REINHOLD ENVIRONMENTAL Ltd.

2011 NOx-Combustion Round Table & Expo Presentation

February 7-8, 2011, in Birmingham, AL / Hosted by Southern Company

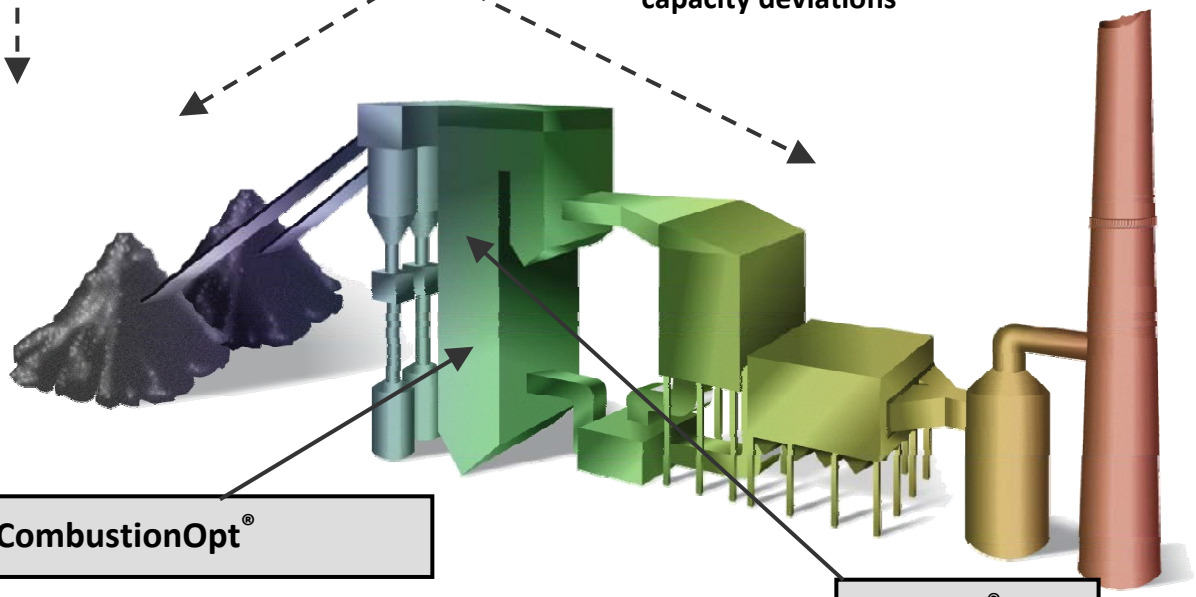
NeuCo Optimizers at Limestone Unit 2

Alerts user to potential equipment health issues and expedites problem diagnosis

MaintenanceOpt®

PerformanceOpt®

Monitors unit performance and alerts user to efficiency and capacity deviations



CombustionOpt®

Optimizes fuel & air mixing to reduce emissions and improve efficiency

SootOpt®

Dynamically directs boiler cleaning actions toward achieving unit reliability, efficiency & emissions goals

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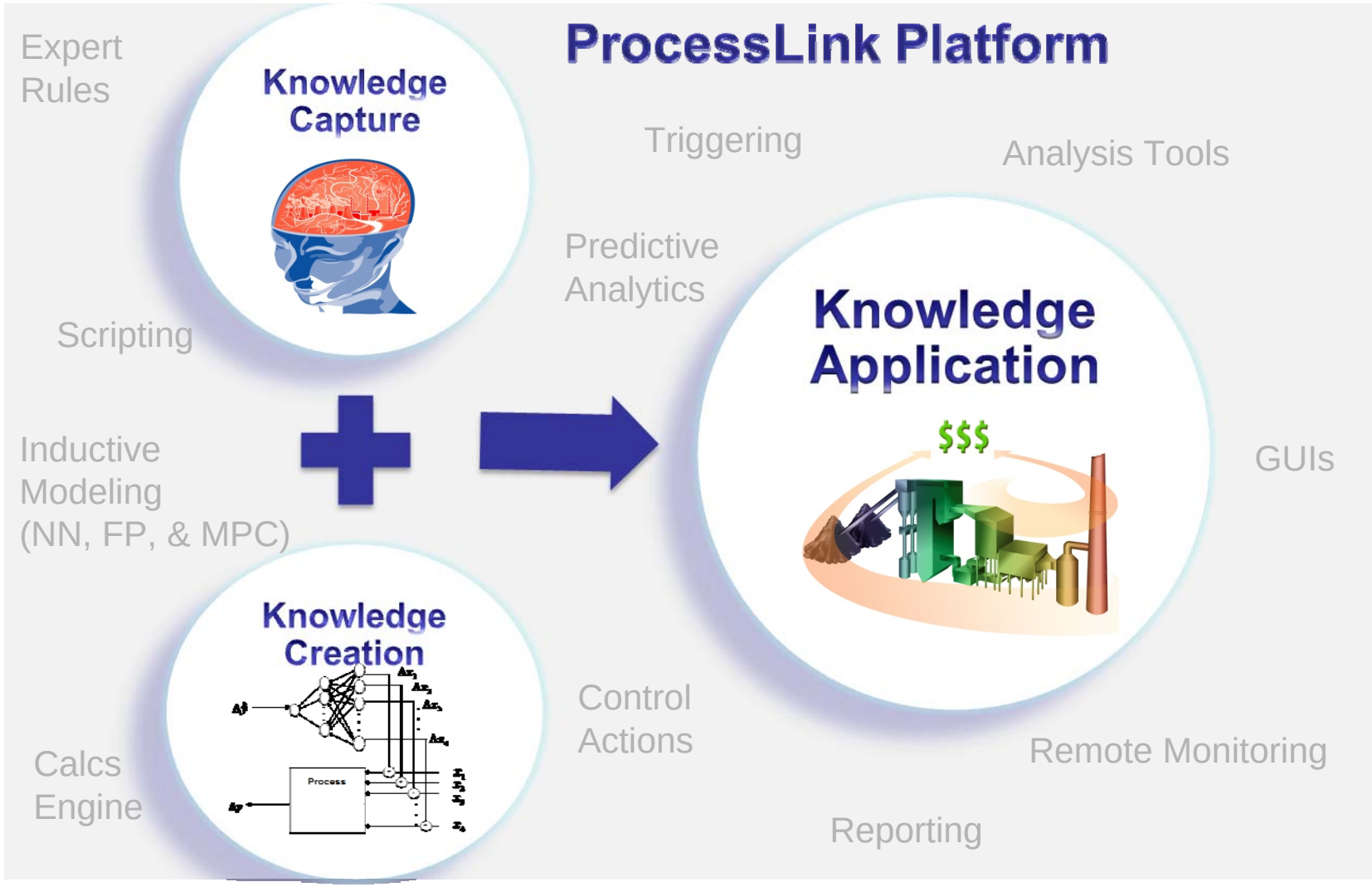
ProcessLink® Platform

Unit-Wide Optimization Approach



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Project Status

- Three project phases complete:
  - Phase I – Installation of advanced sensors
  - Phase II – Installation of optimizers & Hg model
  - Phase III – Demonstrate optimizer performance
- Today's Presentation Focus
  - Analysis & Results from Final project report -- completed and accepted in late 2010

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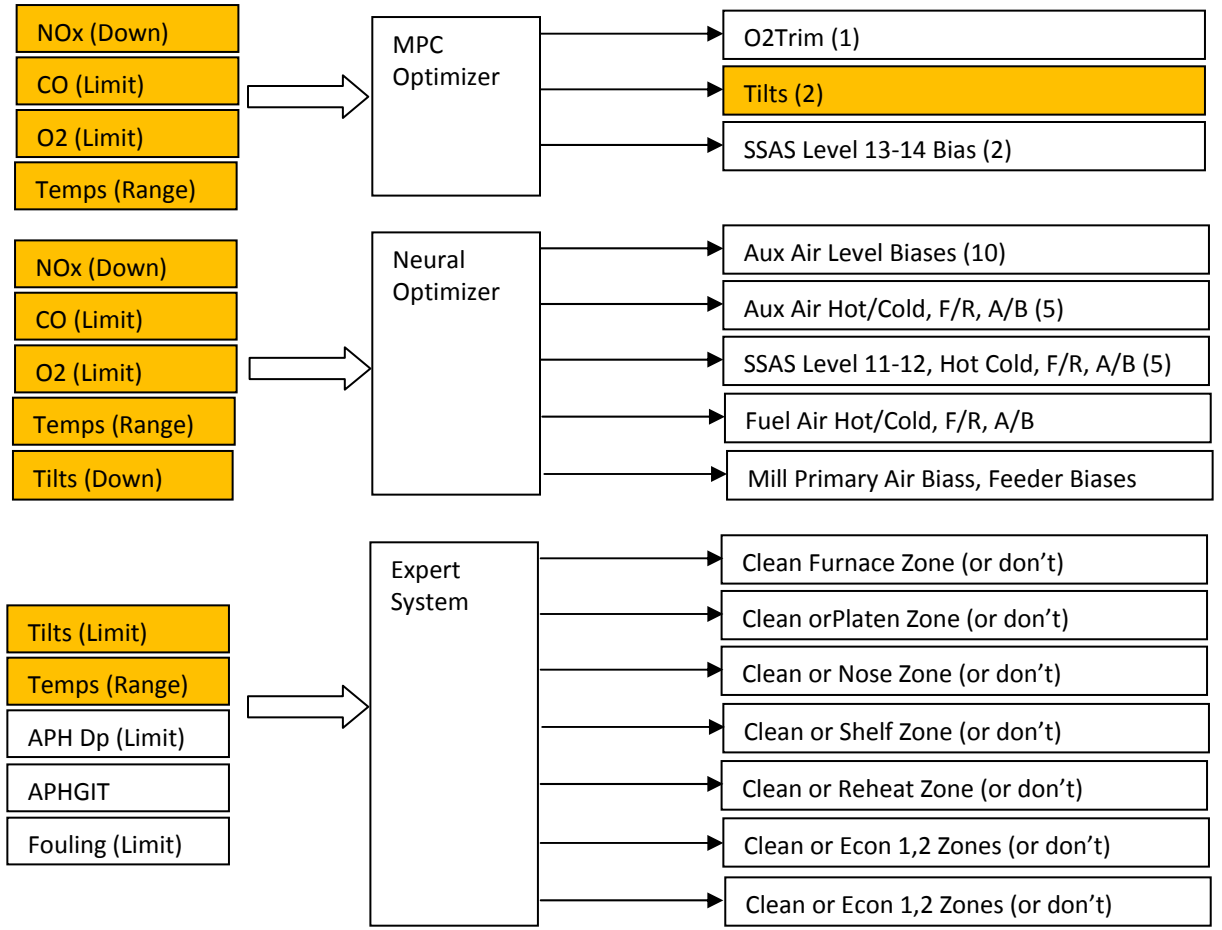
Execution Challenges

- Availability of good Hg CEMS data at the ESP inlet, FGD Inlet and FGD outlet
- Changing regulatory and market conditions, e.g. repeal of CAMR
- Installation and maintenance of wide array of instrumentation from multiple vendors
- Remote management of network cluster and evolving NERC requirements
- Achieving high rates of utilization

BoilerOpt: CombustionOpt and SootOpt Integration



- MPC attacks objectives using MVs it has
- Neural attacks objectives using MVs it has, and tries to make it possible for the MPC to do more
- SootOpt attacks objectives using MVs it has, helping MPC and Neural to do more

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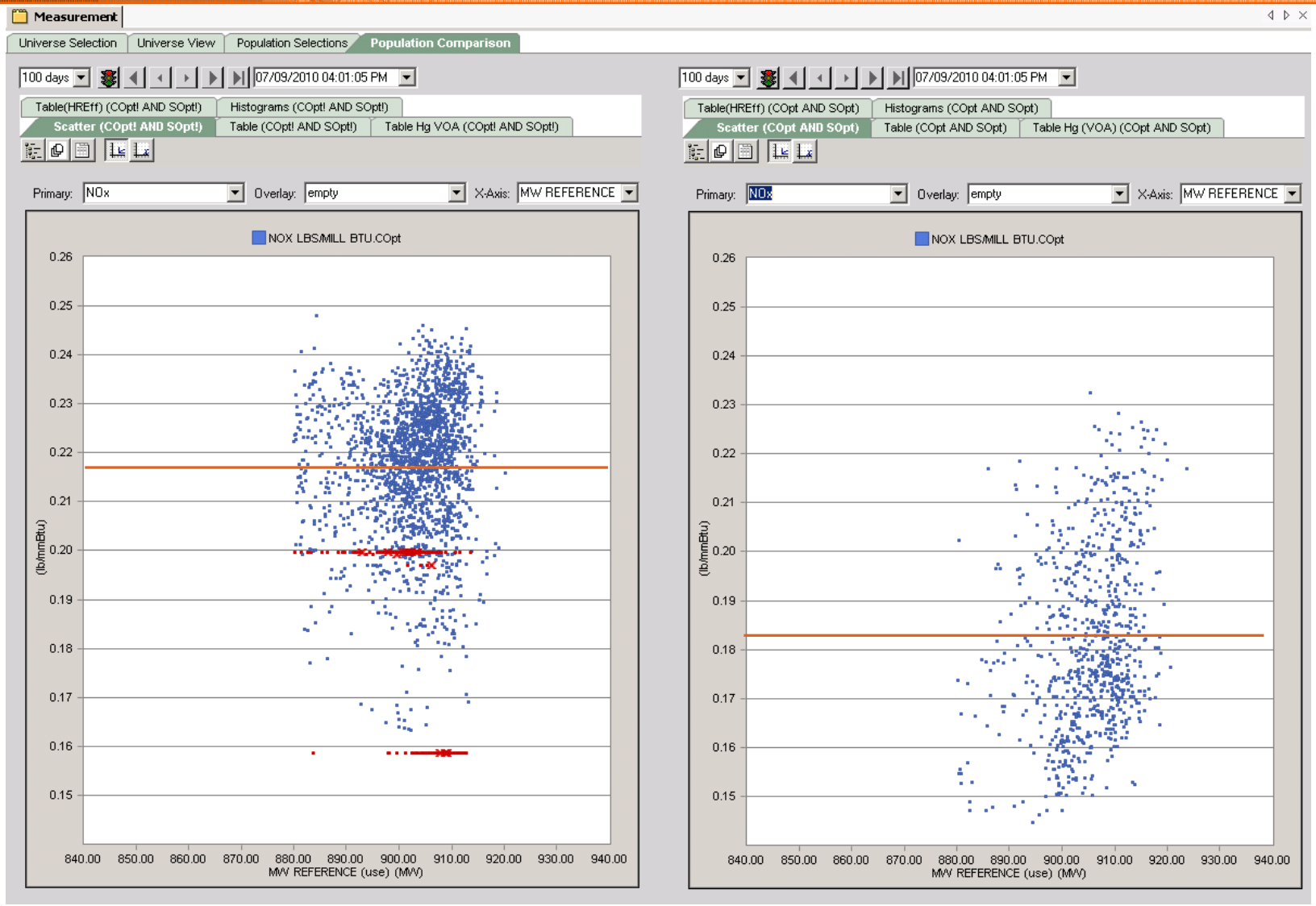
KPI Comparison:
Closed Loop Optimizers

Key Performance Indicator (KPI)	Units	OFF	ON	Delta	Pct Change	Objective
NOx	lb/MMBtu	0.218	0.182	-0.036	-16.5%	Down
CO	ppm	33.08	25.15	-7.93	-24.0%	< 40
RH Temp A	degF	995.78	994.51	-1.27	-0.1%	>980
RH Temp B	degF	995.51	993.91	-1.6	-0.2%	>980
O2 A	%	3.05	2.68	-0.37	-12.1%	>2
O2 B	%	2.94	2.86	-0.08	-2.7%	>2
Boiler O2	%	3	2.77	-0.23	-7.7%	>2
Tilt Dmd A	%	70.87	56.27	-14.6	-20.6%	Down
Tilt Dmd B	%	66.73	59.26	-7.47	-11.2%	Down
2A APH Gas Inlet	degF	779.58	774.37	-5.21	-0.7%	<780
2B APH Gas Inlet	degF	771.25	767.29	-3.96	-0.5%	<780
Losses Effic	%	81.84	81.84	0	0.00%	Up
Net Unit HR	Btu/kWh	10323.46	10202.99	-120.47	-1.17%	Down
Hg Stack Total – with fuel blend control	ppm	6.95	5.4	1.55	-22.3%	Down
Hg Stack Total (VOA) – without fuel blend	ppm	5.48	5.21	-0.27	-4.9%	Down
Hg Removal – without fuel blend	%	62.18	63.63	1.45	2.3%	Up

NOx Reduction



CEMS NOx OFF(Left) vs. ON(Right) populations

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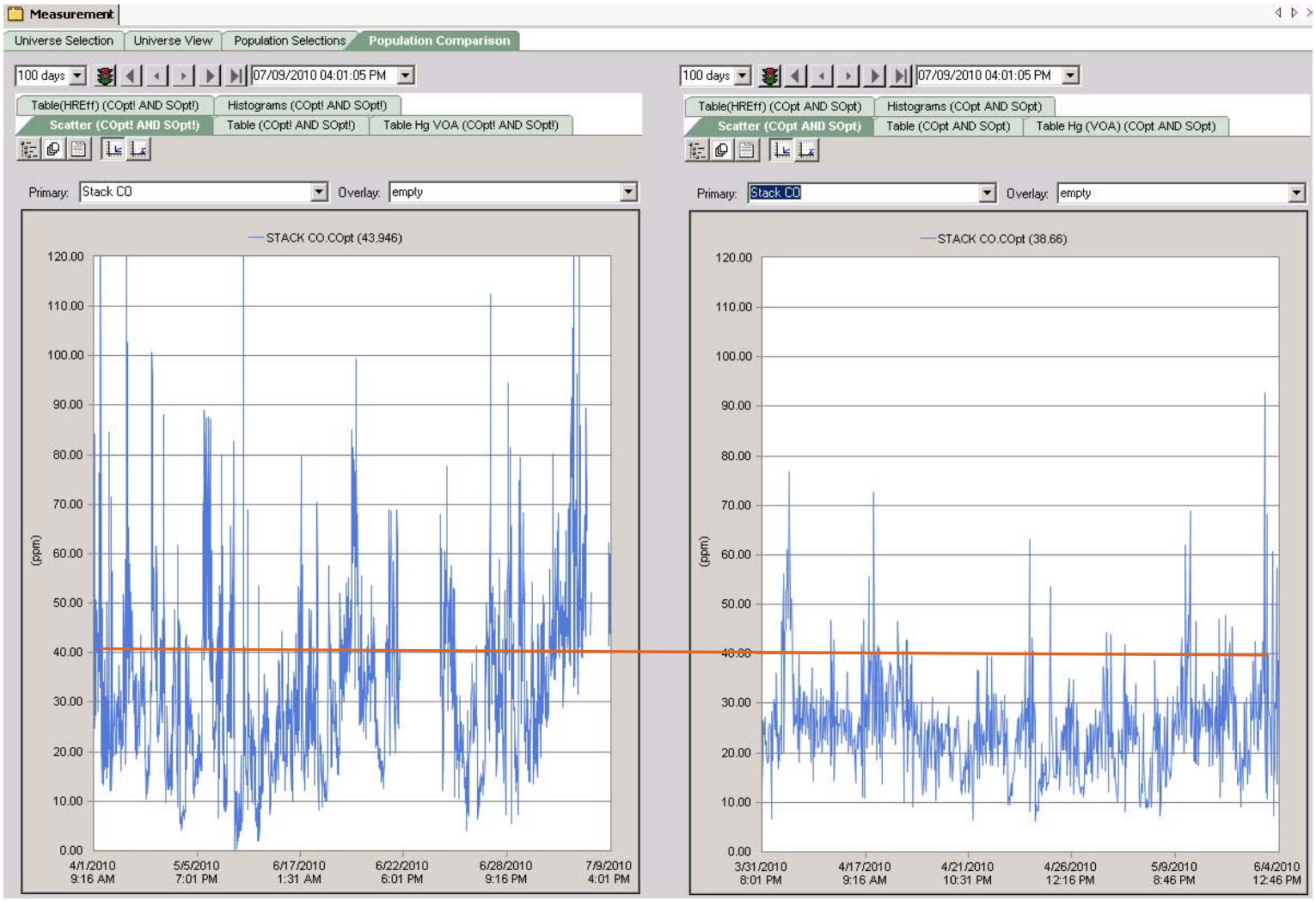
CEMS CO



CEMS CO, MW>880, 3/31/10 - 7/9/10
OFF(Left) vs. ON(Right) populations

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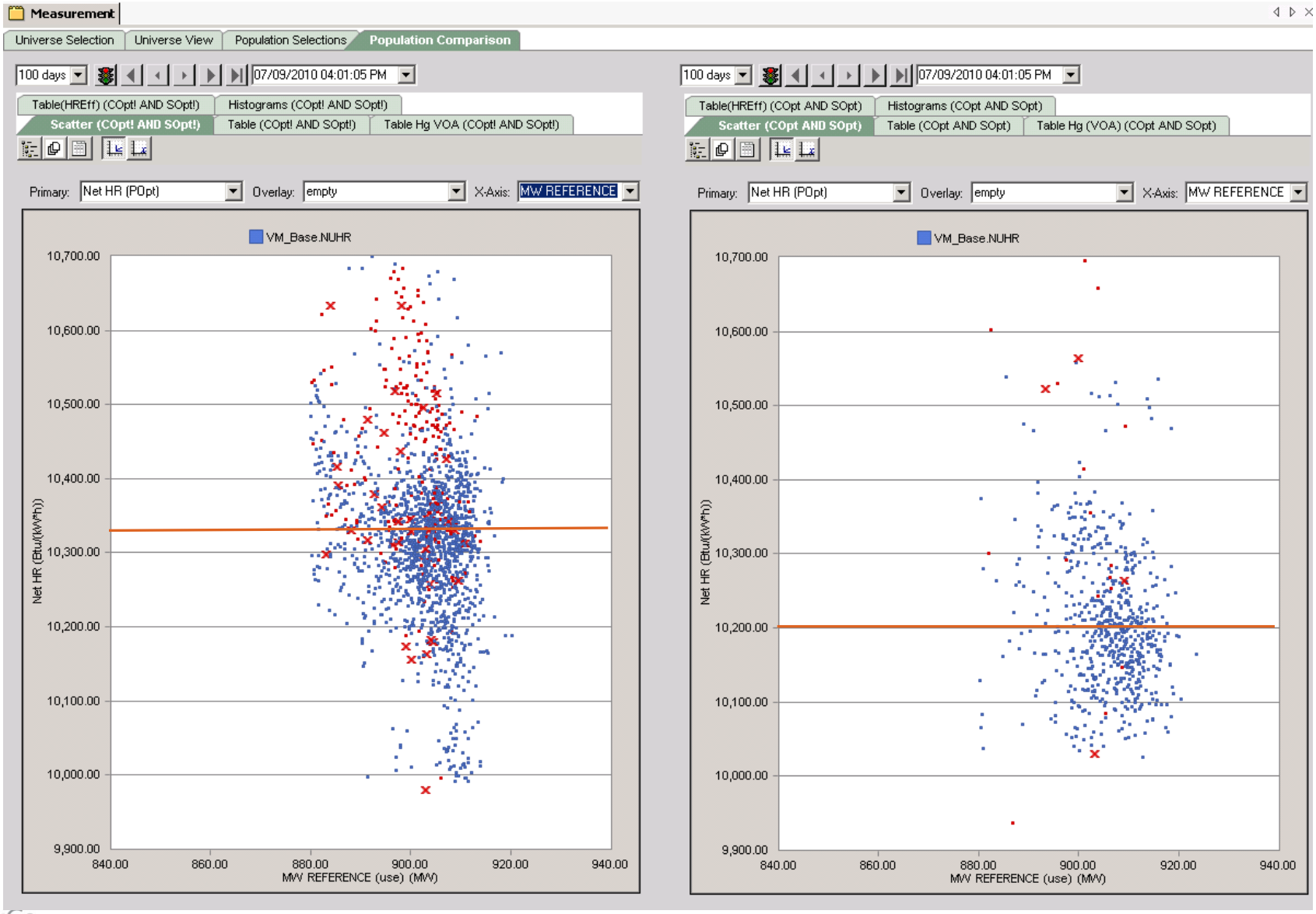
Net Unit Heat Rate
(PerformanceOpt Measured)



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MW>880, 3/31/10 - 7/9/10