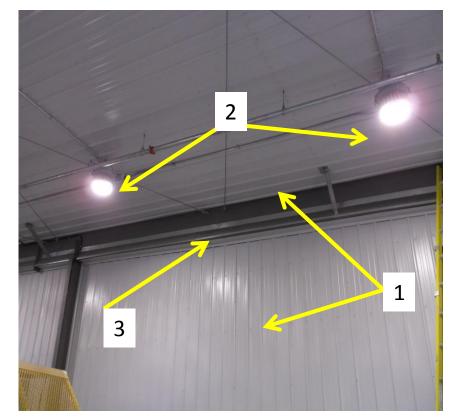
Creative Ideas and Solutions

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
- The exposed I-beam has had tin sheeting added at a 60° 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.

- 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.





 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.



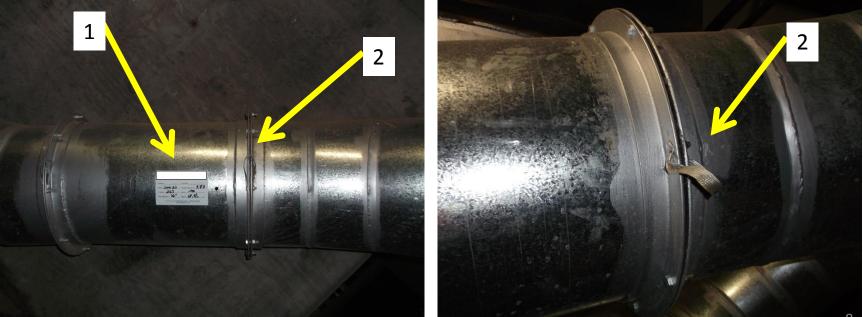
These MCC panels are in the debarker area, there was always substantial dust accumulations in these panels. The mill built a room around the panels and extended it up to the ceiling to prevent dust from settling on the roof.



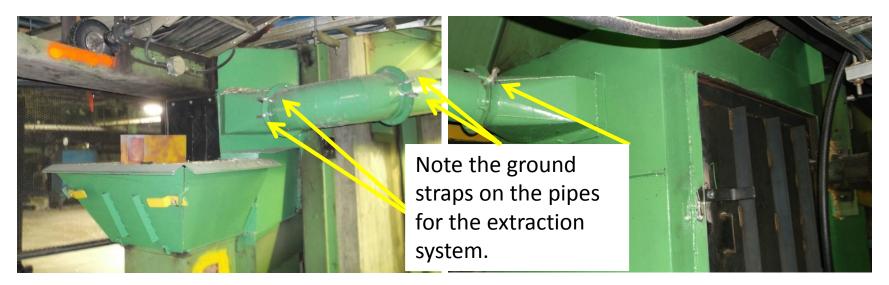
 The photo on the left is of the area where the MCC cabinet on the right was located this is a dusty area the wall fan pulls dust to this area. This cabinet would require cleaning almost weekly by relocating it away from this location the frequency for cleaning is substantially reduced.

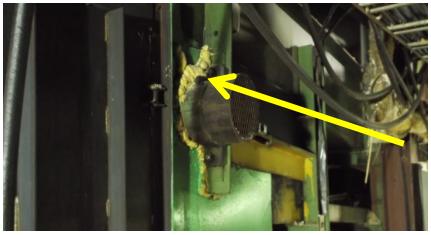
Ventilation

• 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





 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.



 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.

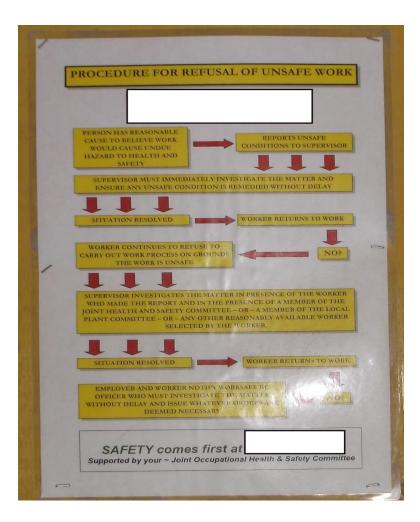
	The second s
1	AMENTION
	Clipper Operators
	Clean dust accumulations off of elevated, here and surfaces, during down time Knock the dust down around the chip bin, down the approximately 8:30 AM (day shift)
	 Using a long handled scrapper, pull dust and doi's from under chipper infeed clean up conveyor and shovel debris into chipper incline return conveyor. This conveyor is just to the right as you enter the basement door to the chipper room. This task is to be done on Afternoon shift 1st knife change. Approximately 5:00 PM
	conveyor and shovel debris into chipper incline return conveyor. This conveyor is just to the right as you enter the basement door to the chipper some This to be based on the transformer and the source of the chipper some the source of the chipper source the source of the chipper sourc
	conveyor and shovel debris into chipper incline return conveyor. This conveyor is just to the right as you enter the basement door to the chipper room. This task is to be done on Afternoon shift 1 st knife change. Approximately 5:00 PM

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

Job Step	Inspect and do assessment of the before starting blow down. Look	Hazards Flying debris
Grade Reader, moister meter and photo cells with compressed air. (These are the only tasks that production	for hazards such as; Sources of ignition; overheated machine parts from mechanical failure, Static electric discharge, smoldering dust piles, etc. Loose object laying on top of ledges or in places where they	 Fire Hazard Blowing debris into co-worker(s) Struck by
employees can use compressed air at the Dryer Outfeeds) The lights in the	 could get knocked off and international contact with a co-worker or yourself. Co-workers in immediate area that could be affected by air blast. 	objects falling from ledges. Fire hazard from creating a dust cloud that can
Grade Reader are special LED's they are not a potential ignition source.	If any Hot Work is taking place there cannot be any blow down during the Hot Work and for the 1 hr waiting period after the Hot Work. Inspect the Hot Work area before starting any blow down, look for any potential sources of ignition.	cause dust to settie on other horizontal surfaces:
Jan. 20/2014		and the



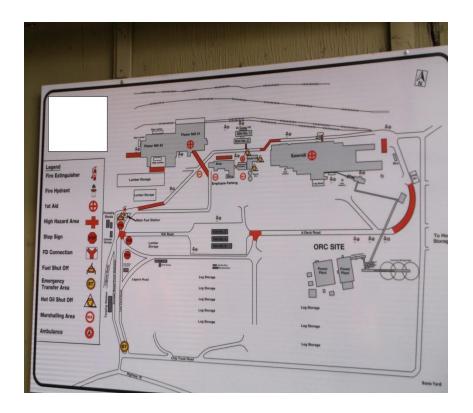
Combustible dust information is posted in the lunchrooms as • well as on the mill floor.



 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.

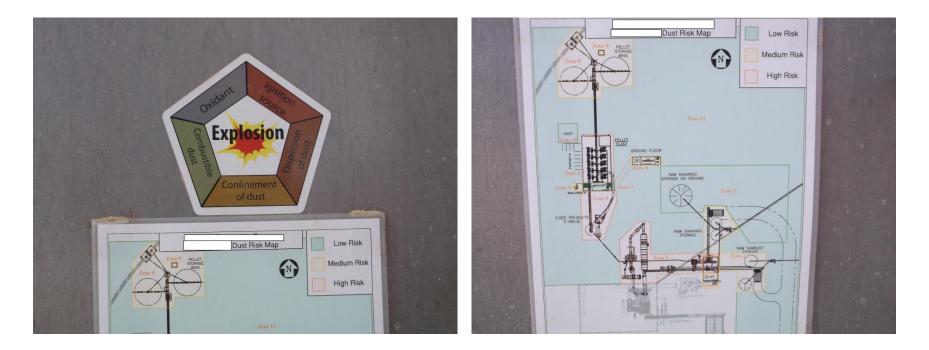


Site Plans and Building Fire Plans



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.



Which specific areas are w	e 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 a	ny 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 Vacuum (using non explosive)	a without using compressed air? Shovel/broom	
Brush/Swiffer	Water/Misting	
What are the combi	ustible 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		