Creative Ideas and Solutions

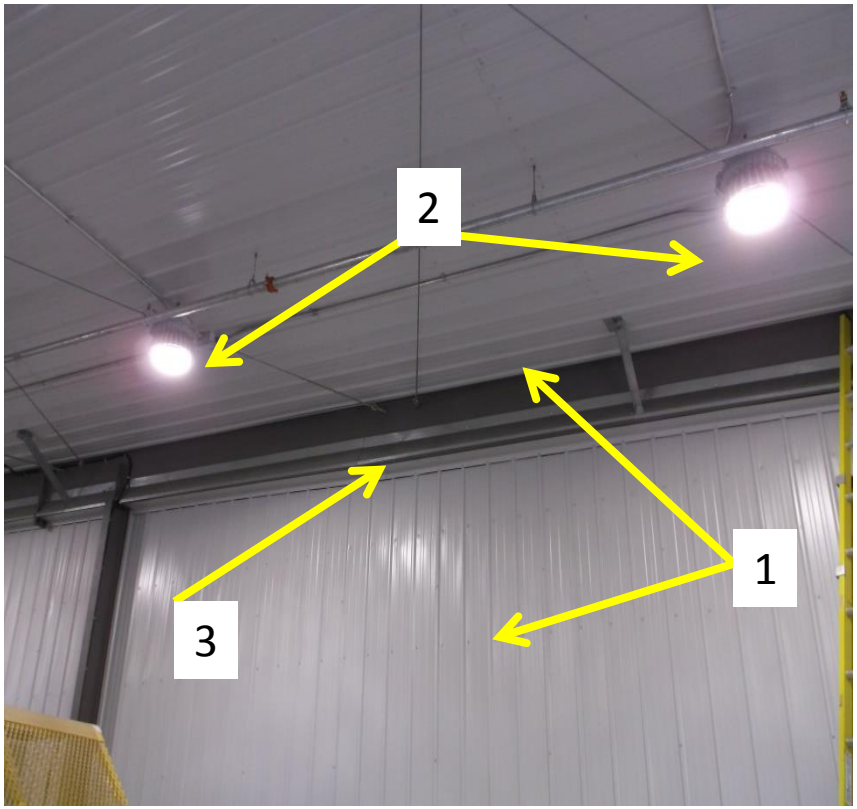
Pictures taken at

SHARP Member Operations

New Construction

This is new construction at a planer.

1. Notice the walls are all cladded as well as the celling.
2. New LED lights are installed
3. The exposed I-beam has had tin sheeting added at a 60^{o} angle to prevent dust settling on the flat surface.



New Construction

- This picture is a closer look at the I-beam with the tin cladding to prevent dust accumulations on the beam.

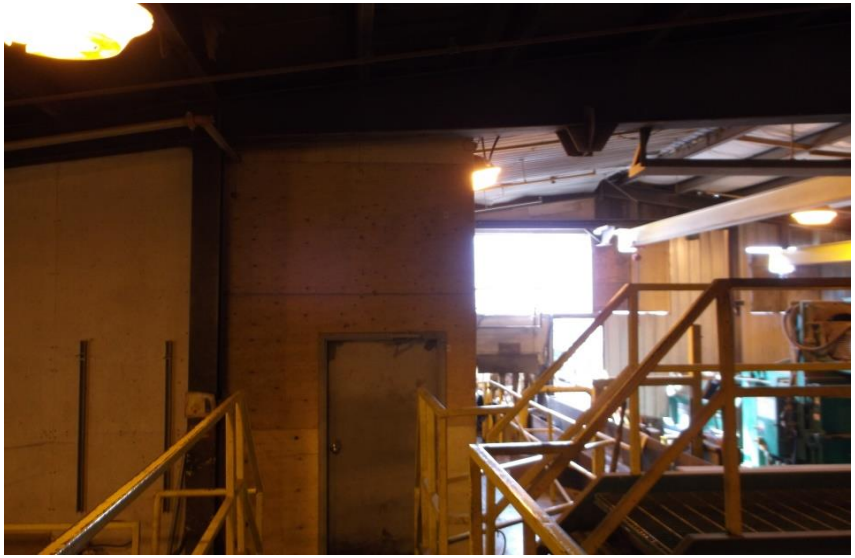
Electrical

- This room was built around the MCC's and VFD's that are located here.
- The room has vents with fresh air that is blown into the room to pressurize the room.
- The exterior walls and roof are cladded allowing easy clean up.

Electrical

- This is the interior of the electrical room the walls of the room are filled with insulation the walls are sheeted with fire proof drywall and are painted with a fire resistant paint. The room is sealed to prevent dust from entering.

Electrical



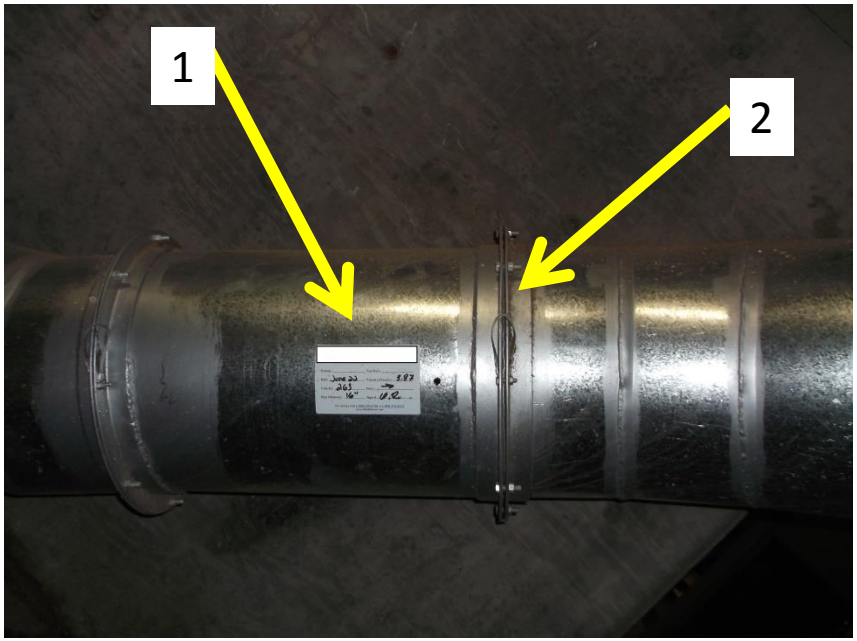
- These MCC panels are in the debarker area, there was always substantial dust accumulations in these panels. The mill built a room around the panels and extended it up to the ceiling to prevent dust from settling on the roof.

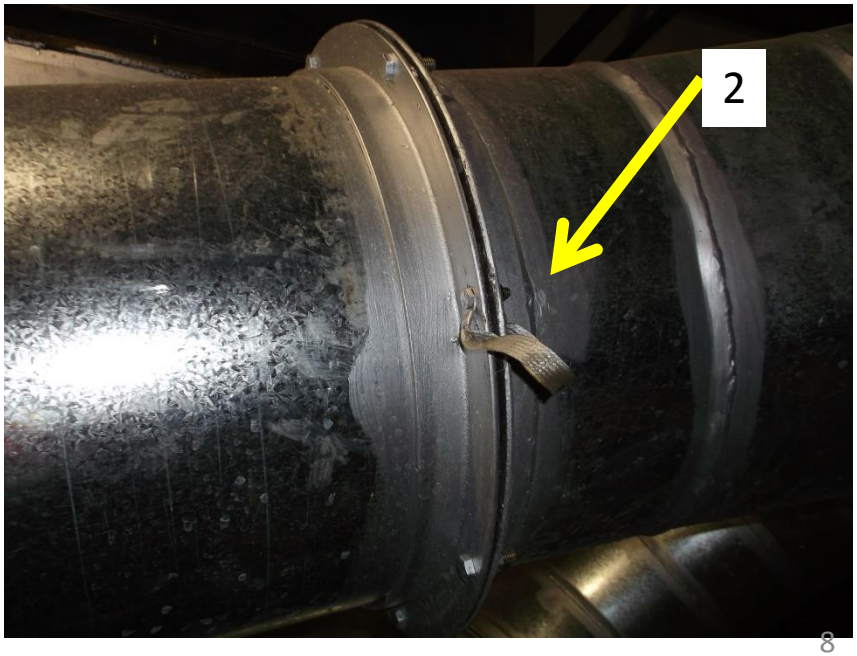
Electrical

- The photo on the left is of the area where the MCC cabinet on the right was located this is a dusty area the wall fan pulls dust to this area. This cabinet would require cleaning almost weekly by relocating it away from this location the frequency for cleaning is substantially reduced.

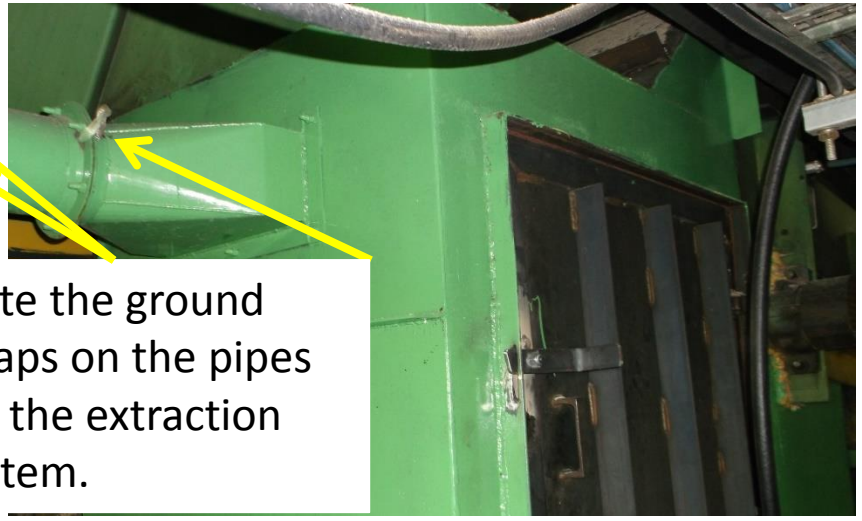
Ventilation

- This is a newer ventilation pipe that has (1) labeled air velocity test hole. The label has the direction of air flow and the velocity of the air flow. (2) All the joints have ground straps as well.

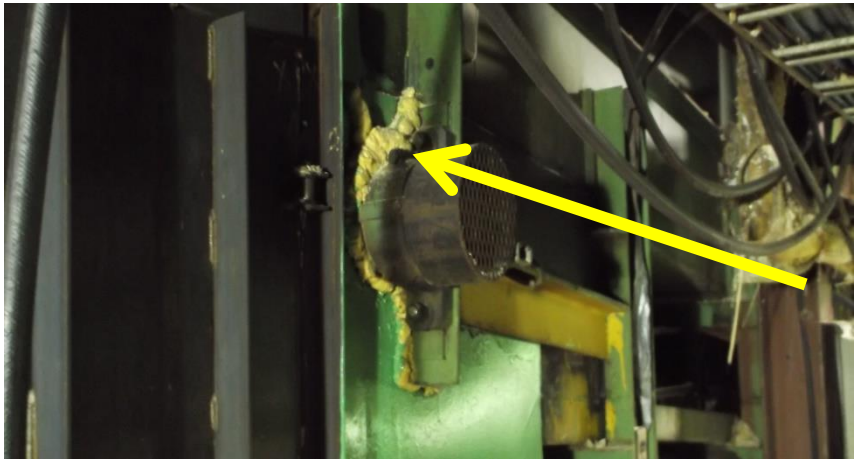




Ventilation

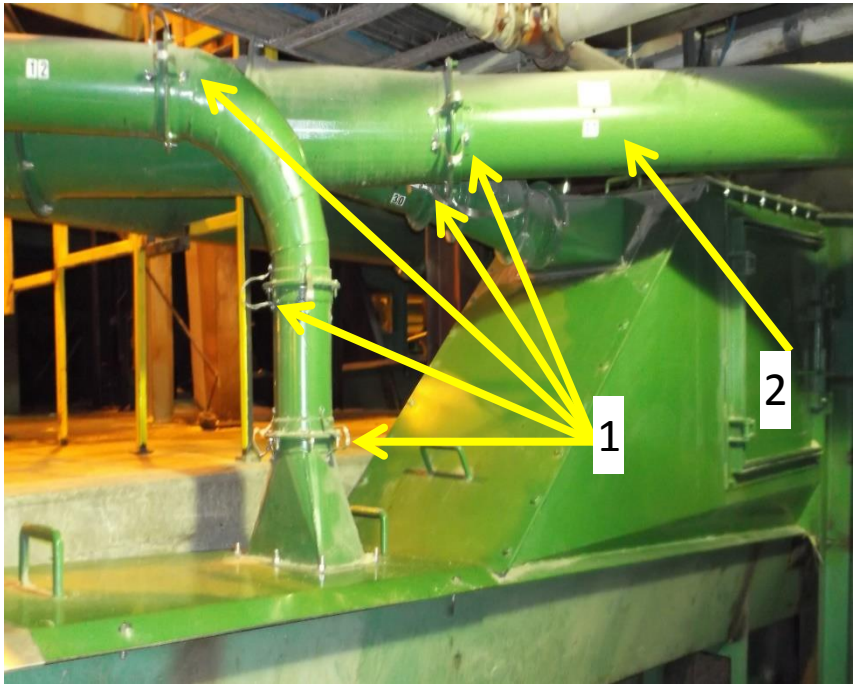


Note the ground straps on the pipes for the extraction system.



- These transition points between conveyors have been sheeted in and ventilation has been added to remove any airborne dust. The opening through the sheeting for the shaft has been sealed with foam to prevent dust escaping.

Ventilation



- These are pictures taken of a conveyors it has been covered and ventilation is added to remove the air borne dust inside the conveyor. The covers are bolted down. The ventilation pipes have ground straps (1) and there is a test hole for air velocity (2).

Lighting

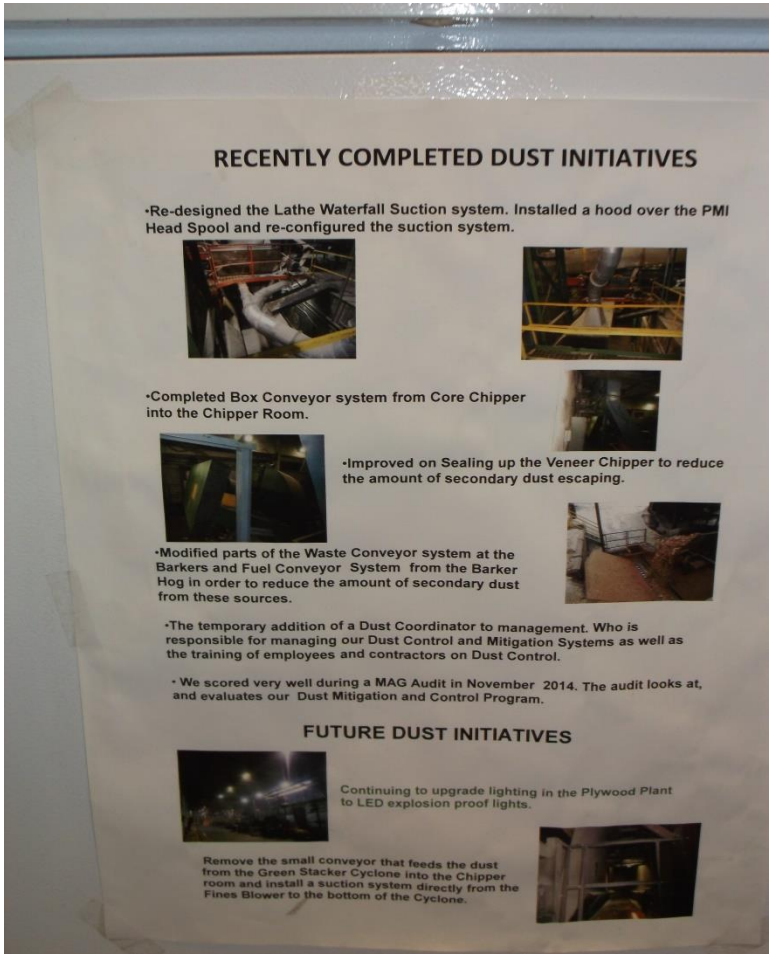
- The lighting in the mill is being changed to LED this is much brighter and the units are sealed to prevent dust from enter into the fixture.

Lighting / Storage

- This is the basement area of the mill.
- Several things to notice here.

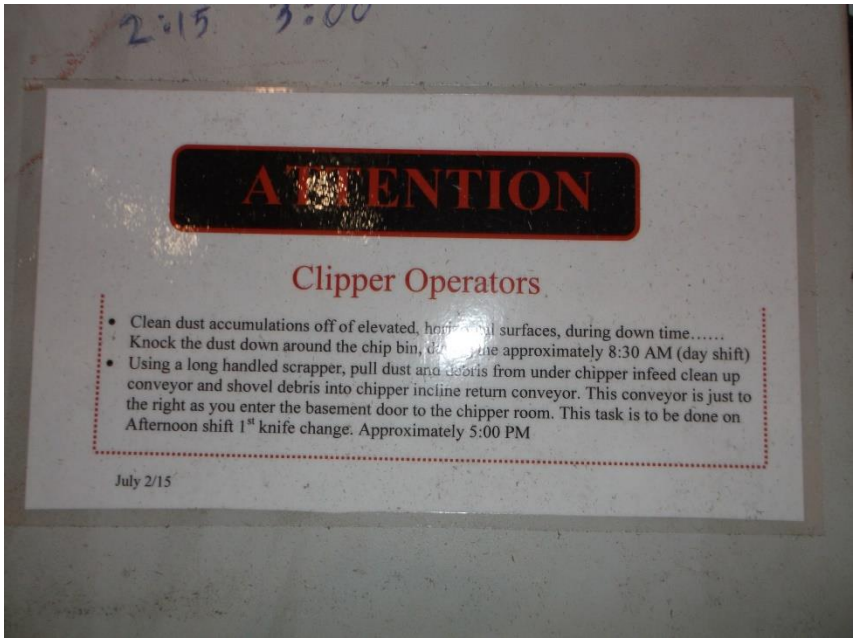
1. Very well lite area.
2. Walls are cladded
3. Shelving is neatly organized.

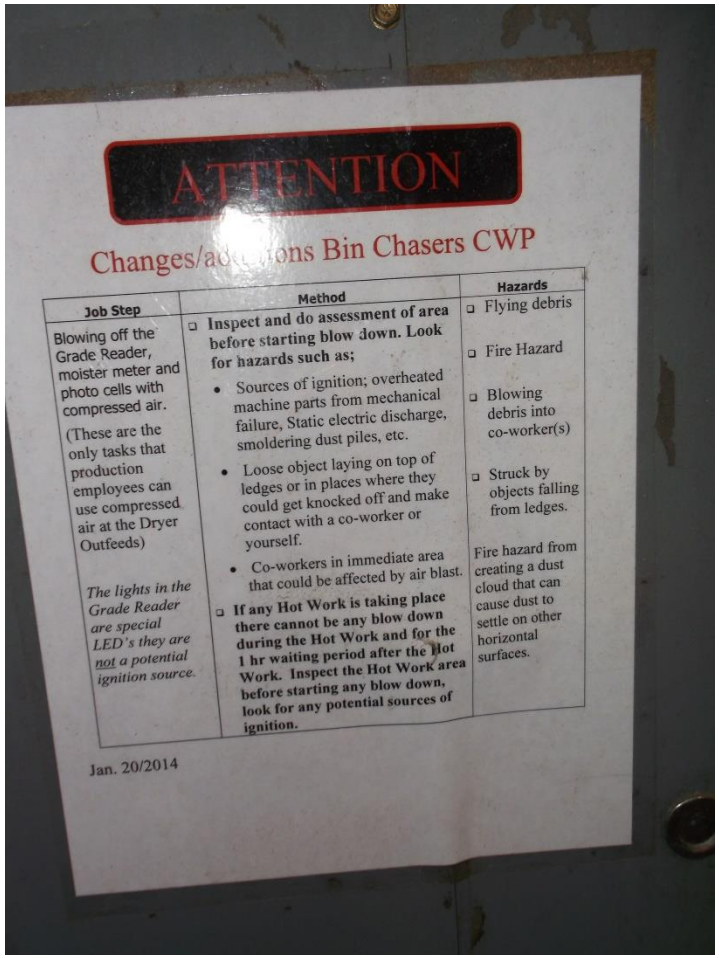
Dust Safety Information



- This was posted in the lunchroom this is a great communication tool to remind the employees what has been completed to date but more importantly that there is ongoing work for dust control. This reminds the employees that dust is still a major safety concern.

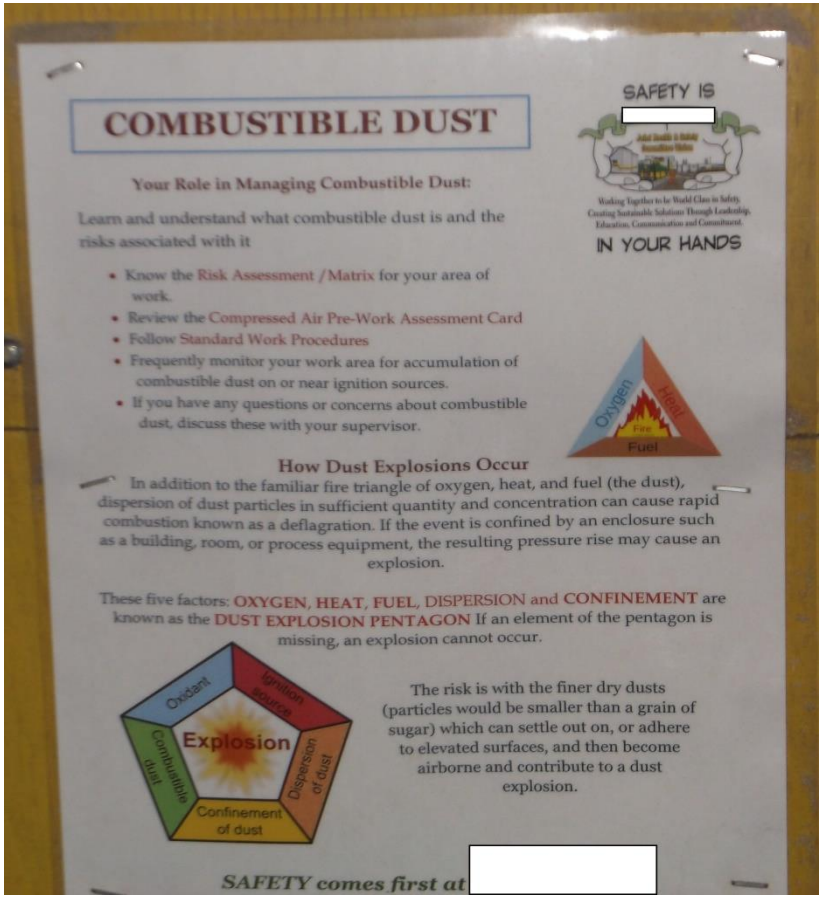
Dust Safety Information

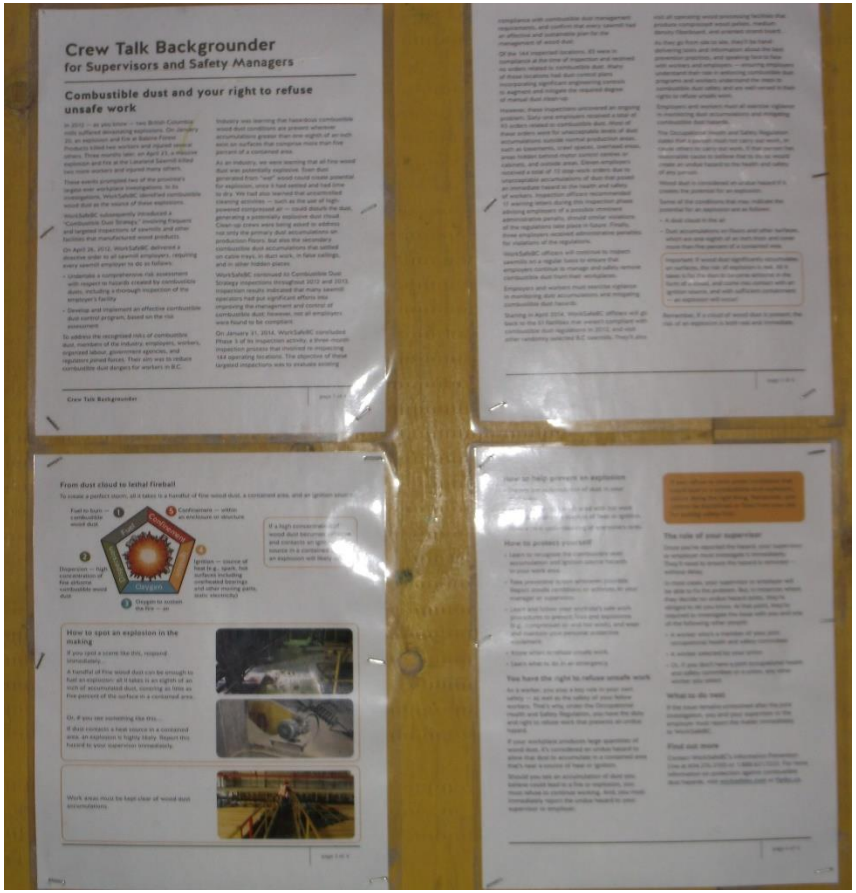




- These are notices posted at work stations related to dust and clean up. These notices direct the operators for specific tasks during the day.

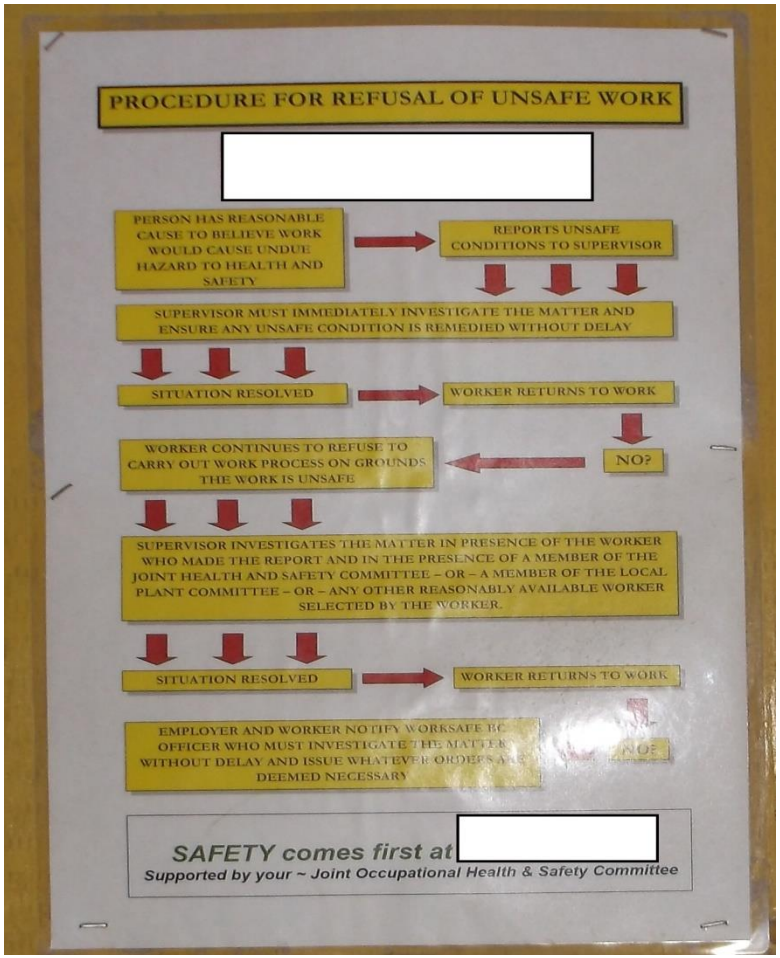
Dust Safety Information





- Combustible dust information is posted in the lunchrooms as well as on the mill floor.

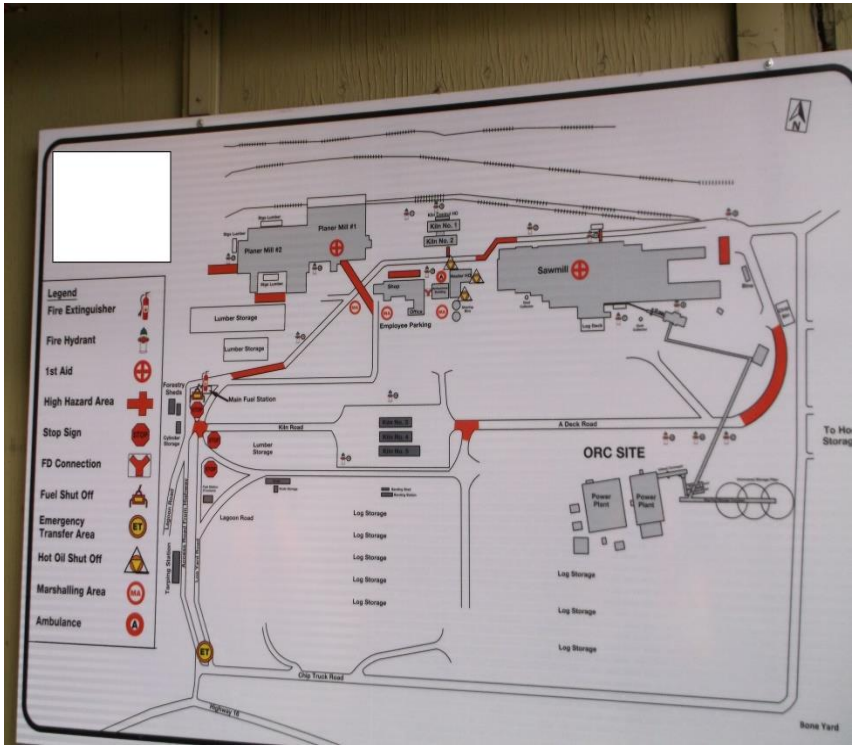
Dust Safety Information



- This is the procedure for Refusal of Unsafe Work it is posted in all the lunchrooms at the mill. It is posted with all the combustible dust information. I think it very important to have this procedure posted for a workers to see.

Site Plans and Building Fire Plans

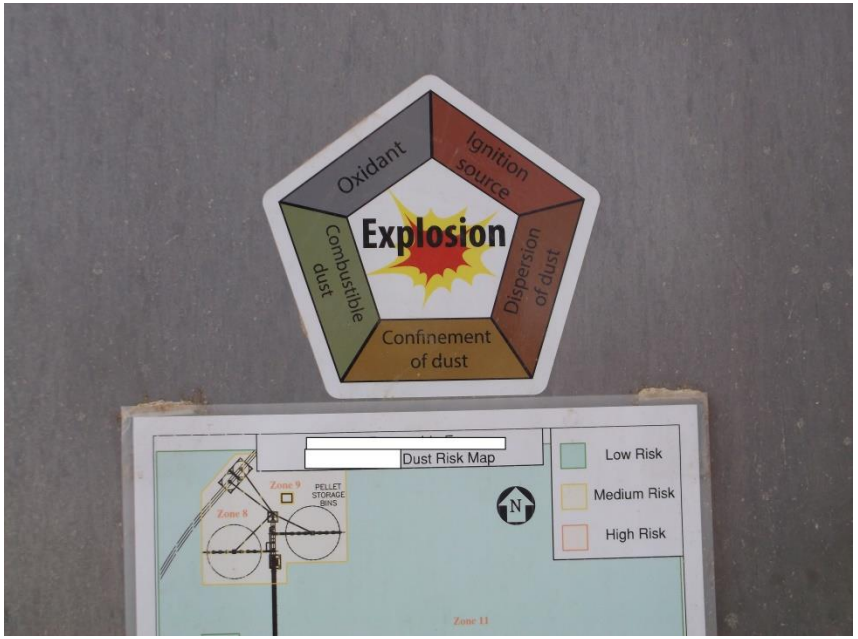
- This is the site plan for this mill this is located at all the main entrances for the buildings. This is on a 4’ x 6’ piece of corrugated plastic. Because of the size it is very noticeable it draws your attention and it is very easy to get your bearings.

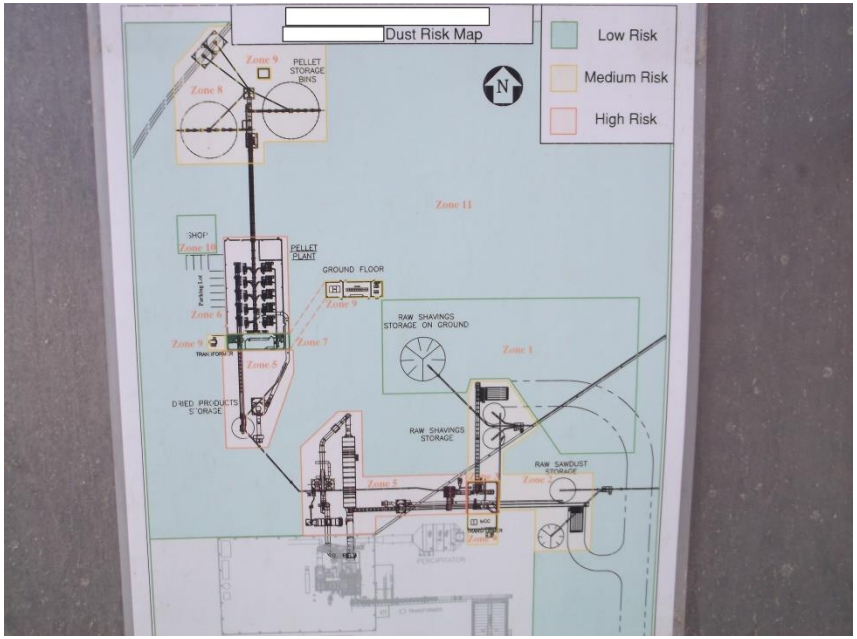


Site Plans and Building Fire Plans

- Large copy of the site fire plan posted at each lunchroom. There is a poster of all the hot work box locations for all the areas of the mill the boxes are identified on the map. Hot work permits are available at the sawmill and planer. They are filled out a copy is left at the board and a copy is taken to the work location and put in the hot work box designated for that work area.

Site Plans and Building Fire Plans

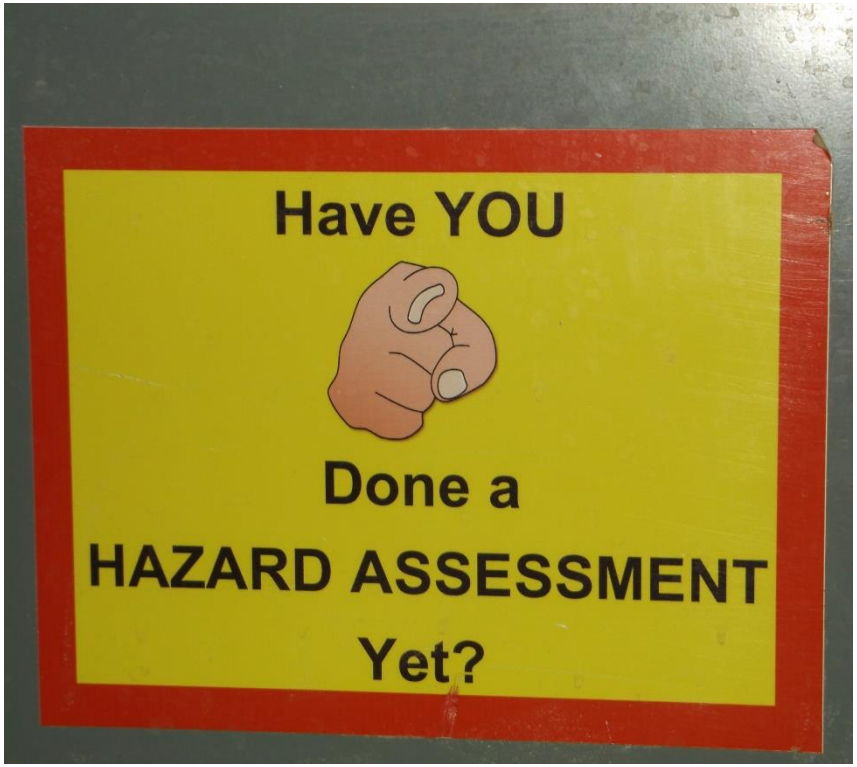


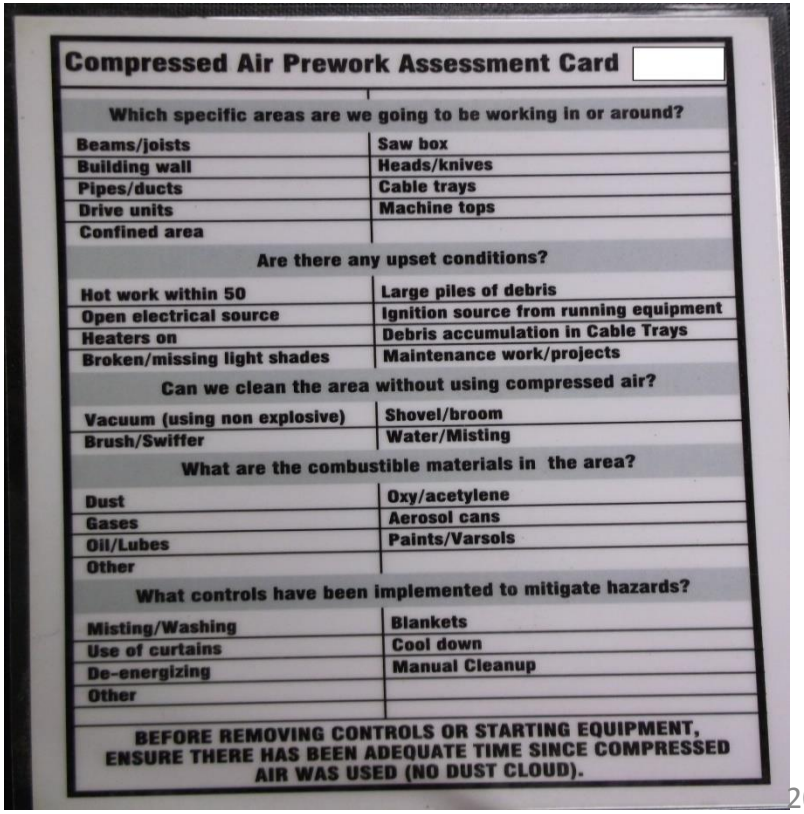


- This is posted in all areas of the plant the dust explosion pentagram and a site map of the plant identifying Low, Medium and High Risk Location of the plant for combustible dust.

Dust Hazard Assessment

- Simple reminder for Hazard Assessments posted throughout the mill.
- Laminated Compressed Air pre-work assessment posted in mill for things to be aware of before compressed air use.





Compressed Air Prework Assessment Card

Which specific areas are we going to be working in or around?	
Beams/joists	Saw box
Building wall	Heads/knives
Pipes/ducts	Cable trays
Drive units	Machine tops
Confined area	
Are there any upset conditions?	
Hot work within 50	Large piles of debris
Open electrical source	Ignition source from running equipment
Heaters on	Debris accumulation in Cable Trays
Broken/missing light shades	Maintenance work/projects
Can we clean the area without using compressed air?	
Vacuum (using non explosive)	Shovel/broom
Brush/Swiffer	Water/Misting
What are the combustible materials in the area?	
Dust	Oxy/acetylene
Gases	Aerosol cans
Oil/Lubes	Paints/Varsols
Other	
What controls have been implemented to mitigate hazards?	
Misting/Washing	Blankets
Use of curtains	Cool down
De-energizing	Manual Cleanup
Other	

BEFORE REMOVING CONTROLS OR STARTING EQUIPMENT, ENSURE THERE HAS BEEN ADEQUATE TIME SINCE COMPRESSED AIR WAS USED (NO DUST CLOUD).