

WorkSafeBC Incident Investigation Report overview — Babine Forest Products Ltd

Richmond, B.C., January 16, 2014 —WorkSafeBC is releasing its [Incident Investigation Report](#) (IIR) into the cause and underlying factors that led to 2 deaths and 20 injuries in a catastrophic fire and explosion at this mill on January 20th, 2012.

The Incident Investigation Report is made public following meetings with the families of the deceased workers and injured workers from 10.00 a.m. today, January 16th 2014, to provide them with the information in the report. We recognize that the families and workers most affected by this tragedy have waited considerable time for this report and again we express our sorrow for the losses and injuries that they have suffered.

An IIR provides analysis and conclusions with regard to cause, as well as information on the underlying factors of an incident. An IIR does not address enforcement.

The IIR makes short statements regarding Scope and Synopsis. The remainder of the Report is organised in four sections: Factual Information; Analysis; Conclusions; Health and Safety Action Taken.

IIR Scope: The Report addresses cause and underlying factors. The report does not address issues of enforcement.

IIR Synopsis: During the afternoon shift on January 20th, 2012 there was an explosion at the Babine Forest Products Ltd. sawmill. A large fireball burst through the roof of the northeast side of the mill, while the explosion travelled east to west through the operating and basement levels. Fire spread through the premises, completely destroying the mill. Two workers were killed in the fire and explosion and twenty others were injured.

IIR Factual Information: This sawmill, located on First Nations land, was acquired by Hampton Affiliates in 2006. Hampton holds an 89% interest and the Burns Lake Native Development Corporation holds 11%. Information is provided on the workforce, sawmill layout, work process, the dust collection system, spark detection system and other wood dust accumulation prevention measures. The final comments in this section relate to the sequence of events in the months, weeks and days before the incident, along with a description of the event itself.

IIR Analysis: Analysis of the incident addresses:

- The cause of the incident: an explosion that resulted in fires in various areas of the sawmill
- How the various components required for an explosion were present in the sawmill
- The progression of the explosion and fires
- An analysis of the deaths of the Lead Hand and the Cut-off Saw Operator based on the evidence at the scene
- Changing conditions at the sawmill that may have contributed to the incident
- Previous incidents — including a BC Safety Authority investigation into a dust explosion and significant fire on February 23rd, 2011
- WorkSafeBC involvement with Babine Forest Products

The Investigator asks: Was this a preventable incident and states that it was, in that:

- There was knowledge that the dust collection system was under-sized
- An electrical upgrade to accommodate this was challenging to Babine but there were no reductions in production while an upgrade was planned and production increased

- Four of the components required for a wood dust explosion were not controlled — containment, ignition, dust as fuel and dispersion of dust. (The fifth component is oxygen.)
- There was considerable investment in upgrading production capability and improving the dust management system by opening floors, pressurizing the MCC panels and improving the waste conveyor system
- Some work had been done on the sawmill dust collection system and extra clean-up efforts were made following the February 23rd, 2011 explosion and fire
- Moving the collection ducting from trim saws and edgers to the bandsaw and debarkers meant some areas had no dust collection
- No adequate actions were taken to reduce or control the levels of airborne wood dust even though this was the root cause of the violation cited in December 2011
- Effective action should have been taken to control airborne dispersion of dust and excessive accumulation on floors and surfaces

IIR Conclusions: The report concludes that all of the elements for a wood dust explosion were present and addresses:

- The concentration of dispersed wood dust in the air
- Friction within the motor-reducer V-belt guard as an ignition source
- Ineffective wood dust control measures
- Ineffective inspection and maintenance of a solid guard at the motor reducer assembly's location
- Conditions of the wood and the effect of weather
- Waste conveyor configurations that increased airborne wood dust; and a volume of coarser wood dust and debris that exceeded the capacity of the waste conveyor system
- Inadequate supervision of clean-up and maintenance staff

IIR Health and Safety Action Taken: The IIR notes actions taken by WorkSafeBC and Industry at the time of the Babine and Lakeland incidents. A more current update on actions taken is provided on worksafebc.com.

Current Inspections: Officers announced sites would be inspected from November 2013 through to the end of January 2014. A dedicated team of ten officers is conducting inspections of 146 sawmills. To date, 131 sawmills have been inspected; 86 orders have been written; 12 stop work orders have been issued; 3 warning letters have been issued and 19 penalties are under consideration. On completion of this third round of inspections information will be posted on worksafebc.com.

Next Steps

WorkSafeBC officers are currently considering enforcement action under the authority of the *Workers Compensation Act* in regard to Babine Forest Products. Any orders or penalty orders issued are provided first to the employer and to employer's counsel.