

**Statement of CSB Chairman Carolyn W. Merritt on the Board's Urgent Safety
Recommendation to BP North America
August 17, 2005**

Good morning. I am Carolyn Merritt, Chairman of the United States Chemical Safety and Hazard Investigation Board. I will present a short statement, and then we will be happy to take some questions.

The Chemical Safety Board has been continuing its independent, federal investigation to determine the root causes of the tragedy in Texas City and to make safety recommendations to save lives in the future.

First, I will recap where we are in the investigation of the fatal incident on March 23 and the subsequent incidents at BP facilities. Second, I will discuss some significant new findings from the investigation since our last update here on June 28.

Finally, I will present a new urgent safety recommendation, which the full Board has just voted to issue to BP America and BP's Global Board of Directors.

Before I begin, I would like to express our profound sympathy with the entire workforce in Texas City and with its residents. We know that this community has been deeply shaken by the events of the past five months. The community has responded with courage and determination under difficult circumstances.

In addition, I would like to note some of the important progress that has been made since March 23. BP has cooperated fully with the Board's independent investigation, and that has very much facilitated our work here. BP has been forthcoming with documents, witnesses, and other evidence that have advanced our work.

BP has taken several positive steps following the tragedy. First, BP has committed to removing atmospheric vent stacks at all of its North American refineries. Second, BP has committed to removing nonessential personnel from the vicinity of hazardous operating units. We commend these actions and we would like to see other leading oil companies review their operations and consider similar measures, if they have not already done so.

The CSB's root-cause investigation has been proceeding on a number of fronts. During the week of July 18, our full team returned to Texas City for additional witness interviews. Since then, we have been continuing with our comprehensive program of document review, equipment testing, blast modeling, and accident reconstruction. Last week, together with BP personnel, we made our first entry inside the raffinate splitter tower, after months of preparation.

Our team is developing a complete set of preliminary findings in the case, which we will be presenting to the public. We are announcing today that we have scheduled a community meeting for the evening of Thursday, October 27, in Texas City at the Doyle Center. At the community meeting, the full investigative team will present its

preliminary findings, and then the public will have the opportunity to make comments to the full Board.

I will now mention some of the new findings of our investigative team, and we will hear the full details on October 27. I will begin with a brief description of the recent incidents here over the past few weeks.

I emphasize that at this time, no root causes have been determined. Under federal law, no root causes will be assigned except by a vote of the full Chemical Safety Board. All possible causal factors including design flaws, equipment failures, and human performance remain under consideration.

On July 28, there was a serious hydrogen fire in the refinery's Resid Hydrotreater Unit or RHU. This incident had the potential to cause deaths and injuries, but fortunately it did not. The fire resulted in a Level 3 community alert in Texas City.

BP initially reported that two identical looking pipes on a heat exchanger may have been mixed up by a company contractor, J.V. Piping, during February maintenance.

We have now interviewed relevant personnel from both BP and J.V. Piping. So far, the evidence about how the wrong pipe may have been installed is contradictory, and we have not conclusively determined that it occurred during the February turnaround. We are studying the mode of failure of the pipe and conducting additional interviews and research to better understand exactly what happened and possibly estimate how long the pipe was in service.

On August 10, there was another Level 3 incident in a Gas-Oil Hydrotreater that resulted in a community order to shelter. This incident occurred when a hole developed in the bottom of a valve that handles high-pressure gas and oil. We have requested pertinent maintenance records from BP, and we are reviewing other relevant documentation.

Both the July and August incidents raise issues about the mechanical integrity programs for equipment at the refinery.

Finally there was a serious process-related fire at BP's Innovene plastics subsidiary in Alvin one week ago. For a variety of reasons, we decided not to deploy investigators to this site, but we have requested follow-up information from BP.

Now let me speak to the major incident on March 23 in the isom unit. On June 28, we reported that several key pieces of process instrumentation malfunctioned on the day of the incident, during the startup of the raffinate splitter.

Two high-level alarms that should have warned operators about the flooding of the tower and the blowdown drum did not go off.

In addition, the level transmitter – which was sole the instrument on the tower that directly reported the liquid level to control room operators – gave a series of erroneous readings during the hours leading up to the explosions at 1:20 p.m.

These readings falsely indicated that the liquid level in the tower was at 10 feet and drifting downward, when in fact liquid hydrocarbons were flooding to at least 12 times that height.

CSB investigators have now found a work order, dated March 10, 2005 – thirteen days before the incident – which acknowledged that the level transmitter was in need of repairs. This work order was signed by several management officials of the BP Texas City site.

Instead of repairing the transmitter prior to startup, the work order indicated that the maintenance would be deferred until after the unit was up and running.

We have also found documents indicating past problems with both high-level alarms. Specifically, the high-level alarm on the raffinate splitter was in need of repairs one year prior to the March 23 incident. The alarm switch on the blowdown drum was subject to severe fouling and required a weekly maintenance procedure to try to keep it functioning.

In addition, CSB investigators have been looking into the operability of the so-called “3-pound” vent system on the raffinate splitter tower.

This vent system failed to operate during pre-startup equipment checks before the March 23 startup, and it also failed to operate effectively during post-accident testing.

The written startup procedures for the raffinate splitter were incomplete and out-of-date, and they directed operators to use this non-functioning vent system to control the internal tower pressure.

As we reported previously, on March 23, the internal tower pressure spiked to at least 60 pounds per square inch, causing the emergency pressure-relief valves to open and release flammable hydrocarbons. This in turn led to the overfilling of the blowdown drum and the subsequent explosions.

Finally, our investigators have identified and examined 17 startups of the raffinate tower that occurred between April 2000 and March 2005. We found that in the majority of cases, the tower showed abnormally high internal pressures and abnormally high liquid levels. The pressure ranged as high as three times the value specified in operating procedures.

The persistent abnormalities during the startup of the raffinate splitter were not investigated by BP as near-miss incidents. BP did not re-evaluate the tower’s design, instrumentation, or process controls to improve the safety of startup.

Taken as a whole, these facts point to systemic lapses in organizational decision-making, safety oversight, and safety culture. If left uncorrected, such lapses could lead to additional serious accidents.

As a result, the Chemical Safety Board has taken further action, based on our recommendations authority under Section 112(r) of the Clean Air Act Amendments of 1990.

Today, the Chemical Safety Board is issuing an urgent safety recommendation to BP America and BP's Global Board of Directors. This is the first urgent safety recommendation in the Board's almost eight-year history.

The Chemical Safety Board recommends that BP immediately convene an independent panel of experts to examine BP's corporate safety management systems, safety culture, and corporate oversight of its refineries. The panel should report its findings and recommendations to the BP workforce and the public.

The panel should include safety experts from a wide variety of sectors, such as aviation, space exploration, nuclear energy, and the undersea navy, as well as the process industries. The panel must be independent from BP and have an external chairperson as well as labor representation.

In addition to examining safety culture, we expect the panel to assess the effectiveness of specific management systems, such as mechanical integrity and near-miss investigation programs.

Part of vision for this panel comes from the board that investigated the Columbia shuttle disaster, and from other panels that have investigated major oil and chemical accidents overseas. These include the special panels that investigated the Piper Alpha oil platform disaster in the North Sea and the Esso Longford gas explosion in Australia.

The full text of the urgent recommendation, and the findings that support it, are contained in the written materials we are distributing today.

If properly structured, the panel's work will be complementary to our root-cause investigation as well as to the safety audits that BP itself is undertaking. However, the panel will function at arm's length from both BP and the CSB.

While the independent panel focuses on BP's corporate systems, the CSB will increasingly be focused on some of the national policy implications of the accident on March 23.

In light of the recent events in Texas City, and the findings of our team, we determined that this recommendation could not wait for the completion of our full root-cause investigation next year. We also concluded that an examination of BP's corporate

oversight and culture is an essential ingredient for the full understanding of the tragedy in Texas City.

We urge BP to take prompt action to establish the independent panel and ensure that its work is complete within 6 to 12 months.

The Board will track BP's progress on implementing this recommendation and will make periodic evaluations and public statements as appropriate.

If the panel does its work effectively, it can have a major positive impact on the safety of BP's North American operations, and it can also serve as a model for others in industry.

Thank you for your attendance, and we will now be happy to take some questions. I ask that you please state your name and affiliation as you begin your questions.