

**STATEMENT OF EDWIN G. FOULKE, JR.
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U.S. DEPARTMENT OF LABOR
BEFORE THE
COMMITTEE ON EDUCATION AND LABOR
U.S. HOUSE OF REPRESENTATIVES**

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Mr. Chairman, Members of the Committee:

Thank you for the opportunity to appear today to discuss the proposed legislation, H.R. 5522, the “Combustible Dust Explosion and Fire Prevention Act of 2008.”

I would like to express my deepest personal condolences to the victims and to the families of those who have been killed or injured in the explosion at the Imperial Sugar refinery in Port Wentworth, Georgia, in early February. Everyone in the Occupational Safety and Health Administration (OSHA) takes the Agency’s mission very seriously, and they also join in my condolences to those affected by this tragedy.

We received a copy of the legislation last week, and have begun our analysis of the bill. However, in this short time we have not completed our analysis and cannot provide definitive comments on the proposal. More importantly, we have not finished our investigation of the accident at Imperial Sugar and cannot at this time say that the rule that is being proposed by the legislation would have prevented this tragedy. What I can

do is to tell the Committee about our ongoing investigation of the Port Wentworth fire and our overall efforts related to combustible dust hazards.

OSHA's investigation of the explosion, which began within two hours of the accident, is being coordinated by our Savannah Area Office. After learning of the accident, OSHA immediately dispatched two compliance officers to the scene. Several additional compliance officers as well as an attorney from the Department's Regional Solicitor's Office have also participated in this investigation. Six OSHA personnel are on-site working under the supervision of senior staff. An explosives expert from the National Office was sent to the site. In addition, OSHA has retained an outside expert on combustible dust to provide technical assistance. OSHA will inform the Committee of our findings when the investigation is completed.

In the immediate aftermath of the explosion, OSHA worked with the local fire marshal to help ensure the safety and health of first responders (firefighters, ambulance crews, etc.) and prevent additional injuries or deaths from occurring. OSHA helped ensure that all emergency responders used proper safety equipment. OSHA compliance personnel conducted air sampling so that no one on site was exposed to a release of contaminants or toxic substances, such as asbestos. In fact, OSHA declared an administration building "off-limits" when OSHA inspectors found potentially flammable vapors caused by sugar fermentation.

On February 9, the Bureau of Alcohol Tobacco and Firearms (ATF) assumed command of the accident site and a team of investigators from the Chemical Safety Board (CSB) arrived at the site. OSHA negotiated an agreement with all parties to ensure that evidence at the site would be preserved for the investigation. The negotiation also ensured that, before any undamaged portions of the facility are returned to operation and employees allowed to enter, OSHA compliance officers will conduct a thorough inspection so that all known hazards are abated.

The sugar refinery investigation involves three companies with 112 employees on site at the time of the explosion. Early indications suggest that the Imperial Sugar refinery explosion occurred due to an excessive accumulation of combustible sugar dust. OSHA is attempting to determine the ignition source that led to the explosion, and whether any OSHA standards were violated. If that is the case, the Agency will issue citations and propose appropriate penalties.

Now I will discuss OSHA's overall efforts concerning combustible dust hazards. OSHA has recognized these hazards for many years, and has been implementing various initiatives and standards to deal with the problem. It is important to point out that OSHA already has tough standards on the books that address combustible dust hazards such as the standards covering general requirements for housekeeping, emergency action plans, ventilation, hazardous locations, and hazard communication.

For example, the most important standard for grain elevators and similar facilities is our Grain Handling Standard, which includes requirements for housekeeping, ventilation, electrical safety, hazard assessment, employee training and other requirements. OSHA's Ventilation Standard also applies in some situations outside grain facilities. If the facility's operations are covered by 29 CFR 1910.94, *Ventilation*, the facility operator is required to follow the standards requirements on abrasive blasting; grinding, polishing, and buffing operations.

OSHA's housekeeping requirements apply to hazardous surface dust accumulations (i.e., dust accumulations outside the dust collection system or other containers, such as mixers.) For example, dust accumulations exceeding 1/32- inch covering an area of at least 5% of the total area of the room with an upper limit of 1000 square feet and determined by laboratory analysis to be combustible are subject to OSHA's housekeeping standard. In general, the housekeeping standard requires that "all places of employment, passageways ... and service rooms shall be kept clean... and the floor of every workroom shall be maintained in a clean...condition." OSHA housekeeping requirements also apply to storage areas and in facilities like power plants that handle coal. OSHA's Process Safety Management standard can apply if the dust in question appears on the list of Highly Hazardous Chemicals (Appendix A to 29 CFR 1910.119) and is present in quantities greater than or equal to the threshold for PSM requirements. If laboratory analysis of dust collected by an OSHA inspector indicates that the dust meets certain combustibility requirements, standards related to electrical safety will apply. Where

Powered Industrial Trucks are used OSHA standards at 29 CFR 1910.178(c)(2)(ii) and (vi)-(ix) and 1910.178(m)(11). These include safety requirements for fire protection, design, maintenance and use of a variety of power trucks including their suitability for hazardous combustible dust locations.

The hazard communication standard, 29 CFR 1910.1200, requires all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. The definition of physical hazards includes flammable solids (see the definition in 1910.1200(c)), which in the course of normal conditions of use could become combustible dusts.

OSHA requirements for provision of adequate means of egress as well as general OSHA fire protection requirements may also apply, as will OSHA standards related to bakery equipment (hazards in sugar and spice pulverizers); and sawmills (in connection with defects in the design, construction, and maintenance of blower collecting and exhaust systems).

Of the standards outlined above, the most important is housekeeping. When dust is not allowed to accumulate, the chances for a combustible dust explosion are vastly reduced.

While OSHA has a number of standards and policies on combustible dust, we understand that employers may not be aware of the hazard and OSHA's policies. Therefore, OSHA has provided outreach to our stakeholders as well. OSHA Area and Regional offices conduct outreach sessions on many topics, including combustible dust hazards. OSHA has also reached out to the fire safety profession, as well as our state plan enforcement and consultation partners. State plan and consultation staff have then taken various efforts to reach out to employers and employees within their states.

In 2005, OSHA issued a Safety and Health Information Bulletin, or SHIB, titled *Combustible Dust in Industry: Preventing and Mitigating the Effects of Fire and Explosions*. This comprehensive guidance highlights the hazards associated with combustible dusts; the work practices and engineering controls that reduce the potential for a dust explosion or that reduce the danger to employees if such an explosion should occur; and the training needed to protect employees from these hazards.

In light of the tragedy in Savannah, I recently sent a letter, along with a copy of OSHA's Combustible Dust SHIB, to an estimated 30,000 employers across the country in industries where combustible dusts are commonly found. In this letter I urged employers to review the information and reminded them of their responsibilities to prevent combustible dust hazards to help prevent future tragedies. I also reminded them of the assistance OSHA's onsite Consultation Program can provide confidentially and free of charge.

The Agency also implemented several proactive measures related to enforcement. OSHA has implemented a major enforcement initiative by developing a comprehensive National Emphasis Program (NEP) for Combustible Dust that took effect on October 18, 2007. The NEP is based on OSHA's expertise and experience in identifying and mitigating combustible dust hazards, as well as a regional Special Emphasis Program (SEP) on combustible dust implemented in 2004. It focuses on workplaces where combustible dust hazards are likely to be found and lists the different types of materials that can lead to combustible dust. Industries covered by the NEP include agriculture, food processing (including sugar), chemicals, textiles, forest products, metal processing, tire and rubber manufacturing, paper products, pharmaceuticals, recycling operations and coal handling and processing facilities. These industries deal with a wide range of combustible dusts with differing properties including metal dusts such as aluminum and magnesium, wood dust, coal and carbon dust, plastic dusts, biosolids, certain textile materials and organic dusts such as paper, soap, dried blood and sugar.

In particular, our inspectors are to look for violations of our existing standards on dust accumulations and sources of ignition, which are basic ingredients of a combustible dust explosion.

As of last week, OSHA had conducted 51 inspections under the National Emphasis Program. These inspections have resulted in findings of 109 violations of existing standards known to mitigate combustible dust hazards. In addition to the standards I

mentioned earlier, these also include a standard covering powered industrial trucks. In most combustible dust accident investigations, we have found that if employers had followed the applicable standards, they would have mitigated these hazards and prevented the explosions. OSHA has recently expanded the Combustible Dust NEP, and as a result, the Agency is planning to conduct at least 300 inspections this year. Moreover, refinements and improvements to the expanded NEP have resulted in a special concentration on the industries with a high probability of high-consequence combustible dust explosions.

Over the last three years, OSHA has placed a greater emphasis on training our compliance officers on combustible dust hazards by providing specialized training to several hundred inspectors. The OSHA Training Institute has developed a comprehensive three and one-half day course on Combustible Dust Hazards and Controls, which it began offering last December. OSHA has also provided training on combustible dust hazards to our state enforcement and consultation program partners.

OSHA has also disseminated other compliance assistance materials related to combustible dusts, including three different eTools found on our public website. These eTools are "stand-alone," interactive, web-based training tools on various occupational safety and health topics. They are highly illustrated and utilize graphical menus. OSHA has eTools on woodworking, sawmills and shipbuilding, all of which have components that address combustible dust hazards. OSHA disseminates an 80-page publication,

available on the website, entitled *Guide for Protecting Workers from Woodworking Hazards* that has a section that also addresses dust hazards. In 1998, OSHA released a Hazard Information Bulletin dealing with dust explosion hazards in the textile industry.

Last week, we posted a combustible dust web page to make it easier to find these guidance materials and other helpful resources. We are also in the process of developing new guidance materials including a hazard communication alert and a combustible dust fact sheet.

I know you are familiar with the U.S. Chemical Safety and Hazard Investigation Board's (CSB) November 2006 report dealing with combustible dust hazards. The CSB report made five recommendations to OSHA. First, CSB recommended that OSHA establish a National Emphasis Program focused on combustible dust. We initiated a Special Emphasis Program on combustible dust in 2004 which we expanded into a National Emphasis Program in October 2007. Second, CSB recommended that we offer training through the OSHA Training Institute on recognition of combustible dust hazards and preventions of explosions. We have been offering such training for several years, and recently expanded that training with a special 3 1/2 day course. CSB also recommended that OSHA revise its hazard communication requirements to address combustible dust. The results of our NEP have indicated the need to clarify that HazComm requirements also cover combustible dusts, and we have begun work on appropriate guidance to communicate this to employers.

CSB recommended that we recommend to the United Nations that the Globally Harmonized System hazard communication agreement awaiting international ratification be modified to address combustible dust hazards. It is the U.S. position at the United Nations Subcommittee of Experts on the GHS that changing the GHS during the implementation process could cause confusion and complicate compliance efforts by creating a “moving target” for those who are attempting to evaluate or comply with new regulatory requirements. GHS does not define combustible dust, but does address these hazards by requiring they be identified on safety data sheets. Furthermore, current GHS coverage of combustible dust does not conflict with current OSHA policy and practice. For these reasons, OSHA does not intend to inform the United Nations of a need to amend the GHS to include additional criteria for combustible dust hazards at this time, but we may do so later.

Lastly, CSB recommended OSHA issue a combustible dust standard. Let me be clear that we have a number of standards that apply to situations where combustible dust hazards may be found. Again, these include standards that cover general requirements for housekeeping, emergency action plans, ventilation, hazardous locations, and hazard communication. If employers follow the existing requirements established by these standards, employees will be protected from combustible dust hazards. If our investigation of the Imperial Sugar accident or our forthcoming inspections indicates that our existing standards do not adequately mitigate the potential for combustible dust hazards, we will assess the need for regulatory changes.

We believe that the Agency has taken strong measures to prevent combustible dust hazards, and that our multi-pronged approach, which includes effective enforcement of existing standards, combined with education for employers and employees, is effective in addressing combustible dust hazards. We would like to emphasize that the existence of a standard does not ensure that explosions will be eliminated. The effectiveness of a standard always depends on how well employers implement the requirements, and many tragic accidents in the last decade could have been avoided or minimized if employers had complied with existing OSHA standards. Secondary dust explosions resulting from excessive dust accumulations resulted in many of the casualties in recent catastrophic events.

Nonetheless, the Agency is carefully considering all options to deal with combustible dusts, including rulemaking. While we are still conducting a full analysis of the proposed legislation, we are continually evaluating our current combustible dust efforts, and are eager to learn how effective our new National Emphasis Program will be.

Let me reiterate that we are saddened by the tragic loss of life that resulted from the Imperial Sugar explosion. We will not rest until we ensure that all employees go home safely to their families and friends at the end of every work day.

Thank you Mr. Chairman. I would be happy to answer any questions.