Safety is a Shared Responsibility

WPAC Conference 2024

September 17, 2024

"Importance of Safety in our sector at Home and Abroad"



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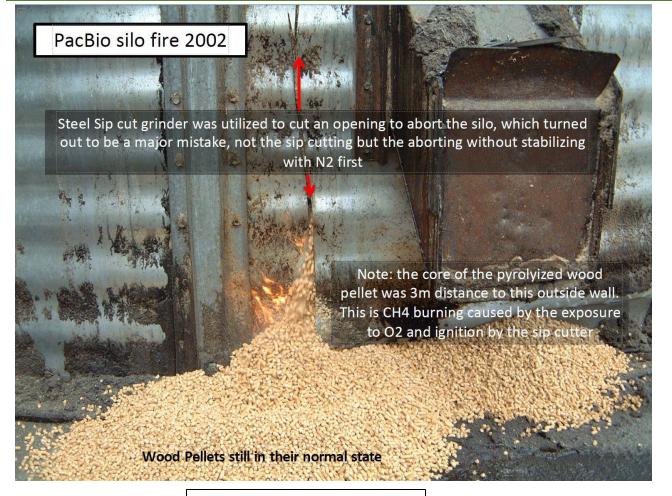


FutureMetrics LLC ™

Wood Pellet Silo/Warehouse Fire Incidents at Pellet Plants and Power Plants in Europe, N. America and Japan



Causes of Wood Pellet Silo/Warehouse Fire Incidents





External (hot) Metal

Self-Heating

Dealing with a Wood Pellet Silo or Warehouse incident





WRONG WATER **CORRECT**

N2 INJECTION

Share the Knowledge of Lessons LEARNT

Inerting the silo with nitrogen has been proven to be the best solution to gain control of a smoldering fire of wood pellets before aborting (discharging) the silo.

- Liquid nitrogen is easier to vaporize than carbon dioxide, more accessible and more economical.
- No risks of static electricity during injection.

WARNING: DO NOT USE

- Water inside the silo as it could form explosive H₂ through water gas shift. In the case of hoppered silos, water finding its way down along the outside walls of the silo into the hopper area will cause the pellets to swell and become very difficult to abort. Foam spray or N₂ in silo head space only!
- CO_2 as it can lead to the formation of high volumes of CO and H_2 .

Strongly recommend studying the "SILO FIRE" report of Henry Persson, WPAC Reports and the Enplus Safety Module 12.

"the most difficult scenario for fire and rescue service (fire brigade) to handle is deep smoldering fires since such fires are extremely difficult to access"

Wood Pellet Silo and Warehouse Fire Incidents have become one of the Biggest Threats of our industry

Not just the potential for Fatalities and/or Injury

Not just the loss and cost of Assets

Not just the loss of Product and Revenue

Not just potential Non-Delivery Penalties

Continuing incidents in Japan have been a major concern for the residents of communities surrounding these power plants and wood pellet storage facility's. These citizens are protesting the re-commissioning of these facility's and new projects considering wood pellets as a fuel.

