Combustible dust winter alert — increased risk in winter

The risk of a dust explosion increases when low humidity levels, like those seen in winter months, make dust easy to disperse and ignite. In fact, industrial accident investigations by the U.S. Chemical Safety Board found that seven out of eight fatal combustible dust explosions from 1995 to 2009 occurred during cold winter months when these weather conditions were most prominent.

One of the two tragic sawmill incidents in British Columbia occurred in the middle of winter, the second occurred in early spring.

A number of changes can commonly occur in wood processing facilities as the weather becomes colder.

- Control measures and clean up practices that rely on the use of water may not be suitable or effective
- Openings such as bay doors and wall dampers may be closed up increasing the degree of enclosure and reducing natural ventilation or make up air
- Ventilation may be reduced or shut down to conserve heat
- Re-circulation of air from exhaust systems may also increase
- Portable heating units potentially introduce additional ignition sources into workspaces

Going into the winter months it is important to maintain attention on controlling the risks associated with combustible dusts. Employers need to assess for any additional risks associated with the impact of the environment on dust accumulations and the methods used to control dust in the winter.