

REINHOLD ENVIRONMENTAL Ltd.



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FirstEnergy, Southern Company & TVA

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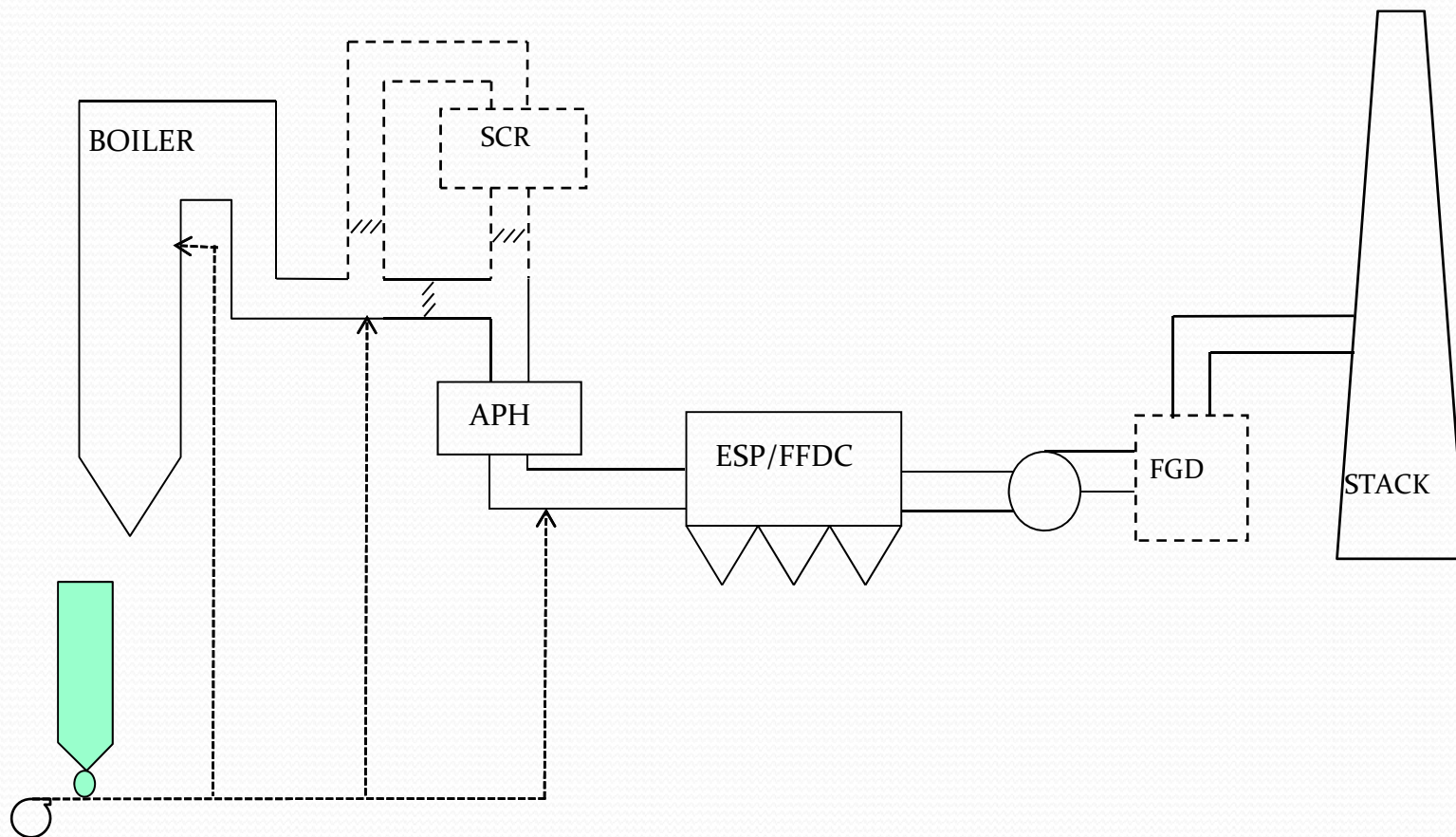
POTENTIAL MATS COMPLIANCE STRATEGIES

1. Dry Sorbent Injection

- Increased ACI Effectiveness for Hg Removal
- HCl Mitigation

2. Added or Modified SCR Catalyst for Hg Oxidation

DSI for MATS Compliance





POTENTIAL DSI IMPACTS FOR MATS COMPLIANCE

- Pre ESP
 - Resistivity
 - Mass Loading
 - Ash Handling
 - Ash Disposal
- Pre APH
 - Hg Impacts
 - Pluggage Concern
- Pre SCR
 - Catalyst Impacts
 - Hg Impacts (HCl)
- Boiler
 - Pluggage
 - Deposits

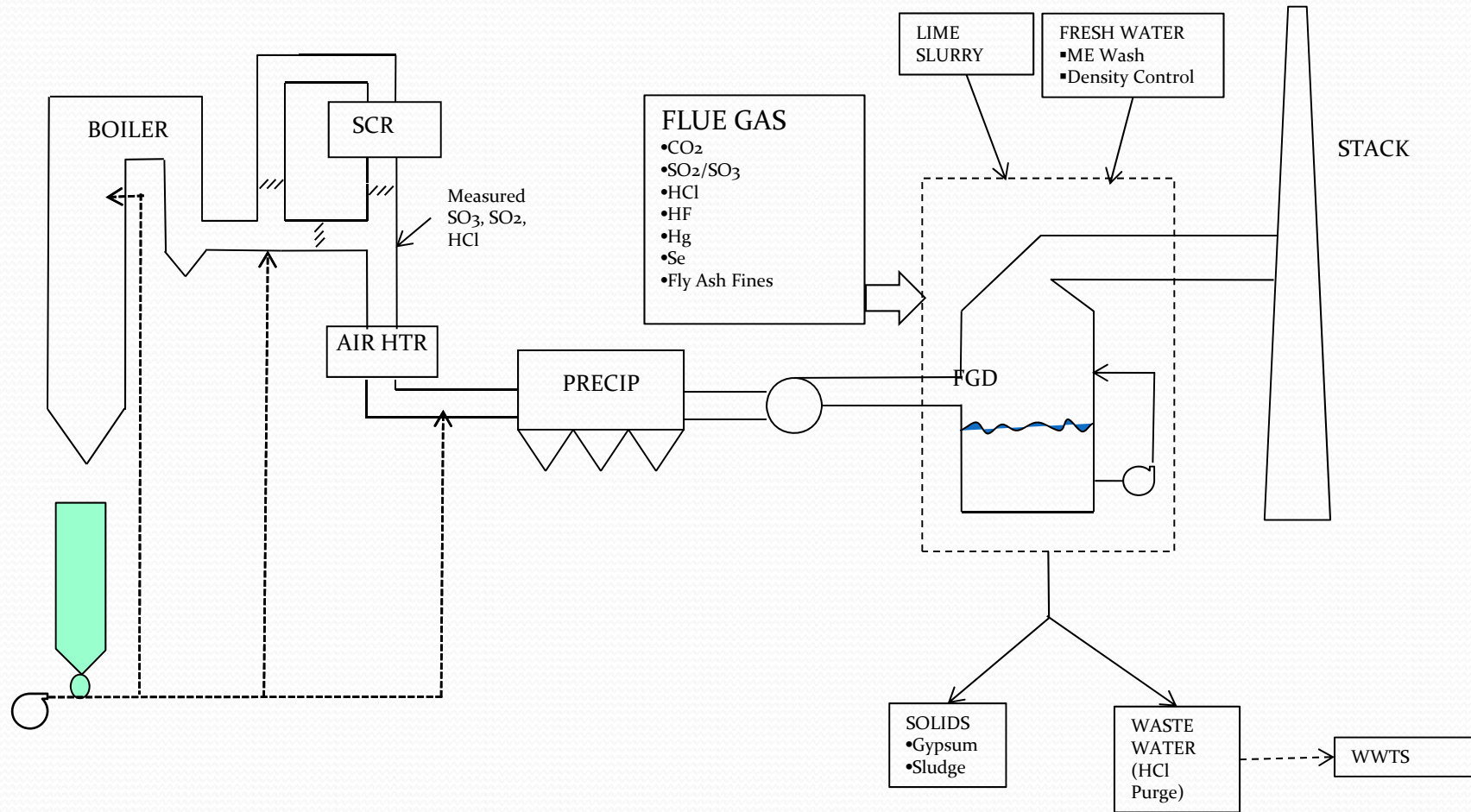


POTENTIAL DSI BENEFITS TO PLANT SYSTEMS

- Reduced Duct Corrosion
- Reduce APH Pluggage
- Potential to lower APH out temps
 - Heat Rate Savings
 - Lower ESP inlet Temps
- SCR Min Op Temp/ Turndown benefit
- FGD Wastewater Benefit – HCl Reduction

BENEFIT OF HCL REMOVAL w/ DSI

Basic FGD Mass Balance





SCR CATALYST FOR HG OXIDATION

Potential Problems from Additional Catalyst

- Added DP
- Added SO₃ & Associated Impacts
- Catalyst Deactivation Trends more Important

Potential Benefits from Additional Catalyst

- More DeNO_x Potential
- Possible NH₃ Slip Reduction