DESCRIPTION OF EVENT

SHAVING BIN HAZARD

A pellet plant employee observed smoke coming from the planer bag-house area.

A fire started in Planer Bin #2 and quickly spread down the connecting pipe to Bin #1 that ties the two bag-house air spaces together at the top of the bins. This incident may have occurred due to deflagration from the hammer mill or in Planer Bin #2.

When the fire spread, Planer Bin #1 experienced a sudden and significant fire event that could be seen and heard across the plant site. Fine particulate material on top of Bin #1 ignited and fell onto the surrounding area.

The tops of both bins were on fire. A secondary fire started on and in the Planer Chip Bins and numerous small fires and smouldering started on the ground and on structures within a 150ft radius to the planer bins. It was observed the roof of Bin #1 was compromised and was partially hanging down inside the bin. The Emergency Response Plan (ERP) was activated and the fire department was dispatched. The event was contained and no workers were injured.

SUGGESTED ACTIONS

- Review bins and identify if there are shared bag-house airspace, any combustible dust hazard in one bin will be a risk to the second bin.
    - If bins are connected, ensure there is separation and isolation between bins.

- Inspect bins that they meet explosion venting standards.
    - Engage with qualified engineers when modifying bins and explosion venting.

- Review Preventative Maintenance procedures to ensure bearings are part of scheduled maintenance.
    - Consider putting bag-houses on the ground to allow for easier maintenance.
    - Consider implementing a Computer Maintenance Management Systems (CMMS) to schedule PM tasks, track completion of tasks, document inspection and work procedures.

MOST IMPORTANT TAKE AWAY

Review the CMMS system to ensure that all critical controls associated with process dust are identified on the work orders, critical controls as listed and are performed first as a safety priority.

Critical Controls defined: if all other controls fail the critical control will stop the event from happening. An operation wants their critical controls to be 100% fail-safe.

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