

WPAC Conference

INSIDE THE SMOULDER: HOW TO DETECT, PREVENT, AND SURVIVE SELF-HEATING IN BIOMASS STORAGE



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The Leading Consultancy in the Wood Pellet Sector

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WHY THIS CONVERSATION MATTERS?

- Storage piles, warehouses, domes/silos: Persistent risks
- Incidents are not isolated — they affect producers, utilities, insurers, and the public perception of biomass as a safe fuel.
- Recent industry incidents — costly losses, operational setbacks, and lasting reputation damage to our industry
- Increasing regulatory and insurance scrutiny

We must move from reactive to proactive



THE RISKS ARE REAL

Key causes of self-heating and runaway pyrolytic combustion:

- Inconsistent pellet quality (moisture variability and excessive fines)
- Suboptimal operation of the dryer and insufficient cooling of the pellets
- Inadequate detection and suppression systems
- Being clueless to the risks of self-heating!

The consequences:

- Supply chain bottlenecks resulting in lost production time
- Millions in damages to critical assets in the supply chain
- Higher insurance premiums and difficulty obtaining coverage
- Regulatory interventions, NIMBYism, and potential permanent shutdown of major storage locations



ARE WE DOING ENOUGH?



Still work to be
done around
self-heating