

WPAC Conference

WPAC COMMITMENT TO GROWING SAFETY



Julie Griffiths
September 17, 2024

WPAC SAFETY COMMITTEE

- Established in 2014.
- Initial focus on combustible dust.
- Expanded to other occupational, health and safety matters, including lockout tagout, working at heights, confined spaces and process safety.
- Continuously progressive safety projects that reflect and respond to the needs of the sector.
- Work closely with WorkSafeBC and BC Forest Safety Council.



2014 -2023

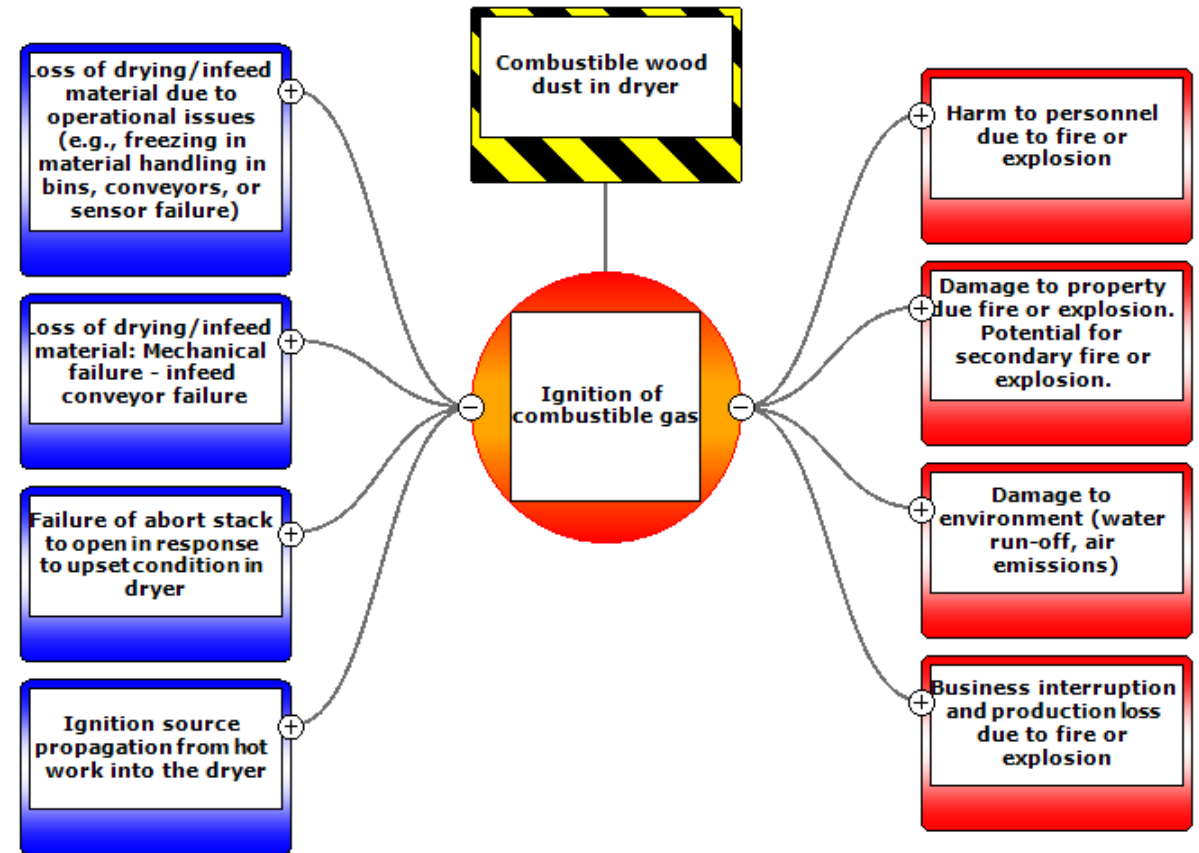


WPAC Safety
Committee
Initiatives

[One-Stop Safety Resource](#)

CRITICAL CONTROL MANAGEMENT (CCM)

- 1st significant PSM initiative
- Key outcomes:
 - Improved understanding of operational hazards and ensuring effectiveness of safeguards.
 - Bow tie analyses now developed for most plant processes.



Credit: Obex Risk, WPAC, BCFSC, Premium Pellet Ltd.

OTHER SUCCESSFUL INITIATIVES

- Inherently safer design (ISD)
- Belt dryer working group
- Deflagration isolation
- Combustible gas



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BC Forest Safety

OBEXRISK



WOOD PELLET



Inherently Safer Design (ISD) is based on four principles: Minimization, Substitution, Moderation, and Simplification.

- Minimization**
 Minimize horizontal surfaces where combustible dust can accumulate.
- Substitution**
 Consider alternate separators for foreign material removal that would be less likely to jam to reduce an ignition hazard.
- Moderation**
 Operate rotating elements, such as screw augers, below a tip speed of 1 m/s to prevent the generation of sparks and the dispersion and suspension of combustible dust clouds.
- Simplification**
 Design processes, processing equipment and procedures to eliminate opportunities for errors.

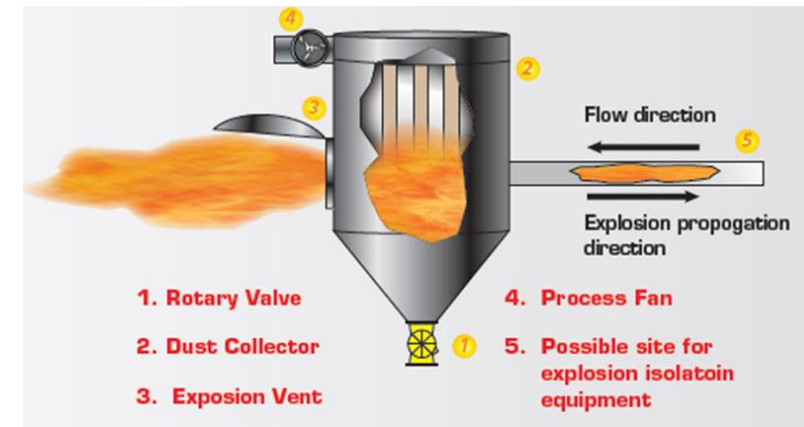
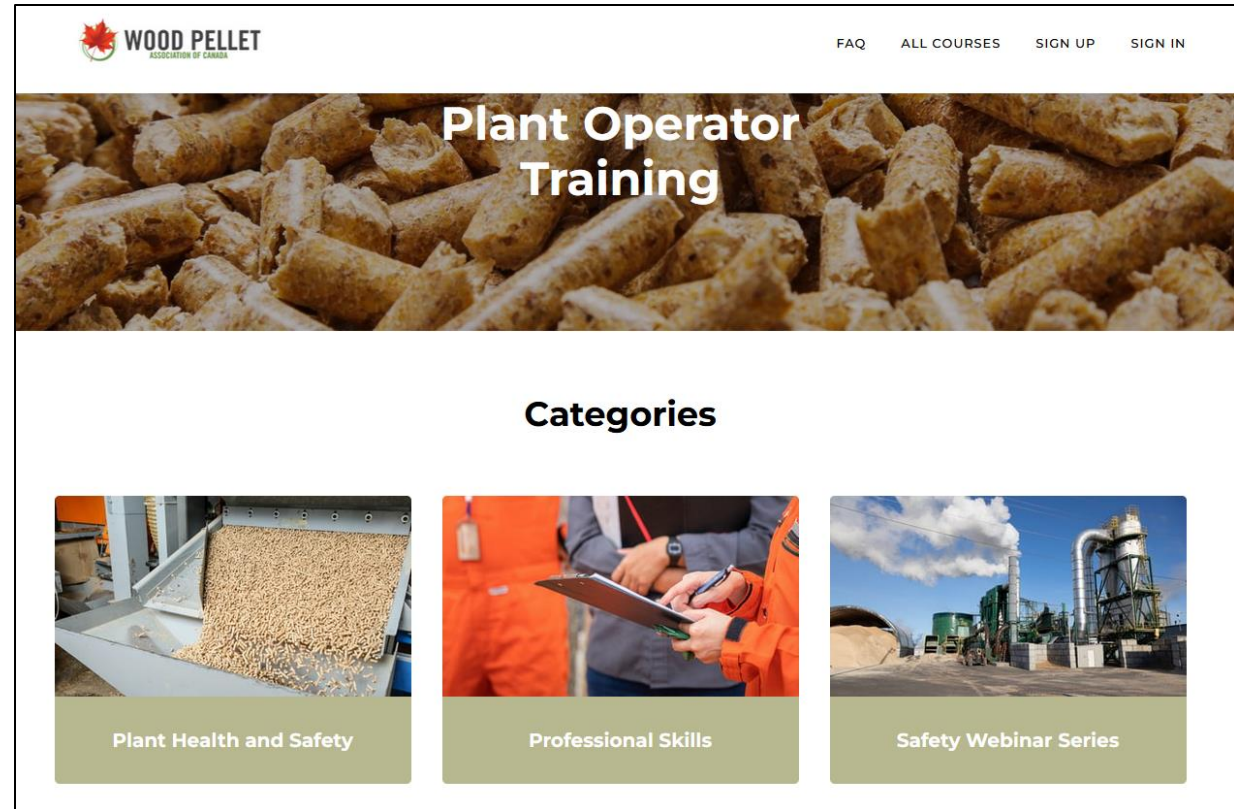


Photo Credit: CV Technology

Pellet.org/safety

ONLINE OPERATOR TRAINING PROGRAM

- Developed by operations for operations.
- Free state-of-the-art online learning platform with 17 modules for operators and supervisors.
- Webinar and factsheet to onboard new learners.



The screenshot shows the website for the Wood Pellet Association of Canada's online training program. The header includes the logo and navigation links: FAQ, ALL COURSES, SIGN UP, and SIGN IN. The main heading is "Plant Operator Training" over a background image of wood pellets. Below this is a "Categories" section with three tiles: "Plant Health and Safety" (showing a conveyor belt with pellets), "Professional Skills" (showing two people in orange safety gear looking at a tablet), and "Safety Webinar Series" (showing an industrial facility).

wpaclearning.com

PROCESS SAFETY MANAGEMENT (PSM)

- Application to the identification, understanding and control of process hazards to prevent process-related injuries and incidents
- Protects our facilities and people, access to affordable insurance, and our industry's reputation
- Next 5-7 years
- Established Steering Committee
- Tools and resources currently being developed

**This project was funded by WorkSafeBC under an Innovation at Work grant. The views, findings, opinions, and conclusions expressed herein do not represent the views of WorkSafeBC.*

PSM RESOURCES

PROCESS SAFETY MANAGEMENT: SUMMARY AND RESOURCES

Around the world, process safety management (PSM) is becoming central to worker safety and managing risk. PSM implementation protects personnel, equipment, and production uptime, and is associated with lower maintenance cost, insurance and capital.

The Wood Pellet Association of Canada (WPAC), BC Forest Safety Council (BSFSC), Dalhousie University, and DustEx Research Ltd., along with Obex Risk Ltd. as project technical lead, recently completed a research project to look at the implementation of PSM using the CSA Z767 Process Safety Management standard as the framework.

The recommendation from *Integrating Process Safety Management into Canadian Wood Pellet Facilities that Generate Combustible Wood Dust* is that the industry proceed with PSM implementation through a strategic long-term plan. It is anticipated this initiative will be a core focus of the WPAC Safety Committee Workplan for the next 5-7 years.

This summary of current resources has been developed to help support wood pellet operations implement PSM.

OVERVIEW OF PSM FRAMEWORK

CSA Z767 is a Canadian standard applicable to a Canada-based project and provides the opportunity to consider industry best practices based on the practices and standards developed by experts in a wide range of high-hazard industries.

PROCESS SAFETY MANAGEMENT ELEMENTS			
PROCESS SAFETY LEADERSHIP	UNDERSTANDING HAZARDS AND RISKS	RISK MANAGEMENT	REVIEW AND IMPROVEMENT
Accountability	Process knowledge and documentation	Training and competency	Investigation
Regulations, codes, and standards	Project review and design procedures	Management of change	Audits process
Process safety culture	Process risk assessment and risk reduction	Process and equipment integrity	Enhancement of process safety knowledge
Conduct of operations – senior management responsibility	Human factors	Emergency management planning	Key performance indicators



ONGOING SAFETY INITIATIVES

- Monthly Safety Committee meetings
- Drum dryer working group
- Semi-annual meetings with WSBC
- 2024 Wood Pellet & Bioenergy Safety Summit
- Safety hero



WPAC SAFETY COMMITTEE COMMITMENT

- Safer industry
- Greater cooperation across industry
- Improved reputation with public and regulators

pellet.org/safety



WOOD PELLET

ASSOCIATION OF CANADA