



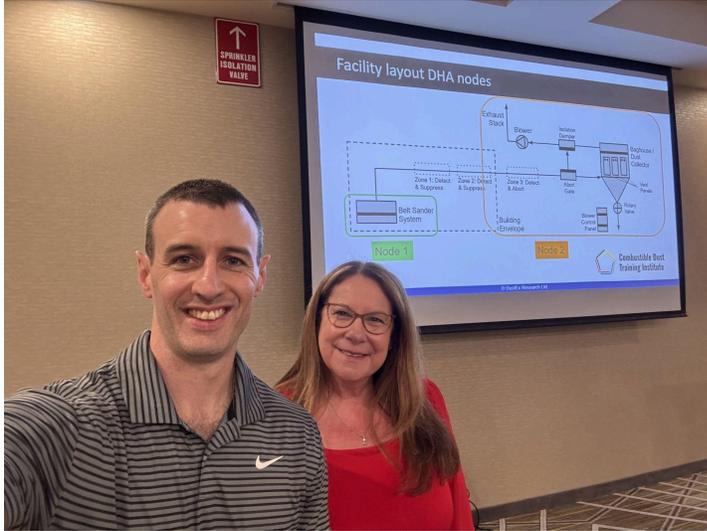
DESIGNING AND DELIVERING IMPACTFUL COMBUSTIBLE DUST SAFETY TRAINING

COMBUSTIBLE DUST
TRAINING INSTITUTE
Dust Explosion Safety Training. Better

Designing and Delivering Impactful Combustible Dust Safety Training — A Behind-the-Scenes Look at Our Recent BC Wood Processing Program

Last month, Michelle Murphy and I had the privilege of delivering our first in-person training as the newly formed Combustible Dust Training Institute — and what a powerful way to kick things off!

We were invited by the BC Forest Safety Council (BCFSC) to develop and deliver a custom combustible dust safety program for members of the Manufacturing Advisory Group (MAG) in British Columbia. This group included safety and operations personnel from wood products facilities, MAG auditors, and inspectors.



And our goal was clear:

👉 Equip these professionals with the practical knowledge, tools, and confidence to identify, assess, and manage combustible dust hazards in their facilities.

🔧 How We Designed the Program

We used the Understanding by Design (UbD) framework to guide the curriculum development — starting with the results we wanted to help participants achieve and working backward from there.

That meant:

- Clarifying *desired outcomes* (e.g., understanding hazard scenarios, evaluating safeguards, facilitating effective DHAs)
- Identifying *acceptable evidence* of learning (via quizzes and workshop presentations)
- Building a *learning plan* that moved from foundational concepts to hands-on application — all tailored to real-world operations in wood processing.

The result? A two-day classroom training followed by an on-site facility walkthrough with a powerful mix of instruction, collaboration, and application.



🧠 What We Covered

Over the three-day program, we covered:

- ✓ Foundations of combustible dust hazards — including NFPA standards, dust explosion mechanics, and hazard recognition
- ✓ Testing parameters (Pmax, KSt, MIE, MEC) and how they impact risk assessment
- ✓ DHA methodologies — like HAZOP, What-If, and risk-based vs. prescriptive approaches
- ✓ Group exercises and case studies that brought real scenarios to life
- ✓ Workshop simulations, where each group used a different DHA approach
- ✓ Management systems, including housekeeping, change management, and documentation
- ✓ Explosion prevention and mitigation strategies — from venting to suppression to isolation

✔ A live on-site walkthrough at a lumber mill, mapping hazards and applying DHA principles in the field

We wrapped up with a debrief, Q&A, and information on our Combustible Dust Specialist Certificate, which participants could complete online to achieve access to.



💡 A New Chapter for Our Institute

This was our first live training delivery since launching the Combustible Dust Training Institute earlier this year — and we're thrilled to share that two more site-based programs are now in the works:

- One with a coal processing company, and
- Another with a pharmaceutical manufacturer.

We're also continuing to grow our online certification programs, including:

- The Certified Dust Safety Professional™ program, and
- The Certified DHA Leader™ program.



👉 Want This for Your Team?

If your organization or company needs practical, expert-led training on combustible dust safety — tailored to your operations and industry — we'd love to help.

Email me at chris@dustsafety.com OR [request a consultation](#) and we'll explore whether you can join one of our upcoming sessions or book a custom training session for your team.

Let's build safer, smarter workplaces — one training at a time.

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Chris Cloney, PhD, PEng

*Managing Director, Dust Safety Science
Co-Founder, Combustible Dust Training Institute*