

REINHOLD ENVIRONMENTAL Ltd.



**2018 APC & Wastewater Round Table
& Expo Presentation**

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Operation and Maintenance Electrostatic Precipitator “Mechanical”

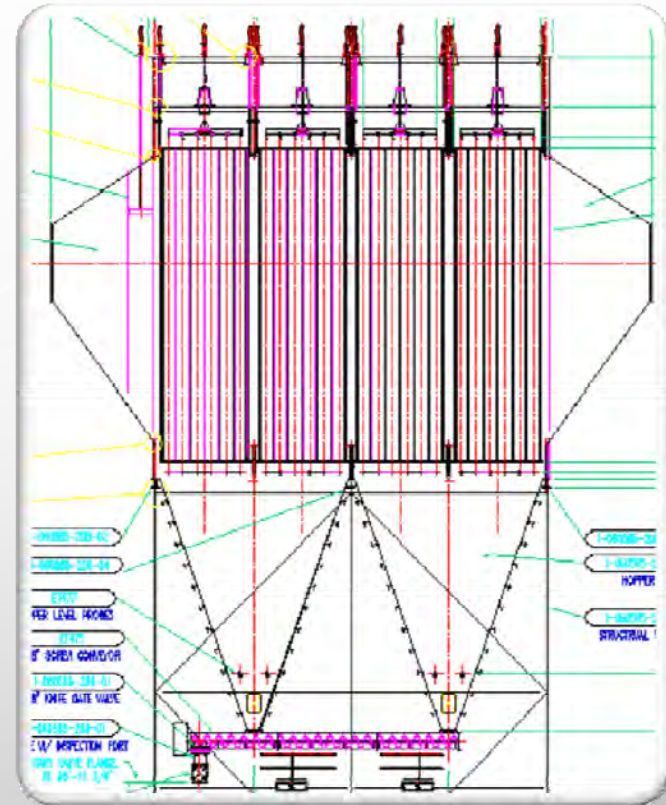
Timothy Mallory

AIR ADVANTAGE 

Precipitator Components

Power Supplies
Rapping Systems
Insulators
Collecting Surfaces
Discharge Electrodes
Gas Distribution

Doors
Casing Walls
Key Interlocks
Ash Handling



Shift Operations

- Check operation of all of the voltage controls on each shift noting any significant changes in power levels
 - This is done to keep a record of any changes in the precipitator and also to detect mechanical or electrical failures as soon as they occur. Modern data systems such as PI do a great job of keeping records as long as the data points are set up right. A well made graphic showing precipitator power levels over time can be made and referenced.
- Check the overall function of the rapping system and ensure that the rappers are running.
 - On electromagnetic systems check the screens for rapper failures and make sure the rapper control is actually rapping.
 - On hammer type systems check the motor feedback for operation.
- Check the ash handling system and look for signs of hopper plugging
 - This is a big deal. Full hoppers do more damage to precipitators than age or wear. Many units have been so damaged by a full hopper that the precipitator had to be rebuilt costing millions of dollars.