

**Oral Testimony of John S. Bresland
Chairman and Chief Executive Officer
U.S. Chemical Safety Board
Before the U.S. Senate Committee on Health, Education, Labor, and Pensions
Subcommittee on Employment and Workplace Safety
July 29, 2008**

Thank you, Chairman Murray, Senator Isakson, and distinguished members of the subcommittee. Thank you for inviting me to testify about the CSB's investigation of the Imperial Sugar explosion.

I have visited the Imperial Sugar refinery and witnessed first-hand the devastation there. The destruction was the most severe of any chemical accident I have seen in my six years with the CSB. Our hearts go out to the victims and to their families.

Madam Chairman, this accident was preventable.

Combustible dust is an insidious workplace hazard when it accumulates on surfaces, especially elevated surfaces.

A wide range of common combustible materials can explode in finely powdered form, including wood, coal, flour, sugar, metals, plastics, and many chemicals and pharmaceuticals.

At Imperial Sugar, a catastrophic explosion resulted from massive accumulations of combustible sugar dust on surfaces throughout the packaging plant. My written testimony details what we have learned to date about the accident. Let me summarize a few key points.

The photographs on the easel were taken in September and October 2006 at different locations inside the sugar packaging building at Imperial's Savannah refinery. They confirm the existence of substantial dust accumulations on various ducts, motors, switch boxes and processing equipment.

These accumulations – ranging in depth from an inch or two up to several feet – far exceed the NFPA-recommended limit of 1/32 of an inch.

Witnesses told the CSB that large accumulations of dust were present until the day of the explosion.

According to an employee, near the powder mills, sugar accumulated on the floor to a “mid-leg” height. We were told that airborne sugar in this room made it difficult for workers to see each other.

We obtained documents indicating that certain parts of Imperial’s milling process were releasing tens of thousands of pounds of sugar per month into the work area.

Based on our evidence, Imperial did not have a written dust control program or a program for using safe dust removal methods. And the company lacked a formal training program to educate its workers about combustible dust hazards.

Madam Chairman, I believe these findings are further evidence of the need for a comprehensive regulatory standard for dust.

Since the CSB was established in 1998, three of the four deadliest accidents we have investigated were determined to be combustible dust explosions.

In November 2006, the CSB completed a thorough study on combustible dust.

The Board called for:

- a comprehensive OSHA regulatory standard to prevent dust explosions in general industry

- improved training of OSHA inspectors to recognize dust hazards, and
- improvements to Material Safety Data Sheets to better communicate dust hazards to workers

The CSB based its recommendations, in part, on the success of OSHA's 1987 grain dust standard, which has cut deaths and injuries from grain dust explosions and fires by 60%. This standard requires worker training, rigorous housekeeping, and limits grain dust accumulations to 1/8 of an inch.

The NFPA has produced highly respected consensus standards about how best to prevent and mitigate combustible dust explosions.

OSHA has recognized the importance of NFPA's dust standards and references them numerous times in the National Emphasis Program for dust – a program we support.

However, without a comprehensive OSHA standard for combustible dust, it is difficult for businesses to know which specific NFPA provisions or other requirements they may be subject to.

A company that experiences a major dust explosion can expect to receive a fine from OSHA, as Imperial has.

But absent a standard, thousands of other companies that may be at risk do not benefit from clear instructions about what kinds of dust are most hazardous and what training and controls should be put in place.

After witnessing the terrible human and physical toll from the Imperial explosion, I believe the urgency of a new combustible dust standard is greater than ever.

A new standard, combined with enforcement and education, will save workers' lives.

Thank you for the opportunity to testify today.