U.S. CHEMICAL SAFETY BOARD
MEDIA AVAILABILITY
CITGO Refinery
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STATEMENT BY TEAM LEAD JOHNNIE BANKS

Good morning, and welcome to the Chemical Safety Board's – the CSB's – media availability. The CSB is an independent federal agency charged with investigating serious chemical accidents at refineries, chemical plants and fixed facilities.

My name is Johnnie Banks, Team Lead for the CSB. With me today are Investigators Steve Cutchen and Mark Wingard.

This morning we will be providing you with an update on our investigation into the March 5, 2012, hydrofluoric acid – also referred to as HF - release at the CITGO refinery in Corpus Christi, Texas.

I would like to note that CITGO has been fully cooperative with the CSB's investigation.

As most of you know, there were no injuries resulting from the accident but I would like to emphasize that the CSB takes any accident involving the release of HF very seriously. HF is highly corrosive and toxic. Absorption through the skin and underlying tissue can produce fatal cardiac arrest and inhalation causes damage to the linings of the lungs.

Unfortunately, this is not the first time that the CSB has deployed to an incident involving the release of HF at this facility. On July 19, 2009, an intense hydrocarbon flash fire resulted in a release of hydrofluoric acid in the same process unit as the March 5th incident. The fire, which burned for several days, critically injured one employee and another was treated for possible HF exposure. As a result of the 2009 accident, CITGO reported to the Texas Commission on Environmental Quality that approximately 21 tons of HF released from alkylation unit piping and equipment.

Since arriving in Corpus Christi on March 6th the CSB investigation teams have conducted about 20 interviews, examined the accident scene and designed testing to estimate the total amount of process stream that was released to the atmosphere during the March 5th incident.

The March 5th leak occurred due to the failure of the seal on a 12 inch flange on a process vessel in the Alkylation unit. These photos are a close-up of the flange that failed.

View of the flange involved in the HF release at the CITG Corpus Christi Refinery

As you can see from the photos the flange is a distinct red color. The paint on the flange turns red when it comes in contact with even a small quantity of acid. Following a maintenance activity the flange is washed with a caustic solution which returns it to its original color so that subsequent leaks can be identified.

Close-up of the flange involved in the March 5, 2012, HF release

To date, our investigation has found that the March 5th release can be traced to leaks at this flange reported as far back as September 2011. In late January of this year, maintenance was performed on the flange, tightening the existing bolts, but the leak persisted. Further maintenance was performed on February 10 – over three weeks prior to the actual incident. At that time workers replaced the flange bolts and a work order was submitted to order a clamp to enclose the leak.

The unit was not shut down; rather the clamp was ordered in the hopes that its installment would stop the leak. The proposed design of the new clamp was rejected three times over the next three weeks and had not been installed by March 5th.

On the day of the incident the leak from the piping flange on the 12-inch line worsened. Process liquids containing hydrocarbons and about 5% HF were released in a steady stream which worsened through the late afternoon.

The CSB has determined that the March 5th incident resulted in the release of between 300 and 500 pounds of HF.

Eventually, the release was detected by sensors that triggered the alkylation unit's automatic water cannons, designed to capture airborne HF. Automatic water cannons are intended as the last line of defense in the event of a release of HF.

Our investigative team has discovered that the water cannons were once again activated by an HF release on March 10th and 11th as the refinery was restarting the unit.

The events that took place on March 10th and 11th were planned work activities AND the company was aware that the water cannons might be triggered.

Although the two additional releases were small in quantity the CSB is concerned that management accepted that the water cannons could be triggered. The facility is routinely using the water cannons as release mitigation for maintenance activities when in reality they should only be used as the last line of defense.

Moving forward the CSB will be examining commonalities between the 2009 HF release and the March 5th incident. The facility's continued reliance on the water cannons to "control" an HF release raises serious concerns regarding the facility's management systems and control.

The CSB's investigations seek to identify the root cause of an accident. As new information becomes available, we will keep the community, public officials and the industry informed. We do all this, of course, in an effort to prevent serious chemical and refinery accidents that cause injuries, destroy property, and jeopardize public safety.

Our ultimate product will include safety recommendations designed to prevent a recurrence of this type of accident, here or at refineries located in cities across the country.

CITGO's workers and its neighbors have a right to know that their safety is an important consideration during the daily operations of this refinery.

Thank you for attending today, and we will be happy to answer your questions.