

An aerial photograph of a large industrial construction site. The central focus is a complex of yellow and white buildings with dark roofs, surrounded by extensive construction equipment, including excavators, trucks, and piles of materials. A large green conveyor system is visible, extending from the buildings across the site. The ground is mostly dark and muddy, with some areas of green grass. In the background, there are more industrial structures, a railway line with freight cars, and a residential area with houses and trees. The sky is clear and blue.

# Lakeland Mills Ltd.

Dust Mitigation Measures  
Sawmill Rebuild Project

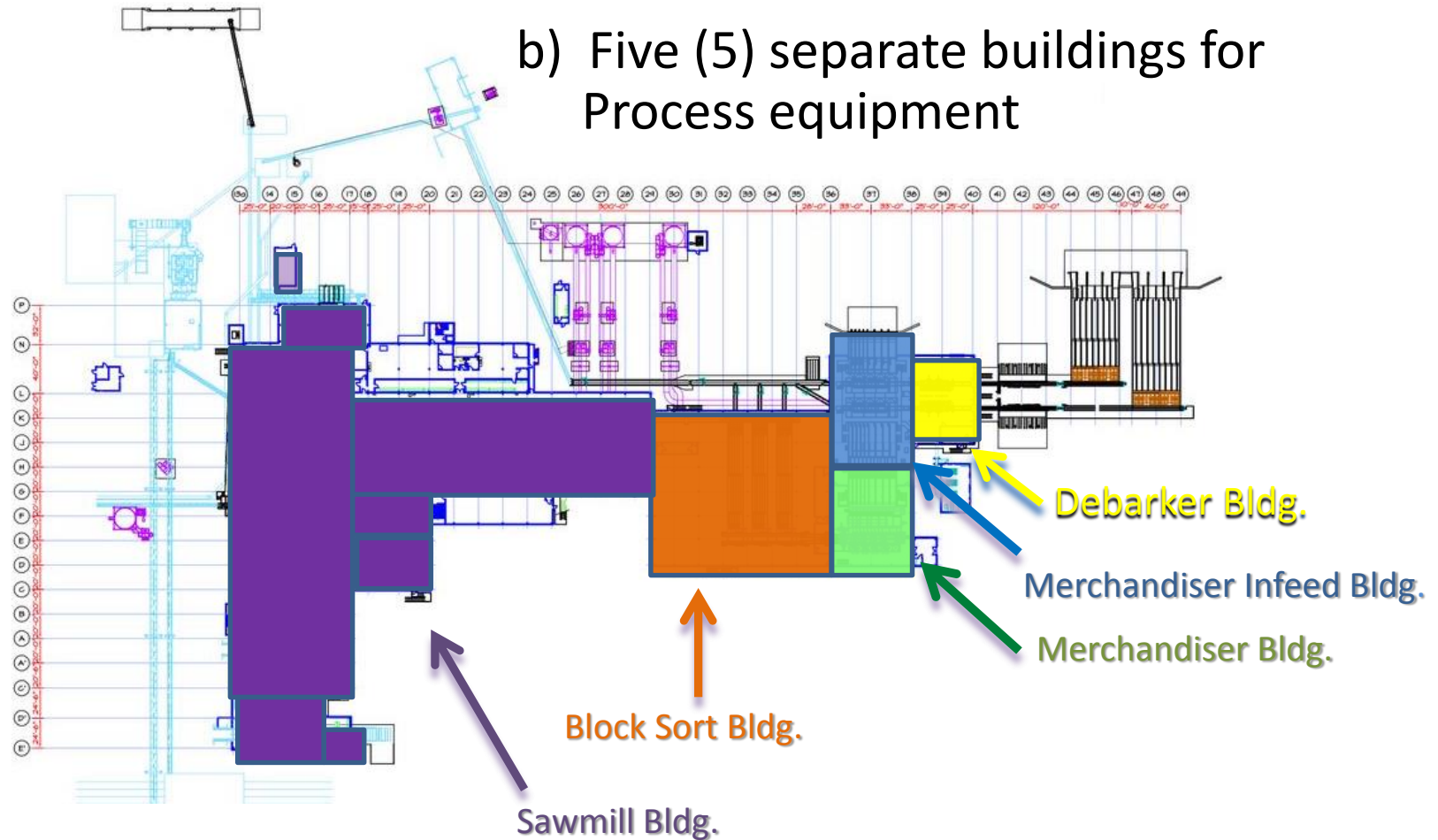




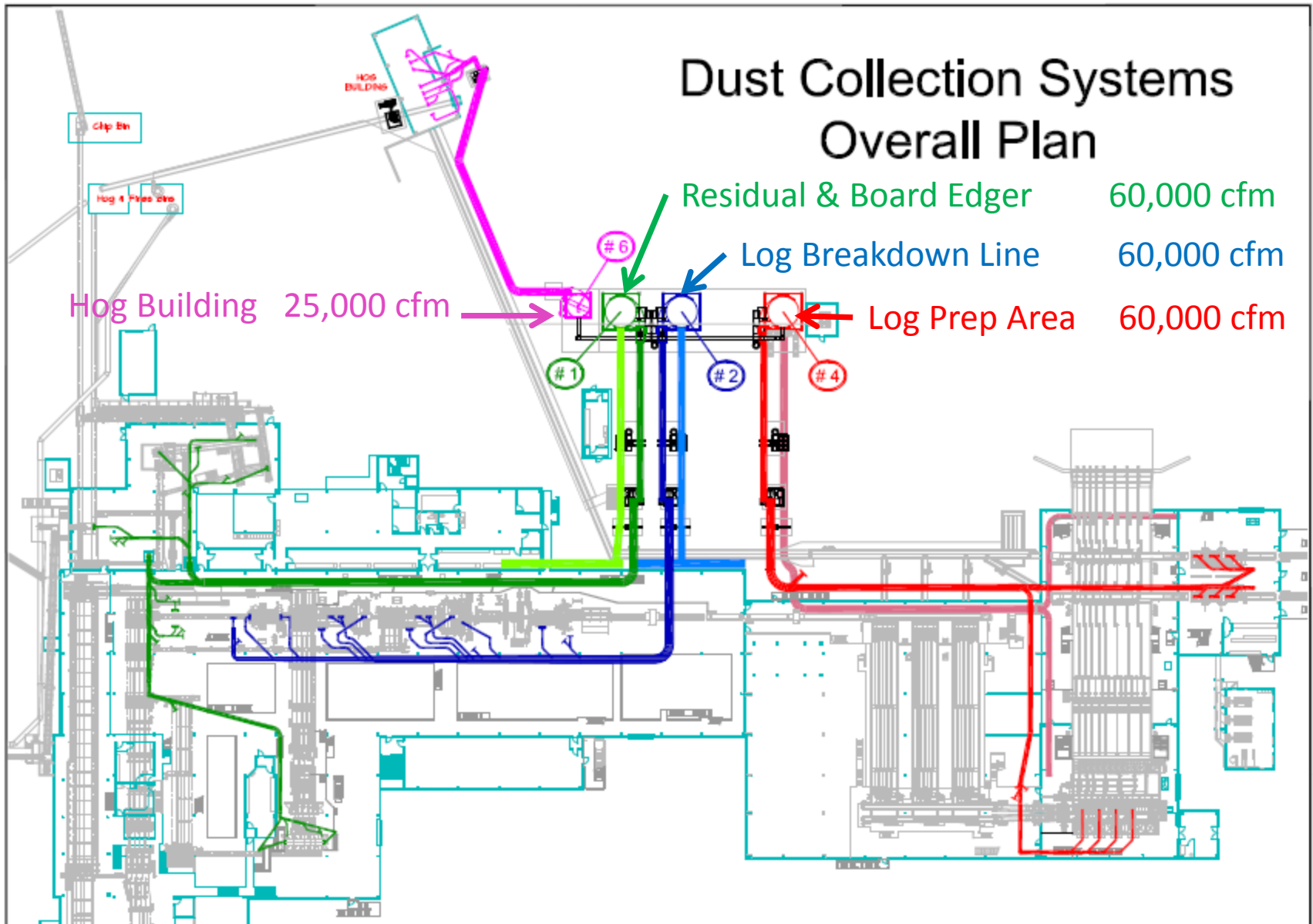
## A. SCOPE OF SAWMILL REBUILD

### 3. New Buildings & Facilities

b) Five (5) separate buildings for Process equipment



# Dust Collection Systems Overall Plan

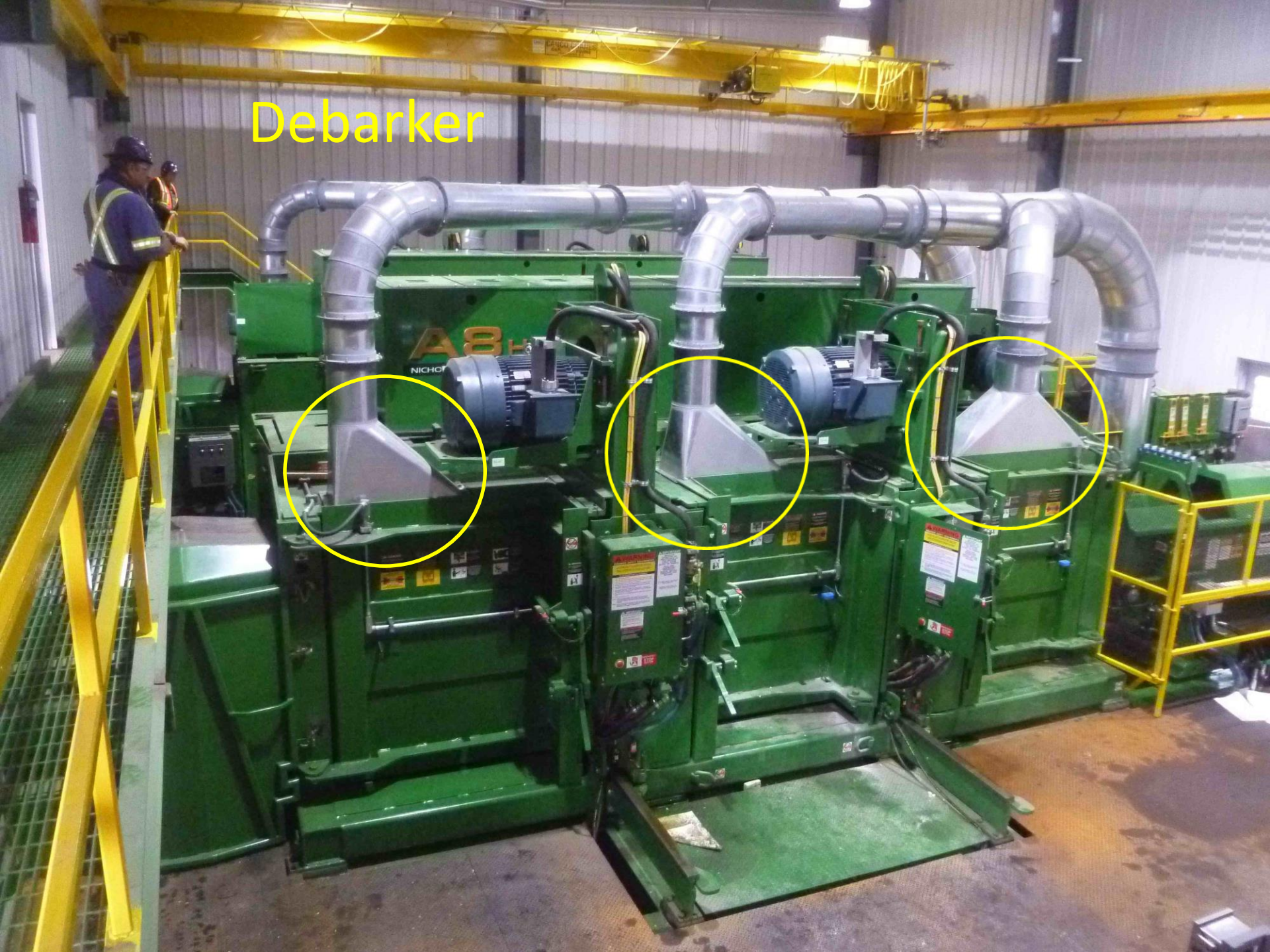


# Baghouses





# Debarker









Log Merchandiser





# Log Breakdown Line









## Spark Detectors







GRECON Controller System





The image shows a large, dark, cylindrical industrial tank. On the left side, a white bracket is mounted with a bolt. In the center, a brass-colored spray gun assembly is attached to the tank's surface. It features a main handle and two spray nozzles, both of which are emitting a fine mist. The background is dark and industrial, with various pipes and structural elements visible. A small, bright light source is visible in the lower right background.

Spray Nozzles



Abort Gates





**ATTENTION**  
**Fire Use Only**  
**Baghouse**  
**Deluge**  
**Suppression**

Manual valves for Baghouse Deluge System





Manual valves for Baghouse Deluge System



Full fill Bat insulation (no voids)





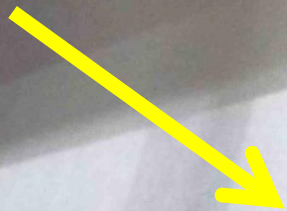






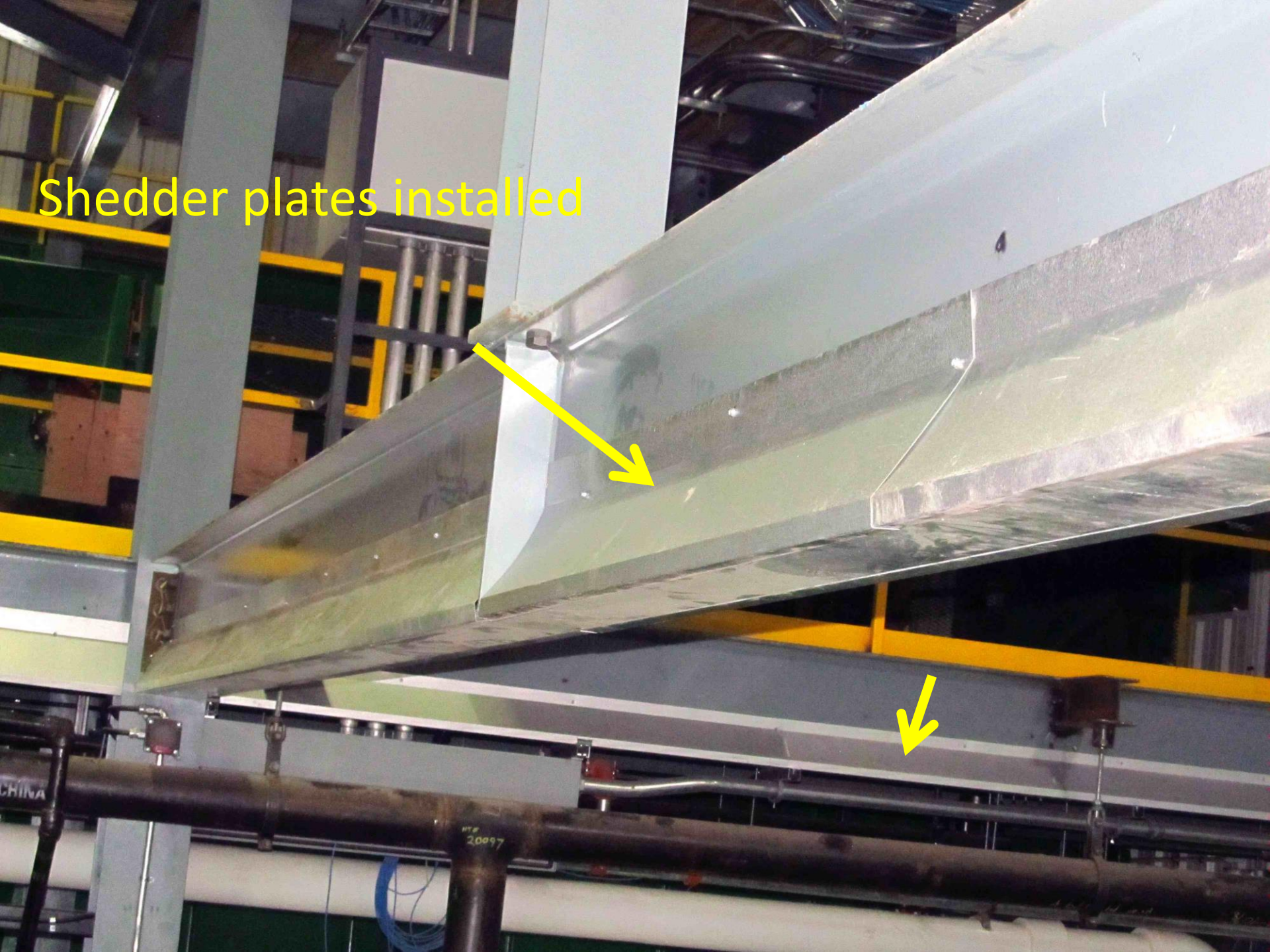


Shedder plate in process of being installed





Shedder plates installed





New mill design (no ledges)





**New Control room design**  
(no open flat roof to collect dust)







**New** Mill window  
installation

No ledges for dust to  
accumulate



**New** Mill window installation with all ledges on the outside of the building.





**NEW** mill construction with  
cross bracing diamond shaped  
to shed dust





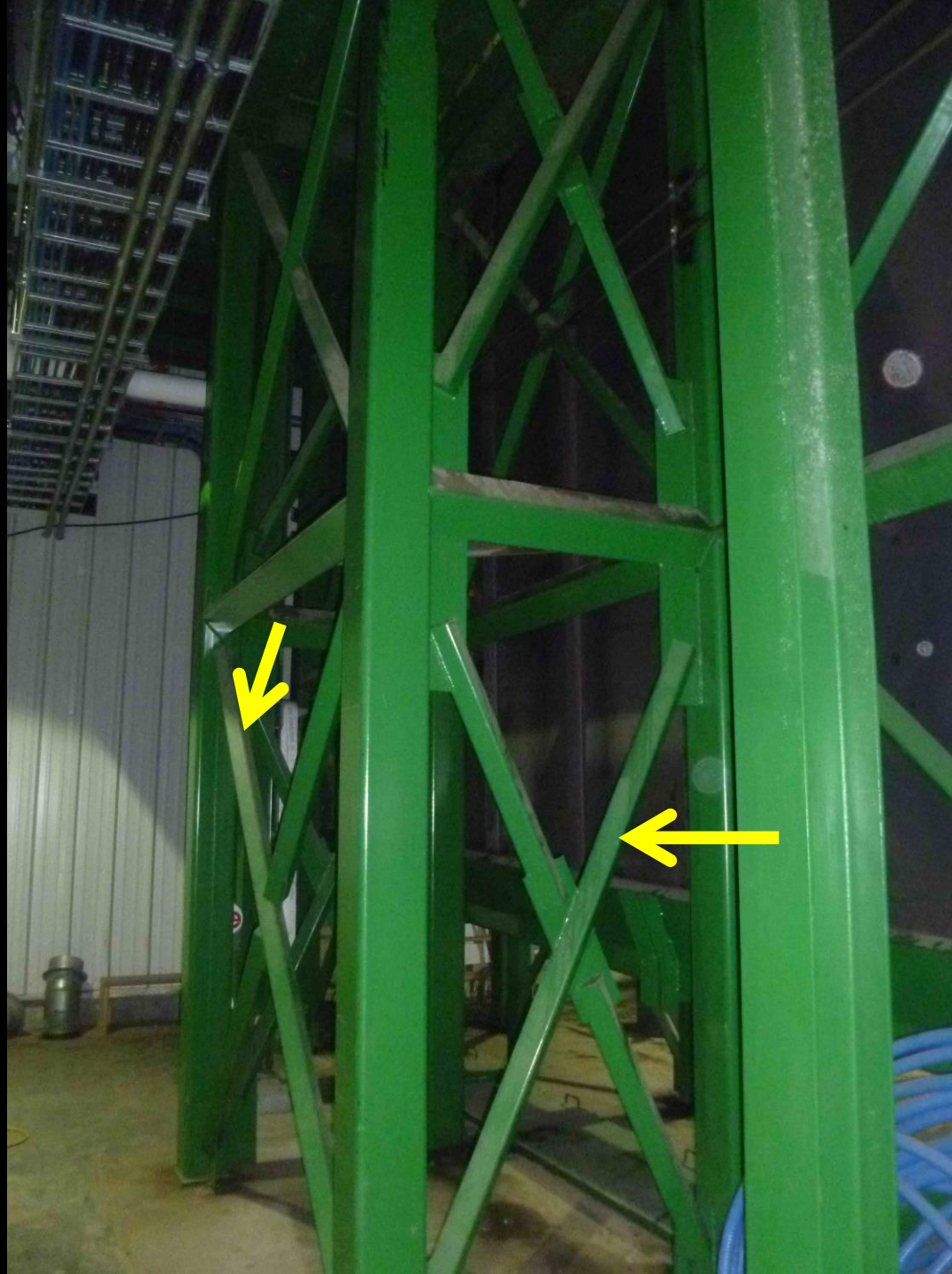


New Mill design with open Egg Crate style













MICROTEC GOLDENEYE

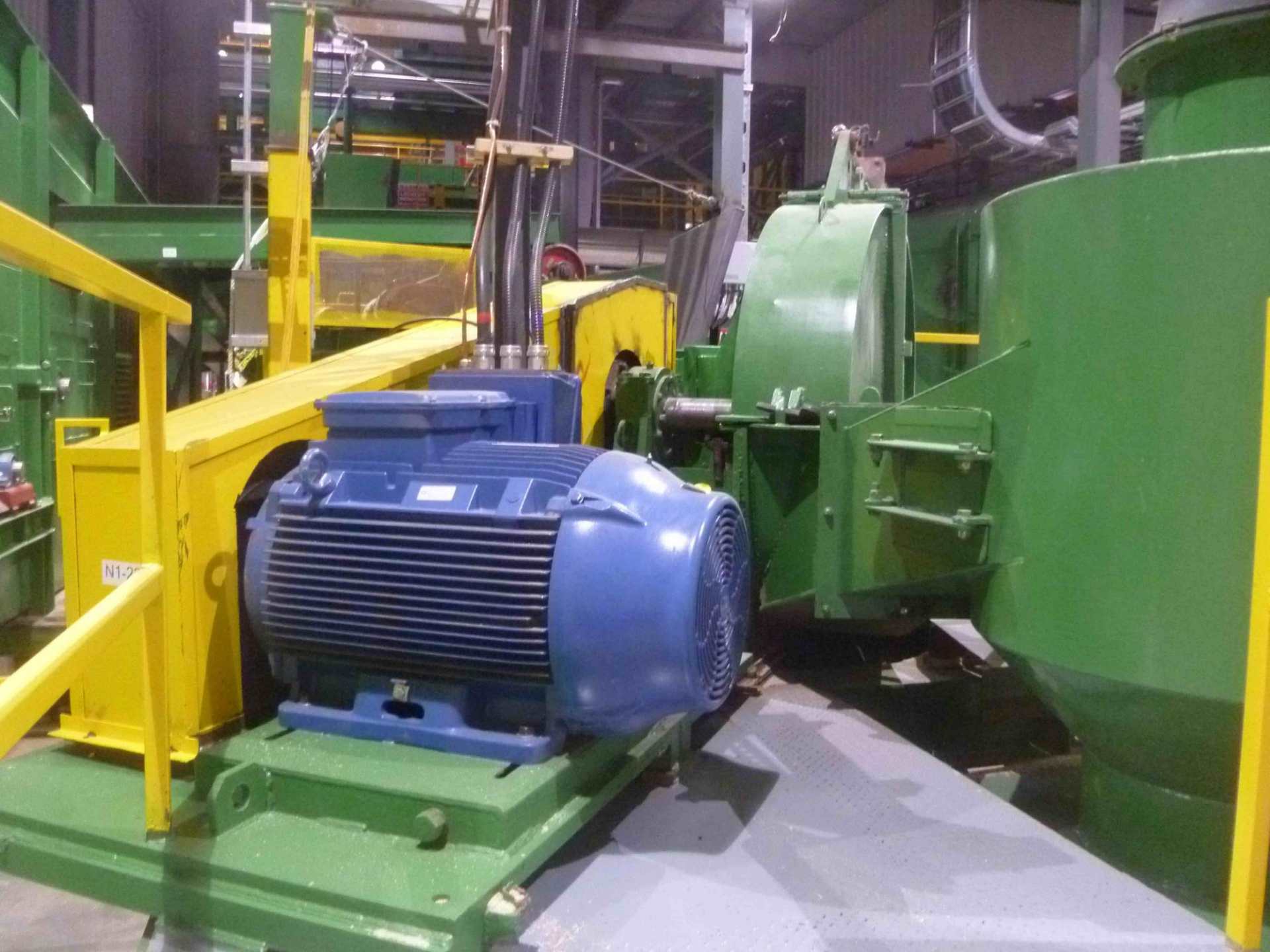
WARNING  
LOCKOUT  
REQUIRED





Vacuum hose connection point









**⚠ DANGER**  
LOCKOUT DRIVE  
BEFORE ENTERING OR  
WORKING ON  
THIS EQUIPMENT

N2-42



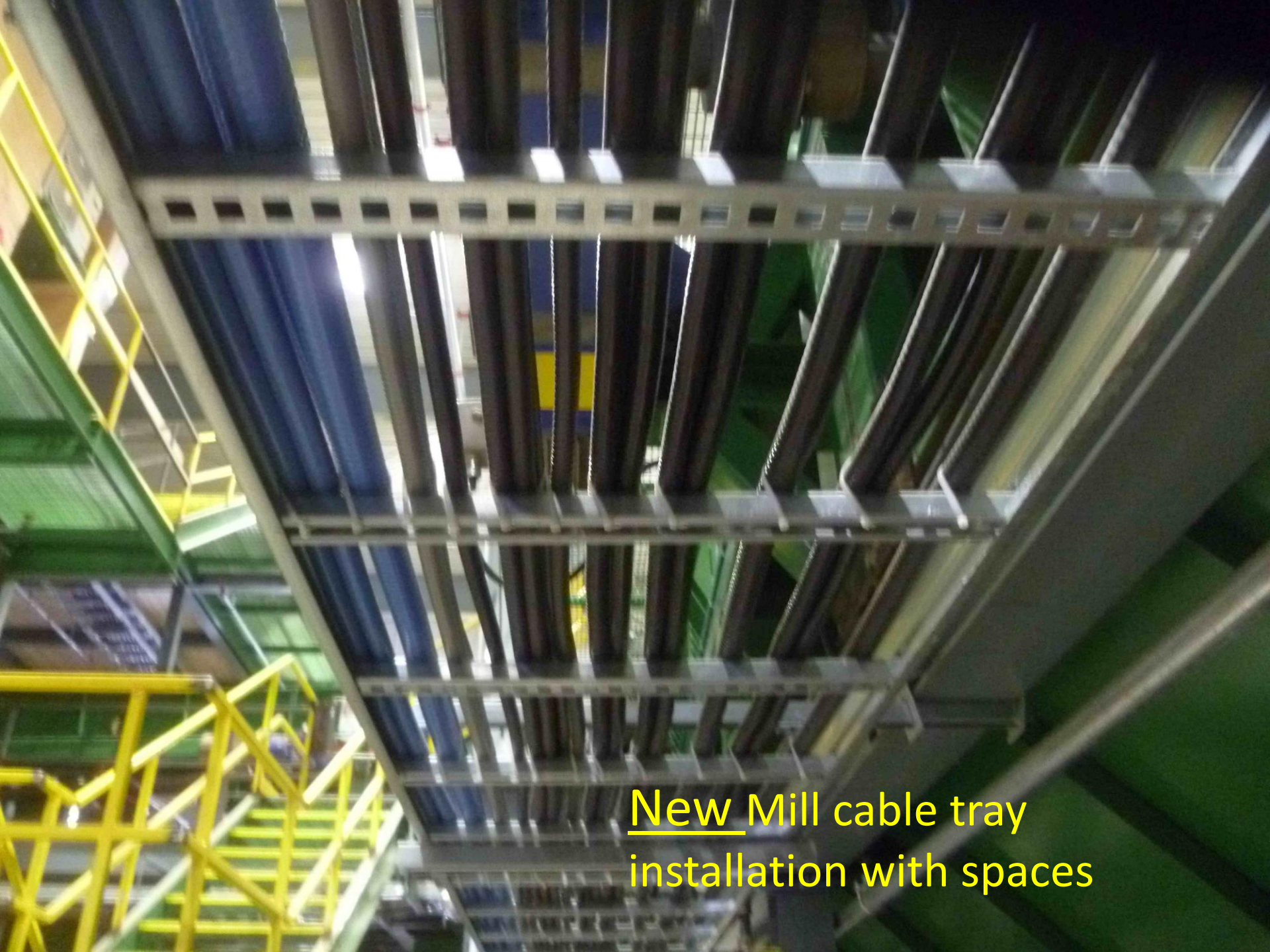






Typical Cable tray installation PRIOR to Incident





New Mill cable tray  
installation with spaces



New Mill cable  
tray installation  
with spaces









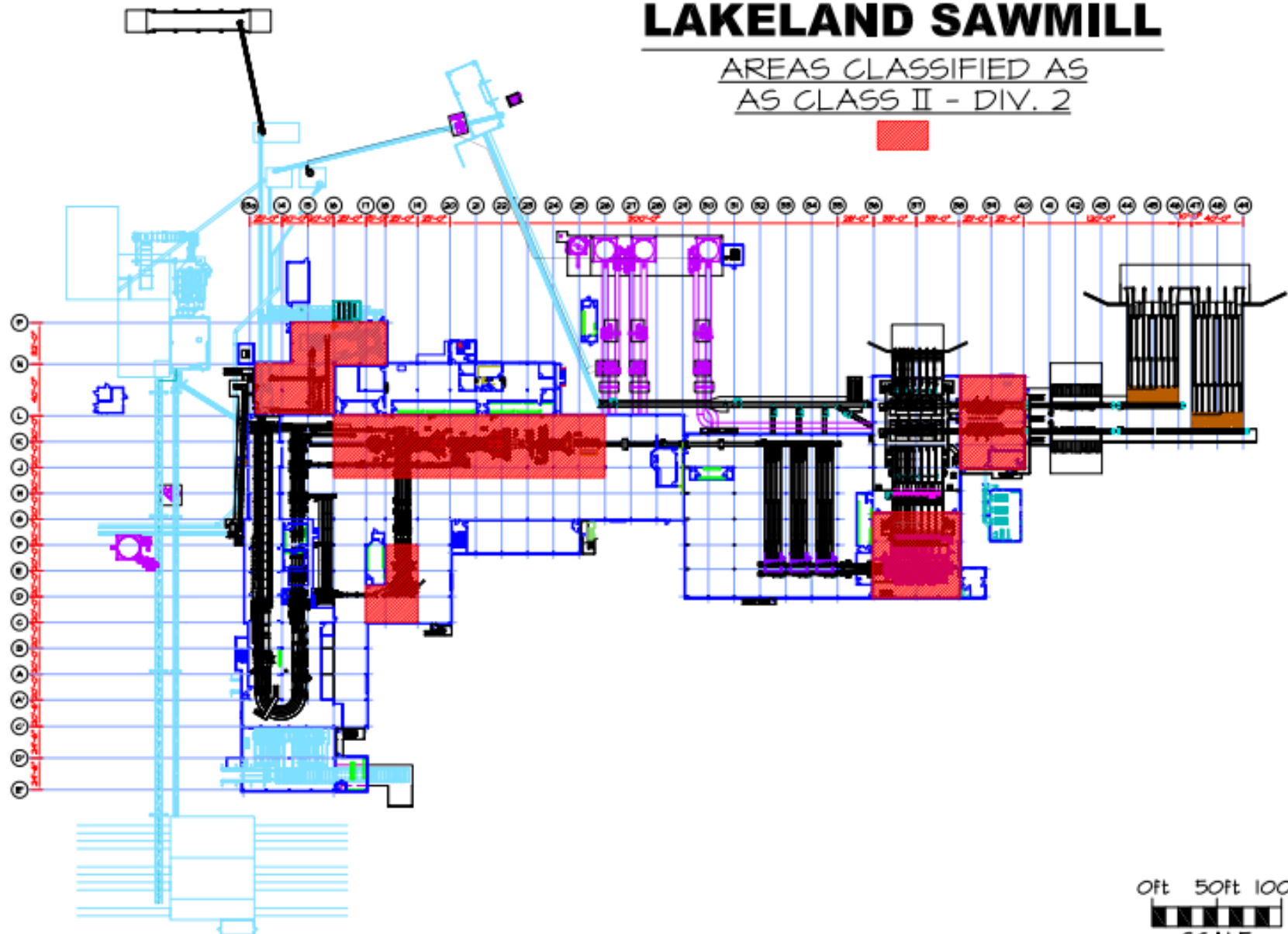
# Class II Division 2

- **Consistent interpretation of NFPA be elusive.**
- **All barking, sawing, chipping**
- **Covered the entire machine areas**



# LAKELAND SAWMILL

AREAS CLASSIFIED AS  
AS CLASS II - DIV. 2



0ft 50ft 100ft  
SCALE





# E. PREVENT IGNITION

## 1. Electrical Design

- a) Electrical Equipment in Class 2 Div 2 areas of the plant in compliance with Canadian Electrical Code. This includes:
  - (i) Electrical motors approved for Class 2 Div 2 environments:
    - motors rated & tagged Class 2 Div 2, OR
    - TEFEC (Totally Enclosed Fan Cooled) motors subject to adequate cooling
  - (ii) Local disconnect switches on mill floor NEMA 4X rated  
(sealed for moisture and dust)
  - (iii) Control Cabinets and junction boxes on mill floor NEMA 4 rated  
(sealed for moisture and dust)
  - (iv) Lights rated for Class 2 Div 2 environments
  - (v) 110 V Electrical outlets rated for Class 2 Div 2 environments.







MFG. BY:

PRICE LOG PRO

MODEL:

4623-1

SERIAL:

1234-01-4623-1

AC CONTROL VOLTS/AMPS:

60hz 120V/15A

DC CONTROL:

24V/5A

MOTOR VOLTS:

480V/MULTIPLE CIRCUITS

HAZARDOUS LOCATION DESIGNATION:

CLASS II, DIVISION 2, GROUP G



CAUTION: OPEN CIRCUIT(S) BEFORE  
REMOVING COVER. KEEP TIGHT WHILE  
CIRCUITS ARE ALIVE.



MFG. BY: NICHOLSON MFG. LTD.  
MODEL: 22" A8 TANDEM, RH  
SERIAL #: N7681 - JB01  
AC CONTROL VOLTS: -  
AC CONTROL AMPS: -  
DC CONTROL VOLTS/AMPS: 24 VDC/3A  
HAZARDOUS LOCATION DESIGNATION:  
CLASS II, DIV 2, GROUP 6  
CAUTION: OPEN CIRCUIT(S) BEFORE  
REMOVING COVER. KEEP TIGHT WHILE  
CIRCUITS ARE ALIVE.





MFG. BY: NICHOLSON MFG. LTD.

MODEL: 22" A8 TANDEM, RH

SERIAL #: N7681 - JB22

AC CONTROL VOLTS: -

AC CONTROL AMPS: -

DC CONTROL VOLTS/AMPS: 24 VDC/6A

HAZARDOUS LOCATION DESIGNATION:

CLASS II, DIV 2, GROUP G

CAUTION: OPEN CIRCUIT(S) BEFORE  
REMOVING COVER. KEEP TIGHT WHILE  
CIRCUITS ARE ALIVE.





Intertek

**LPC 705558**

ETL LISTED

**CERTIFIED TO CSA**

**STD C22.2 No. 14**

**STD C22.2 No. 25**





**New** Mill design for MCC locations  
(in dust controlled rooms)





**BUL. 2100**  
**MOTOR CONTROL CENTER**

CATALOG NO. / SERIAL NO.

SERIES

6501695044/1800 P

**BUS RATINGS 600 VAC MAX. 3 PHASE**

HORIZ.  
POWER

1600

A

VERT.  
POWER

300

A

EACH  
SIDE  
OF  
HORZ.  
BUS.

HORIZ.  
NEUTRAL

N/A

A

VERT.  
NEUTRAL

N/A

A

MOTOR CONTROL  
CENTER SECTION



US LISTED

SEC.

5

OF

9

NO. AN-6

TYPE

12

ENCL

**Allen-Bradley**

PLANT 4T

TECATE, MEXICO



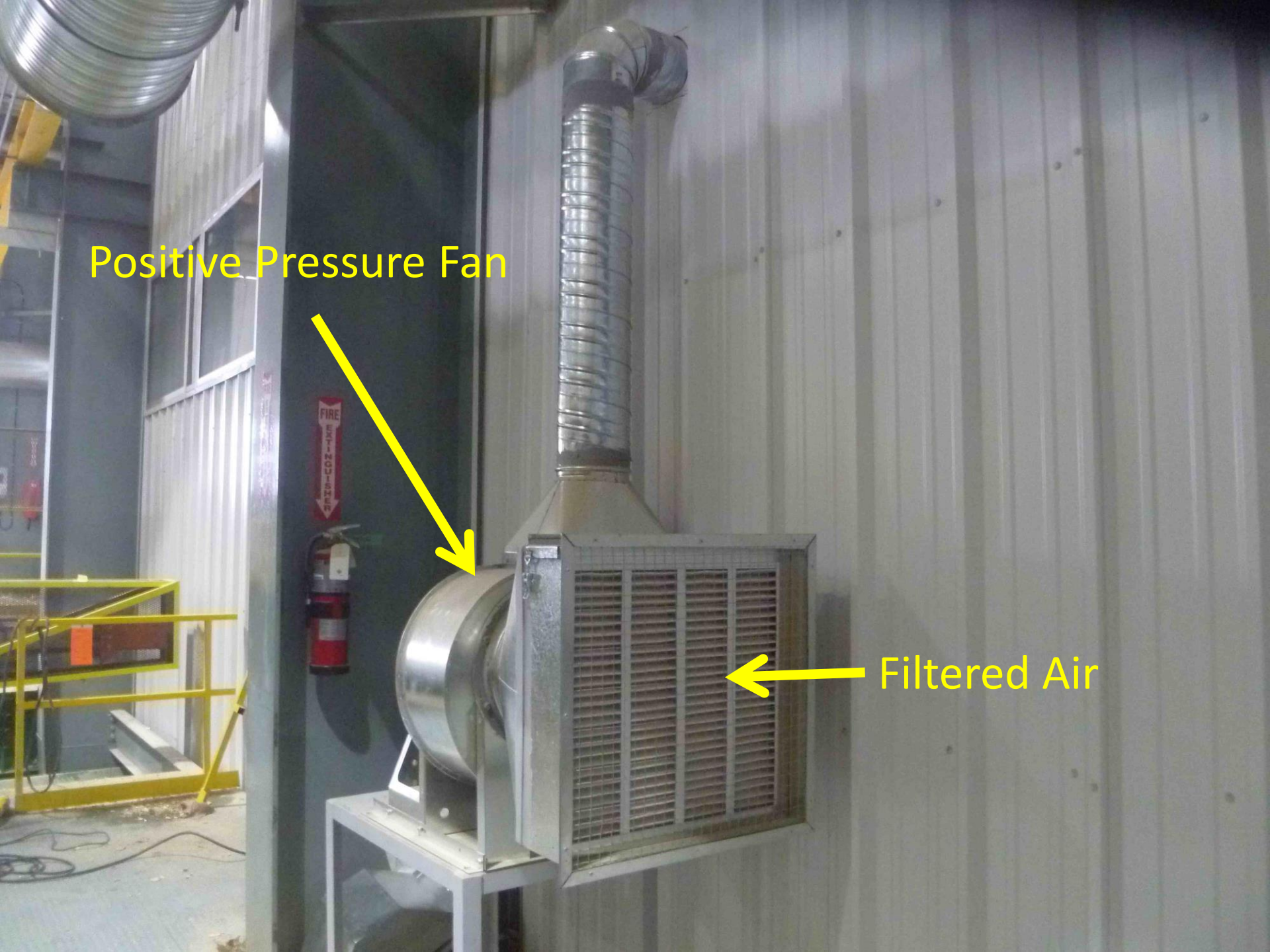
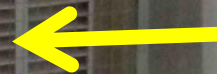




Positive Pressure Fan



Filtered Air















**WARNING**  
**LOCKOUT**  
**REQUIRED**  
Before Entering



# Success

- **Everyone needs to be involved in solutions**
  - **Equipment manufacturers**
  - **Employees**
  - **Engineers**
  - **Worksafe**
  - **BC Safety Authority**
  - **Fire Commissioners Office**





# Thank you

