



BC Forest Safety

Safety

Manufacturing Fire Burnt Wood Fibre



FPInnovations

MAG

Manufacturing Advisory Group

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Mill Environment

- Processing burnt wood in sawmills creates upset conditions in all aspects of mill operations.
- Negatively impacts the performance of all departments:
 - Safety, Quality Control, Maintenance, Saw filing, Clean up and Operations.
- Employees could experience changes in:
 - Their schedules
 - Their regular assigned duties
 - May have to learn new procedures such as wearing PPE.
- Operations may experience negative impact in productivity and LRF causing employees to believe that saving time is most important.

Clean up

- Employees may need to wear PPE such as masks, filters, coveralls, sealed eye wear.
- Combustible dust analysis may be required.
- Cleaning programs may need to be modified.
- Burnt wood dust still has fuel content.
- Carbon dust is electrically conductive.
- Air quality may need to be analyzed to identify hygiene hazards.
- Characteristics of sawdust may change with respect to moisture content.
- Sawdust chips could be smaller and fugitive dust can be transported farther by air.
- Electrical cabinets that aren't pressurized or fully sealed will need more cleaning.
- Frequency of air filter changes increases.

Saw Filing

- The standard run time of the saws and knives could be negatively affected.
- There may be an increase in the time required to sharpen saws and knives in the shop.
- Filers could see an increase in the frequency of handling of saws and knives or start doing jobs they aren't used to.
- Saws and knives will wear more quickly.
- More scheduled saw and knife changes may be required.
- Fire hardened wood takes more power to cut, as such entry feed speeds may need to be adjusted to protect the saws and knives.
- Air pressure on press rolls may require adjustment to provide more hold back when cutting fiber.

Maintenance

- Increase in upset conditions at the debarker from trying to scrape off the charred fire burned wood (broken knives, broken logs).
- Unsealed and non-pressurized electrical cabinets may become contaminated with carbon dust which is electrically conductive.
- Increase in oiling or greasing rates may be required to prevent contamination on moving or rotating parts.
- Carbon dust is abrasive and as such the wear rate could increase for consumable parts such as chain or wear strip for example.

Operations

- Black and charred wood may not be scanned correctly by lasers causing miss manufacturing or upset conditions.
- Increase in frequency of material handling and cross ups due to chunks and breakage on lumber decks.
- Operators such as the graders or stacker may find higher volumes of lower grade wood needing processing.
- More wood fiber could be going to chips – increase in chip production.
- More wood fiber could be going to the hog – increase in hog production.

Solutions

- Remove the charred wood at the debarking process.
- Apply tarps around machine centers that produce dust such as the debarker to improve containment.
- Adjust clean-up schedules as required to control fugitive wood dust accumulations.
- Adjust filing and maintenance schedules to maintain uptime and machine performance.
- Wet logs before debarking so dust does not become airborne.
- Add dust extraction system to debarker.
- Water mist air for machine centers that produce sawdust, so the dust does not become airborne.
- Pressurize and seal electrical cabinets.
- Revise housekeeping schedules to minimize fugitive dust accumulations.
- Remind employees to take the time they need to stay safe.

For further details or support
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Contact me if you have requests for Crew Talk,
Training or Workshop topics.

