I would like to open the floor to
20 the public. We've asked you to sign in; however, if you did
21 not sign in, you still are available to speak.

22 I'm sorry -- what about Dr. Pullen and Chief
23 Collins. Is Dr. Pullen here?

24 (Inaudible comments from the audience.)

25 CHAIRMAN MERRITT: Would you be willing to talk to

1 us about how you felt this response went and the emergency
2 preparedness of the county? Thank you.

3 First of all, this is not an inquisition. What we
4 are trying to do is understand a little better about
5 emergency preparedness. While the Board investigates chemical
6 accidents, we are interested and we often see in our
7 emergency response preparedness that, you know, in
8 retrospect, people who look at that emergency response, you
9 know, feel that there were things that went well and then
10 things that could have been handled better. And part of what
11 we want to do is understand from your perspective, you know,
12 what you think went well and things that you would feel could
13 be improved in preparing for chemical or accidental releases
14 in the county. It just helps us to understand in our
15 investigation how we might focus some of our questions and
16 also our recommendations.

17 So I appreciate your willingness to speak to us.

18 CHIEF COLLINS: We have an all-hazard emergency
19 operation plan in place for Whitfield County and all the
20 cities, have had for several years. All the emergency
21 agencies and volunteer agencies such as Red Cross and DFACS
22 and the utilities, all are part of our planning committee and
23 have input into the plan. Everyone has copies of the plan
24 and know what their responsibilities are. This community
25 works real well together, all agencies. We back each other

1 up. I don't ever recall having called for resources and been
2 denied.

3 I think that night, considering the equipment we
4 had, what we had to work with, I felt like it followed the
5 plan we had, everybody did their job the best they could do
6 it.

7 My job as EMA Director is kind of a coordinator
8 between the different agencies to keep everyone communicating
9 and to keep the plan updated and input into it.

10 Mostly that night my job was calling in resources
11 that City fire requested, such as I coordinated with Red
12 Cross to set up the shelters, I coordinated with the hospital
13 on numerous occasions getting them numbers that were coming
14 in, setting up transportation between the hospital back to
15 the shelter.

16 After the incident, over a period of three weeks
17 probably, all the different agencies involved, at one time or
18 another, met and I was fortunately invited to each one of
19 them's critique session. I've never been involved in an
20 incident yet that we didn't look back and say we could have
21 done this better if we had known. Unfortunately, the next
22 time you have an incident, it's not always like the last one,
23 but you've got that experience. Each one of the agencies
24 critiqued, there were some things that we seen that we could
25 improve on.

1 Mostly -- outside of equipment needs and that's
2 stuff that none of us at our level has control of, most of it
3 was minor stuff. Decontamination, we seen we needed to work
4 on having some extra scrubs or clothes or something when we
5 got through deconning that many people. We had never
6 deconned that many at one time. So just minor stuff but it
7 has all been critiqued and notes made.

8 The thing about a hazardous material incident, when
9 you can walk away and nobody is seriously injured or dead,
10 you've got to call it a good incident, I think.

11 CHAIRMAN MERRITT: A question that I had is your
12 planning and your plan that is already in place, does that
13 address anything other than industrial accidents?

14 CHIEF COLLINS: It is an all hazard, it addresses
15 tornadoes and flooding and severe winter weather and hazmat
16 and the new plan even is terrorists now, with the change in
17 the country.

18 CHAIRMAN MERRITT: And does it address the
19 possibility for responding to transportation accidents and
20 things like that?

21 CHIEF COLLINS: Certainly. And it has been
22 practiced yearly, usually twice a year. Anything from
23 hazardous material drills to transportation accidents
24 involving school bus loads of children and that type stuff.
25 I can't over-emphasize enough that all the agencies,

1 emergency and volunteer, in our area are very serious about
2 the plan and work really well together. And I think
3 everybody does the best they can do with what they have to do
4 with.

5 CHAIRMAN MERRITT: Do you do any drills or things
6 like that to prepare yourselves and practice for such events?

7 CHIEF COLLINS: Yes, ma'am. I've been involved
8 with the fire department for 27 years, over EMA since '93.
9 There has not been a year gone by that we haven't had a drill
10 involving all the agencies over various things. As I said
11 anything from school bus accidents where you have multi
12 victims to hazardous material incidents involving trains,
13 tractor-trailers.

14 CHAIRMAN MERRITT: How would you describe the level
15 of chemical use or activity in the Dalton area, Whitfield
16 County area, and the level of preparedness for events like
17 this with regard to industrial operations?

18 CHIEF COLLINS: There's a right smart of hazardous
19 material used within Whitfield County. Due to some of the
20 changes in the carpet manufacturing, it's not as heavy
21 probably now as it was three or four years ago. We lack --
22 and I'll start with my department as far as fire departments
23 -- we lack the equipment to enter some of those areas that
24 we're talking about. When it gets past turnout gear and
25 breathing apparatus, then we have to rely on awareness and

1 defensive actions and call in private people or have the
2 companies call in private contractors that can actually deal
3 with the stopping of the leak, and that's a financial,
4 monetary restraint.

5 CHAIRMAN MERRITT: Okay. Do the other Board
6 members have questions?

7 I appreciate your willingness to answer those
8 questions. Thank you.

9 MR. BRESLAND: Chief Collins, again, thank you for
10 coming this evening and offering your expertise in this area.

11 Let me just give you my perspective, or give you a
12 little bit of my background in this because I think I
13 understand some of the issues that you're dealing with. I
14 used to manage a large chemical plant in Philadelphia, it was
15 the largest plant of its kind in the world and we worked very
16 closely with the Philadelphia Fire Department because we had
17 a multitude of flammable materials in that plant.

18 In Philadelphia, there are several oil refineries,
19 lots of chemical plants, and as a result, the Philadelphia
20 Fire Department had a very sophisticated response system and
21 hazmat system, as you would expect with all of the multitude
22 of issues that they were dealing with. And we developed a
23 very close working relationship with them that I still enjoy
24 today.

25 So I see the issue that you have is here in a

1 county of 80,000 people or in a city of about 30,000 people,
2 you obviously are not going to have the resources that a
3 large city would have. But how do you deal with the issue of
4 you do have some potentially very hazardous chemicals in the
5 community -- how do you deal with the resource issue about
6 getting the sorts of equipment that you need to respond to a
7 potential accident with that material when the resources in a
8 relatively small community may be limited?

9 CHIEF COLLINS: Speaking for my department, we have
10 a resource list of private contractors from Atlanta to
11 Chattanooga that we keep available and call in when it gets
12 beyond what we can handle.

13 MR. BRESLAND: Well, I'm thinking of things like
14 the sorts of equipment that you might actually want or the
15 local fire department might actually want to have on hand to
16 deal with an issue like this or a toxic release like this.
17 You can't just ignore it, you have to face the reality of it.

18 CHIEF COLLINS: It hasn't been ignored. We filed
19 for a -- I guess you're familiar with the fire grant that
20 they've had the last couple of years. We turned in the
21 paperwork for hazardous material on two different occasions
22 for that, because we knew we needed some equipment, but
23 unfortunately we weren't one of the chosen ones that got
24 that. We did it through the fire grant and we did one grant
25 proposal through Homeland Security. So it's not like we're

1 ignoring it.

2 MR. BRESLAND: Well, I didn't mean to imply that
3 you were ignoring it. Maybe it came out sounding the wrong
4 way.

5 So it is an issue that you recognize and you're
6 trying to deal with.

7 CHIEF COLLINS: Yes.

8 MR. BRESLAND: Thank you.

9 CHAIRMAN MERRITT: Mr. Visscher.

10 MR. VISSCHER: I also want to thank you for
11 speaking tonight and giving us your perspective.

12 As I listened to the description of the preliminary
13 findings from our staff and what you've described in terms of
14 the emergency response, it seems similar in the sense of
15 being very well coordinated, which you were emphasizing and I
16 think that's what we've also seen, is that amongst the
17 agencies at least, it was very well coordinated.

18 I think the preliminary findings point out
19 shortcomings -- potential shortcomings at least in equipment
20 and kind of information and you've kind of agreed on the
21 equipment that there may have been some things you'd like to
22 have.

23 Did you also agree that maybe you didn't have all
24 the information that you needed, particularly with regard to
25 this incident?

1 CHIEF COLLINS: That particular incident being
2 directly the City's responsibility, I really don't think I
3 could comment on that. I'm not privy to exactly what
4 information they did or didn't have.

5 Georgia opted, when that ruling was passed on the
6 LEPCs, Georgia as a state opted for Georgia to be the LEPC
7 for the state and sometimes I feel like the information that
8 gets to Atlanta maybe doesn't necessarily get back to us
9 sometimes as it should.

10 MR. VISSCHER: Have you had other industrial hazmat
11 incidents similar to this or was this kind of a new -- you've
12 had other obviously emergencies where you've brought in the
13 plan and exercised the plan. Have there been similar --

14 CHIEF COLLINS: Yes, sir, we've had some chlorine
15 leaks over the last several years back some hazmat spills.
16 It's not -- this wasn't the first time out on the plan, no.

17 MR. VISSCHER: Thank you.

18 CHAIRMAN MERRITT: Thank you.

19 Also, Is Mr. John Hitchens here?

20 (No response.)

21 CHAIRMAN MERRITT: Or Dr. William Pullen.

22 Dr. Pullen -- thank you very much, Chief Collins, I
23 appreciate your willingness to speak to us. Thank you.

24 Thank you, Dr. Pullen. Like I told Chief Collins,
25 this is not an inquisition. We're really interested in your

1 perspective of what happened that afternoon and your
2 preparedness before and event and the things that you think
3 went well as well as those things that you looked at later
4 and maybe could have gone better if you'd had information or
5 whatever thing that you needed in order to have had a better
6 response. So we appreciate you speaking to us on that.

7 DR. PULLEN: Thank you for having me and having
8 this hearing on such an important matter.

9 I guess, you know, everybody has hindsight and
10 looking back at things, but you have to kind of take the
11 perspective of what all agencies were working under at the
12 time.

13 You have EMS that got a call for a single person in
14 an apartment in respiratory distress and half a block down
15 the street the fire department is responding to a chemical
16 accident. So you have one thing here and one thing here and
17 you have an astute paramedic who calls and says don't send
18 any more units. He'd had chemical training in the Army and
19 we fortunately had a bunch of good informed trained people
20 out there to kind of start the ball rolling.

21 And then again, you have the remember that Hamilton
22 Medical Center is the only hospital to handle these
23 emergencies. There are no other hospitals to share the load
24 with, so to speak, as larger towns that have two or three
25 hospitals or three or four hospitals.

1 So with that in mind, in talking with folks after
2 the accident when you take this thing, as John said -- if you
3 take the incident and you put half a mile radius on there and
4 think about the people that were in that area, and I've heard
5 different numbers, but it's a lot of people, a lot more than
6 the 154 we decontaminated. So the magnitude of the thing is
7 quite large when you start looking at the radius of what the
8 potential was.

9 You've already heard the numbers, how many people
10 we decontaminated at the hospital. Looking at the numbers
11 and looking -- it's already been made about the -- what would
12 you call it -- the intensity or potential lethality of the
13 chemical and how it compared, there's certainly better
14 things, and there's a lot worse things out there. This is
15 somewhere between the extremes in there.

16 We -- there were a lot of individuals, and the
17 community was very lucky, I think, compare to what it could
18 have been or to a terrorist activity or that type thing, of
19 lethality of the chemical -- not that it was good. And if
20 you got affected, it was 100 percent, but looking at the
21 total number of people, we were extremely lucky. We were
22 lucky in that a lot of our fire, police, EMS and emergency
23 department personnel were not more seriously injured. I
24 think we're all thankful for that. This could have been an
25 incident similar to our emergency responders on something

1 like what happened at the World Trade Center, but not an
2 explosion thing. The mechanism was not the same but the
3 outcome could have been the same.

4 A lot of the things that I think we did well -- and
5 this is a hospital, and the fire department EMS was --
6 security was able to lock the hospital down. we were able to
7 manage access to the hospital. We had good inside-hospital
8 communications. We have the telephone system -- if it goes
9 down, we've got radios and that was available and working.
10 We did get early notification, as John already mentioned.
11 And all agencies that you've heard about were involved early.
12 The shelter was established early by the Red Cross for
13 victims and we were very fortunate that it happened at the
14 time of night, that second shift is still there and third
15 shift is coming. The floors sent personnel down to the
16 emergency department, nobody went home, we went into disaster
17 mode type thing and a lot of dedicated employees stayed. Not
18 in number wise but shift wise, it almost doubled what we had
19 to keep taking care of the patients that we already had on
20 the floor.

21 The communication between the emergency department
22 and the fire department, police, Red Cross, I think we good.
23 We had worked on that in prior training sessions and stuff.

24 Food services came in and made refreshments
25 available to patients and to personnel working. You know,

1 you've got to have your calories to keep going and your
2 coffee and caffeine and things.

3 We were fortunate that third shift stocks the
4 scrubs. I think Chief Collins mentioned that. Third shift
5 stocks the scrubs, they know where every scrub is in the
6 hospital. Second shift doesn't stock it and they were able
7 to do things like that to bring the scrubs for the staff and
8 for patients that needed decontamination.

9 Environmental services responded well. And the
10 switchboard was absolutely inundated with calls but they
11 stepped up their thing to try to handle, you know, people
12 calling about their family members and worried and they were
13 handling the calls just as fast as they could.

14 I think that was some of our strengths.

15 But I guess in looking back, we had EMS out on this
16 respiratory distress and we get a call from the police
17 department that there has been a chemical spill and that they
18 are bringing four or five people in for decontamination. But
19 as the magnitude of what four or five can go to and you have
20 to appreciate that we went from four or five or six to 154,
21 boom. And I guess one of our lessons is don't ever
22 underestimate the magnitude of what's out there. So I'm
23 thankful our staff was able to rally up.

24 And it takes a long time to handle this. We had
25 people that stayed for basically two shifts. It's not

1 something that somebody can come in and get hosed off and
2 dried off in a towel and a scrub suit and out the door. They
3 have to be checked and certain things. Depending on physical
4 findings, they may require an x-ray or pulsoximetry oxygen
5 checks and it's not everything that's just a real quickie in
6 and out kind of thing. You have to evaluate
7 comprehensively.

8 It takes a lot of equipment on the scene. It takes
9 the Type A suits out there. We realize that people are
10 mobile and they get in their cars and they drive to the
11 hospital and while they had triage areas and stuff outside,
12 that didn't stop the people from driving around it or taking
13 a different route and coming to the ER. And while they might
14 have had facilities out there to take care of that, people
15 drove around it and came straight to the ER and then we had
16 to handle the traffic there at the hospital.

17 We learned a lot of little things that are not life
18 threatening kind of things that can cause some of the most
19 problems. And some of that was like personal belongings
20 going into a plastic bag and then you didn't have any idea
21 who had their belongings in the bag. Fortunately we had some
22 people that figured out if you call the cell phone number and
23 see which cell phone is ringing in the bag, then we can
24 identify who is there. But that's not a life threatening
25 problem, but it was a problem later on to handle to get

1 belongings back to everybody.

2 We learned that it can be very expensive to handle
3 things of this magnitude when you take that many employees
4 coming in. Besides the scrubs that went out and laundry and
5 things that had to be done because the hospital has to run
6 the next day, we've got gall bladders to do and C-sections
7 and you have to ramp back up and clean the laundry for those
8 things. So we had to keep running and then at the same time,
9 while we're treating this chemical spill, we have to keep
10 treating the heart attacks and different things that keep
11 coming in. I mean we see 120-140 people a day and we get 154
12 out of this and the things that we ordinarily treat keep
13 coming in too, so somebody has got to take care of the
14 incident and somebody has got to keep -- see the new people
15 that come in. Fortunately we had physicians that stayed over
16 on their shift, regular ER docs that stayed over. We had
17 some private guys that came in and worked, seeing patients.
18 We had one that stayed for hours and hours, a private doc,
19 and canceled his office the next day and has become very
20 interested in this type stuff and gave a CE just last week.
21 So he's kind of helped carrying the ball further.

22 As Chief Collins said, there's not a thing that
23 we've been through that we haven't learned. We've handled --
24 we've gone through the drills and moolas of school buses and
25 getting 20 people in with broken arms and legs, but you just

1 have to think the magnitude of this thing. And it's not just
2 the size of a school bus, but the area it encompasses.

3 I guess that's the main thing we learned -- one of
4 the main things -- is the magnitude, don't ever underestimate
5 what could be out there. Train for it and try to get your
6 equipment for it.

7 We've gotten several government grants in the area.
8 Whitfield EMS has got a new trailer coming, and I'm sorry I
9 can't give you the government grant thing, but it allows us
10 like to give oxygen to 30 people. If we'd had that -- what
11 they described up here so clearly was the chemical irritates
12 the mucous membranes and your respiratory tract, nasal
13 passages, eyes, and it would allow us to administer oxygen to
14 30 people out there. A decontamination trailer is available
15 in Gordon County, will be in 20 minute available to us that
16 we didn't have then. So there's a lot of good positive
17 things that are happening, plus what we learned from this in
18 training that we'll be doing in the future. We've already had
19 one like a hazmat, weapons of mass destruction chemical class
20 that's been put on. We had 30 something people that made it
21 to that and another one scheduled. You know, you train,
22 train, train and try to be prepared.

23 CHAIRMAN MERRITT: Thank you. Are there any
24 questions?

25 MR. BRESLAND: Just a couple of questions, Dr.

1 Pullen.

2 Do you recall how you were able to find out the
3 chemical characteristics or the toxic characteristics or the
4 medical characteristics of the chemical that was involved,
5 allyl alcohol? Did you have easy access to determining what
6 the medical treatment would be?

7 DR. PULLEN: We keep MSD sheets in the ER. We have
8 a notebook type thing with that in there. Poison control was
9 called, one of the private docs got on his computer before he
10 came in, in the electronic age, he came in with an armload of
11 printouts on it from home. And then we had people in the ER
12 on the computer working.

13 I think one thing, we had chemical names that were
14 involved in the reaction but we're not chemists to know what
15 all when they're mixed together, where we were on other
16 things to worry about -- was it just the alcohol, was it just
17 -- you know, whatever. And did it mix together and form
18 something else in there that we didn't know. We knew some of
19 the ingredients that were in.

20 I don't think our personnel felt like that the time
21 of when we really knew what it was was maybe quite as quick
22 as previously indicated. But that was all it was, that was
23 all the chemical we were worried about.

24 MR. BRESLAND: This may not be a question for you
25 but I'm sure you probably know the answer to it.

1 The ambulances, the four ambulances or the
2 ambulance service here in the county and the city, is it full
3 time or part time or are they volunteers?

4 DR. PULLEN: No, they are full time employees, yes.

5 MR. BRESLAND: Are they EMTs or paramedics?

6 DR. PULLEN: Both.

7 MR. BRESLAND: Okay, thank you.

8 CHAIRMAN MERRITT: Thank you. Are there any other
9 questions?

10 (No response.)

11 CHAIRMAN MERRITT: Thank you so much. I appreciate
12 very much, Dr. Pullen, your willingness to speak with us.
13 Thank you.

14 DR. PULLEN: Thank you.

15 CHAIRMAN MERRITT: At this time, we'd like to go to
16 public comment, and you've been very patient. I know the
17 hour is getting late. I remind you that Francisco Altimerano
18 is available if you have a Spanish translation for your
19 question you would like to ask.

20 Also, the microphone that was just quickly removed
21 apparently has a short and isn't working and so we're going
22 to ask you to please use the microphone at the podium if you
23 would, with your public comment.

24 I will -- oh, I would also ask you to please limit
25 your statements to three minutes because we have a number of

1 people who would like to have an opportunity to speak.

2 And also if you would, keep your comments focused
3 on this incident and not on anything else that might not be
4 relevant to this incident.

5 I'd like to call Savannah Hill.

6 MS. HILL: I'm concerned about the health
7 interests. My husband was -- six months prior to this was
8 healthy, he has cancer now. He was on the porch for about 15
9 minutes. We heard this whoosh and we went to the door, and
10 when we went to the door, it engulfed our house. I'm right
11 behind Franklin Place.

12 I want to know if it's related. He has never been
13 sick, worked -- just retired in June prior to that. This
14 June he has cancer, and terminal, he's in the hospital. He
15 had the breathing, we both did. I'm one of the ones that
16 called to find out what was going on. We were the first to
17 get out because the EMTs was coming, the police was coming as
18 we was leaving. We were there on the porch for 15 minutes,
19 five minutes in the house. The door, as soon as it opened,
20 it engulfed us.

21 He has tumor cancer, he has the thing that is kind
22 of like fluid buildup, the nose running. He's been sick from
23 that day to now.

24 And I just want to know -- my concern -- I have
25 found out I have white spots on my lungs, don't know why.

1 I've got a lot of health issues that I would like to be
2 answered.

3 CHAIRMAN MERRITT: Thank you for your comments.

4 The Chemical Safety Board is not a medical agency
5 and we really are not able to answer the question that you've
6 asked us. What we suggest and we recommend and we do this --
7 we always hear similar concerns from the public when we have
8 public meetings, about long-term health effects. We would ask
9 you to talk with your local doctor, your healthcare provider
10 and also the public health officials about the potential
11 impact of this chemical on you. That is what our
12 recommendations always are.

13 Shelia Powell. If you would state your name and
14 spell it for us, please.

15 MS. POWELL: Okay, my name is Shelia Powell, that's
16 S-h-e-l-i-a, P-o-w-e-l-l.

17 I too have health concerns and I do understand you
18 can't really address those, but these are just some of the
19 medicines that my family is on now -- inhalers, medications
20 for asthma, these have to be done through a breathing machine
21 -- never had to do them before. I'm still doing them now, my
22 son is doing them as well.

23 We have addressed this with our physician. We are
24 told we don't know, we've looked it up, we can't tell you if
25 that's what's causing it.

1 My entire family has had horrible headaches, I
2 actually had a son that has moved to Canada and he wrote a
3 letter, I'll read it really quickly:

4 "My name is Chris S. Powell. I was involved
5 in the chemical spill in April 2004. Since that
6 time I have suffered from severe recurring
7 headaches. I have also had recurring bouts of
8 vertigo. I have always been slightly lactose
9 intolerant, but it was controllable by Lactaid. It
10 is no longer controllable and dairy is no longer a
11 part of my diet.

12 "I worry about the long-term effects to my
13 liver and kidneys. Also, as my wife is now
14 pregnant, I worry about any defects to my unborn
15 child.

16 "I was also given Tylenol at the hospital
17 before the poison control center gave the
18 directions not to give any acetaminophen. This is
19 a concern to me due to long-term effects also.

20 "Sincerely, Chris Powell."

21 Another thing that really is a big concern of mine,
22 since we do have so many chemicals in this area, why is there
23 not a signal, an alarm, something. We had to -- now I'm not
24 sure on the time line because I know that my daughter and I
25 got out and walked around the house and we were able to -- we

1 thought the house was on fire -- we were able to walk around,
2 then we got in the jeep, we drove up the road, we were able
3 to come back, we still had no response, anybody coming out.
4 So I'm not so sure that those time lines are exactly
5 accurate, because we were quite exposed.

6 I was actually one of the ones who did spend the
7 night in the hospital. The decontamination definitely needs
8 to be addressed. I applaud you guys for what you did, but
9 the decontamination unit consisted of two sheets held by two
10 men and another man squirting you down with it felt like a
11 fire hose full of cold water while you were naked in the
12 parking lot. That was extremely embarrassing, for one thing.

13 I was the first one decontaminated, so they said -- I was
14 vomiting, I had to have -- but anyway -- by the end, my
15 husband and my son were helping to hold the towels so that
16 other people could be decontaminated. The hospital did a
17 wonderful job, it was just overwhelmed.

18 And now we're faced with health issues that nobody
19 knows how to address. We're faced with -- there's still no
20 sirens, there's no warning system in place whatsoever and
21 there are many chemicals being manufactured on our end of the
22 town. And that is a huge concern for me because I have
23 children who are at home, I have an unborn grandchild. And
24 it is a concern. I want to know that I will be able to get
25 out safely without having to wait 30-45 minutes -- and I'm

1 not saying it's their fault, because this is not -- they
2 responded quickly. But I don't want to wait and take all
3 this in when there could be a siren that could get us out of
4 there.

5 CHAIRMAN MERRITT: Thank you very much. I
6 appreciate your comments.

7 Next is Michael Powell.

8 MR. POWELL: My name is Michael Powell, I'm
9 Shelia's husband.

10 I know that you don't have the answer to these
11 questions, but it seems as though a lot can come out of this
12 meeting. It was mentioned that the air quality was checked
13 for this particular alcohol. Was it ever checked for the
14 allyl alcohol, for the hydrochloric acid if it was -- we were
15 never notified, you know, how many parts per million was in
16 the air when we were exposed, at the plant or at our homes.

17 It was mentioned that the Level A suits weren't
18 available for the emergency people here in Dalton. I know
19 it's a financial issue, but could businesses not be involved,
20 the people that are producing the chemicals, could they not
21 be involved in helping purchase the equipment for our
22 emergency medical people so that we can be protected?

23 Are there any warning signals that are in place?
24 It was mentioned about some kind of phone call to affected
25 areas, a siren in place, some kind of notification that when

1 the siren goes off, that you turn to AM 950 and listen for
2 instructions, you turn your TV on to a specific TV station
3 and get a warning about you need to evacuate certain area to
4 a safe place.

5 Was MFG Company aware of -- when they produced this
6 chemical, this new chemical that I think it was said that
7 there was an expired patent on. Were they aware of all the
8 possibilities? Don't prepare for just what might happen with
9 a leaky valve or something of that nature, but be prepared
10 for the extreme, like what happened. They said they were
11 prepared for fire but they weren't prepared for the vapor.

12 In this preparation, did they sit down with the
13 Dalton Fire Department, with other officials and say this is
14 what we're going to produce, this is when we're going to
15 produce it, we need someone available in case this does
16 happen. Was that done? Apparently it wasn't.

17 There was a mention that there was a limit of
18 15,000 pounds and there was 31,000 pounds delivered. Who
19 regulates that? Why was 31,000 pounds allowed to be
20 delivered to MFG?

21 And as I mentioned earlier, we need some funding
22 for chemical equipment, for emergency warning devices so that
23 -- we didn't have any fatalities in this, but we're always
24 producing -- the Dalton area is always producing new
25 chemicals, you know. There needs to be a procedure in place

1 that when something new is being produced, that they sit down
2 and discuss the full range of things that could happen, and
3 not just with themselves, but with the fire department and
4 other emergency people.

5 Thank you.

6 CHAIRMAN MERRITT: Thank you.

7 If you would like, we can clarify one question that
8 you raised and certainly we are recording your questions and
9 will make sure that those are addressed in our final report.

10 But I would ask Mr. Vorderbrueggen to address your
11 question with regard to the 15,000 pound limit.

12 MR. VORDERBRUEGGEN: Yeah, just a clarification.
13 The 15,000 pound number is the minimum quantity that kicks
14 the regulation in, the R&P regulation. Because they received
15 more than 15,000, that meant they had to implement that
16 regulatory requirement. They could have brought in 100,000
17 pounds, there's no upper limit, that's just the trigger point
18 for taking more steps. And we do not have any evidence that
19 they did.

20 CHAIRMAN MERRITT: Catherine Touksen -- Jackson,
21 I'm sorry.

22 MS. JACKSON: I'm Catherine Jackson. I live in the
23 Wood Park Estates area plus I work at the Favorite Market
24 that is on Brickyard and Abutment Road.

25 And I think that 9:30 time is not correct. My

1 other employee, she had to leave, but the policeman -- let me
2 first say that the first time that we knew something was
3 going on, a lady from another carpet mill came in extremely
4 red, crying and she used our phone at the Favorite Market,
5 and called the police station, that's where she called.

6 Then maybe 15 minutes later, I know four police
7 officers came into our store, vomiting and just pitiful, we
8 had to give them towels and everything, and they told us they
9 did not know what was going on. They just said it was some
10 kind of chemical spill and they were pitiful, I really felt
11 sorry for them.

12 They started blocking off the road right there at
13 Brickyard where our store is and they told us to come out of
14 the store and shut off our gas pumps, and we did so.

15 At that point, everything was frantic. There were
16 several police officers going on and then we started the
17 smell, the smell started at that time. Now that was about
18 9:15. If anybody was in that area, that's when it started
19 happening, about 9:15, when the smell started coming toward
20 the store.

21 At that point -- my concern -- a big concern -- is
22 notifying the residents. Me being a resident and also being
23 an employee right there at that store, I mean my son was
24 stuck at the house and I was not allowed to go in and get
25 him.

1 But now I want to applaud the policemen and the
2 firemen, I want to do that right now. Because if it wasn't
3 for the firemen -- and my son has severe asthma -- and I had
4 to tell the policeman, you know, my son was stuck at the
5 house because they would not allow me to leave the store and
6 go and get him. So the fireman -- which they had a big job
7 to do because there were so many people stuck in the Sycamore
8 and Franklin Apartments and Wood Park area, and they had to
9 go in there and get him and they told me they were glad that
10 I told them that he did have asthma, so they immediately put
11 him on oxygen.

12 But the smell was unbearable and there are so many
13 people that you couldn't get out and they wouldn't let people
14 go into get them, which I understand, but my concern is we
15 were not notified. There needs to be -- and I know that's
16 been said by the Powells, but we need something, a siren or
17 something that says get out or something.

18 And then we were never told -- I know I wasn't and
19 I know several people, we were never told when we could go
20 back -- we were never told when we could go back.

21 And my other question for you all, how were you all
22 notified of what happened? May I ask that question?

23 CHAIRMAN MERRITT: Yes, certainly.

24 The Chemical Safety Board is attached to or gets a
25 computer notification from 6000 different media sources that

1 identifies to us every 15 minutes events just like this one
2 that occur all over the country. And on nights and weekends,
3 actually one of our screeners, our incident screeners, Cheryl
4 McKenzie is here with us this evening -- what they do is they
5 have a pager and they also check their computer on a regular
6 basis to identify when we have had incidents. And then those
7 incidents are -- we have a screening process that identifies
8 the severity of the incident and then also we will get
9 together at the CSB and talk about any incident that has
10 occurred. And then through the Board as well as through the
11 management structure, we'll make phone calls to the region,
12 we'll often talk to the emergency responders, talk to the
13 company officials to find out the severity of this, because
14 sometimes all the news reports are not necessarily complete.

15 And then we make a decision as to whether or not we
16 will respond to that. And that's what happened in this
17 circumstance. We got information, we looked at it, we talked
18 about this incident, we got some more information and
19 determined that because it was a reactive toxic release and a
20 large amount of the community was impacted and there was an
21 emergency response requirement as a result of this release
22 and it was an R&P chemical, that this was one that we wanted
23 to investigate to see how did this happen, why did this
24 happen and how can we help other companies, as well as MFG
25 prevent this from happening again.

1 MS. JACKSON: Okay, and my final question is, okay,
2 you said that this is just preliminary. When you get your
3 final investigation, what happens with your investigation?

4 CHAIRMAN MERRITT: Okay, that's a very good
5 question. The report will be written by the staff and it is
6 presented to the Board. It is presented in a public forum
7 and the Board members, those of us who are sitting here to
8 night, will actually vote on the report to accept it or not.
9 We also vote on the recommendations as to whether or not we
10 feel they're substantiated and are implementable
11 recommendations to be made to affected organizations. And we
12 vote on those recommendations as well.

13 Then the entities to whom recommendations have been
14 made are notified by the Board, and what those
15 recommendations were, and then we track with those
16 organizations the implementation and completion of those
17 recommendations.

18 The report is finalized and is published on our
19 website and it is available for download. If you don't have
20 a computer, you can call or write us and we will send you a
21 written copy of it. And it is available and distributed to
22 the public. All that we do -- we are a public government
23 agency -- is available to the public.

24 MS. JACKSON: Okay, when you say -- and forgive me,
25 I'm going to be blunt -- when you say you recommend --

1 CHAIRMAN MERRITT: Yes.

2 MS. JACKSON: But do the entities have to take your
3 recommendations?

4 CHAIRMAN MERRITT: Our recommendations are non-
5 binding, but we have a very good record of having our
6 recommendations implemented. As a matter of fact, in most
7 instances, the companies who have these events have
8 implemented the recommendations long before they've even come
9 out in a final form.

10 Often too, public entities such as emergency
11 response organizations -- in many instances, they've already
12 reacted to and identified in their own reporting and their
13 own debriefing things that they need to do to correct.

14 In some instances, these recommendations are for
15 public policy change and those sometimes take a little
16 longer. But we have a very good record for recommending and
17 then getting those recommendations implemented. It's part of
18 what the Board does, is to work with companies, work with
19 public entities, work with trade associations to get those
20 recommendations implemented to try to prevent these kinds of
21 things from happening again.

22 MS. JACKSON: Thank you.

23 CHAIRMAN MERRITT: You're welcome.

24 Linda White, is she here? Thank you.

25 MS. WHITE: Thank you very much for having this

1 forum. My name is Linda White and I live in the Lakeland
2 Park Estates, which is next door to Woodland Park with
3 Franklin Apartments in between.

4 Probably had it not been for our neighbor across
5 the street, my mother and I would still be in the house,
6 because we heard the bullhorn, we never understood what was
7 being said by the police department. We're not faulting the
8 police department, but we didn't understand what was being
9 said. Cater-corner across the street from us, they never
10 left their home. And as I understand, there were several who
11 did not get evacuated.

12 One of the questions I have is who -- is there an
13 authority who approved MFG to manufacture this -- whatever
14 the chemical was in such a tightly populated residential
15 area? That would be one question.

16 I myself work in the school system. You talk about
17 the triage area and those things, we had no idea. When we
18 got in my vehicle, we were told get out. We circled around
19 several times just to ask a police officer, where are we
20 going, what are we supposed to be doing, what's wrong. And
21 what we were told was I don't have time to talk, get out. I
22 don't have time to talk, get out.

23 I understand that they were stressed, but when you
24 are the resident, you're highly stressed. Where am I going?
25 Where am I being evacuated to? So that's one of the things.

1 Getting back to the school system, I was not
2 decontaminated. My mother and I stayed in a hotel, we were
3 not decontaminated. Did we carry the contamination with us
4 to the hotel? When we did return to our home the next
5 morning and dressed to go to work, does that mean that we
6 were still contaminated and I carried that contamination to
7 the school where I work? That's a very serious issue for me,
8 working in the school system.

9 What is MFG's responsibility to the residents for
10 their costs? I myself am a cancer survivor, my doctors to
11 this day, although they are monitoring me, do not know what
12 the long-term effects are going to be for me. Yes, you say
13 it's not a carcinogen, but what effect is that going to be on
14 myself and others?

15 Then my other question is what is the
16 responsibility, city and county, to their residents who are
17 paying taxes. We never heard in the paper or over the
18 television, these are the results that we found out, this is
19 what we should have done. I mean it was like it just
20 disappeared off the face of the earth after a couple of days
21 after the evacuation.

22 We feel that this was an egregious situation for
23 all of us.

24 Thank you very much.

25 CHAIRMAN MERRITT: Thank you very much for your

1 comments.

2 America Gruner.

3 MS. GRUNER: Hi, my name is America Gruner and I
4 work for a program called Community Health Worker, and we
5 were distributing flyers to the area that was affected last
6 week and this week.

7 I'm going to try to explain myself. I think the
8 emergency responders are very coordinated, they're working
9 very well, but I think also all this information and the
10 comments of the residents are bringing to the surface that we
11 need to make some changes and to take this as an opportunity
12 to improve some services because the city of Dalton and
13 Whitfield County, we are facing many new challenges that we
14 didn't have before. Our area is changing rapidly because we
15 have new industries coming and we have many Hispanics coming
16 -- and I'm going to talk about that.

17 When we were knocking at the door, three out of
18 four houses were Hispanic and according to what they're
19 saying, they didn't know what was happening. When they were
20 calling 911, nobody spoke Spanish. When the police were
21 telling them what to do, they didn't understand.

22 Also, there is some information that some residents
23 were trying to get into their homes and they couldn't. And
24 those who were inside, they didn't know what was happening
25 either.

1 One of the residents just left because she didn't
2 understand what you were talking about because everything was
3 in English. I know that it's not that easy to hire
4 personnel, but I think we need to recognize that the
5 population is growing and I know it's not a very popular
6 idea. But I think we need to do it.

7 Also, I think we need like LEPCs, whatever it is,
8 or an equivalent to have someone or some agency or committee
9 or something to be accountable for these kind of incidents
10 and also if possible to make a list of chemicals that are
11 used in the industries and know exactly what they are and how
12 to respond if something happens.

13 Also, all these changes and all the suggestions and
14 recommendations, who is going to implement them? Also, this
15 is telling us that we need to plan what to do in cases like
16 this and I think Dr. Pullen is right saying that this was
17 very expensive, but if we have plans for the future, then
18 we're going to save also in these kinds of events.

19 So I think we need more coordination with the
20 industries and the emergency responders to know exactly what
21 chemicals they are using and how to act on that.

22 That's all.

23 CHAIRMAN MERRITT: Thank you very much.

24 Norberto Reyes.

25 MR. REYES: First I would like to thank the Board

1 for conducting this meeting.

2 I live in the area for over 20 years and I've seen
3 how well and how good of a job the city and county does,
4 especially police and fire and hospital and the 911.

5 Hearing the incident, a lot of things goes I guess
6 through everybody's minds, especially the families in the
7 area, the evacuation, how are the people going to return to
8 their homes and all the things that the people talked about
9 here tonight.

10 And I think it's an eye opener, what happened on
11 the incident, that is telling us how we can do better
12 planning, how we can be better prepared for the future. And
13 that takes not only the authorities, it takes us as people
14 that live in this area.

15 Also with the high number of Latinos that live in
16 this area, we need to hire someone bilingual in 911, at the
17 hospital and the police department. And I know that they do
18 a good job, but we need to start looking at that area because
19 we have families here and we live here and this is our town
20 and we need to be better prepared.

21 And that's my comment tonight.

22 CHAIRMAN MERRITT: Thank you very much.

23 Guillermo Aroche. And if I didn't pronounce that
24 right, would you correct us?

25 MR. AROCHE: Use William, my name is Willie Aroche.

1 I recently moved here about a year and a half ago from New
2 York. I come from a big city and anything that has to do
3 with the public is usually translated into more than one
4 language.

5 I see a problem here -- first of all, I want to
6 commend the emergency services, they did a great job, but I
7 see a problem that we don't communicate with them. As you
8 can see in the room here, there's hardly any Spanish people,
9 and the ones that came, they feel like what am I doing here,
10 nobody is translating for us. We have translators here, I
11 could have translated, Mr. Reyes -- that's usually what
12 happens, we have to translate to a group, but it doesn't make
13 them feel comfortable. So a suggestion is that maybe in the
14 future if we do implement that call-back number, we can do it
15 in Spanish, because if you think about it, half the
16 population here is Mexican, Latinos. So we have to cater to
17 them whether we like it or not.

18 Other than that, everything was handled the best we
19 could and we commend you guys on that. And if there's
20 anything we can do to help, just let us know. We'll be happy
21 to reach out to the Spanish community and hopefully at the
22 next meeting we'll have half of this room filled with Spanish
23 people. Half the people that suffered that incident were
24 Spanish, but they're not here.

25 Thank you.

1 CHAIRMAN MERRITT: Thank you very much.

2 Is there anyone else who hasn't signed, who would
3 like to speak?

4 Yes, ma'am. Come to this microphone, thank you.
5 And it's only so that we can hear you.

6 MS. MARTINEZ: Thank you. I'm sorry for not
7 signing in, I didn't know.

8 My name is Alishia Martinez and I have lived in
9 Dalton all my life and this was the scariest thing that I
10 have ever lived through. I'm a mother of four and my husband
11 wasn't home and a police officer bangs on the door, tells me
12 to evacuate. He said go, he didn't say go where, just go.
13 And I understand it was crazy. You know, he didn't have any
14 breathing gear on, he was gasping for air. He told me to
15 gather my kids up, not to open my door until the minute I was
16 ready to leave.

17 The minute we opened our door, me and my four kids,
18 started gasping for air, our eyes were watering. I just wish
19 that the police officer could have said four words -- there's
20 a chemical spill in the MFG plant -- because I thought our
21 city was under attack, I thought it was a terrorist attack.
22 I had four kids crying, what's wrong, mommy, what's
23 happening.

24 We drove off, we're gasping for air in my van.
25 Kids wanted to roll windows down and I'm yelling no. You

1 know, we didn't know what to do. I'm thinking, how far do I
2 go, you know, what's safe. What if I drive and this is all
3 over -- you know, I thought the whole city was under attack,
4 I just didn't know where to go.

5 As I was leaving, I said a prayer for the officers
6 because, you know, like I said, I commend them, they were
7 brave, knocking door to door, gasping for air. I just wish
8 that they could have said it was a chemical spill and it was
9 a plant and that way, you know, for those 10-15 minutes,
10 whatever it was, when you think your child is in danger or
11 when you think your child may die -- it's horrible and I
12 think if they had told me it was a chemical spill, I would
13 have know, just drive to the other side of town and you'll be
14 okay.

15 That's all I wanted to say. Thank you.

16 CHAIRMAN MERRITT: Thank you for your comments.

17 Is there anybody else? Yes, sir?

18 MR. DIAL: My name is Mike Dial, I live on Leslie
19 Drive.

20 I just wondered, is there any members of the Dalton
21 Mayor or City Council here?

22 (No response.)

23 MR. DIAL: Why? Maybe we all need to attend the
24 next meeting. Thank you.

25 CHAIRMAN MERRITT: Thank you.

1 (Applause.)

2 CHAIRMAN MERRITT: If there's no other comments at
3 this point, I would just like to thank everyone for coming,
4 thank the emergency responders for coming and for Dr. Pullen
5 and for Chief Collins for coming.

6 It's a very important event that we hear from you.
7 We will go back and complete our investigation and work on
8 our recommendations.

9 What keeps coming to mind is an ounce of prevention
10 is worth a pound of cure. I think there are many lessons to
11 learn here and, you know, we get 800 notifications of events
12 of chemical releases a year at the CSB, and we choose which
13 ones we think are important learning events to come and
14 investigate so that we might, first of all, help prevent this
15 from happening again and to get a lesson and a message out to
16 other companies and other communities that they might learn
17 before they have to go through an event like this, because
18 everybody is impacted by this. The company that had this
19 event, the community, the emergency responders, the public
20 officials -- everybody is impacted by it.

21 The best we can do is to learn from it and to not
22 waste this opportunity and have it happen again when we are
23 not prepared. And so that's where we hope we can take this
24 in the future with our recommendations, is to pinpoint those
25 recommendations that can help to prevent this from happening

1 again here, but also to help it -- prevent it from happening
2 anywhere else.

3 We thank you very much. Please go on line, you're
4 welcome to look at our information at www.csb.gov. And
5 you'll see all about the agency and the other work that we
6 have done in other communities and we look forward, we'd like
7 to also thank and say that MFG has been very cooperative with
8 us in this investigation and that's very important, and you
9 know, as have been the emergency responders and the police
10 and everybody that we've worked with. And we'd like to thank
11 everybody for that.

12 With that, I'd like to conclude this meeting and
13 thank you very much. Drive safely going home. Thank you.

14 (Whereupon, the meeting was concluded at 9:22
15 p.m.)

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