

# F. Harley & Co. Pvt. Ltd.

*Fugitive Dust  
Control in Power  
Plants through Fog  
Based Technology*

**By**

**Namit Shah – M.D.**



# *Fog in Dump Hopper*



# *Wagon Tippler w/o any Dust Control*

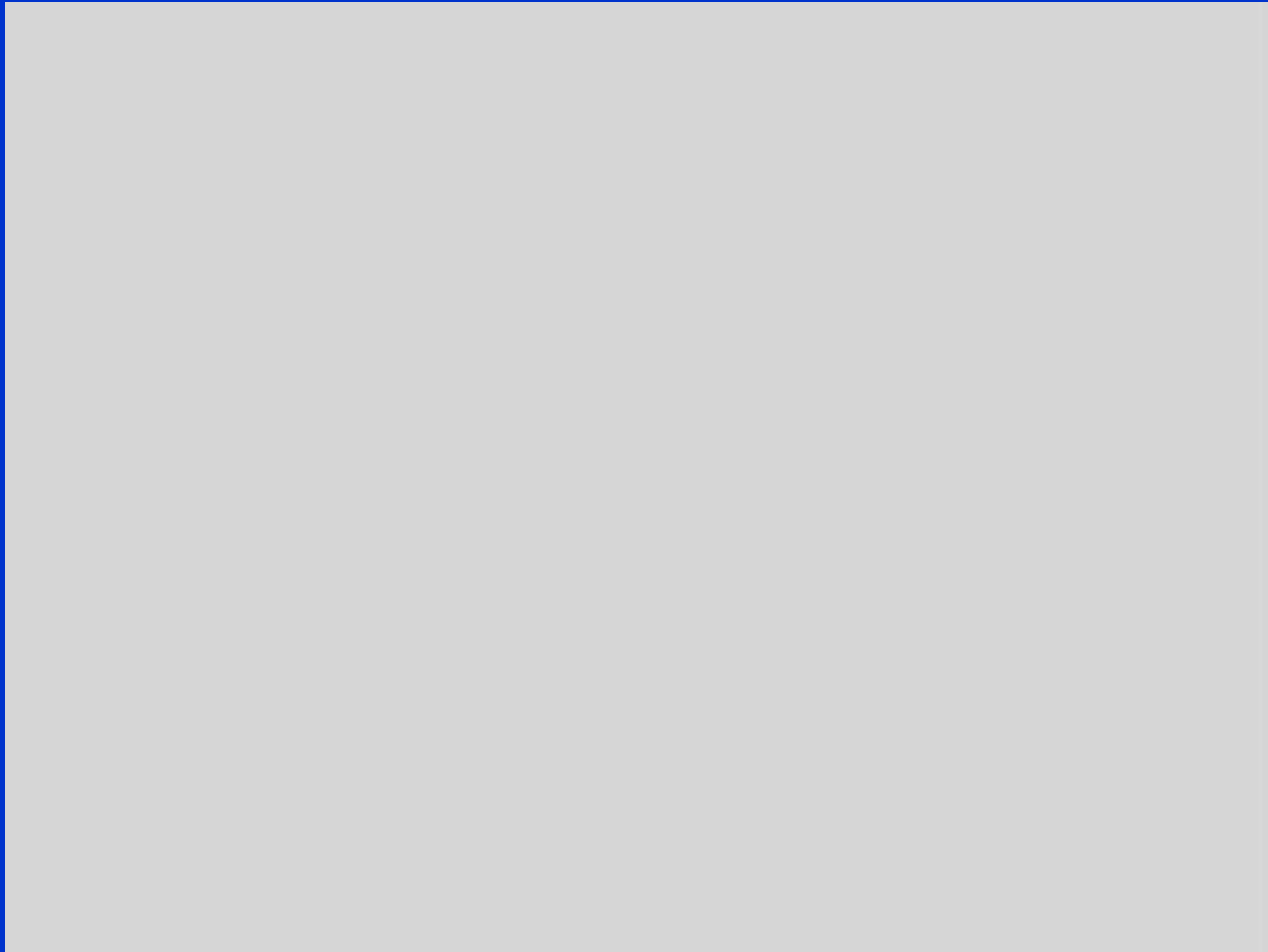


<i>Dust Extraction</i>	<i>Plain Water Dust Suppression</i>	<i>Chemical Dust Suppression</i>	<i>Fog based Dust Control</i>
(+)Zero moisture Addition (+)High Dust Collection Efficiency (-)Large Capital Investment (-)High O&M cost (-)Not for open areas (-)Not economical for spread out plant	(+) Good for open areas (+) Economical for spread out plant (+) Low Capital Investment (+) Low O&M cost (-)Moisture addition 2% - 3% (-)Dust control efficiency 60%-70% (-)Cannot control respirable dust	(+) Good for open areas (+) Economical for spread out plant (+) Low Capital Investment (+) Moderate O&M cost (-)Moisture addition - 1% (-)Dust control efficiency 85% -90% (-)Cannot control respirable dust	(+) Moisture addition 0.1% (+) Can control respirable dust (+) Good Dust control efficiency. >95% (+) Economical for spread out plant (-)Not easy in open areas (-)Not suitable for hot material > 60 degree C

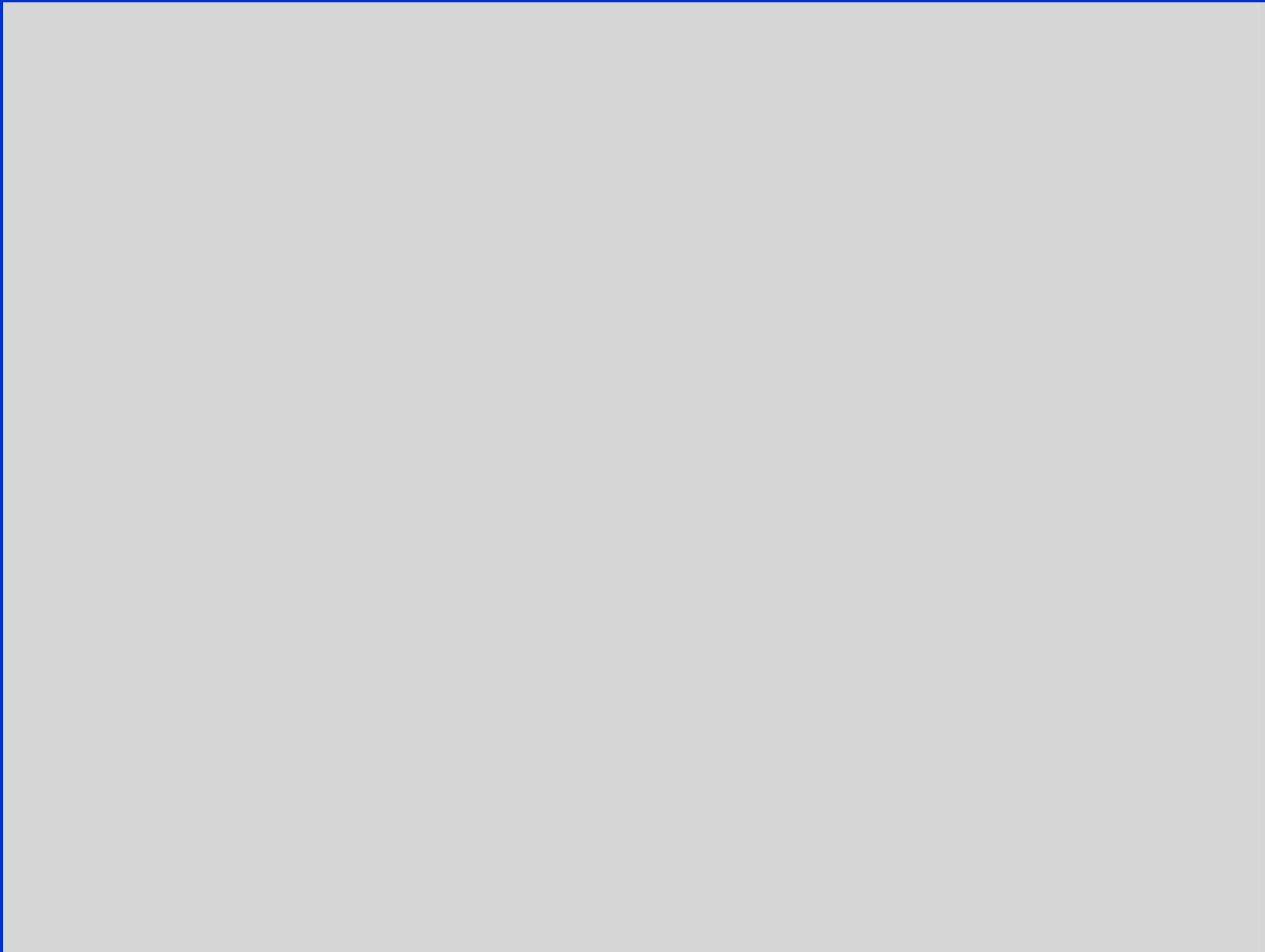
## **Key advantages of fog based Dust control :**

- **0.1% of moisture addition. Practically NIL**
- **Can control respirable dust**

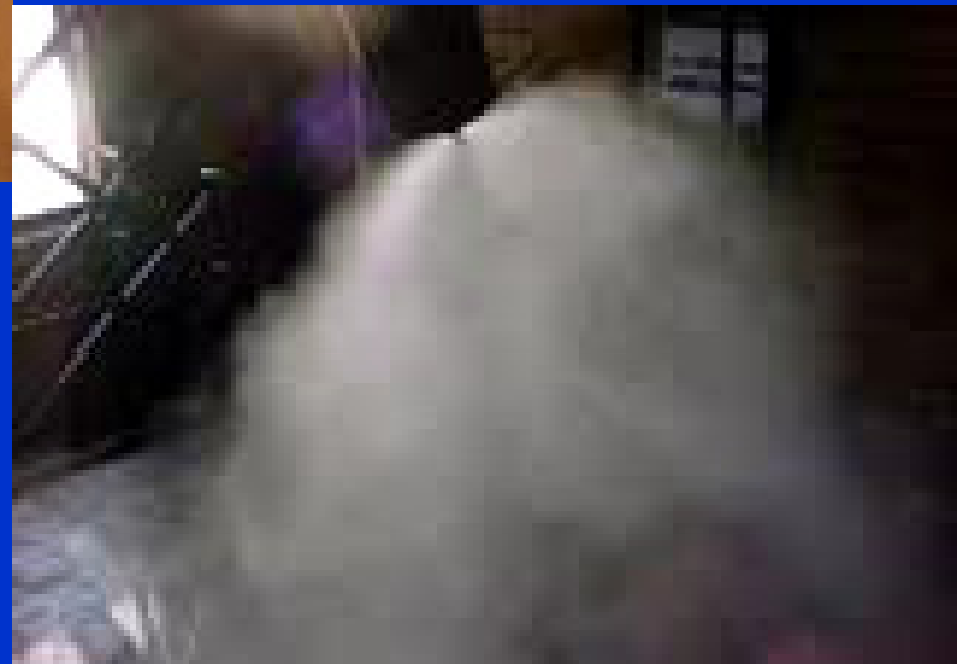
# *About Agglomeration*



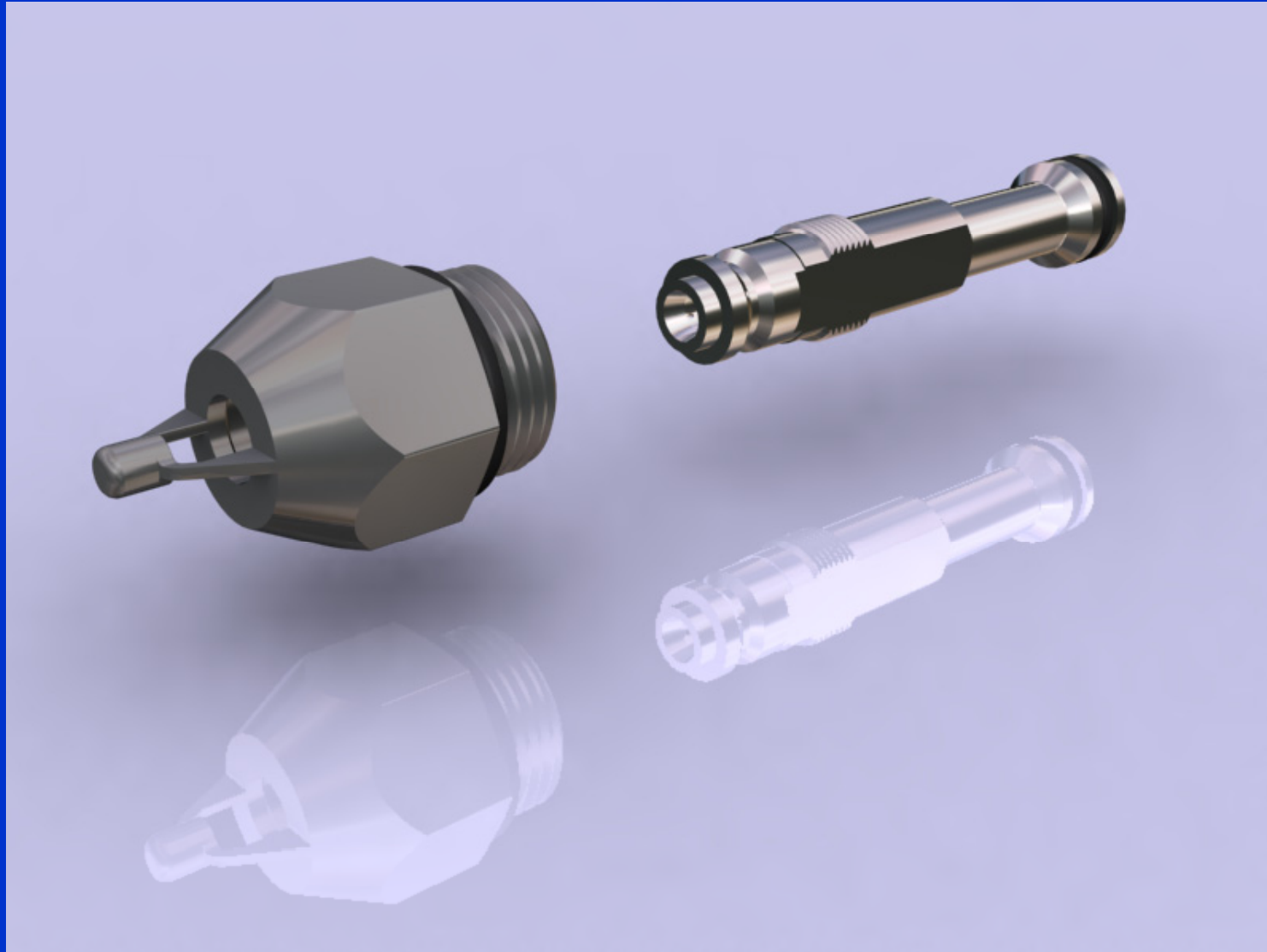
# *About Agglomeration*



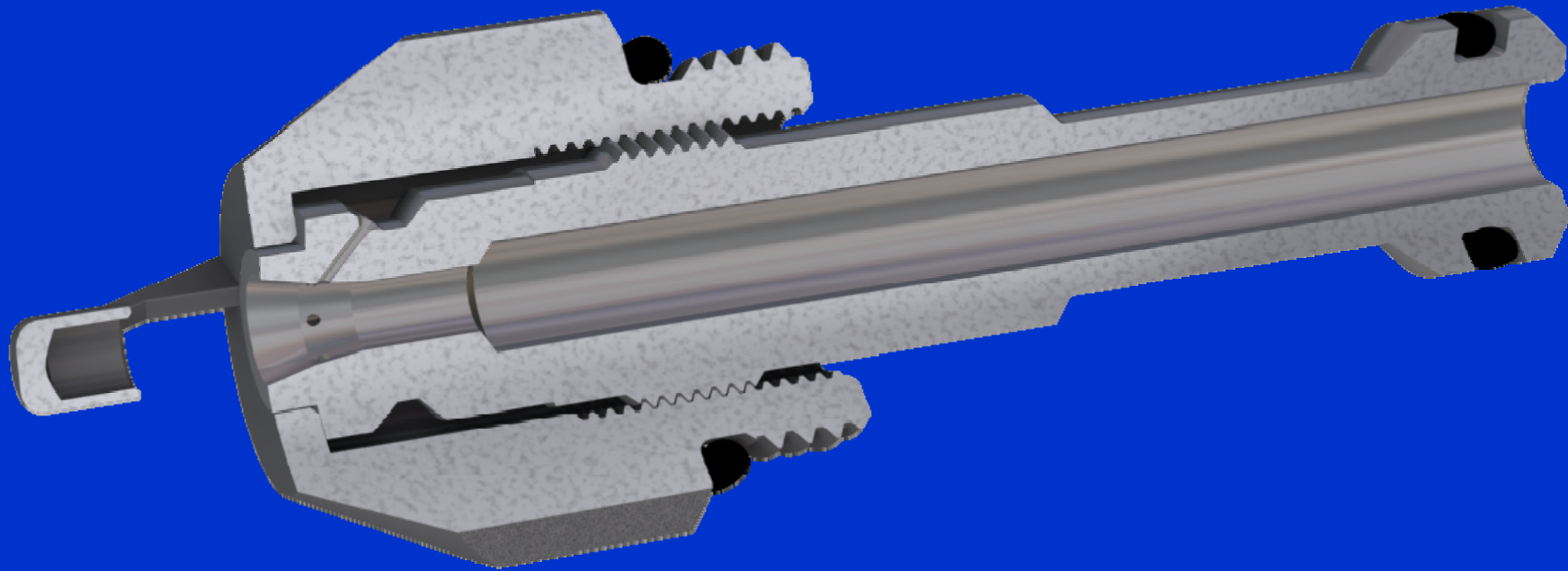
# *Fog - Live action*



# *Acoustic Oscillatory Fog Generator*



# *Acoustic Oscillatory Fog Generator*



## *Areas of Application*

Fog can be used in almost all application areas in a material handling plant as :

- Belt Conveyor Transfer Points
- Feeders ( Belt, Apron, Vibratory, Paddle etc)
- Crusher discharges
- Dump Hoppers & Truck Tipplers
- Wagon Tipplers
- Stacker & Reclaimer
- Vibratory Screens
- Trippers (Fixed & Traveling)
- Shuttle Conveyors

# *Live Fog from some Installations*





**THANK YOU**