



## U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATIONS STATUS CHANGE SUMMARY

<b>Report:</b>	Hoeganaes Corporation Fatal Flash Fires
<b>Recommendation Number:</b>	2011-4-I-TN-R11 through R13
<b>Date Issued:</b>	December 16, 2011 (released January 5, 2012)
<b>Recipient:</b>	R11: City of Gallatin, TN; R12-R13: Gallatin Fire Department
<b>New Status:</b>	R11: Open – Acceptable Response R12: Closed – Acceptable Action R13: Closed – Acceptable Action
<b>Date of Status Change:</b>	June 17, 2013

### Recommendation Texts:

#### **Recommendation No. 2011-4-I-TN-R11:**

*Require all facilities covered by IFC Chapter 13 (2006 edition) to conform to NFPA standards for combustible dusts including NFPA 484.*

#### **Recommendation No. 2011-4-I-TN-R12:**

*Ensure that all industrial facilities in the City of Gallatin are inspected periodically against the International Fire Code. All facility inspections shall be documented.*

#### **Recommendation No. 2011-4-I-TN-R13:**

*Implement a program to ensure that fire inspectors and response personnel are trained to recognize and address combustible dust hazards.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

Between January and May 2011, the CSB investigated three iron dust-related incidents at the Gallatin, Tennessee facility of the Hoeganaes Corporation, a worldwide producer of atomized iron and steel powders. The first iron dust flash fire incident killed two workers and the second injured an employee. The third incident, a hydrogen explosion and resulting iron dust flash fires, claimed three lives and injured two other workers.

The CSB found that the City of Gallatin had adopted the 2006 version of the International Fire Code, which includes general requirements for addressing combustible dust hazards and also incorporates by reference several detailed National Fire Protection Association (NFPA) standards, including NFPA 484: *Standard for Combustible Metals*. The Gallatin Fire Department, which is responsible for enforcement of the IFC, had conducted just three inspections of the facility in the previous 12 years, including one just two weeks prior to the third accident investigated by the CSB in May 2011. That report documented observations at the facility related to fire suppression and emergency egress, but did not mention combustible dust hazards, despite the fact that accidents had occurred in January and March. The CSB issued three recommendations

to the City and the Gallatin Fire Department (GFD) to promote regular, comprehensive inspections of industrial facilities with combustible dust hazards.

B. Response to the Recommendations

Re R11: The Mayor of Gallatin, Ms. Jo Ann Graves, indicated that all newly permitted facilities are required to meet the requirements of the 2006 edition of the International Fire Code (IFC), including the NFPA standards referenced therein. She also reported that the City of Gallatin is in the process of adopting the 2012 edition of the IFC and plans to use local ordinances to ensure the chapter and the referenced NFPA codes are also applicable to *existing* industrial facilities.

Re R12: Mayor Graves indicated that the City of Gallatin finalized a written policy in October 2012 which requires the Gallatin Fire Department to inspect each industrial facility under its at least once annually and to maintain records of these inspections.

Re R13: In May 2012, staff from the City of Gallatin, including the Director of Codes/Planning, the personnel from the Gallatin Fire Department, attended a two-day training session on the prevention and mitigation of combustible dust hazards. The training was provided by senior staff from the National Fire Protection Association (NFPA) and the chairman of the technical committee for NFPA 484: *Standard for Combustible Metals*.

C. Board Analysis and Decision

Re R11: Since the City of Gallatin reported a planned course of action that would fulfill the intent of the Board's recommendation upon completion, the Board voted to designate this recommendation with the status: "Open- Acceptable Response."

Re R12 and R13: Since the City of Gallatin reported actions that are consistent with the intent of the CSB's recommendations, the Board voted to designate both recommendations with the status: "Closed- Acceptable Action."