

Wood Pellet Association of Canada
Conference Ottawa Ont.
Sept 18-20, 2017.

WorksafeBC
A Different Approach to Compliance



History of CD explosions in BC



Babine Sawmill Burns Lake BC January 20, 2012



Lakeland sawmill Prince George April 24, 2012



Why a Wood Pellet industry initiative?

- Initially pellet industry was only 40% compliant CD.
- 15 penalties for CD and other violations over 3 yrs.
- CD Compliance rose to 90% by end of 2015.
- Violations observed in a number of different high risk areas.
- Fire and explosion incidents occurring.
- Health and safety programs with significant gaps.

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Why so many issues?

- Combustible wood dust is the raw material for making pellets not a waste stream
- Large quantities of combustible dust are delivered, stored, conveyed, dried and pressed into pellets
- Much of the conveyance is transported using ventilation systems
- Wood dust is dried down to 4-6 % moisture content as it's being processed.

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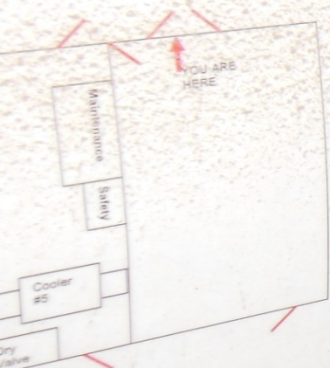
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MILPRO





or





Pellet Mill Initiative

- The Pellet Mill Initiative began with Pinnacle Renewable Resources creating a program called “Owning Safety” . This was developed in response to meeting their own OHS compliance issues.
- Pinnacle met with the WSBC to discuss their initiative and ask for help.
- Pellet mill initiative was created, and soon after in consultation with WPAC it was expanded to entire wood pellet mill industry (issues were basically recognized across the sector)
- The Pellet initiative was formed by WSBC assigning two dedicated Field Officers, Regional Prevention Manager, Assistant Director.



Pellet Mill Initiative - Scope

- WSBC Officers work primarily at location and corporate level, Manager and Director work with WPAC and BCFSC.
- Seven initial Elements in the Health and Safety Strategy
 - Combustible Dust
 - Confined Space Entry
 - Lockout
 - Safeguarding
 - Employee training and supervision
 - New and Young worker Orientation
 - Contractor Management



Pellet Mill Initiative



- Established regular conference calls with industry representatives/improved and consistent communication/transparency=trust .
- Baseline inspections of every pellet mill for the seven elements of the initiative/Where are we at
- Orders issued as needed and employers created action plans for compliance with all seven elements/communication of why and what needed to be done.
- Ongoing follow up inspections to ensure compliance and completion of action plan/regular sequential.
- Multiple inspections of three pellet mills under construction by Pellet team including local officers. (input into construction to avoid known challenges i.e. Confined space entry, CD bottle necks and High Risk operations and areas etc).

What was different in the Initiative?

- Significant buy in from employers and association.
- Consultation with employers was the initial stage of the process.
- Focus on open communication of issues between locations and employers/transparency and sharing of information.
- **Focus on building Safety Management Systems to foster sustainable compliance- *Key Goal***
- Partnership developed with WPAC and BCFSC.

Initial Results

- After baseline inspections there were some gaps identified
- No pellet mills had compliant confined space entry programs.
 - After initial problems the industry began to manage fugitive combustible dust more effectively.
 - Safeguarding audits were needed for all mills.
 - Inadequate contractor management for health & safety.

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Additional Issues Identified

- Synthesis gas (Syngas)
- Hot Surfaces
- Elevated work area rescue
- Ventilation system design
- Process Safety Management
- Standardized operator training
- Dry, indoor storage of combustible wood dust
- Silo Fire prevention and detection



Partnerships Developed

- WPAC – National industry association has adopted the seven elements as focus areas for the industry.
- BCFSC working with WPAC and WorkSafeBC on addressing risks from dry product storage buildings.
- WPAC developing standardized operator training model.
- RAU has projects on risks from syngas, silo fires and dust collection systems.
- 27 Officers received training from a third party on Bioenergy systems and syngas hazards.
- Industry training sessions hosted by WSBC on biomass system safety.

Results so far

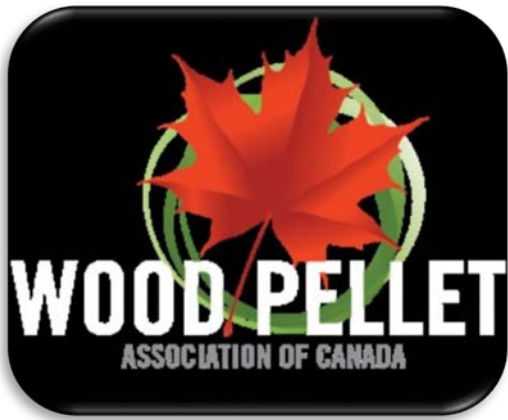
- ✓ Effective safety management system structures developed.
- ✓ Industry talking with one another about solutions.
- ✓ No combustible dust violations within the last year.
- ✓ Positive feedback from the pellet industry with requests to keep partnership going.
- ✓ Safeguarding improvements implemented.
- ✓ New Confined Space Entry hazard assessments, work procedures, and rescue plans developed for every location.
- ✓ New elevated work area risk assessments and rescue procedures in place.
- ✓ Industry/Regulator working groups identifying and working collaboratively towards solutions



Next Steps

- WSBC will continue to work with the sector and association to advance health and safety in the Pellet sector. The industry has been able to achieve a level of sustainable compliance with their SMS so as to allow us to re-deploy our resources and go to a monitoring and support role.





Thank you!

Questions?



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