

AE Power Plant Winterization

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Sand Hill Plant 2/15/2021



Plant Winterization Plans

- Begins in Fall and is affirmed to ERCOT by December 21st each year
- Consists of Permanent and Temporary Measures
 - Permanent Examples
 - Insulation in/on piping, cabinets
 - Metal structures around areas determined as concerns from past weather events
 - Heat Trace – electrical heating systems on critical components
 - Temporary Examples
 - Wind breaks, thermal blankets applied to critical components
 - Temporary Heat sources – portable propane or electrical heaters, lighting
- Temporary Measures are installed while Permanent Measures are checked for proper function as per the plant weather preparation check list



Plant Winterization Plans

- Measures are re-checked prior to a major forecast event like February
- Operators use remote monitoring and visual checks to confirm status
- Confirm function of emergency communications such as satellite phones
- Personnel Measures
 - Ensure adequate staffing levels – increased during major forecast events
 - Provisioning for food and on-site lodging



Winter Prep installed
around the lower areas
of Unit # 5 Freeze
Protection HRSG Wind
Wall East side



Sand Hill Plant

2021

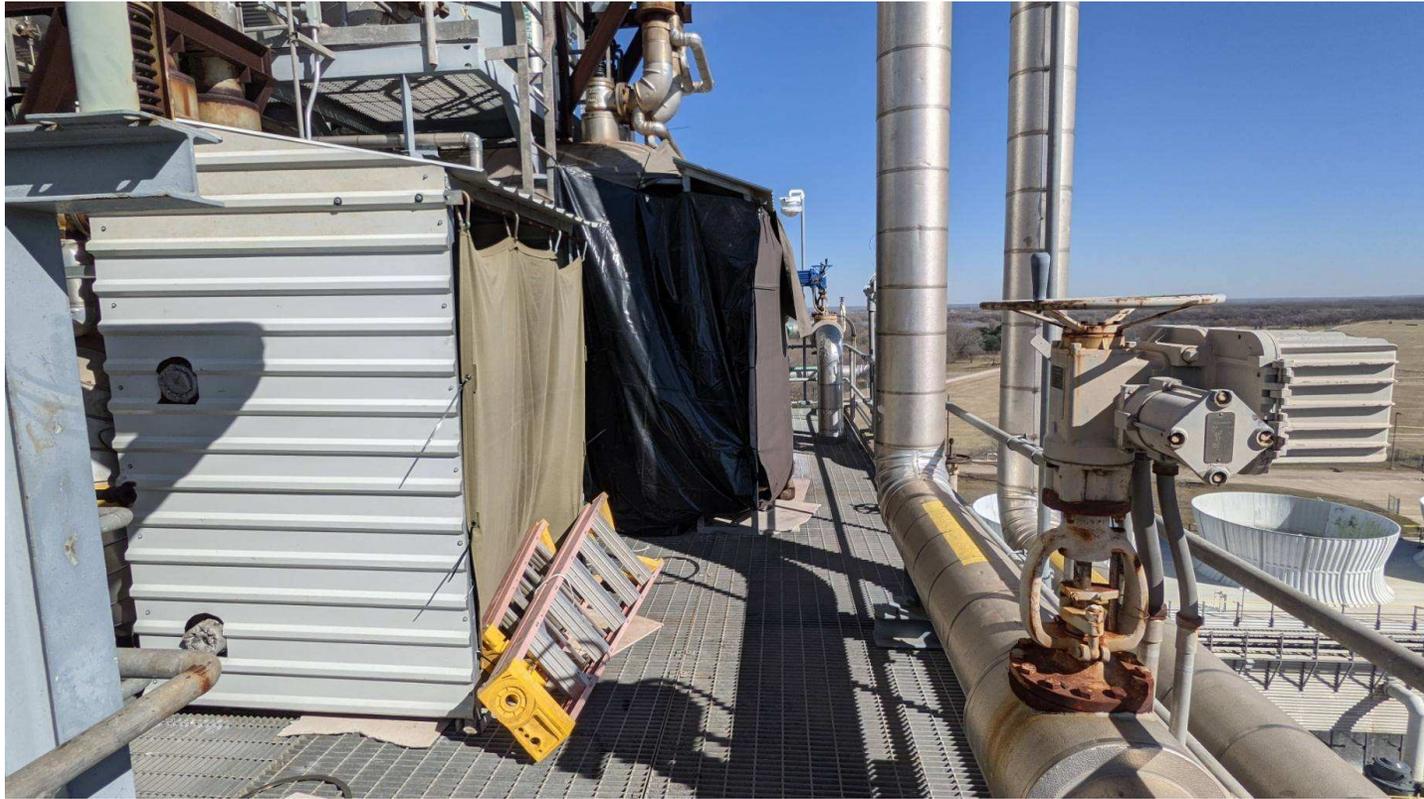


Freeze Protection at the HRSG Doghouse

Sand Hill Plant

2021





Freeze Protection HRSG Drums

Sand Hill Plant

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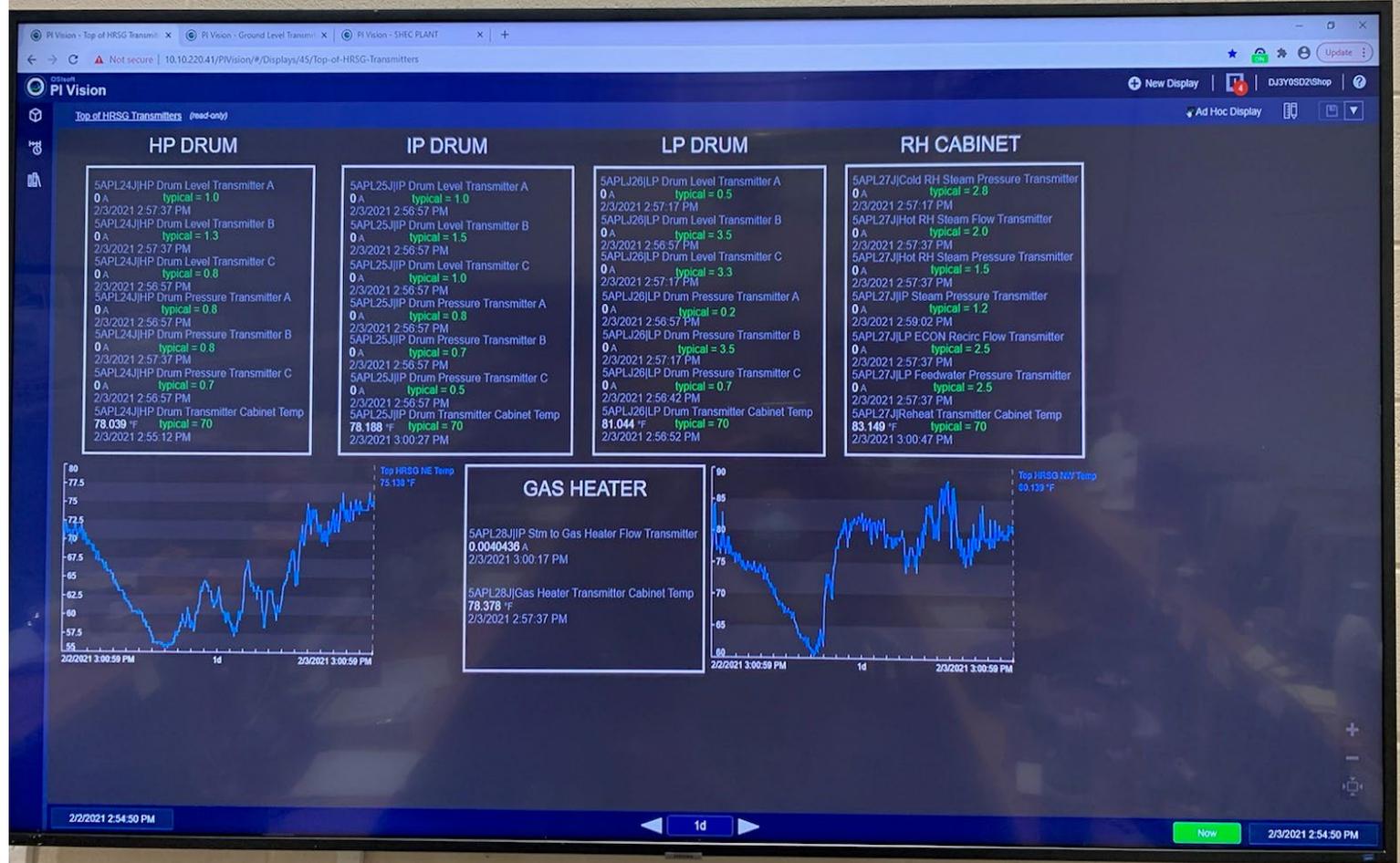
Freeze Protection Unit #5 Evaporator Backflow

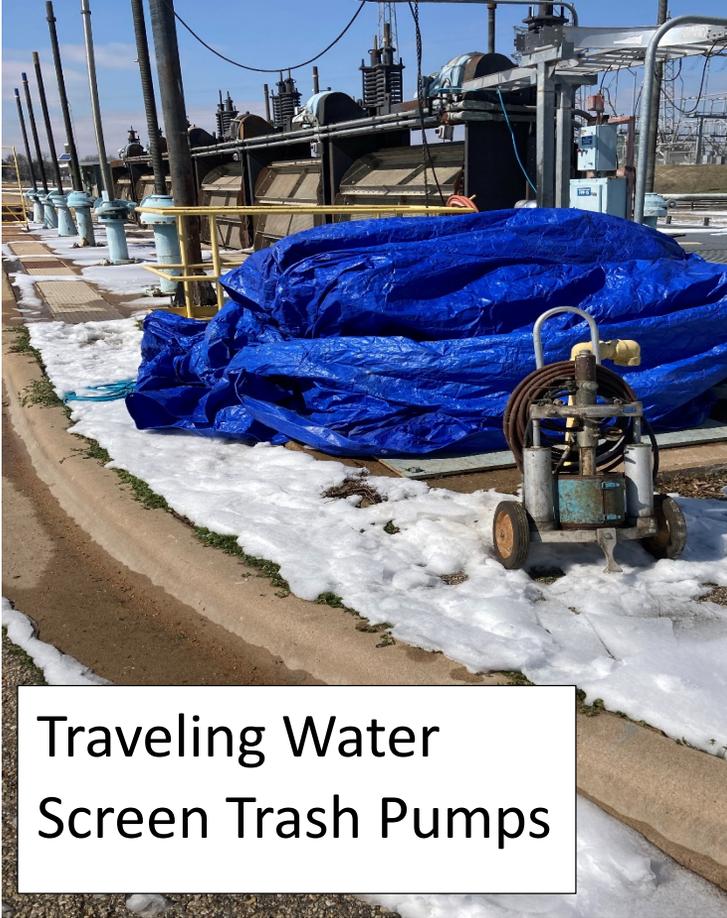


Freeze Protection Critical Tracing on the Plant Data recorders

Sand Hill Plant

2021





Traveling Water
Screen Trash Pumps

Aux Cooling Water
Anti-scaling
chemical storage

Circulating water
pump gland water
tubing

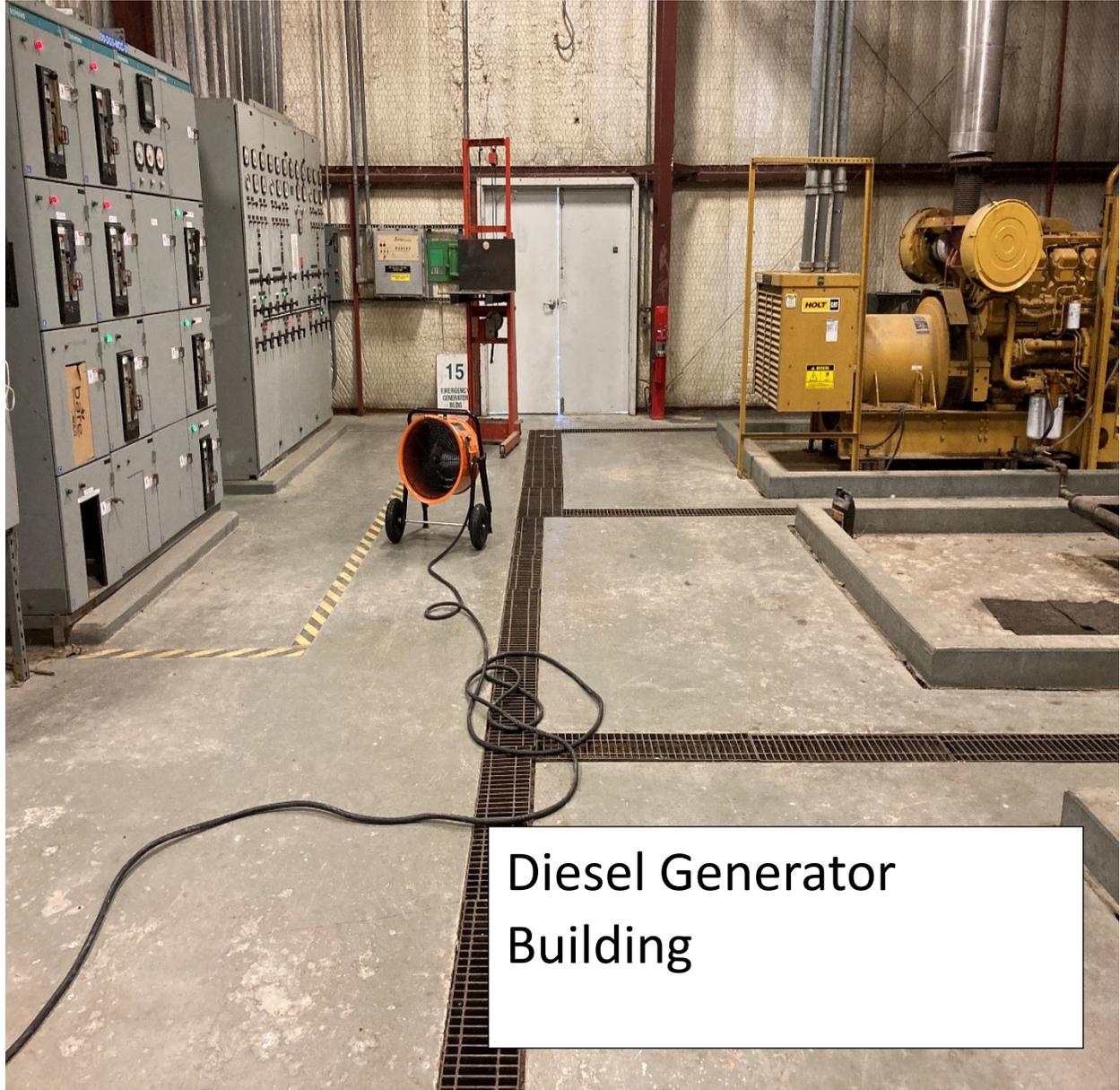
Decker Power Plant

2021





GT Water injection building



Diesel Generator Building

Decker Power Plant



2021

North drum level condenser pot



Decker Power Plant

2021



GT gas skid pressure control valves

Superheat and
Reheat spray valve
transmitters

Lights installed
inside boxes to
generate heat

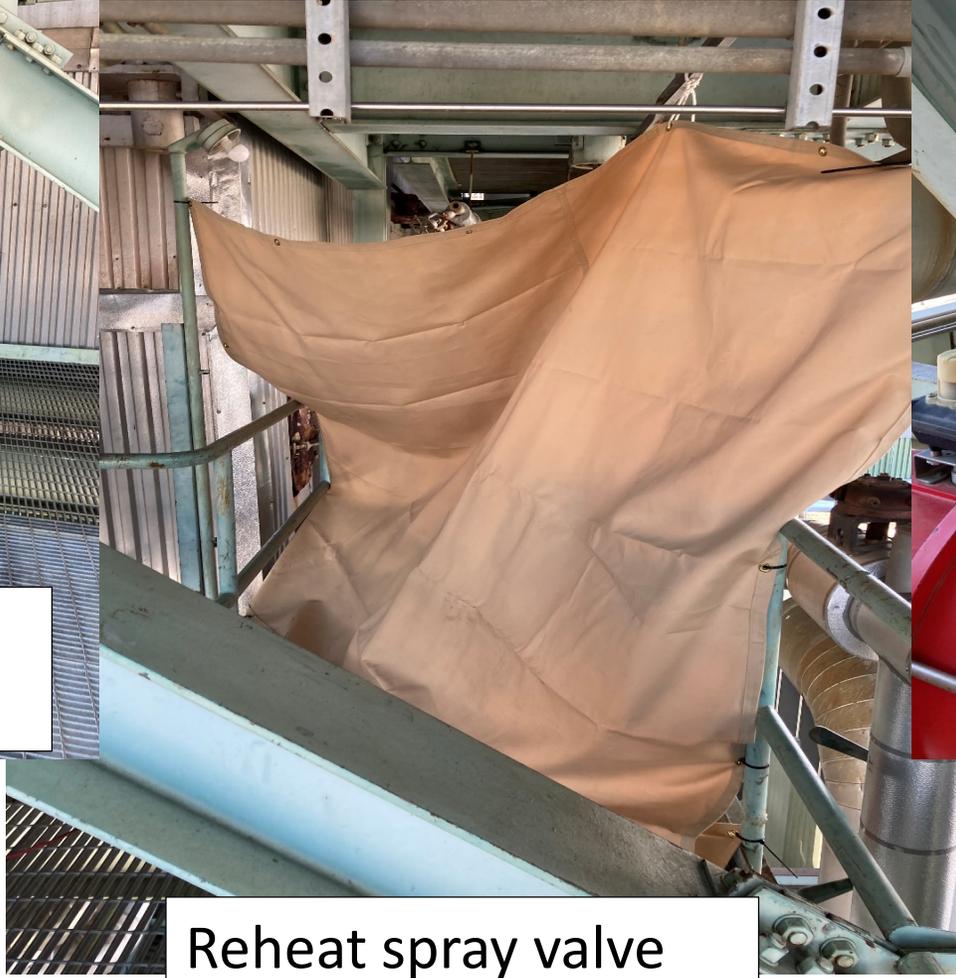
Decker Power Plant

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North drum level transmitter



Reheat spray valve



Superheat spray valve

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Instrument air pressure transmitter



Instrument air intake



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2/15/2021





Sand Hill Plant

2/15/2021



Looking Ahead

- Reviews are still underway but we have identified some opportunities for improvement such as:
 - 2011 improvements mostly worked but didn't in one instance – a protective controls cabinet proved inadequate – we've now added a heat source
 - Increased stocks for longer duration events:
 - Food for staff (ex. MREs)
 - Cots/bedding for staff
 - Fuel for portable heaters
 - Event/scenario training vs. check-list only
- Regular reviews and updates to address changing needs in the future





QUESTIONS ?

