

**Testimony of Carolyn W. Merritt
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before the
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Subcommittee on Transportation Safety, Infrastructure Security,
and Water Quality
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Thank you Mr. Chairman, Senator Vitter, and distinguished members of the Subcommittee for inviting me to testify before you today. I am Carolyn W. Merritt, and for the past five years it has been my privilege to serve as the Chairman and CEO of the U.S. Chemical Safety and Hazard Investigation Board, the CSB. We are an independent federal agency that investigates major chemical accidents at fixed facilities and issues public reports that contain new safety recommendations. We also conduct an outreach program to increase safety awareness and prevent future accidents.

Agency Background

The CSB was established by Congress in the Clean Air Act Amendments of 1990 and was first funded in 1998. We have an annual budget of \$9 million, five board members appointed by the president and confirmed by the Senate, and a staff of approximately 40 people.

I submit this testimony on my own behalf as chairman of the agency, and not necessarily on behalf of the other four independent board members. However, on behalf of all the board members and the agency, I would like to express our deepest thanks to you, Senator Lautenberg, for your decades of leadership in promoting chemical safety and for your continuing support.

Let me briefly describe how our agency operates. We screen hundreds of chemical incidents each year by monitoring various news media and other information sources from around the country. In a typical year, we deploy investigative teams to approximately eight to ten of the most serious accidents, depending upon the availability of resources. The teams spend from several days to several months at each accident site, collecting physical evidence, interviewing witnesses, and gathering documents. We keep the public and industry informed of our progress by holding public meetings, issuing safety advisories and recommendations, and ensuring regular contacts with other agencies and elected officials.

After an average of 12-18 months of investigative work and analysis, we issue detailed, public reports that establish the root causes of the accidents. The reports

analyze all the causes of the accidents and do not simply consider violations of existing rules. Like the NTSB, upon which we were modeled, we do not have regulatory or enforcement powers but do make recommendations to regulatory agencies, standard-setting bodies, trade associations, unions, and many other organizations. Once those recommendations are issued, we carefully track and monitor progress, and the Board ultimately votes on whether the recipients' actions meet the original intent of the recommendations.

An important component of our work is outreach to businesses around the country and around the world that may have similar hazards to those we investigate. This effort has gathered momentum in the past 18 months with the development of our new and innovative program of safety videos, which depict real accidents using computer animation and then discuss good practices for preventing similar accidents. To date, these videos have been viewed almost a million times over the Internet, and we have distributed tens of thousands of DVD copies to large and small companies, labor unions, and trade organizations. Our board members also speak throughout the country about our investigations and findings to very diverse audiences.

Agency Has Tripled Productivity

I would like to reflect for a moment on how far the CSB has come in the almost five years since the president appointed me as chairman in August 2002. In the summer of 2002, the agency was almost five years old. It had issued a total of nine investigation reports, one safety study, and 82 safety recommendations. Only 38 of these safety recommendations had been closed successfully. The CSB suffered from well-known management problems that prompted some appropriators to even consider defunding the agency.

The picture today, almost five years later, is dramatically different. We have issued a total of 42 investigation reports, six safety studies and bulletins, and more than 460 safety recommendations. And we have now closed at least 200 of those recommendations based on successful safety actions by recipients, and scores of other recommended safety actions are underway. By the end of this month, every single one of our open investigations will be less than one year old.

These facts alone show that our last five years have been at least three times as productive as our first five. This success results from the dedication and skill of our staff and board and from the sound financial and workforce management that I have insisted upon since my first day in office.

We have accomplished this tripling of productivity on an annual budget that essentially remained flat for the entire five-year period. Our 2002 budget of \$7.8 million is equivalent to about nine million in today's dollars – just 1.7% less than our current appropriation.

This year we requested a budgetary increase to \$10.5 million, and we hope that Congress will ultimately recognize the successful efforts of our agency and grant this increase.

Findings of Texas City Investigation

Over the past nine years, the Board has completed almost 50 significant investigations and studies. Of those, none was more important than the comprehensive investigation of the BP refinery disaster in Texas City, which we finished in March 2007.

The explosion on March 23, 2005, at the Texas City refinery was the worst industrial accident of any kind in the U.S. since 1990. Fifteen workers died, including Jim Hunnings, whose wife Linda is testifying today. About 180 others were injured, including many with serious and disabling wounds and others who were exposed to potentially harmful benzene vapors.

The financial impact of this accident has been immense, both for BP as a corporation and for the American public, which has endured higher fuel prices due to this and other refinery outages. Even today, more than two years after the accident, the Texas City refinery – the third largest in the country – remains well below its full capacity at a time of very tight gasoline supplies.

To conduct the investigation, the CSB interviewed 370 witnesses, reviewed more than 30,000 documents, and did extensive equipment testing and computer modeling. We spent approximately \$2.5 million on this investigation over a two-year period. BP cooperated with the investigation and furnished documents and interviews on a voluntary basis.

The explosion occurred during unit startup, one of the most hazardous periods in a refinery. A distillation tower was overfilled with liquid hydrocarbons, flooding an antiquated and inadequately designed blowdown drum and stack that vented directly to the atmosphere. Flammable liquid – nearly the equivalent of a full tanker truck of gasoline – erupted onto the plant grounds, vaporized, and exploded.

All of the fatalities and many of the injuries occurred in or near a series of occupied trailers that were as close as 121 feet from the blowdown stack. In October 2005, the CSB issued an urgent recommendation to the American Petroleum Institute (API) to develop new guidance to prevent locating occupied trailers within hazardous areas of process plants. The API accepted this recommendation, and we are reviewing API's new recommended practice that excludes wood-frame trailers from within 330 feet of hazardous processes.

Last year we made another recommendation to API aimed at eliminating the kind of blowdown drum that released the flammable liquid and heavier than air

flammable vapor at BP. This 1950s-era equipment is unsafe, and many companies around the world have long since eliminated these systems. BP should have replaced its blowdown drums with inherently safer flare systems. Flare systems are designed to handle a worst-case flammable release, by safely separating and containing the flammable liquids and burning off the flammable vapors in a remote location. We have not yet had a final response to this recommendation, and we urge the industry to act promptly on this issue.

I should add that in 2002, BP considered eliminating the blowdown drum and routing the flammable hydrocarbon streams to a flare, under a project known as “Clean Streams.” For a variety of reasons – including cost pressures and the existence of an exemption under EPA air regulations for emergency or “upset” emissions – BP dropped plans to eliminate the blowdown drum. This occurred in spite of the fact that there were a number of serious releases from the blowdown drum over the preceding decade. Some of these releases were reported to state and federal regulators, and others were not. However, the reporting did not trigger any enforcement activity from the regulatory agencies. Because of resource constraints, the CSB did not look in detail at the upset emissions exemption and its relationship to the occurrence of uncontrolled releases with damaging health and environmental consequences.

In our investigation, we found that several errors occurred during the fatal startup on March 23. We also determined that a number of pre-existing conditions made operators more likely to overlook important information and make operational mistakes. These included inadequate training and supervision and operating procedures that were incomplete, ad hoc, and outdated. Our investigators determined that operators involved in the startup likely were fatigued, having worked 29 straight days of 12-hour shifts. By the day of the startup, the board operator had an accumulated sleep debt of 43 hours.

Sleep deprivation and fatigue have been cited as important causes of accidents in many sectors including the airline and trucking industries, but the petrochemical industry lacks established guidance for preventing worker fatigue. In our report, we called on the API and the United Steelworkers to collaborate in developing a new fatigue prevention standard for the petrochemical sector.

The March 2005 accident was one of a long series of tragedies at the Texas City facility, where a total of 40 workers have died over the past 32 years. Multiple internal audits revealed the deteriorating conditions at the refinery over several years prior to 2005, but the responses focused primarily on improving personal safety and overlooked growing process safety risks. Like many other companies, BP relied excessively upon a single measurement – occupational injuries and illnesses (the lost-time injury rate) – to assess safety performance. In a complex facility like an oil refinery, the occupational injury rate is a measure of personal safety but does not predict the likelihood of a catastrophic process-related event.

Accordingly, we recommended that API and the United Steelworkers also develop a consensus standard for new process safety leading indicators to help businesses and government better assess these risks before serious accidents occur. Such leading indicators have been used for years in the nuclear power industry, for example, and provide a common currency for different facilities to measure and compare system safety performance. The CSB hopes to convene a panel of outside experts, representing a broad spectrum of stakeholders, to facilitate the development of leading safety indicators in the petrochemical sector.

Safety Culture Was Flawed

The CSB investigation looked extensively at the safety culture of BP, and our report paints a troubling picture of a corporation that did not always invest sufficiently in safety. The Texas City refinery had an extremely high rate of fatal accidents before BP merged with Amoco and acquired the site. Because of its age and deteriorated condition, the refinery needed more investment.

Instead, following the merger of BP and Amoco in 1999, the BP group chief executive ordered a 25% reduction in spending on fixed costs throughout the corporation. Spending fell in Texas City. BP later increased spending at the refinery, but the increases were largely spent on environmental projects and responding to unplanned events, such as a major process-related fire in 2004. Meanwhile, BP opted not to replace the half-century old blowdown drum with safer and less polluting equipment. The facility cut training, staffing, and supervision and allowed critical equipment to fall into disrepair.

Numerous internal audits revealed the declining safety conditions at the refinery, years prior to the 2005 accident. However, executives did not intervene quickly enough to correct the situation. Performance awards actually encouraged a continued focus on cost reductions and boosting production.

Early in our own investigation, the CSB became so concerned about the situation within BP that in August 2005 we issued our first-ever urgent safety recommendation. The recommendation called on BP's board of directors to establish an independent, expert panel to examine the safety culture of the company's five U.S. refineries. BP accepted the recommendation and created an 11-member panel chaired by former U.S. Secretary of State James Baker.

This innovative approach – which cost the taxpayers essentially nothing – yielded great benefits when the panel completed its work in January 2007. The findings of this unique panel were remarkable, and companies, boards of directors, and executives around the world are now studying the panel report in an effort to understand and improve their own corporate safety culture and performance.

The independent panel found serious systemic safety problems at all five of BP's U.S. refineries. The report attributed these problems to a variety of underlying conditions, including a lack of safety leadership across BP, excessive decentralization, a short-term management focus, inadequate investment, and a lack of process safety competence and knowledge.

In the aftermath of the Baker panel report, the CSB called on BP to increase the involvement of its global board of directors in assuring safety by appointing a new board member with specific expertise in safe refinery operations. We urge BP to promptly accept this recommendation.

Federal Oversight Should Be Strengthened

To the communities where hazardous chemical plants are located, the details of corporate culture and organizational performance are not as important as simply knowing that the facilities are safe. And when companies are failing to follow rules and good practices – and are experiencing accidents year-in and year-out as a result – communities rightly expect that government regulators will intervene promptly to require compliance.

Thorough implementation of existing OSHA and EPA process safety rules would prevent a number of tragic accidents, including the one in Texas City. Like other refineries, the Texas City facility was covered under both the OSHA Process Safety Management (PSM) standard and the EPA Risk Management Program (RMP) rule. Both these regulatory systems were established under the 1990 Clean Air Act Amendments. Both systems require facilities to follow certain good safety management practices – such as performing hazard analyses, management of change reviews, incident investigations, and preventative maintenance; using written operating procedures; and conducting formal training programs for employees and contractors.

Our investigation found numerous requirements of the OSHA and EPA standards were not followed in Texas City. Required safety studies were not performed for years. For example, a relief valve study that was required under the regulations was 12 years overdue on the day of the explosion. Had this study been performed and its conclusions implemented, the March 2005 accident could have been avoided. Incidents that should have served as serious warnings were not properly investigated nor were the underlying causes identified and corrected.

We found, however, that OSHA does few planned, comprehensive inspections of chemical plants and oil refineries to assure compliance with its own rules. When the PSM standard was created, OSHA had envisioned a highly technical, complex, and lengthy inspection process for regulated facilities, called a Program Quality Verification or PQV inspection. The inspections were to take weeks or months at each facility and would be conducted by a select, well-trained, and

experienced team. However, the available evidence suggests that this program was never fully implemented. In the ten years from 1995 to 2005, federal OSHA conducted only nine such inspections anywhere in the country, and none in the refining sector.

Other jurisdictions, such as the United Kingdom and California's Contra Costa County, have developed much more active inspection programs with highly educated and trained inspection teams, including members with strong industry backgrounds. Covered chemical facilities are thoroughly inspected every three to five years.

I note that we only received limited information from OSHA during the course of the investigation, and many of our conclusions were based on publicly available data. The CSB submitted a number of requests for documents and interviews from OSHA regarding the PQV program, including the number, training, education, and experience of PSM inspectors, but the requested information and interviews were not provided.

In March of this year, the CSB recommended that OSHA expand its inspection and enforcement at high-risk chemical facilities and oil refineries, and we commend OSHA for its recent public commitment to train many more inspectors in chemical process safety and to inspect every oil refinery in the country. We look forward to receiving more specific information about this initiative and urge OSHA to treat this program as a first step in a renewed effort to prevent these devastating accidents.

The final CSB report concluded that BP would have benefited from a more thorough review of the effects of organizational changes on safety at the Texas City refinery. The report calls for OSHA to revise the PSM standard to require covered facilities to analyze the impact of significant organizational changes – such as corporate mergers, acquisitions, downsizing, or budget cuts – that can adversely affect safety. Organizational management of change reviews are a good safety practice that has been recognized and recommended by the American Chemistry Council. The report also recommended that the Center for Chemical Process Safety (CCPS), whose director Mr. Scott Berger is testifying today, develop guidance for businesses to conduct these reviews. We thank CCPS for its immediate acceptance of this recommendation, and for CCPS's outstanding work in developing process safety guidance for industry.

EPA Audit Program Focuses on Review of Submissions

Our report also looked at the EPA's inspection and enforcement of the RMP program requirements. The refinery was covered under the highest level of the RMP program, known as Program Three. In addition to the huge quantities of covered flammable materials at the site, the refinery has a large hydrofluoric acid alkylation

unit, which in a worst-case release could endanger the health of more than half a million people within a 25-mile radius, according to BP's own RMP submission.

The Texas City facility was thus subject to a full suite of process safety requirements under EPA's independent regulatory authority. Although the EPA established an RMP audit program in 1999, our report notes that this program has focused on a review of written company submissions rather than detailed field inspections. EPA records we received show that the BP Texas City refinery never received an RMP audit prior to the accident.

In the course of our investigation, we requested various documents from the EPA about the RMP enforcement program and received a partial response, which did not include requested items such as the total number of RMP audits conducted, the audit selection process description, audit reports, and the number of RMP inspectors. A 2002 NTSB report also noted that both EPA and OSHA have few safety inspectors compared to the number of high hazard chemical facilities – approximately 14,000 – that are covered under the regulations.

American Communities Unprepared for Chemical Disasters

Although the Texas City investigation has a great many lessons, it is but one of many cases the CSB has now completed. Our other investigations have revealed a variety of common findings. For several years, I have been greatly concerned by the lack of chemical emergency preparedness that our investigations have found among many communities where accidents strike. In 2005, I testified on this issue before the Senate Homeland Security Committee and was pleased when the bipartisan Collins-Lieberman chemical security bill incorporated a number of provisions aimed at strengthening chemical preparedness.

Since the Collins-Lieberman bill was not enacted into law, the issue remains for Congress to consider. In the past few years, there have been several quite serious chemical accidents in the U.S. that have had offsite impacts. When a small chemical firm in northwest Georgia experienced a reactive chemical accident that released toxic vapor into the community, firefighters and police lacked the planning, equipment, and training to respond effectively, and the city lacked an emergency notification system for residents. More than 200 families had to be evacuated, and 154 people had to be decontaminated and treated at the hospital. The most seriously impacted were police officers, who were instructed to conduct the community evacuation without protective gear. The CSB investigation found that the county had no hazardous materials response unit, and that Georgia had not implemented key provisions of the 1986 EPCRA law to establish local emergency planning committees.

Similar shortcomings in planning were evident when a major chlorine gas release occurred at a repackaging plant in a St. Louis suburb in 2002. Emergency

shutdown equipment failed to work as designed, and protective gear was stored too close to the chlorine rail car to be accessed during this emergency. The community lacked an emergency notification system for residents, and logistical difficulties slowed the emergency response. By the time the release was finally shut off, more than three hours after it began, some 48,000 pounds of deadly chlorine gas had been released, and more than 60 people sought medical treatment for possible exposure. The human impact could have been far worse but for the fortuitous wind direction and the time of day. And a 2007 CSB study revealed that a third of U.S. water treatment facilities lack automatic emergency shutdown systems for chlorine unloading, which means that many communities are vulnerable to similar chlorine releases.

These two accidents underscore how preventing accidents and mitigating their impact requires an active partnership between communities and industrial facilities. If that partnership is missing – if the day of a major accident is the first time that firefighters and facility managers actually meet each other – the stage is set for a potentially severe community impact.

What we saw in Georgia and Missouri and elsewhere may provide an unfortunate glimpse of what lies ahead in case of a terrorist attack against a U.S. chemical site. Unless we take concrete steps now to improve preparedness, a future accident or criminal act may cause unnecessary loss of life in an American community. Reviving and supporting the system of state and local emergency planning committees established under federal law in 1986 is an important first step toward this goal.

Major Accidents Harm the Public

Two accidents in the past twelve months simply underscore the serious threat that communities can face from chemical accidents. In the Raleigh, North Carolina, suburb of Apex, a fire at a hazardous waste transfer facility forced the evacuation of thousands of residents. Our investigation is focusing in part on the lack of adequate information available to emergency responders about the facility's chemical inventory – which our team has now determined included hazardous aircraft oxygen generators of the type that caused the 1996 ValuJet crash in the Everglades.

Last November in the town of Danvers, Massachusetts, a sudden explosion at a chemical plant during the overnight hours damaged or destroyed more than 100 homes and businesses over a wide area. Miraculously no one was killed, although the accident had the potential to cause multiple deaths. Our independent investigation indicates that local fire officials and community planners had limited familiarity with the chemicals, processes, and safety procedures in use at the plant, which was apparently operating under a hazardous materials license first issued in 1944. Now, the Massachusetts legislature is to consider new legislation creating expert regional inspection teams for the state's chemical facilities.

Safety Codes and Standards Should Be Updated

Antiquated fire codes that are difficult to interpret and enforce were also a contributing factor in a 2002 building explosion in New York City, which the CSB investigated. This investigation led to one of the Board's most significant safety achievements, persuading the City of New York to abandon its 1918-vintage fire code in favor of an up-to-date model fire code. We found that the nearly century-old code did not include modern controls on hazardous material storage and labeling that could have prevented the explosion that injured dozens of occupants, bystanders, and responders.

A number of federal codes are also increasingly out-of-date. When OSHA was first established in the 1970s, a number of consensus standards of that era were adopted as federal requirements. Even as the consensus standards have continued to evolve and improve, many OSHA standards have remained as they were three decades or more ago. In our investigation of a tragic acetylene explosion in New Jersey in 2005, we noted that the OSHA acetylene standard has never been updated and still refers to obsolete 1960s industry safety guidance that is no longer even obtainable. Our investigation of a catastrophic fire at a petroleum blending facility in south Texas noted that the OSHA flammable and combustible liquids standard is still based on the 1969 national fire code and lacks a number of modern fire safety provisions.

In some cases, OSHA did not adopt available consensus standards at the time of its founding and has not done so since. An important example relates to preventing catastrophic dust explosions in industrial facilities. Although consensus fire codes have sought to address this hazard for decades – and OSHA itself adopted a standard for preventing grain dust explosions – there is currently no federal standard for general industry to prevent these devastating events, which cause horrible and often fatal burn injuries. Last November, the CSB completed a two-year investigation of the problem, which uncovered 281 dust explosions that killed 119 U.S. workers, and we called on OSHA to promulgate a new regulatory standard based on the existing national fire codes.

In 2002, we also called on both EPA and OSHA to expand their process safety rules to cover reactive chemicals and mixtures that cause other serious accidents around the country. These recommendations remain to be adopted by either agency.

EPA and OSHA Regulatory Programs Have Limitations

Both the EPA and OSHA process safety regulatory programs are limited in various ways, an issue which I believe will ultimately fall to Congress to address. As directed by current statute, both programs focus on specific, relatively narrow lists of covered hazardous chemicals, each with a threshold quantity. Unstable or reactive

combinations of chemicals are not systematically covered. Facilities that use hazardous chemicals but do not meet the thresholds are exempt from the requirements. Certainly a high fraction of the accidents we investigate occur among those facilities that are not covered under either program – even though those facilities still have serious chemical hazards.

Some other countries have taken an alternative approach, called a “safety case,” where the chemical facilities must receive permission to operate in advance, based on a demonstration of safety competence to government authorities. While such systems may require more effort to implement, they have the advantage of being preventive in nature and less tied to specific quantity thresholds and chemical lists.

Both EPA and OSHA do not appear to have large numbers of experienced staff with chemical industry backgrounds to enforce the existing process safety rules. While I believe that the staffs of both agencies are sincere and diligent in their efforts, it would be unrealistic to think that chemical plant safety can be assured without a significant investment in a highly trained and specialized inspection corps. It can be a daunting exercise to uncover safety problems in a large, complex, highly automated and integrated chemical facility. We would not ask OSHA or EPA inspectors to examine the safety of nuclear power plants or commercial aircraft, in the absence of specific, extensive expertise in those areas. Other nations like the UK have recognized this difference and established a large, focused body of inspectors for certain high-hazard industries, including chemical companies.

All of the federal agencies involved in process safety – the EPA, OSHA, the CSB, and others – suffer from a lack of high-quality data on the frequency of chemical accidents throughout the U.S. The EPA accident database, known as RMP*Info, is among the most thorough but by design it only covers a subset of about 14,000 chemical facilities. Most accidents occur outside of the RMP universe. Although it would be a significant challenge that is beyond the current mandate or resources of any one agency, collecting better, more complete accident data would lay the foundation for better targeting of resources by all the agencies involved.

And Congress should take steps to help ensure that all U.S. workers – both public and private – enjoy the same protections under federal workplace safety rules. A CSB investigation completed earlier this year of a municipal wastewater plant explosion showed the tragic effects of the lack of OSHA protections for public employees in 26 states.

CSB Authorizing Statute Should Be Reviewed

Finally, as Congress reviews the state of chemical safety in the U.S., I would urge some attention to the statutory provisions authorizing the CSB. That statute is now 17 years old. Our agency has gained considerable first-hand experience in how these provisions apply at accident sites and in our relations with other parties.

I urge the Committee to compare the CSB's existing statutory authorities with those of the older and more established National Transportation Safety Board. While not all the conditions are exactly the same between the two agencies, there is much in common, and the CSB would benefit significantly from some of the clearer authorities in the NTSB statute. For example, the authority of the CSB to preserve and determine the testing of evidence is much less explicit than the NTSB's authority. Last year, when the CSB proposed a procedural rule on evidence preservation at accident sites, some industry voices objected that Congress had never intended the CSB to exercise such preservation authority. The result of these statutory issues is very concrete: investigations are often delayed, and in some cases important physical evidence is actually lost or destroyed. Clarification of these issues by Congress would improve the quality and speed of CSB investigations.

In addition, I believe Congress should clarify that no local, state, or federal agency may block the access of the Board to the site of a chemical release, particularly during the early stages when the physical evidence is in its most pristine condition but is also in the greatest peril. From time to time, local assertions of criminal jurisdiction have been used to impede the access of CSB investigators to accident sites. During the period while such issues are resolved, critical evidence is exposed to damage or loss.

As noted above, the CSB also needs reasonable access to OSHA and EPA records and personnel in conducting its investigations. Congress charged the CSB with examining OSHA and EPA standards and programs for accident prevention, and to do so the agency must first be able to gather the facts. We are concerned by the lack of access to information during our BP investigation in particular, and I believe that Congress should consider clarifying these interagency relationships in the statute. I would add that in the majority of cases, there has been good coordination between the CSB, OSHA, and EPA field teams at accident sites.

Congress could also consider providing a limited degree of statutory protection for the CSB's own investigative records, to prevent indiscriminate use in litigation and criminal prosecutions. The possible future use of information gathered by the CSB in the courtroom can have a strong chilling impact on our ability to conduct our safety investigations and can detract from our independence.

The CSB remains a very small agency that seeks to have an impact on very broad issues. The Congressional authorizing committees have not provided the agency with mission guidance, priorities, or funding targets since the enactment of the original statute. A 1989 version of the Clean Air Act envisioned a CSB that was funded at half the then level of the National Transportation Safety Board, the agency on which we were modeled, but today the CSB is barely a tenth the size of the NTSB. As a result of chronic shortages of personnel and resources, the CSB can deploy investigators to just a handful of the serious accidents that arguably warrant its attention. These shortfalls are described in a report we prepared for Congress last

year. We also hope that Congress may provide explicit support for the Board's safety studies and outreach programs.

I believe it would benefit the agency if Congress reviewed the structure of the Board itself and provided for a vice chairman to assure an orderly transition during times when the chair is vacant. Periodic vacancies in the chair, and the resulting absence of executive authority, pose a significant risk to the success of the agency. Under the existing statute, CSB board members cannot serve beyond the expiration of their five-year terms, and thus vacancies in the chair and other board seats are all but inevitable.

Lastly, as I have noted in other venues, we have asked that Congress discontinue a highly unusual auditing arrangement under which the EPA Inspector General serves as IG for the Board. This relationship – which was established through annual appropriations riders and has never been authorized by this Committee – compromises the Board's statutory independence and is burdensome and unproductive.

Mr. Chairman, Congress showed tremendous vision in 1990 when it reauthorized the Clean Air Act and made major accident prevention one of its cornerstones. As head of the CSB, it has been my privilege to travel to Europe and Asia to meet with the leaders of other national safety agencies in many nations. And I can tell you that in those countries, there is great admiration for what Congress has done in establishing an independent Chemical Safety Board, and our work is very widely used overseas.

It is a very solid model that is in place in this country, but some changes and improvements are needed. I welcome the renewed attention and interest of Congress in these issues over the past several years, culminating in the hearing today.

Thank you, Mr. Chairman, for the opportunity to testify this morning and for your longstanding and tireless support of our agency and of the cause of chemical safety. I will be happy to answer the Committee's questions.