SAFE OPERATION

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 or fibre infeed, or propagating from interconnected equipment.

WPAC's report, *Safer Operation of Direct-Heated Belt Dryers*, provides important findings and recommendations addressing these risks.

SIX ACTIONS YOU CAN TAKE

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.

3. **Prevent ignition sources** from entering the air intake and material infeed of direct-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 fibre buildup and potential sparks. Complete regular visual inspections of burner chambers and heat shields, and include these inspections in a documented preventative maintenance schedule.

5. **If you see something, say something!** 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.

6. **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).