

Housekeeping is more than “pretty” - it’s about safety

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What happened?

A sugar mill had been operating for over 100 years; poor housekeeping procedures allowed sugar to accumulate around equipment and on structures.

A plugged chute created a dust cloud that ignited and caused other explosions and fires. 14 people were killed, 38 were injured, and the plant was destroyed.



Why did it happen?

Sugar is combustible; while it is hard to ignite, explosions provide more than enough energy to cause damaging explosions and fires.

The initial explosion created additional explosions fueled by sugar residue left in the process areas. The first event would have been severe, but the presence of accumulated sugar allowed secondary explosions and fires that greatly increased the impact. Housekeeping practices at that site were not well followed. Over years, a number of fires had occurred that were reported, but corrective actions were not effective nor sustainable.

(Ref CSB Investigation -Imperial Sugar Fire & Explosion 02/07/2008 report 2008-05-I-GA-6 - 09/24/2009)

Did you know?

- Accumulated materials, from your process and also packaging materials (plastic, paper/cardboard, wood), become fuel in the event of a fire or explosion. Minimizing it through housekeeping is essential.
- Safety systems such as fire protection may not be designed for extra fuel, including dust or other spilled materials.
- Spills & leaks of raw materials, process intermediates or finished products also represent lost material decreasing the process yield.
- Housekeeping is more than removing spills; other clutter such as unused equipment and packaging need to be properly stored.
- Metals as dust or filings are also fire and explosion hazards. They need the same level of care as other combustible materials.

What can you do?

- Know the housekeeping expectations for your area and follow them.
- Ensure that proper handling and disposal methods are applied for materials that are collected during housekeeping activities.
- Metallic wastes are a unique hazard that requires special disposal methods; find out what they are and follow them.
- Also, if the material source is unknown, consult with safety personnel about proper PPE for clean-up.
- Note substandard housekeeping during rounds and report this to your supervisor. Better still, clean them up then and there while applying proper safety methods.

Keeping areas clean makes them safer!