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

Report:	Imperial Sugar Company Dust Explosion and Fire
Recommendation Number:	2008-05-I-GA-R3
Date Issued:	September 24, 2009
Recipient:	Imperial Sugar Company
New Status:	Closed – Acceptable Action
Date of Status Change:	July 25, 2011

Recommendation Text:

Implement a corporate-wide comprehensive housekeeping program to control combustible dust accumulation that will ensure sugar dust, cornstarch dust, or other combustible dust does not accumulate to hazardous quantities on overhead horizontal surfaces, packing equipment, and floors.

Board Status Change Decision:

A. Rationale for Recommendation

On February 7, 2008, a series of sugar dust explosions occurred at the Imperial Sugar manufacturing facility in Port Wentworth, GA. The first dust explosion occurred in the conveyor belt located beneath the sugar silos. The facility had recently enclosed the conveyor belt for operational reasons which allowed the dust to accumulate within the enclosed space creating an explosive atmosphere. An unknown ignition source ignited the sugar dust, causing an explosion which propagated throughout the facility and resulted in multiple secondary dust explosions.

The incident resulted in 14 worker fatalities. Eight of the workers died at the scene, six others succumbed to their injuries later while hospitalized. 36 other workers suffered serious burns and other injuries, some of which were permanently debilitating. The explosions and subsequent fires also destroyed the majority of the facility.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including conveying equipment not designed or maintained to minimize fugitive sugar dust emissions, inadequate housekeeping practices, and a lack of regulatory coverage for combustible dusts. As a result of these findings, the CSB issued five recommendations to Imperial Sugar Company. This status change summary addresses CSB Recommendation No. 2008-05-I-GA-R3.

B. Response to the Recommendation

In response to the recommendation Imperial Sugar Company developed and implemented a housekeeping program with cleaning schedules at all of their facilities. Upon review of the

relevant documentation provided, the CSB determined that Imperial Sugar Company has satisfactorily implemented this recommendation.

C. Board Analysis and Decision

Based upon the information above, the Board voted for a status designation of "Closed – Acceptable Action" for CSB Recommendation No. 2008-05-I-GA-R3.