

SAFER OPERATIONS of Direct Heated Belt Dryers

Direct-heated belt dryers used in wood pellet plants present the risk of fire and deflagration that could arise from a range of conditions, including ignition sources entering the dryer through air intake, fibre infeed, or propagating from interconnected equipment.

FIVE STEPS OPERATORS AND WORKERS CAN TAKE TO ENHANCE SAFETY OF DIRECT-HEATED BELT DRYERS

- 1 MONITOR**
- 2 MAINTAIN**
- 3 PREVENT IGNITION SOURCES**
- 4 COMPLETE HOUSEKEEPING**
- 5 COMMUNICATE**



BC Forest Safety

Safety is **good** business

Safer Operations of Direct Heated Belt Dryers



FIVE STEPS OPERATORS AND WORKERS CAN TAKE TO ENHANCE SAFETY OF DIRECT-HEATED BELT DRYERS

1. **Monitor infeed contaminants** and remove contaminants using equipment such as scalping rolls and magnets to ensure clean feedstock enters the dryers. Loader operators should visually inspect incoming fibre loads for contaminants. If contaminants are observed in a load before it is dumped, consider putting the load aside to remove the contaminants before the fibre enters storage. Report contaminated loads from suppliers to your supervisor.
2. **Maintain infeed equipment** that removes contaminants by performing regular maintenance and preventative maintenance (PM).
3. **Prevent ignition sources** from entering the air intake and material infeed of both direct and indirect-heated belt dryers by implementing safety measures. For example, control potential ignition sources associated with hot work, such as the use of oxygen/acetylene torches and grinders on any equipment or conveyors, by following all safe work procedures and a hot work program.
4. **Complete housekeeping** by keeping areas clean and free of clutter, unused tools and equipment and accumulations of potential combustible wood dust and fuel. Inspect and clean dryer fans regularly to minimize buildup of fibre and, potential sparks. Complete regular visual inspections of burner chambers and heat shields, and include these inspections in a documented PM schedule.
5. **Communicate to your supervisor** any issues or contaminants in the dryer. Work with your supervisor to identify potential additional safety measures for your facility based on your experience. Implement safety measures with respect to the hierarchy of controls: consider inherently safer design (ISD) first, followed by passive engineered, active engineered, and lastly procedural (administrative).

**Your safety and the safety of your co-workers depends
on all safety equipment working 100% of the time!**



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