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MEMORANDUM

April 21, 2009

To: Members of the Committee on Energy and Commerce, Subcommittee on Oversight and Investigations

Fr: Majority Staff, Committee on Energy and Commerce

Re: Supplemental Information Regarding the 2008 Bayer Chemical Plant Explosion

On Tuesday, April 21, 2009, at 12 noon in room 2322 of the Rayburn House Office Building, the Subcommittee on Oversight and Investigations will hold a hearing entitled, "Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion." This memo provides supplemental information to assist members in preparing for the hearing.

I. EXECUTIVE SUMMARY

On August 28, 2008, an over-pressurized waste tank containing Methomyl exploded at a Bayer CropScience facility in Institute, West Virginia, sending a fireball hundreds of feet into the air. One Bayer employee was killed instantly, and another suffered third-degree burns and died over one month later. Eight other individuals, including six emergency responders and two contract employees, reported symptoms of chemical exposure as a result of the explosion.

The Committee initiated its investigation because the explosion came dangerously close to compromising another nearby tank filled with several tons of methyl isocyanate (MIC), an extremely toxic chemical that killed approximately 4,000 people after a leak in Bhopal, India, in 1984. Twenty-five years later, Bayer's facility in West Virginia is the only site in the United States that continues to produce and store large amounts of MIC.

The explosion at Bayer's plant was particularly ominous and unnerving because a "residue treater" weighing several thousand pounds rocketed 50 feet through the plant, twisting steel beams, severing pipes, and destroying virtually everything in its path. Had this projectile struck the MIC tank, the consequences could have eclipsed the 1984 disaster in India.

As part of its investigation, the Committee reviewed more than 200,000 pages of documents, as well as audio and video recordings, obtained from Bayer, the Coast Guard, the Environmental Protection Agency, and the Chemical Safety and Hazard Investigation Board (CSB), the independent federal agency charged with investigating chemical accidents. Committee staff also inspected Bayer's plant in West Virginia and interviewed more than 20 Bayer employees, first responders, elected officials, and concerned residents.

Evidence obtained by the Committee demonstrates that Bayer engaged in a campaign of secrecy by withholding critical information from local, county, and state emergency responders; by restricting the use of information provided to federal investigators; by undermining news outlets and citizen groups concerned about the dangers posed by Bayer's activities; and by providing inaccurate and misleading information to the public.

On the night of the explosion, Bayer failed to provide emergency responders with critical information about the scope of the explosion, the potential chemical hazards involved, or the actions needed to safeguard the surrounding community.

The Committee obtained transcripts of radio communications among fire, police, and emergency medical personnel that show extreme frustration with the lack of information from Bayer. First responders repeatedly complained that "we can't get through to the Plant," "we still don't have contact with the Plant," "they're not giving us anything," and "we have no contact with anybody from the plant."

When the company refused to provide information on whether the explosion involved MIC or other toxic chemicals inside the plant's Larvin unit, emergency officials contacted Bayer employees directly. One emergency responder stated: "I got a report from the Sheriff that got a report from the engineer at the Plant and this is in the Larvin Unit, and he said it's a serious situation." Another stated: "I spoke to a mechanic that works in the Plant and another gentleman that works in the Plant, and they are both saying it's poisonous."

As fire department officials from the town of St. Albans reported a potentially toxic "cloud of some type" moving westward toward them, emergency responders ordered a "shelter in place" for community residents. Officials at all levels condemned Bayer's actions:

- Joe Crawford, the police chief of St. Albans, said there was "absolutely no excuse" for Bayer's actions and called them "ludicrous."
- Kent Carper, the President of the Kanawha County Commission and a member of the Governing Board of the Metro 911 call center, called this a "complete abdication of Bayer's responsibility to your neighbors and our first responders."
- Mike Dorsey, the Chief of Homeland Security and Emergency Response for the West Virginia Department of Environmental Protection, stated: "It would have been very difficult for them to have handled this any worse."

In testimony for today's hearing, CSB Chairman John Bresland expresses concern that Bayer officials told first responders 15 minutes after the explosion that "no dangerous chemicals had been released." According to Chairman Bresland, "That statement is clearly incorrect, since Methomyl is toxic, and its uncontrolled decomposition may release highly toxic byproducts."

Serious questions have also been raised about Bayer's handling of key evidence related to the explosion. During the Committee's investigation, Bayer officials revealed that:

- Critical video footage of the explosion is missing because an unidentified contractor disabled the recording function from surveillance cameras inside the Larvin unit;
- Air monitors designed to detect MIC inside the Larvin unit were "out of service for maintenance repair" at the time of the explosion; and
- A protective "blast mat" around the MIC tank was removed and destroyed after the explosion, foreclosing further analysis of damage caused by shrapnel and debris.

In the months following the explosion, Bayer launched a media and legal strategy to stem public disclosures about its actions. For example, the Committee obtained an internal "community relations strategy" document in which Bayer's public relations firm recommended undermining local community groups and news outlets. It stated: "Our goal with People Concerned About MIC should be to marginalize them. Take a similar approach to *The Charleston Gazette*."

Bayer also attempted to conceal information about the explosion from the public by invoking, and in some cases misusing, a statute governing maritime transportation security to label unprecedented amounts of material as "sensitive security information" (SSI). CSB officials called this effort "overbroad" and "palpably ridiculous," and they warned that it could impair efforts to enhance chemical safety in the future.

In testimony for today's hearing, Bayer President and CEO William Buckner states that company officials initially thought they could "refuse to provide information to the CSB." They later began labeling documents as SSI in order to "discourage the CSB from even seeking this information."

Mr. Buckner concedes that "business reasons" motivated Bayer officials, including "a desire to limit negative publicity" and "avoid public pressure to reduce the volume of MIC that is produced and stored at Institute by changing to alternative technologies."

Bayer contends that its current process "appears to be as safe as the other alternative methods to produce MIC." Bayer's actions stand in stark contrast to other chemical companies that have already switched to safer technologies. In 1985, for example, directly after the MIC catastrophe in India, another chemical company, DuPont, altered its processes to eliminate the storage of large volumes of MIC.

II. FAILURE TO PROVIDE INFORMATION TO EMERGENCY RESPONDERS

Evidence obtained by the Committee indicates that following the explosion at the Bayer chemical plant in West Virginia at approximately 10:30 p.m. on August 28, 2008, the company failed to provide emergency first responders with critical information about the scope of the explosion, the potential dangers involved, or the actions recommended for the surrounding community. The evidence also demonstrates that Bayer delayed or refused entry to officials from local, county, and state governmental agencies seeking to access the facility to investigate the explosion.

The Committee obtained transcripts from an emergency radio channel shared by multiple fire departments and emergency responders in Kanawha County. These transcripts show that first responders tried repeatedly to obtain information from Bayer with no success:

10:40 p.m.: “at this time we can’t get through to the Plant.”

10:41 p.m.: “We need to find out what we got before we roll in there. ... Be advised we still don’t have contact with the Plant.”

10:44 p.m.: “they’re not giving us anything. To be honest with you, I don’t even know if anybody’s even called in from there. ... there is heavy smoke and a whole lot of flames. ... I’m here across from the Plant and we’ve got a western wind. It’s blowing down toward the western end.”

10:46 p.m.: “I’ve tried calling Bayer and nobody answers the phone. They called us, and I talked to the call taker, and they’re not releasing any information.”

10:51 p.m.: “confirmed explosion and have a working fire, no further information at this time.”

11:16 p.m.: “we have no contact with anybody from the plant.”¹

The evidence also indicates that for hours following the explosion, Bayer refused to provide first responders with information to address key safety questions, including (1) whether the explosion occurred in the Larvin unit of the plant, which contains a significant amount of toxic chemicals; (2) whether a large smoke cloud traveling westward after the explosion contained toxic chemicals; (3) whether emergency paramedics should be decontaminated after treating victims; and (4) whether to order a “shelter in place” for surrounding communities.

The radio transcripts show first responders discussing these issues in the aftermath of the explosion:

¹ Metro 911 of Kanawha County, *Verbatim Radio Transcripts from Metro – Fire Departments* (Aug. 28, 2008).

10:52 p.m.: "it's for sure over in the general area of the Larvin Unit. I spoke to a mechanic that works in the Plant and another gentleman that works in the Plant, and they are both saying it's poisonous."

11:03 p.m.: "God, I know you're busy but at some point could you inquire whether or not we need to decon ourselves. ... Yeah, I'm not getting clear information, but if I was you, I would, up there at the hospital."

11:03 p.m.: "I got a report from the Sheriff that got a report from the engineer at the Plant and this is in the Larvin Unit, and he said it's a serious situation."

11:06 p.m.: "no EMS units in the western part of the County ... just to stay kind of up wind until we can find out for sure what's going on."

11:20 p.m.: "All we know right now is the only thing we've been told is a shelter in place in the west, that's all, because nobody else has told us anything."

11:20 p.m.: "Have we confirmed the product? ... Well, we know it was in the Larvin Unit, and there's a mixture as of right now. John, we're really not confirmed exactly what it is. ... So, the clouds you have reported is a product cloud? ... As far as I know, yes. Instead of taking any chances, that's what we're going to go with. ... Like I said, John, we're not getting this information. We're trying to get it from the Plant. We haven't gotten anything yet."

11:21 p.m.: "I think I have confirmed that here at the gate, but I don't know, they couldn't tell me what was in the Larvin Unit."

11:42 p.m.: "All stations and units on authority of Kanawha County Office of Emergency Services issuing a shelter in place for all areas west of the City of Charleston, repeating a shelter in place for all areas west of Charleston, includes the cities of South Charleston, Dunbar, Nitro, St. Albans."²

A transcript obtained by the Committee of a 10:57 p.m. telephone exchange between the Kanawha County Metro 911 call center and officials from the fire department in St. Albans, West Virginia, also reflects discussion of a potentially toxic cloud moving over the community:

St. Albans Fire: [W]e have a cloud of some type that is dark, its moving more towards Nitro can you please try to get some information so you can tell us what it is?

Metro: Copy cloud is moving towards Nitro. I will try and figure out something. The command on scene hadn't said anything about the cloud but we are still trying to get some information on it.

St. Albans Fire: You can see the cloud with the fire right above it for 3 or 4 miles.

² *Id.*

Metro: [S]till trying to figure something out on it.

St. Albans Fire: If we don't hear something within 5 or 6 minutes we are going to do a shelter in place in the St. Albans area.³

In the hours following the explosion, Bayer provided first responders with little information beyond confirming there was an emergency at the plant. The Committee obtained audio and written transcripts of eleven telephone exchanges from 10:39 p.m. to 5:50 a.m. on the night of the explosion between Bayer officials and the Metro 911 call center. At 11:15 p.m., the Metro 911 call center had the following exchange with the guard at the main gate of the Bayer facility:

Bayer CropScience: What it is we, we have an emergency at uh Bayer Crop Science plant, and the only information I can give you is that will need and uh, you might want to uh alert the community, I've, uh, my supervisor informed me to tell you to uh alert the community that there is an emergency uh in the plant right now ... so that's that's what it amounts to, just alert the community that there's emergency in the uh Bayer Crop Science plant, and we will uh, keep you informed.

Metro: Ok, just real quick, uh we had reports that was in the Larvin unit, are you able to confirm or deny that?

Bayer CropScience: No that's all. I'm I'm only allowed to tell you that we have an emergency in the plant.

Metro: Ok and who was it that told you to tell us that? I'm sorry.

Bayer CropScience: The uh, my uh the shift leader.⁴

In addition, during the Committee's investigation, officials from local, county, and state governmental agencies expressed concern that Bayer hindered or prevented them from entering its facility to investigate the explosion on the night of the incident. These officials included:

- Michael Dorsey, Chief, Homeland Security and Emergency Response, West Virginia Department of Environmental Protection;
- Sterling Lewis, West Virginia State Fire Marshal;
- Keith Vititoe, Sergeant, Kanawha County Sheriff's Department;

³ Metro 911 of Kanawha County, *Bayer Explosion – Nitro Fire Transcript* (Aug. 28, 2008).

⁴ Metro 911 of Kanawha County, *Calls from Bayer Crop Science to Metro 911 and 911 to Bayer Crop Science Incident* (Aug. 28, 2008).

- Jimmy Gianato, Director, West Virginia Division of Homeland Security and Emergency Management; and
- David Armstrong, Deputy Director, Kanawha County Office of Emergency Services.

Kent Carper, the President of the Kanawha County Commission and President of the Governing Board of the Metro 911 call center, oversees first responders throughout the community. On September 4, 2008, he wrote a letter to Bayer objecting to the company's refusal to provide critical information to emergency responders. He wrote:

Metro 911 repeatedly asked for information and was refused. The Emergency Plan, as well as government reporting requirements, call for your company to provide information to the community in a timely manner during such emergencies. This did not happen. In fact, no notification from Bayer included mention of the "Larvin Unit" until the all-clear the next morning. This was a complete abdication of Bayer's responsibility to your neighbors and our first responders, who were sent uninformed to an explosion because no one was "allowed" to inform us.⁵

On April 3, 2009, Committee staff interviewed Joe Crawford, the police chief of St. Albans, West Virginia. He explained the reasons he was concerned about the failure of Bayer officials to provide any information about a potentially toxic cloud heading westward toward his town. He stated: "Prevalent winds always blow stuff into our town. ... Over an hour and still we had not had a confirmation of if there had been a release or what type of chemical had been released." He said there was "absolutely no excuse" for this and called it "ludicrous."⁶

On April 4, 2009, Committee staff interviewed Mike Dorsey, the Chief of Homeland Security and Emergency Response for the West Virginia Department of Environmental Protection. When asked whether Bayer's response to the explosion was adequate, he responded: "It would have been very difficult for them to have handled this any worse." He added: "This was appalling. People were downright angry. ... We have a responsibility to the citizenry and we were denied the ability to do our jobs."⁷

Hazo Carter, the president of West Virginia State University, which is adjacent to the Bayer facility and had 500 people on campus at the time of the explosion, wrote to Bayer the day after the explosion. He stated:

⁵ Letter from W. Kent Carper, President, Kanawha County Commission, to Nick Crosby, Plant Manager, Bayer CropScience (Sept. 4, 2008).

⁶ House Committee on Energy and Commerce, Interview of Joe Crawford (Apr. 3, 2009).

⁷ House Committee on Energy and Commerce, Interview of H. Michael Dorsey (Apr. 4, 2009).

The decisions we make regarding the safety of our students are influenced by the information that is provided. Following the August 28th incident, I do not believe that enough accurate information was given in a timely manner.⁸

In written testimony for today's hearing, John Bresland, the Chairman of the Chemical Safety and Hazard Investigation Board (CSB), concludes that there were "serious deficiencies in internal communications, and emergency response planning on the part of Bayer." He states:

I am very troubled by our observations of the inadequacy of Bayer's emergency response and emergency communications. For example, the county's 9-1-1 call center was told, fifteen minutes into the response, that no dangerous chemicals had been released. ...

That statement is clearly incorrect, since Methomyl is toxic, and its uncontrolled decomposition may release highly toxic byproducts. ...

Of particular concern is that apart from the two fatally injured workers, eight other people reported symptoms of chemical exposure following the accident. These include six outside volunteer firefighters and two rail contractors, who were on-site the night of the accident.⁹

In public, Bayer initially denied that there were any problems with the company's response to the explosion. On August 31, 2008, Bayer officials developed a PowerPoint presentation about the incident. A slide entitled "Positive Points" stated: "Emergency Response went very well – no significant complaints from the community and neighbours."¹⁰ A week later, on September 5, 2008, Bayer officials issued a statement to the media in response to a story in the *Charleston Gazette*. It asserted: "We shared all available information with Metro 911 as that information became available."¹¹

When faced with criticism, Bayer has sought to undermine its critics in community groups and the press. The Committee has obtained an internal "community relations strategy"

⁸ Letter from Hazo W. Carter, Jr., President, West Virginia State University, to Nick Crosby, Plant Manager, Bayer CropScience (Aug. 29, 2008). *See also* Letter from Hazo W. Carter, Jr., President, West Virginia State University, to Nick Crosby, Plant Manager, Bayer CropScience (Jan. 9, 2008) (raising similar concerns about Bayer's "lack of timely, direct notification to the University and this community" after another chemical incident at the plant in December 2007).

⁹ Testimony of John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, *Hearing on Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion*, 111th Cong. (Apr. 21, 2009).

¹⁰ Bayer CropScience, *Methomyl Incident at BCS Institute, WV on 2008-08-28* (Aug. 31, 2008).

¹¹ Bayer CropScience, *Response to Metro 911 Allegations as Reported in the Charleston Gazette* (Sept. 5, 2008).

document dated December 29, 2008, in which Bayer's public relations firm outlined this approach. The document stated:

Our goal with People Concerned About MIC should be to marginalize them.

Take a similar approach to *The Charleston Gazette*. For as many years as it has been in print, *The Gazette* has chosen to be anti-business and champion environmental activists' causes. Marginalize its effectiveness.¹²

III. VULNERABILITIES OF BAYER'S INVENTORY OF MIC

Documents obtained by the Committee raise serious questions about the vulnerabilities of Bayer's inventory of methyl isocyanate (MIC) during the 2008 explosion and about MIC monitoring systems that were out of service at the time of the explosion. The documents also raise questions about whether Bayer has adequately considered the feasibility of reducing its MIC stockpile or switching to inherently safer technologies.

A. Near Miss of MIC Storage Tank

Bayer uses MIC in the production of several different pesticide products. The facility manufactures MIC on-site and stores it in large volumes underground. It also maintains a 37,000 pound above-ground "day tank" of MIC. This day tank is covered by a metal blast mat designed to absorb the impact of debris, shrapnel, and other projectiles.¹³

Documents obtained by the Committee raise two key questions about Bayer's MIC day tank: (1) how close was it to being compromised during the 2008 explosion; and (2) would it have been compromised as a result of a direct impact from the "residue treater" that propelled through the facility?

MIC is an extremely dangerous toxic substance. On December 3, 1984, approximately 50,000 to 90,000 pounds of MIC gas leaked from a Union Carbide chemical plant in Bhopal,

¹² E-mail from Ann S. Green, Ann Green Communications, to Nick Crosby, Plant Manager, Bayer CropScience (Feb. 19, 2009) (attaching community relations strategy). See also E-mail from Tom Dover, Manager, Tenant Services and Public Affairs, Bayer CropScience, to Greg Coffey, Bayer CropScience (Jan. 30, 2009) (attaching a list of "upcoming events/opportunities for reputation enhancement & public interaction and other key dates").

¹³ Testimony of John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, *Hearing on Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion*, 111th Cong. (Apr. 21, 2009).

India. Although estimates vary, approximately 4,000 people died and several thousand other individuals experienced permanent or partial disabilities.¹⁴

On the night of August 28, 2008, a vessel in the Methomyl/Larvin unit known as a residue treater experienced a runaway chemical reaction that caused the vessel to rupture. The MIC day tank is located 80 feet to the southwest of the explosion.¹⁵ In written testimony for today's hearing, CSB Chairman John Bresland describes the damage caused when this vessel became a dangerous projectile:

The entire vessel was violently propelled in a northeasterly direction into the production unit – demolishing process equipment, twisting steel beams, and breaking pipes and conduits. The vessel finally came to rest about 50 feet away, grossly deformed and flattened. In its wake, it left a continuous swath of destruction. ... As far as we can determine, the direction of the residue treater was a matter of random chance. The violent rupture of the vessel might have propelled it horizontally in any direction.¹⁶

Photos obtained by the Committee show that shrapnel and other debris from the explosion struck the blast mat surrounding the MIC day tank. The photos also show that the blast mat was warped and unbolted in places. Other photos appear to show large smoke and burn marks on the MIC blast mat.¹⁷ The Bayer staff in the Emergency Operations Center noted in the log of the evening's events that the fire was affecting the nearby MIC day tank. At 12:37 a.m., the log notes: "MIC tank warming some. Pumps shut down. Monitoring pressure of MIC tank."¹⁸

On April 14, 2009, Committee staff conducted a transcribed interview with Michael Wey, the head of the Health, Safety, and Environment Expertise Center at Bayer. During his interview, Mr. Wey conceded that "there was one piece of shrapnel that was captured in the blast curtain." He asserted that there was "no evidence that the ballistic curtain was damaged," although he acknowledged that the company "did not do any formal evaluation of the blast curtain for damage."¹⁹

¹⁴ *Bhopal's Tragedy Revisited; 10 Years After the Gas, No End to Tears*, New York Times (Dec. 11, 1994); *Trying to Limit Disclosure on Explosion*, New York Times (Mar. 28, 2009).

¹⁵ Testimony of John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, *Hearing on Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion*, 111th Cong. (Apr. 21, 2009).

¹⁶ *Id.*

¹⁷ Chemical Safety and Hazard Investigation Board, *Photos of Bayer CropScience Facility after August 28, 2008 Explosion* (Photo Nos. 6, 16, and 21) (Aug. to Oct. 2008).

¹⁸ Bayer CropScience, *EOC Notes 8-28-08, Methomyl Unit Incident* (Aug. 28, 2008).

¹⁹ House Committee on Energy and Commerce, Interview of John Michael Wey (Apr. 14, 2009).

After the explosion, Bayer contracted with Baker Engineering and Risk Consultants to conduct a perforation analysis of the blast mat to ascertain whether it could withstand shrapnel weighing less than 100 pounds.²⁰ This analysis did not evaluate whether the MIC tank could have withstood a direct impact from the residue treater projectile, which weighed more than 2 1/2 tons.

Soon after the explosion, the company removed the blast mat, destroyed it, and replaced it with a new blast mat with different design specifications. When asked about these actions during his interview with Committee staff, Mr. Wey responded:

The primary reason why the curtain was replaced is we wanted to expedite the reconstruction and the restart of the MIC tank so that we could restore operations to our FMC production unit.²¹

Mr. Wey did not explain why the blast mat had to be replaced in order to restart the MIC tank. When asked during his interview if Bayer consulted with CSB before destroying the blast mat, he responded that the company did and that CSB did not instruct Bayer to retain it.²² According to CSB Chairman John Bresland, however, CSB has no written record of any discussion with Bayer regarding the decision to remove or replace the blast mat.²³ Mr. Bresland states in his written testimony for today's hearing:

We are still awaiting from Bayer any written documentation to indicate the design basis of the blast blanket, the standards to which it was constructed, and the scenarios it may be designed to withstand. Without this information, it is difficult to draw any conclusion about how much danger the tank might have been exposed to on August 28.²⁴

Bayer officials have also informed the Committee that key video footage of the explosion is missing. On April 2, 2009, Committee staff inspected the Bayer facility in West Virginia and received a tour and briefing from Michael Wey. When Mr. Wey explained that Bayer's Emergency Operations Center received video feeds from surveillance cameras inside the Methomyl/Larvin unit where the explosion occurred, Committee staff asked whether Bayer had

²⁰ Letter from Raymond H. Bennett and Douglas B. Olson, Baker Engineering and Risk Consultants, to Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience (Dec. 22, 2008) (withheld from release as potential Sensitive Security Information).

²¹ House Committee on Energy and Commerce, Interview of John Michael Wey (Apr. 14, 2009).

²² *Id.*

²³ E-mail from John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, to Staff, House Committee on Energy and Commerce (Apr. 17, 2009).

²⁴ Testimony of John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, *Hearing on Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion*, 111th Cong. (Apr. 21, 2009).

the video recording from the camera closest to the explosion. Mr. Wey responded that a construction contractor had disabled the recording function prior to the explosion and that the footage did not exist.²⁵

Although Bayer's attorneys have confirmed this basic version of events with Committee staff, they have not identified the contractor who disconnected the recorder, produced any documents relating to the person responsible for this action, provided the reason it was undertaken, or determined the length of the gap in record.²⁶ CSB is also apparently investigating this issue. On December 18, 2008, CSB requested "[v]ideo camera footage recorded on the Methomyl/Larvin unit camera that was disabled before the incident on August 28, 2008."²⁷

B. Adequacy of Bayer's Air Monitoring

In his transcribed interview with Committee staff on April 14, 2009, Bayer official Michael Wey conceded that MIC air monitors inside the facility were not functioning the night of the explosion. He stated:

We have come to understand that the MIC analyzer array, for want of a better term, the series of analyzers to monitor MIC in the Larvin unit, that device that measures that concentration, was out of service for maintenance repair.²⁸

Mr. Wey could not explain why the MIC detectors inside the Methomyl/Larvin unit were out of service on the night of the explosion. He also failed to explain why Bayer officials have not informed the public of this fact. For example, at a public meeting on October 8, 2008, Nick Crosby, the site leader at the Bayer plant, reassured the crowd that the facility's air monitors detected no harmful chemical releases the night of the explosion. He stated:

We have automatic instrumentation on the edges of our site, on the fringes of our site where we're able to detect if harmful chemicals are actually leaving our site. And that night we detected no harmful chemicals were leaving our site.²⁹

²⁵ Briefing by Michael Wey, Head, Health, Safety and Environment Expertise Center, Bayer CropScience, for Staff, House Committee on Energy and Commerce (Apr. 2, 2009).

²⁶ Telephone conversation between Majority Staff, House Committee on Energy and Commerce, and Chris Manning, Williams & Connolly LLP (Apr. 20, 2009).

²⁷ E-mail from John B. Vorderbrueggen, Supervisory Investigator, Chemical Safety and Hazard Investigation Board, to Michael Wey, Head, Health, Safety and Environment Expertise Center, Bayer CropScience (Dec. 18, 2008).

²⁸ House Committee on Energy and Commerce, Interview of John Michael Wey (Apr. 14, 2009).

²⁹ Bayer CropScience, *Remarks of Nick Crosby, Site Leader, Bayer CropScience Institute, before the Community Improvement Council* (Oct. 8, 2008). See also Bayer CropScience, *Methomyl Incident at BCS Institute, WV on 2008-08-28: Update 2008-08-31* (Aug. 31, 2008) (stating that "MIC was not directly involved in the explosion and no levels of MIC were detected on or off the Site").

On February 18, 2009, Christopher Warner, the general counsel for CSB, sent an e-mail to Bayer's counsel asking him why "air monitoring data for MIC was 'not available.'"³⁰ In a response two days later, Bayer's attorneys stated:

BCS does have monitoring equipment in the Methomyl Unit (a central analyzer and 15 pickup points throughout the Unit) that is calibrated to detect MIC. The MIC monitoring results are not recorded, but the detection of MIC in the Unit does result in an alarm in the control room. Based on all of the information available to BCS at this time, there were no MIC detection alarms during or after the incident on August 28, 2008.³¹

This response also failed to disclose that the MIC detectors in the Methomyl/Larvin unit of the plant were out of service on the night of the explosion.

In addition, Bayer has no air monitors on the western side of the plant. On the night of the explosion, the winds were blowing toward the west.³² As a result, at 11:42 p.m., Metro 911 ordered a "shelter in place" for all areas west of the City of Charleston, including St. Albans, Dunbar, Nitro, and South Charleston.³³ In his interview with Committee staff, Mr. Wey conceded that, although Bayer has chemical detectors on three sides of the plant, "There are none directly west on the western edge of the property."³⁴

The Committee also obtained the log from Bayer's internal Emergency Operations Center from the night of the explosion. Several entries in the log suggest concern with a potential chemical release and exposure. For example, two entries relate to toxic chemicals in the air near the Methomyl/Larvin unit. They state:

12:13 a.m. West of Larvin under toxic vapor cloud – SIP [shelter in place] in west end of plant requested

12:15 a.m. Announced all person west of Larvin Unit to shelter in place.³⁵

³⁰ E-mail from Christopher Warner, General Counsel, Chemical Safety and Hazard Investigation Board, to Robert C. Gombar, McDermott Will & Emery LLP (Feb. 18, 2009).

³¹ Letter from Robert C. Gombar, McDermott Will & Emery LLP, to Christopher W. Warner, General Counsel, Chemical Safety and Hazard Investigation Board (Feb. 20, 2009).

³² National Weather Service, Charleston, *WV Climate Summary* (Aug. 28, 2008).

³³ Metro 911 of Kanawha County, *Verbatim Radio Transcripts from Metro – Fire Departments* (Aug. 28, 2008).

³⁴ House Committee on Energy and Commerce, Interview of John Michael Wey (Apr. 14, 2009).

³⁵ Bayer CropScience, *EOC Notes 8-28-08, Methomyl Unit Incident* (Aug. 28, 2008).

Two other entries suggest that employees and others near the explosion may have been exposed to toxic chemicals. These include Bayer employee Bill Oxley who later died of his injuries. They state:

12:55 a.m. EE [Employee] sent to hosp was not decon HCN, Sulfide, Hexane, MIBK, Methomyl Residue (Majority)

12:56 a.m. Oxley was not decontaminated prior — Methomyl, MIBK, Hexane, DMS, CAN, Methomyl residues majority.³⁶

C. Evaluating Inherently Safer Processes

Twenty-five years after the disaster in Bhopal, India, Bayer's facility in West Virginia is the only site in the United States that produces and stores large amounts of MIC. Documents obtained by the Committee raise questions about whether Bayer has adequately considered reducing its MIC stockpile or switching to safer technologies that do not require the storage of such large amounts of MIC.

On September 16, 2008, Manuel Gomez, the Director of Recommendations at CSB, wrote an e-mail to John Vorderbrueggen, CSB's lead investigator on the Bayer investigation, copying CSB Chairman John Bresland. In his e-mail, Mr. Gomez recommended a "strong focus on whether Bayer made any effort or investigation about how to manufacture MIC in an inherently safer manner, or to use it in a way that involves much smaller inventories."³⁷

On March 13, 2009, Mr. Gomez sent an e-mail to Mr. Bresland, explaining:

The primary issue from the standpoint of our mission, and from the expectations of the public, media, and political leaders, is that the explosion could have potentially caused a large release of MIC, and we (CSB) do not know what the company(ies) have done about this risk, before or after the incident.³⁸

In 1985, after the MIC accident in Bhopal, India, another chemical company, DuPont, altered its process for using MIC in pesticide production in order to eliminate the storage of large volumes of MIC at its facility in La Porte, Texas. At this facility, DuPont had stored 250,000 pounds of MIC. Within months of the Bhopal tragedy, DuPont implemented a continuous point-

³⁶ *Id.*

³⁷ E-mail from Manuel R. Gomez, Director of Recommendations, Chemical Safety and Hazard Investigation Board, to John Vorderbrueggen, Supervisory Investigator, Chemical Safety and Hazard Investigation Board (Sept. 16, 2008).

³⁸ E-mail from Manuel R. Gomez, Director of Recommendations, Chemical Safety and Hazard Investigation Board, to John Bresland, Chairman, Chemical Safety and Hazard Investigation Board (Mar. 13, 2009).

of-use process that produces MIC and consumes it immediately, eliminating the need to transport and store the chemical.³⁹

According to documents obtained by the Committee, after Bayer purchased the facility in West Virginia in 2002, it formed a team to “review the overall safety and handling for Methyl IsoCyanate.”⁴⁰ As part of this review, Bayer evaluated existing literature relating to alternative methods of producing MIC. On May 13, 2003, Michael Wey wrote a memorandum to Dietmar Westphal, a senior vice president for Bayer CropScience, summarizing the team’s conclusions. He stated:

Based on the literature available at this time, the current process appears to be as safe as the other alternative methods to produce MIC at Institute.⁴¹

This 2003 memorandum did not explain which alternative methods Bayer considered or whether the “close-coupled” process implemented by DuPont was among them. The memo also did not discuss the extent to which the company analyzed the costs and benefits of changing its storage or inventory procedures. Instead, the memo recommended that Bayer consider adding measures to mitigate the potential damage from an MIC release.⁴²

The Committee also obtained from Bayer a PowerPoint presentation dated August 12, 2003, that describes various scenarios for reducing the MIC inventory at the facility. One slide suggests an effort to “evaluate eliminating” the MIC day tank, but it does not provide any details on whether the company followed through.⁴³ The presentation also used models to evaluate the technical feasibility and financial impact of limiting the site’s maximum MIC capacity. The company concluded only that “forcing MIC inventory levels down appears feasible, but costly.”⁴⁴

IV. CONCEALING INFORMATION FROM THE PUBLIC

Documents obtained by the Committee indicate that Bayer CropScience is now attempting to conceal information about the explosion by invoking, and in some cases misusing, a statute governing maritime transportation security to designate unprecedented amounts of material as “sensitive security information” (SSI).

³⁹ *Process Eliminates Transportation and Storage of Toxic Gas*, United Press International (June 6, 1985).

⁴⁰ Memorandum from Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience, to Dietmar Westphal, Senior Vice President, Bayer CropScience (May 13, 2003).

⁴¹ *Id.*

⁴² *Id.*

⁴³ Bayer CropScience, *MIC Inventory Model Preliminary Runs’ Results* (Aug. 12, 2003).

⁴⁴ *Id.*

After the explosion in 2008, Bayer produced thousands of pages of documents in response to requests from federal investigators at CSB. In 2009, however, Bayer began to retroactively label these documents as SSI. Bayer now argues that the company's facility in West Virginia is governed by the Maritime Transportation Security Act of 2002 and subsequent regulations. In a letter to CSB's lead investigator on March 27, 2009, Michael Wey explained why Bayer began designating documents as SSI. He wrote:

BCS [Bayer CropScience] has an obligation under MTSA and the regulations promulgated under MTSA to protect SSI. ... [T]he Plant contains and uses three critical chemical assets: Chlorine, Methyl Isocyanate ("MIC"), and Methyl Mercaptan. ... [T]he potential vulnerabilities associated with these three critical chemical assets and the protective measures in place to protect against those vulnerabilities ... are, by law, designated as SSI.⁴⁵

Although the statute was passed in 2002, Bayer made its legal argument for the first time in 2009, immediately following questions by federal investigators at CSB about the vulnerability of the company's MIC stockpile and about alternative storage and inventory options. During a briefing with Committee staff on March 11, 2009, CSB Chairman John Bresland stated that CSB had conducted many investigations of facilities on navigable waterways that may be subject to the Maritime Transportation Security Act. Bayer's assertion was the first time any facility had argued that information provided to CSB must be withheld from the public as SSI.⁴⁶

CSB officials have expressed concern that Bayer's assertion of SSI could have the perverse effect of impairing safety improvements for the surrounding community. On February 26, 2009, Sandy Gilmour, a public affairs official at CSB, sent an e-mail to Daniel Horowitz, CSB's Director of Congressional, Public, and Board Affairs, regarding Bayer's new SSI assertions. He wrote:

Making this all a secret now would be palpably ridiculous. ... [T]he CSB is the agency to properly and independently determine what caused the accident and whether the MIC tank was in harm's way and should be moved. Such a determination could actually increase the security of the plant in the near term if such a recommendation were adopted.⁴⁷

According to written testimony submitted for today's hearing, Bayer CropScience President and CEO William Buckner admits that his company was attempting to block public

⁴⁵ Letter from Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience, to John Vorderbrueggen, Supervisory Investigator, Chemical Safety and Hazard Investigation Board (Mar. 27, 2009).

⁴⁶ Briefing by John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, to Staff, House Committee on Energy and Commerce (Mar. 11, 2009).

⁴⁷ E-mail from Sandy Gilmour, Public Affairs Support Contractor, Chemical Safety and Hazard Investigation Board, to Daniel Horowitz, Director of Congressional, Public, and Board Affairs, Chemical Safety and Hazard Investigation Board (Feb. 26, 2009).

discussion of safety improvements to its MIC stockpile, which would be costly to implement. Mr. Buckner's testimony states that "we frankly admit" that one of the company's goals in withholding information from the public was "the desire to avoid making the controversial chemical MIC part of the public debate regarding the incident."⁴⁸

Mr. Buckner's testimony also states that "business reasons" motivated Bayer's actions, including "a desire to limit negative publicity" and "to avoid public pressure to reduce the volume of MIC that is produced and stored at Institute by changing to alternative technologies." He also states that "public discussions and CSB recommendations about alternate technologies and inventory amounts would be a sensitive matter for the company." He concludes: "we concede that our pursuit of SSI coverage was motivated, in part, by a desire to prevent that public debate from occurring in the first place."⁴⁹

According to Mr. Buckner's testimony, Bayer initially believed it could withhold information about its MIC stockpile from federal investigators at CSB. His testimony states:

[T]here were some in company management who initially thought that the Maritime Transportation Security Act ... could be used to refuse to provide information to the CSB about issues regarding Methyl isocyanate ("MIC") beyond those related to the MIC day storage tank in the unit involved in the incident. We admit that.⁵⁰

When Bayer realized that it could not withhold information from CSB, Bayer approached the Coast Guard, the agency that oversees the Maritime Transportation Security Act, about using the SSI designation to deter CSB from inquiring about MIC. According to Mr. Buckner's testimony:

The company then proceeded to contact U.S. Coast Guard officials to inquire whether the requested additional information regarding MIC was in fact SSI, which might discourage the CSB from even seeking this information.⁵¹

Documents obtained by the Committee show that Bayer was not merely seeking the Coast Guard's neutral advice on whether information could be disclosed, but instead was actively pushing the Coast Guard for sweeping new SSI determinations to blunt the CSB investigation and any negative public disclosures that might flow from it.

On January 24, 2009, Michael Wey wrote an e-mail to the Coast Guard commander at the Marine Safety Unit Huntington in West Virginia explaining that "the issue of sharing the

⁴⁸ Testimony of William Buckner, President and CEO, Bayer CropScience LP, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, *Hearing on Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion*, 111th Cong. (Apr. 21, 2009).

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

requested information with the Chemical Safety and Hazard Board is of great concern for us.”⁵² He added: “We would like to pursue this matter further with headquarters to have a positive determination that this information is security sensitive information.”⁵³

After the local commander offered to contact officials at Coast Guard headquarters, Mr. Wey responded on January 29, 2009: “We would like to have the opportunity to discuss this further with your headquarters so that we can better communicate to the CSB and possibly discourage them from even seeking this information.”⁵⁴

On March 13, 2009, Commander Shannon Gilreath of the Coast Guard sent an e-mail to David Kantor, the Deputy Chief, Office of International and Maritime Law at the Coast Guard, summarizing Bayer’s efforts to have the Coast Guard identify broad new categories of information as SSI. He stated: “We discovered internally that Bayer’s counsel had spoken with MSU Huntington and CG-5441 about material it considered SSI and their intended course of action although that may have been slightly misrepresented by Bayer.”⁵⁵

CSB officials have expressed concern that, even if some information could be considered SSI, Bayer is applying the label far more broadly than allowed under the statute and regulations. On February 17, 2009, the deputy general counsel at CSB, Ray Porfiri, sent an e-mail to the general counsel at CSB, Christopher Warner, evaluating the SSI claims put forth by Bayer’s attorney, Robert Gombar. Mr. Porfiri wrote:

[I]t seems that Gombar’s explanation of what would constitute SSI is much more expansive than the regulations. ... For example, Gombar stated that facility photographs, piping diagrams, and even publicly available information could not be disclosed by the CSB or even referred to by the CSB at a public meeting. Gombar’s assertions appear overbroad, at best.⁵⁶

⁵² E-mail from Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience, to Commander Kevin C. Kiefer, Commanding Officer, Marine Safety Unit Huntington, U.S. Coast Guard (Jan. 24, 2009).

⁵³ *Id.*

⁵⁴ E-mail from Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience, to Commander Kevin C. Kiefer, Commanding Officer, Marine Safety Unit Huntington, U.S. Coast Guard (Jan. 29, 2009).

⁵⁵ E-mail from Commander Shannon Gilreath, Chief, Prevention Law Group, U.S. Coast Guard, to David Kantor, Deputy Chief, Office of International and Maritime Law, U.S. Coast Guard (Mar. 13, 2009).

⁵⁶ E-mail from Ray Porfiri, Deputy General Counsel, Chemical Safety and Hazard Investigation Board, to Christopher Warner, General Counsel, and Christopher Kirkpatrick, Attorney-Advisor, Chemical Safety and Hazard Investigation Board (Feb. 17, 2009).

Bayer's overbroad approach to SSI is confirmed by instructions its counsel sent to the Occupational Safety and Health Administration that review for SSI "should be liberal" and "should strike any references to any piece of equipment, piping or document involving" MIC.⁵⁷

On February 27, 2009, CSB's general counsel sent an e-mail to Commander Gilreath at the Coast Guard stating CSB's official position. He wrote:

Based on our research and our discussions with DHS ... we believe the documents provided to us by Bayer CropScience are not SSI.⁵⁸

To date, the Coast Guard has agreed in part with CSB's concerns and overruled some of Bayer's SSI labeling. On March 27, 2009, for example, Bayer official Michael Wey sent a letter to CSB asserting that "documents and other forms of information created by the CSB," including "photographs" of the Bayer facility, the MIC tank, and its protective blast mat, "almost certainly" contain SSI.⁵⁹

On April 16, 2009, the Committee sent a letter notifying the Coast Guard that it intended to disclose these CSB photographs and a video taken by CSB investigators at today's hearing.⁶⁰ On April 17, 2009, the Coast Guard informed the Committee that "[t]he photos are not SSI, so the CG has no objection to them being shown at the hearing."⁶¹

Nevertheless, questions remain about whether Bayer is abusing the SSI process to conceal information about the extent to which the MIC stockpile may have been in danger during the explosion in August 2008. For example, Bayer officials have asserted that the metal blast

⁵⁷ E-mail from Eric Conn, McDermott Will & Emery LLP, to Donald Neely, Department of Labor (Feb. 23, 2009).

⁵⁸ E-mail from Christopher Warner, General Counsel, Chemical Safety and Hazard Investigations Board, to Commander Shannon Gilreath, Chief, Prevention Law Group, U.S. Coast Guard (Feb. 27, 2009).

⁵⁹ Letter from Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience, to John Vorderbrueggen, Supervisory Investigator, Chemical Safety and Hazard Investigation Board (Mar. 27, 2009).

⁶⁰ Letter from Rep. Henry A. Waxman, Chairman, House Committee on Energy and Commerce, and Rep. Bart Stupak, Chairman, Subcommittee on Oversight and Investigations, to Admiral Thad W. Allen, Commandant, U.S. Coast Guard (Apr. 16, 2009). *See also* Chemical Safety and Hazard Investigation Board, Photos of Bayer CropScience Facility after 2008 Explosion (Photo Nos. 1-22 and Video No.1) (Aug.-Oct. 2008).

⁶¹ E-mail from Office of Congressional and Governmental Affairs, U.S. Coast Guard, to Staff, House Committee on Energy and Commerce (Apr. 17, 2009) (10:36 a.m.). *See also* E-mail from Office of Congressional and Governmental Affairs, U.S. Coast Guard, to Staff, House Committee on Energy and Commerce (Apr. 17, 2009) (12:15 a.m.) (notifying Committee that video taken by CSB investigators inside the Bayer facility "contains no SSI info.").

mat covering the MIC tank worked as intended and was not compromised by the explosion.⁶² Although Bayer officials have conceded that shrapnel struck the blast mat, they have asserted that any information describing the facility's safeguards and procedures used to mitigate or prevent an MIC release, including the blast mat, constitutes SSI.⁶³

As discussed earlier, after the explosion, Bayer removed the damaged blast mat, which was originally installed in 1982, and replaced it with a new blast mat with different specifications.⁶⁴ Bayer has not explained why the specifications of the blast mat that was destroyed and is no longer in use should be concealed from the public.

⁶² House Committee on Energy and Commerce, Interview of John Michael Wey (Apr. 14, 2009) (stating that the company has “no evidence that the ballistic curtain was damaged”).

⁶³ Letter from Michael Wey, Head, Health, Safety, and Environment Expertise Center, Bayer CropScience, to John Vorderbrueggen, Supervisory Investigator, Chemical Safety and Hazard Investigation Board (Mar. 27, 2009) (attaching “Sensitive Security Information Log”).

⁶⁴ Testimony of John Bresland, Chairman, Chemical Safety and Hazard Investigation Board, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, *Hearing on Secrecy in the Response to the Fatal Bayer Chemical Plant Explosion*, 111th Cong. (Apr. 21, 2009).