Statement for the BP Independent Safety Review Panel Carolyn W. Merritt, Chairman & CEO U.S. Chemical Safety and Hazard Investigation Board Houston, Texas November 10, 2005

Secretary Baker, thank you for the opportunity to speak to the Independent Safety Review Panel, which has been tasked with investigating the corporate safety culture and safety management systems at BP's North American refineries. My fellow Board Members and I commend BP for accepting our urgent recommendation to create this panel, and we greatly commend each of you for your willingness to serve.

This is an extraordinarily competent and diverse panel, and it is chaired by one of the nation's most distinguished public servants. The experience of each panel member is worthy of praise, but I must single out one in particular: Dr. Irv Rosenthal, who served on the Chemical Safety Board for five productive years, from 1998 to 2003. He is a delight to work with, and I know you will all come to appreciate his incisive observations and his gentle humor.

Mr. Secretary, you have a long record of service to this country, and you are being challenged once again. We are confident that when the panel's work is done, the information you have accumulated, and recommendations you have made, can enhance the safety of every worker in the oil and chemical industry. Because of the interest in this case, your work can have an impact not just in this country but overseas as well.

Aside from the human toll, the petroleum industry can ill afford destructive incidents at a time of critical gasoline supplies. The entire BP Texas City refinery – representing 3% of the nation's capacity – has been shut down since late

September due to safety concerns. So the work of this panel will most assuredly be in the national interest.

The Chemical Safety Board issued the recommendation to form this panel after our investigators uncovered evidence of serious management problems at the Texas City refinery. We began to realize there might be systemic issues of management culture and oversight that are not localized to one site. These management problems set the stage for catastrophic and tragic incident. Our investigation has revealed that this incident was completely preventable.

We felt the situation was urgent and did not want to wait until our investigation was complete – which could take another year – to get this panel's work started. And so we issued the first recommendation that was designated as "urgent" in the Board's eight-year history.

The March 23 incident in Texas City was the one of the worst U.S. workplace disasters in fifteen years. This incident was followed by other serious incidents at the same facility in July and August that had the potential for harm.

At this time I would like to call on the CSB's lead investigator, Don Holmstrom, who will present a summary of the findings and key safety issues that we presented at the community meeting October 27 in Texas City.

[Mr. Holmstrom's Presentation]

Thank you, Mr. Holmstrom.

Before I began my term on the Board in 2002, I worked in industry for many years. I managed health and safety programs and became keenly aware of how the culture of a company can affect the safety of workers and communities.

My experience shows that if the highest level of management and the corporate board do not actively support operational safety and management of risk, then safety programs don't have much of a chance. Safety cannot be achieved from the shop floor alone.

A good safety culture is the embodiment of effective programs, decision making and accountability at all levels. It is a much different concept from simply having good procedures on paper.

There is a widespread misperception that safety culture can be improved solely through modifying unsafe worker behaviors. While human errors contribute to most major incidents including this one, they are rarely the root cause. The mistakes that were made in Texas City have their roots in decisions made by managers at the facility and the corporate level, sometimes years earlier.

Thus when we talk about safety culture, we are talking first and foremost about how managerial decisions are made, about the incentives and disincentives within an organization for promoting safety. Are production and cost control being rewarded at the expense of safety and risk management?

One thing I have often observed is that there is a great gap between what executives believe to be the safety culture of an organization and what it actually is on the ground. Almost every executive believes he or she is conveying a message that safety is number one. But it is not always so in reality.

When we were developing our urgent recommendation to BP, we gave great consideration to how the independent panel should be structured and composed. We realized that the panel should have extensive representation from outside the oil and chemical sector. We believe that both BP and the industry as a whole will benefit greatly from the insight and wisdom contained in this room.

The truth is that the concepts of safety culture have been recognized and implemented more fully and over a longer period in some of the sectors represented here including aviation, space, and the nuclear navy. These sectors have a great deal of experience in managing catastrophic hazards.

One of the touchstones for the Board's recommendation was the work of the Columbia Accident Investigation Board, with which many of you are quite familiar. The Columbia Board produced a startling picture of management conditions, decision making and attitudes that set the stage for the space shuttle disaster in January 2003. The management culture in the shuttle program was one that inadvertently promoted risk taking and increased the chance of a major catastrophe.

I would submit that the findings and recommendations of the Columbia Board also have a lot to teach the oil and chemical industry. We hope you will use the Columbia Board as one model for how you can perform your task.

There are many other possible sources of guidance for the panel's work. Some were referenced in the Board's urgent recommendation, including the work of the International Atomic Energy Agency, the International Labor Organization, the Conference Board, the International Standards Organization, and the U.K. Health and Safety Executive.

One of my aspirations is that all industrial managers treat safety and major accident prevention with the same degree of seriousness and rigor that is brought to financial transactions. Few people would operate a major corporation today without a strict system of financial controls and auditing, where everyone within the corporation recognizes the severe consequences for noncompliance.

That same standard of diligence is not always applied to risk management and safety. If you get away with a flawed safety decision one day or repeatedly, far from facing penalty you may actually end up rewarded, perhaps for boosting production. You may come to believe that what was thought to be unsafe is actually safe, based on your experience. It is a phenomenon that is sometimes called "normalization of abnormalities."

A good culture is all about constant measurement and improvement. It is about having rigorous auditing procedures throughout the organization. It is about ensuring that workers are encouraged and actually rewarded for bringing safety problems to the attention of management, even to the highest levels. It is about encouraging the reporting and the investigation of warning events.

Many of the CSB team's findings are indicative of management culture issues at BP. The findings also raised serious concerns about the effectiveness of mechanical integrity programs, hazard analyses, management of change programs, and incident investigation programs. There are also many other issues in the March 23 incident that are perhaps harder to quantify but equally important, and I'll offer some examples.

- One is management of fatigue. Our information indicates that on the day of the incident, some BP operators had worked 30 days straight, 12 hours per day, some with two-hour commute times.
- Another is the downsizing of both supervision and training. For example, BP Texas City went from 38 trainers in 1998 to just nine in 2005. And on the day of the incident there was no supervisor with appropriate experience overseeing key phases of the startup operation.
- Another concern is workload management. On March 23, a single board operator was responsible for simultaneously running the controls of three

different complex process units, including the isom unit that was starting up.

 Finally, there is the issue of how obsolete equipment is managed. The blowdown drum and stack in Texas City was half-century old technology. Yet in the 1990s it was completely rebuilt according to its original design, which was by then recognized as antiquated and unsafe. How does BP's management assure they are using current safety equipment that is appropriate for the risks involved?

And so there are a great many important issues to look into, and that is why you are here, Mr. Secretary and members of the panel: to examine why BP evidently allowed serious deviations from good safety practice to exist and to persist. More importantly, you are asked to recommend any needed changes in BP's governance, structure, management systems, and organizational culture so that these facilities are safer in the future.

In conducting your work, it will be useful to establish some terms of comparison. For example, it will be important to understand how BP's North American refineries, which were mostly acquired through recent mergers, have been assimilated into the corporation. Do these facilities have similar cultures, and what measures has BP taken to establish a favorable culture at these sites? How do these facilities compare with other BP sites in the UK or elsewhere?

We would ask the panel to consider establishing some measurable benchmarks for the safety management systems and culture of other high-risk sectors, such as the aviation and nuclear industries. The panel may also benefit from seeking the cooperation of at least one other oil or chemical corporation that is willing to share information about its management systems and cultural performance.

Finally, I would encourage the panel to do as much as possible of its business in the public eye. This will have two benefits: the panel's work will be more credible, and the panel's work will be more valuable to industry as whole.

In fact, I would suggest that you consider convening one or more public hearings with outside witnesses to begin establishing some of the benchmarks from other high-risk sectors that I mentioned.

Mr. Secretary, you can see from our presentation that all is not well at BP.

The workers deserve better. The community deserves better. And at a time when petroleum supplies are in critical demand, the nation deserves better.

I believe that your efforts can have a profound impact on many corporations who will be awakened and warned by your work.

I am confident this panel will carry out its mission with independence and thoroughness. And in the end, what you find and report and recommend will be of great importance in improving safety throughout industry.

Thank you for the opportunity to appear, and we will be happy to answer any questions you may have.

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