



THE FIRE PROTECTION RESEARCH FOUNDATION

Combustible Metal Fires and Explosions – Case Studies

Project Summary

Background

List, describe and distinguish between fires and explosions involving combustible metals so the committee can determine the hazards associated with metal fire and explosions or both (i.e., fire is the primary event, the explosion is a secondary event; or an explosion was the primary event).

Research Objective

Can we reduce the occurrence of explosions by understanding and controlling fires involving combustible metals?

Project Description

Literature review to include recent combustible metal incidents (see Martha Curtis files), Chemical safety board reports, Metal association information (ie, Aluminum association, titanium association), IEEE's loss prevention in the process industries. Perhaps develop text and a table listing the date, event, the material, the form of material (ie solid, fines, powder, unknown), whether it was a fire or an explosion or both, whether the explosion was dust or the application of water. For example, the recent NIOSH report on firefighter injuries during suppression of a facility fire with titanium scrap in Los Angeles resulted from the application of fire suppression water on the burning metal fire.