



## **Industrial Water Systems** **Virtual INPLT Training & Assessment**

Session 6b

Friday – April 8<sup>th</sup>, 2022

1 pm – 2 pm

# Agenda – Session 6b

## Today's Content:

- Findings and Group Meeting



Better Buildings is an initiative of the  
U.S. Department of Energy

# Treasure Hunt – Summary



1. Walkthrough the facility and observe operations

2. Identify opportunities

3. Collect relevant data

4. Quantify Savings

5. Document Opportunity

} Leverage available  
Resources

# Treasure Hunt - Group Meeting

## Meeting Goal: Review opportunities from walkthrough and identify projects to pursue further

List of all opportunities identified and separate them in two categories

1. Most promising opportunities identified
  - What additional data is needed to quantify savings
  - Cost and payback of each measure.
  - Make a slide for management presentation
2. Additional opportunities that may require large capital expenditures, or opportunities that require more analysis and should be completed later.

## Presenting Opportunities - Examples



# Reduce Number of Spray Nozzles per Position

It was observed that majority of nozzles spraying water at the end of positions lack contact with the glass

## Opportunity:

40 MGY used in forming tunnels (from sub metering)

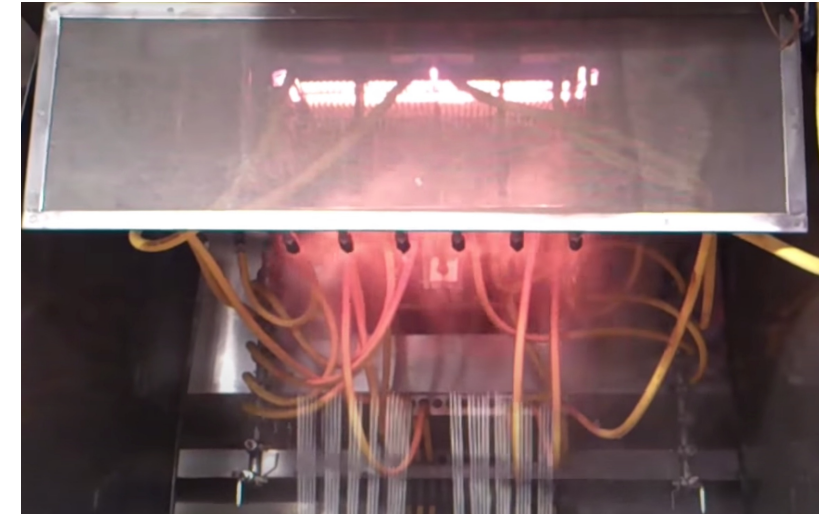
90% of water used in forming is from nozzle spraying (from water balance)

Water used in nozzles = 36 MGY (90% of 40 MGY)

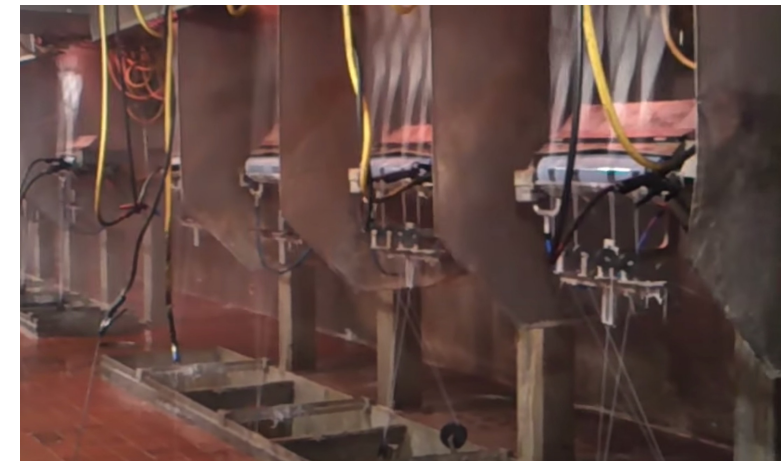
20% reduction of nozzles can be reduced (1 per position) – by comparing it to industry standards

True cost of water = \$3.5 /kgal

**Potential Cost Savings = \$27,527**



Automated water nozzles



# Low Flow Nozzles for Wash Bay

- The wash bay uses warm pressurized water for cleaning
- The flow through the nozzle is determined to be 3GPM
- Using Low flow nozzles this can be cut down by half

Reduction in Water = 1.06 MGY  
**Estimated Cost savings = \$12,000**  
**Implementation Cost = \$100**  
**Payback = Immediate**



**Thank You all for attending today's webinar.**

**See you all on Wednesday or Friday – July 21<sup>st</sup> or 23<sup>rd</sup>  
– 4 pm ET**

**If you have specific questions, please stay online and  
we will try and answer them.**

**Alternately, you can email questions to me at  
[thirumarank@ornl.gov](mailto:thirumarank@ornl.gov)**