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Town of Somerset Board of Selectman

March 21, 2007

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Somerset - Business - Brayton Point



Dominion

Brayton Point Environmental Projects

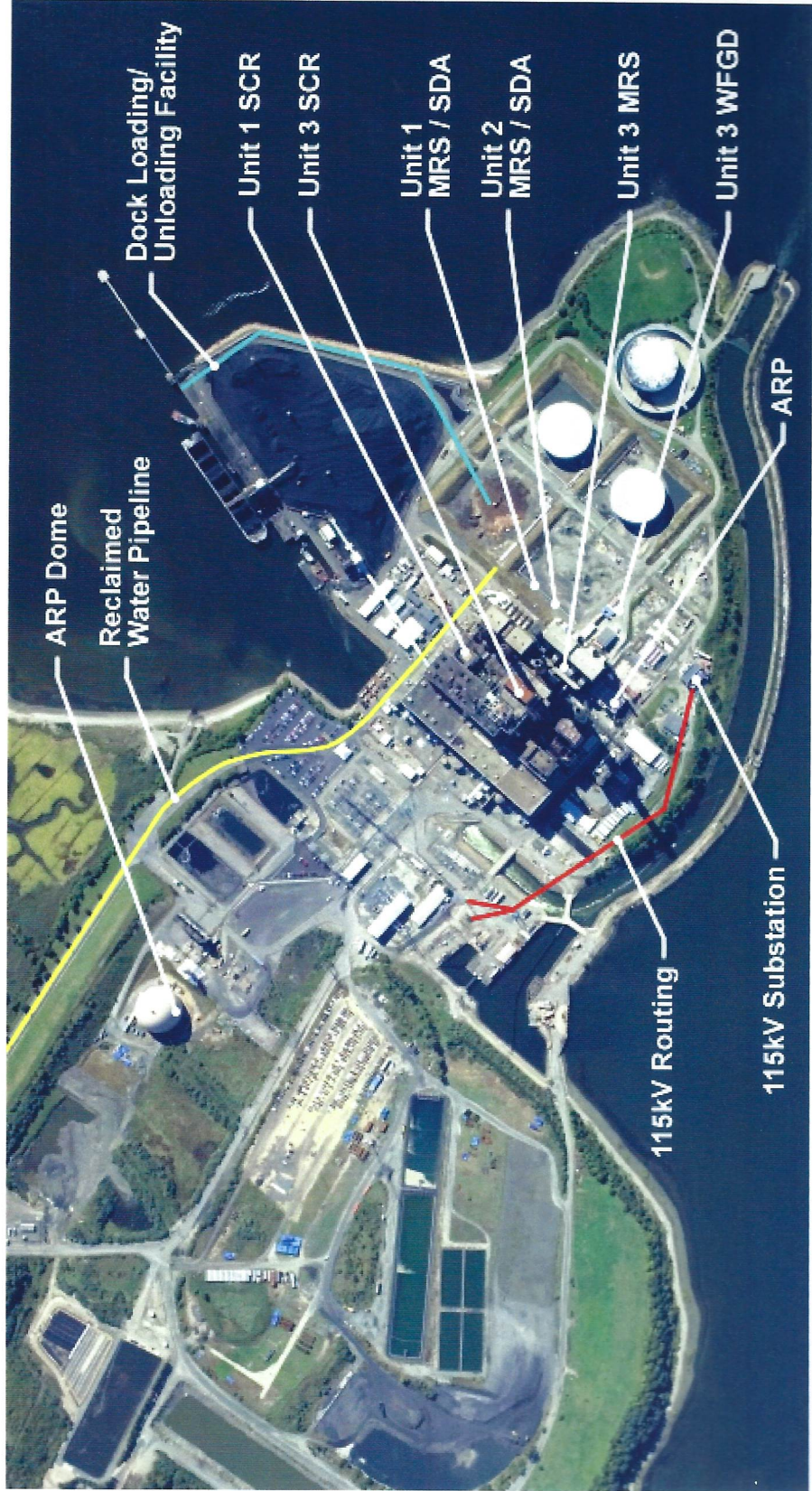
- Completed Projects
 - Units 1 & 3 Selective Catalytic Reduction (SCR)
 - Ash Reduction Process (ARP)

- Projects in Construction
 - Unit 1 & 2 Mercury Reduction System and Spray Dry Absorber
 - Reclaimed Water System

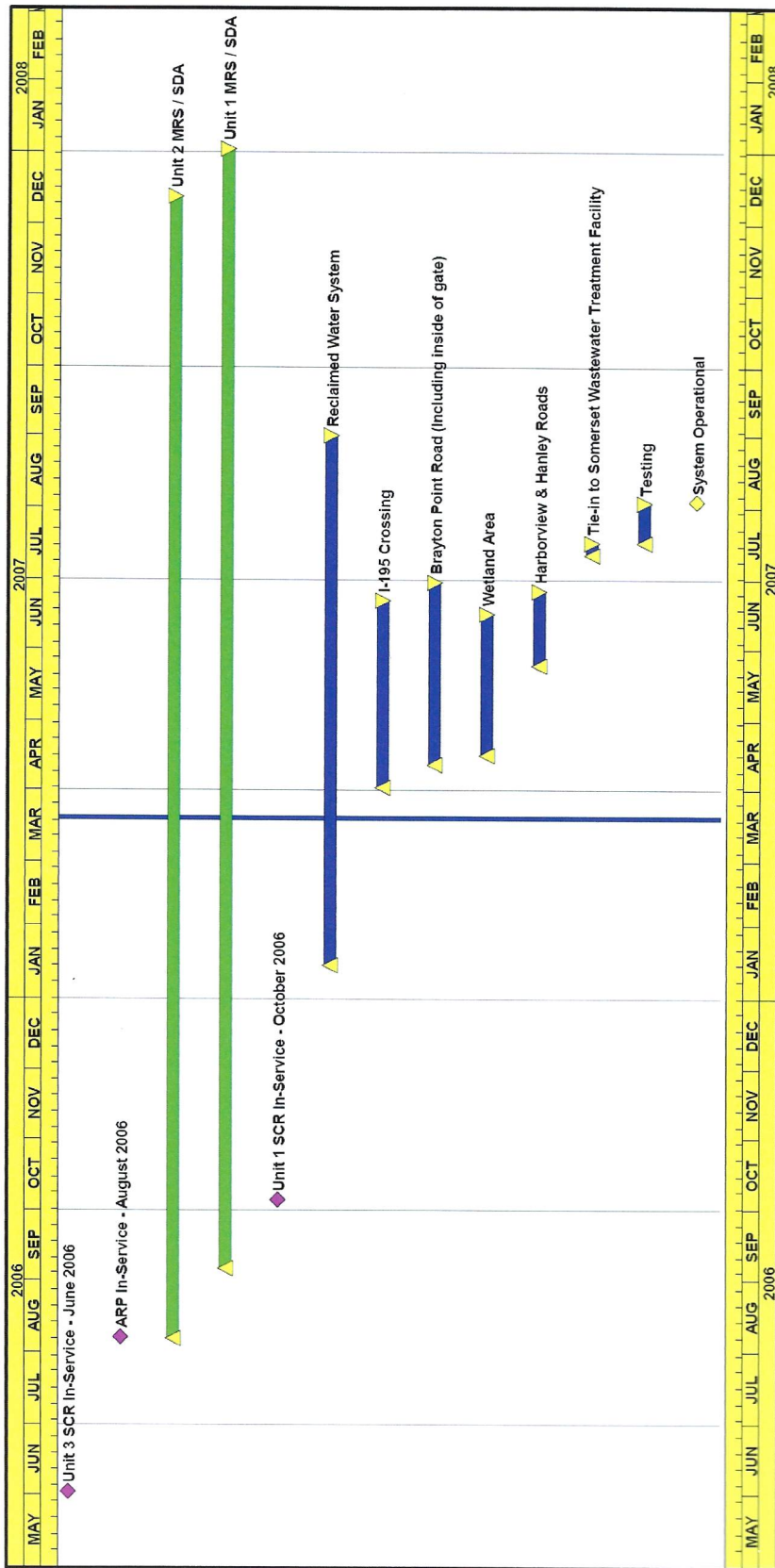
- Future Project
 - Unit 3 Wet Flue Gas Desulfurization



Brayton Point Station – Aerial View



Brayton Point Environmental Projects – Schedule

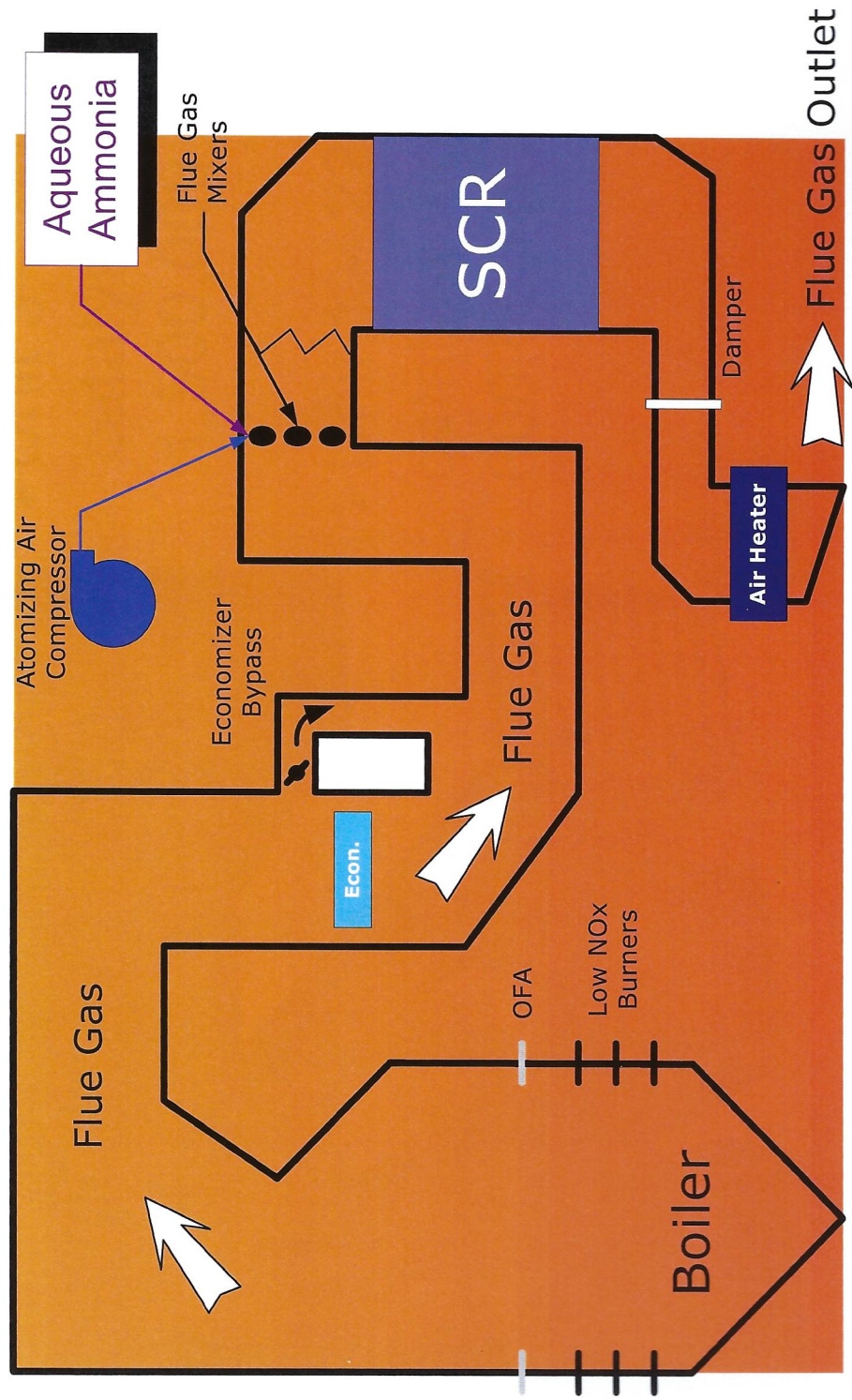


NO_x Reduction Technology

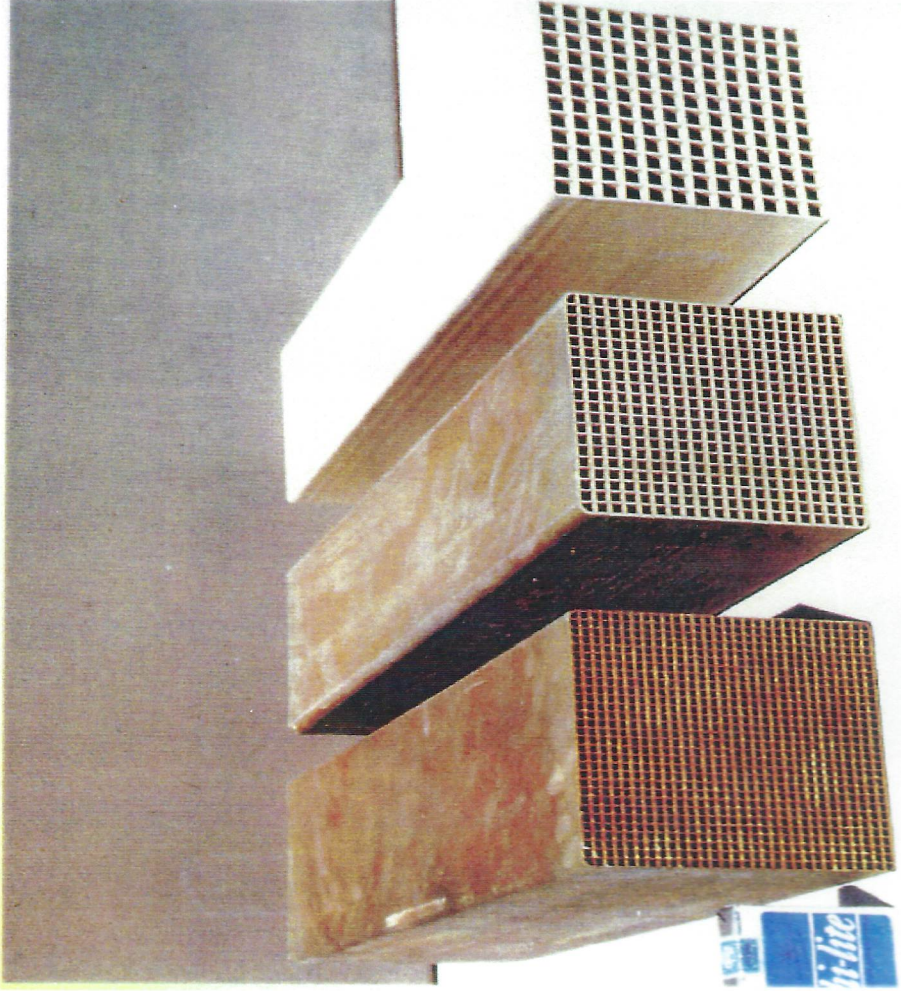
Selective Catalytic Reduction

- In Service in 2006
- Meeting compliance dates and emission limits requirements

Selective Catalytic Reduction – Flow Diagram

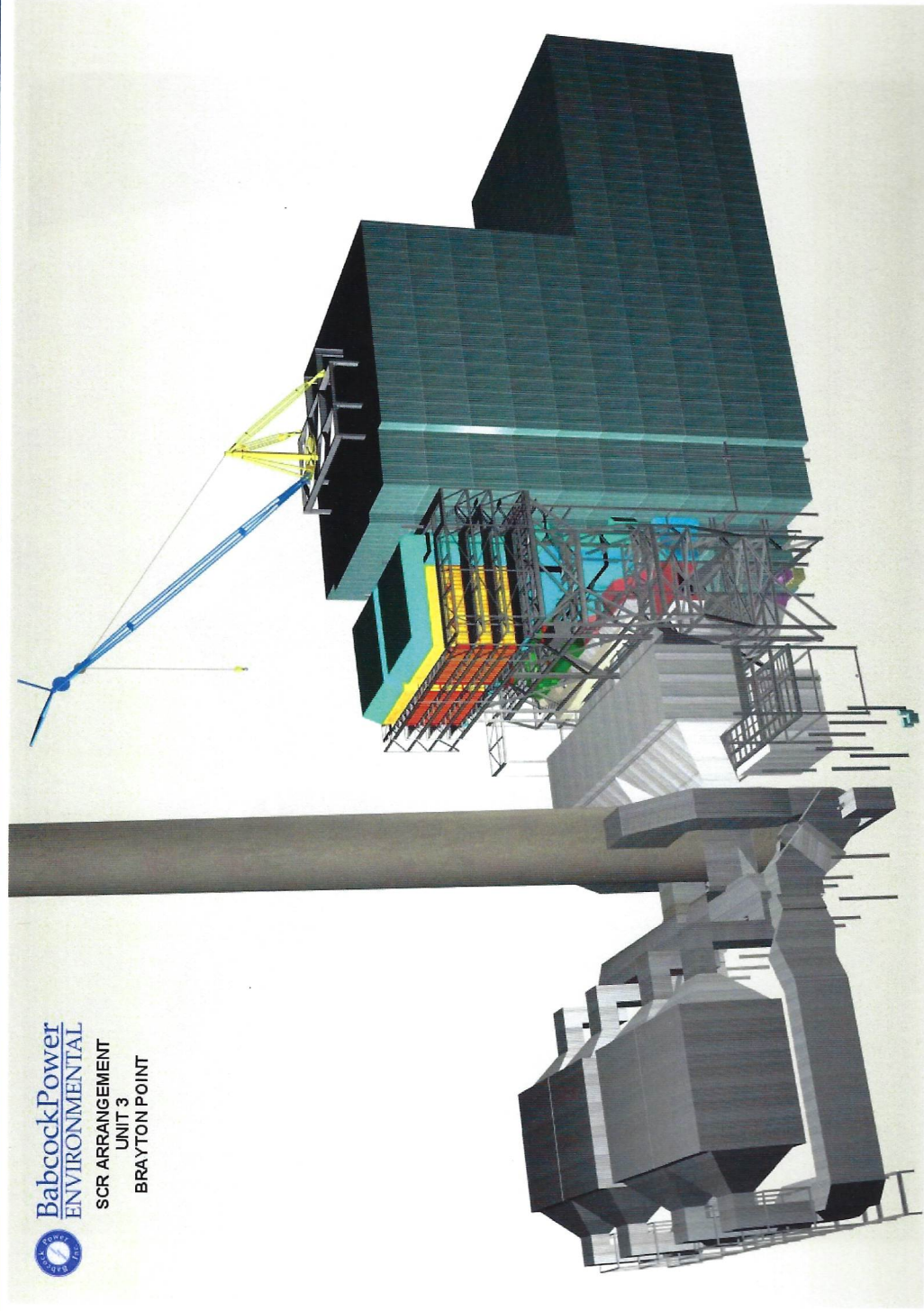



Selective Catalytic Reduction – Catalyst



- Unit 3 – 504 total catalyst modules = 1,500,000 pounds
- Unit 1 – 225 total catalyst modules = 600,000 pounds

Selective Catalytic Reduction – Unit 3 Arrangement

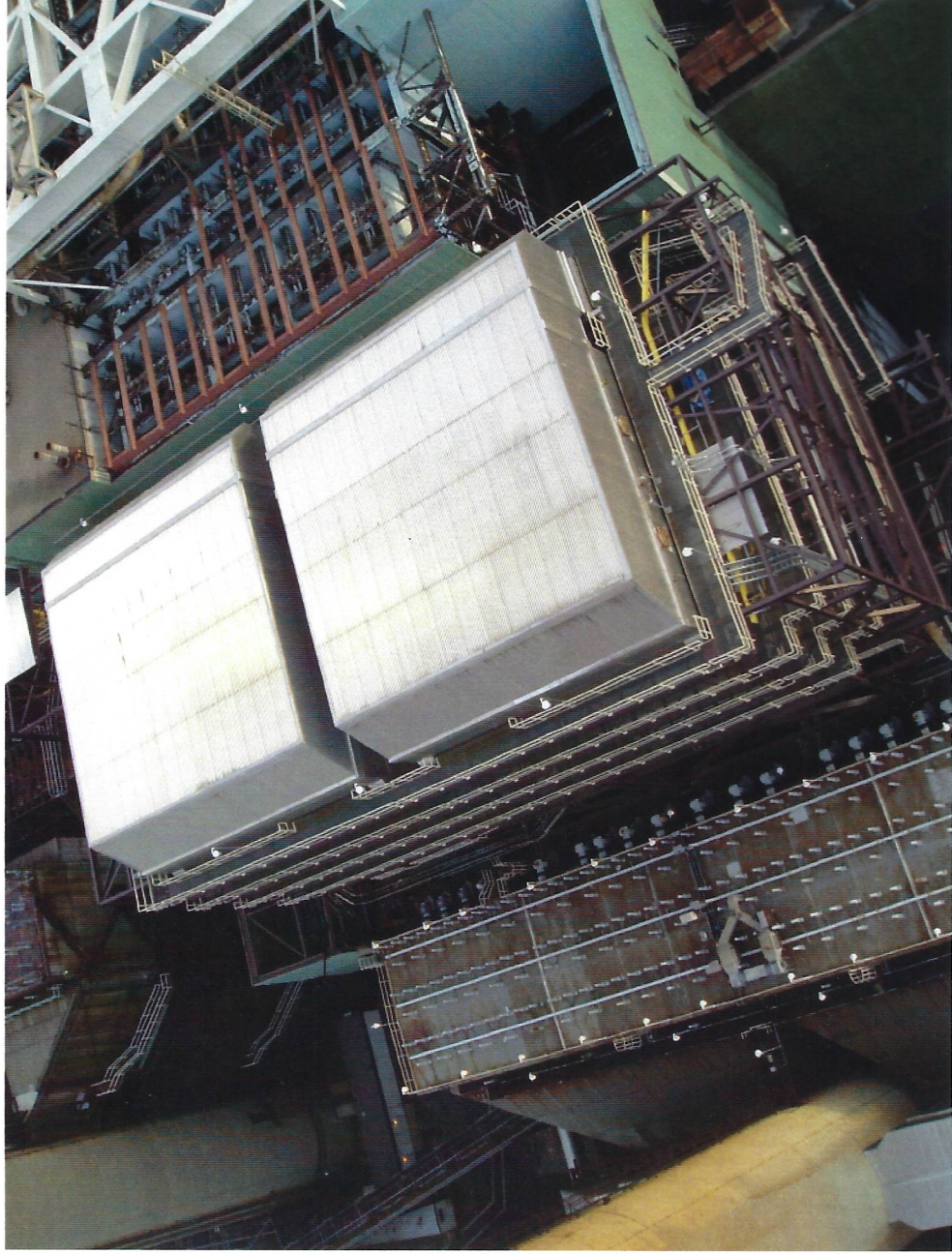


 BabcockPower
ENVIRONMENTAL
SCR ARRANGEMENT
UNIT 3
BRAYTON POINT

Selective Catalytic Reduction – Unit 3 Reactor Boxes



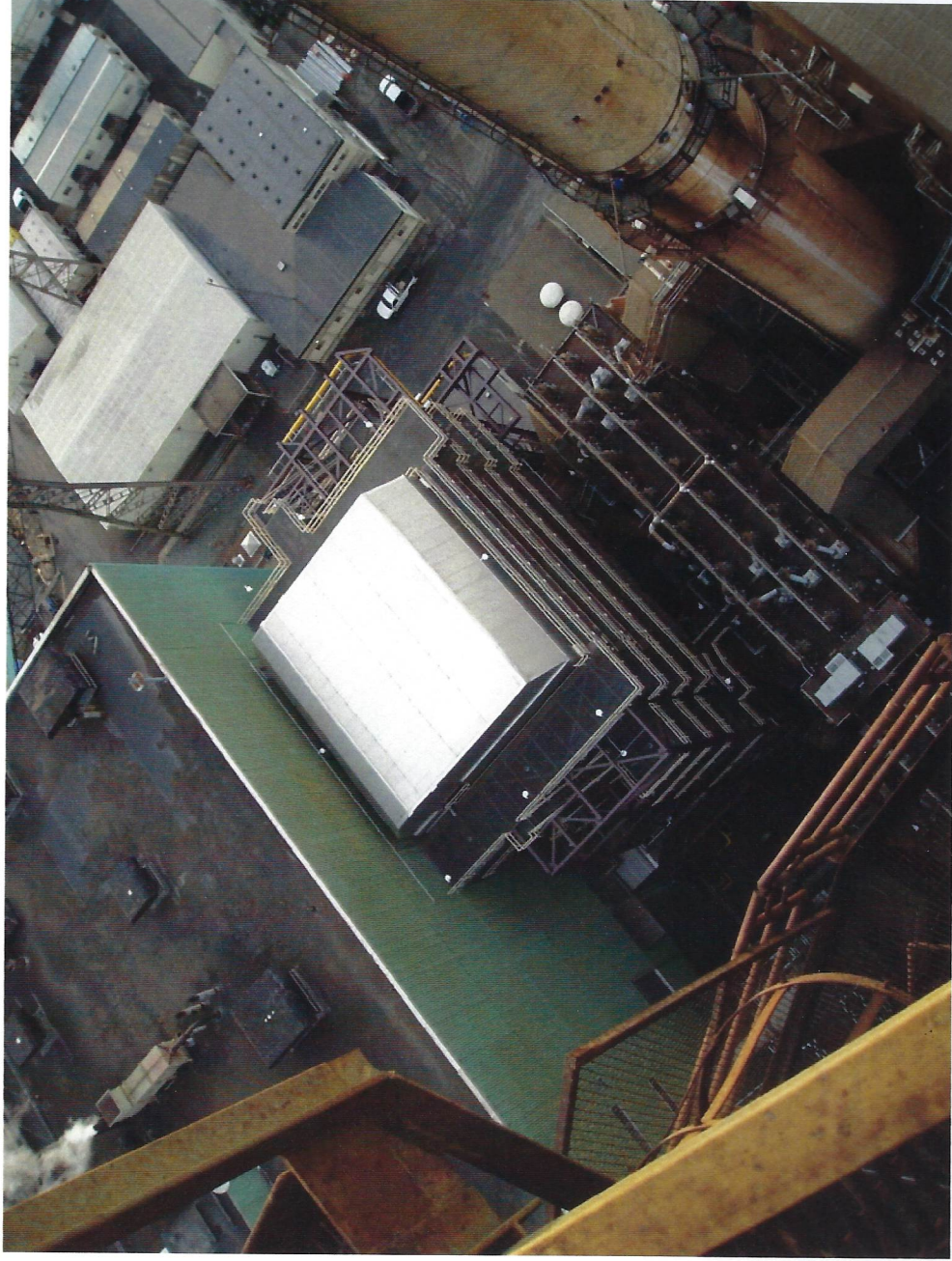
Selective Catalytic Reduction – Unit 3 Reactor Boxes (Aerial View)



Selective Catalytic Reduction – Unit 1 Reactor Box



Selective Catalytic Reduction – Unit 1 Reactor Box (Aerial View)



Selective Catalytic Reduction – Aqueous Ammonia Storage & 115kV Substation

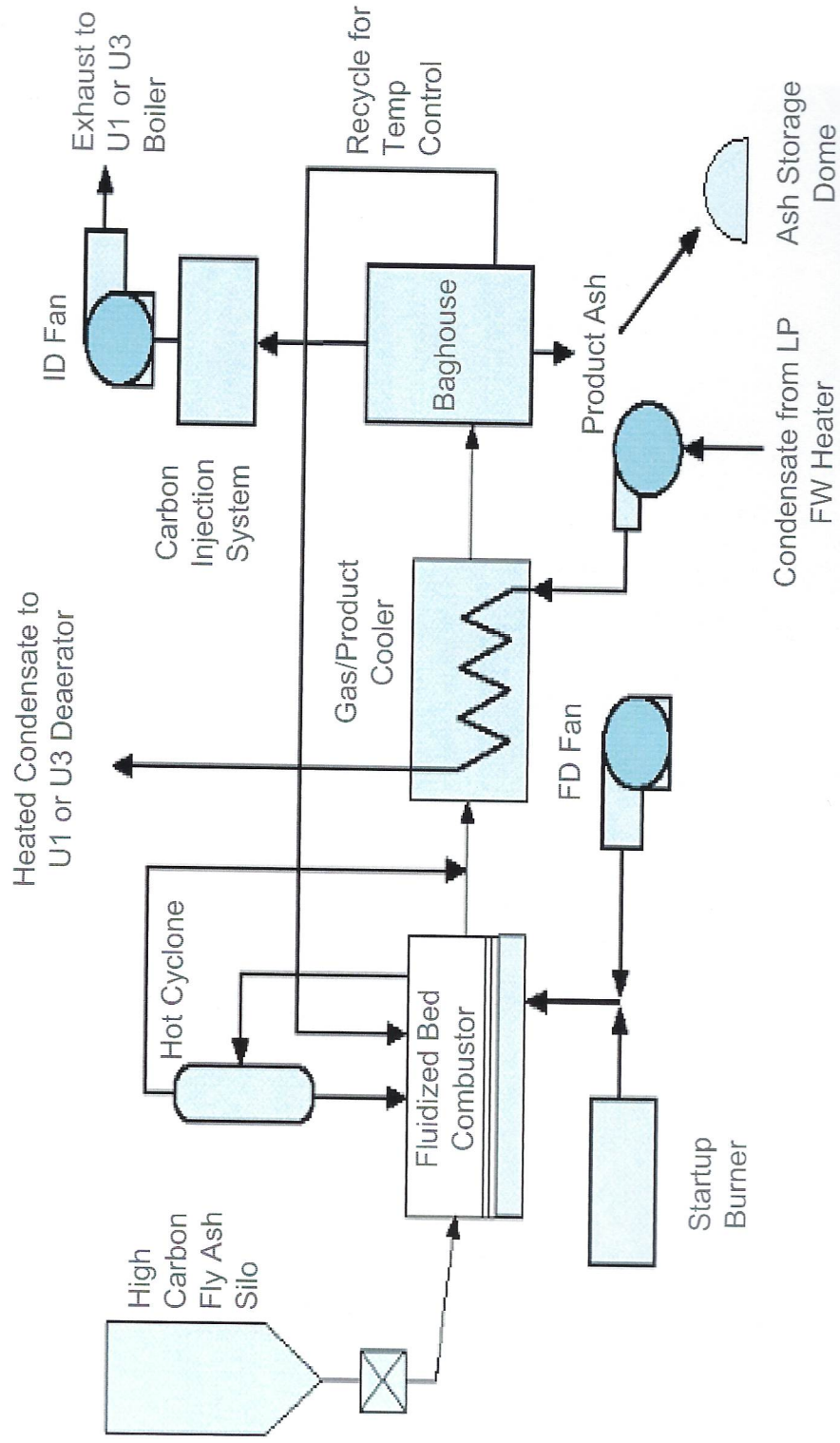


Ash Reduction Process

Fly Ash Recycling Technology

- In service since August 2006
- Production continuing to ramp up to 100% capacity

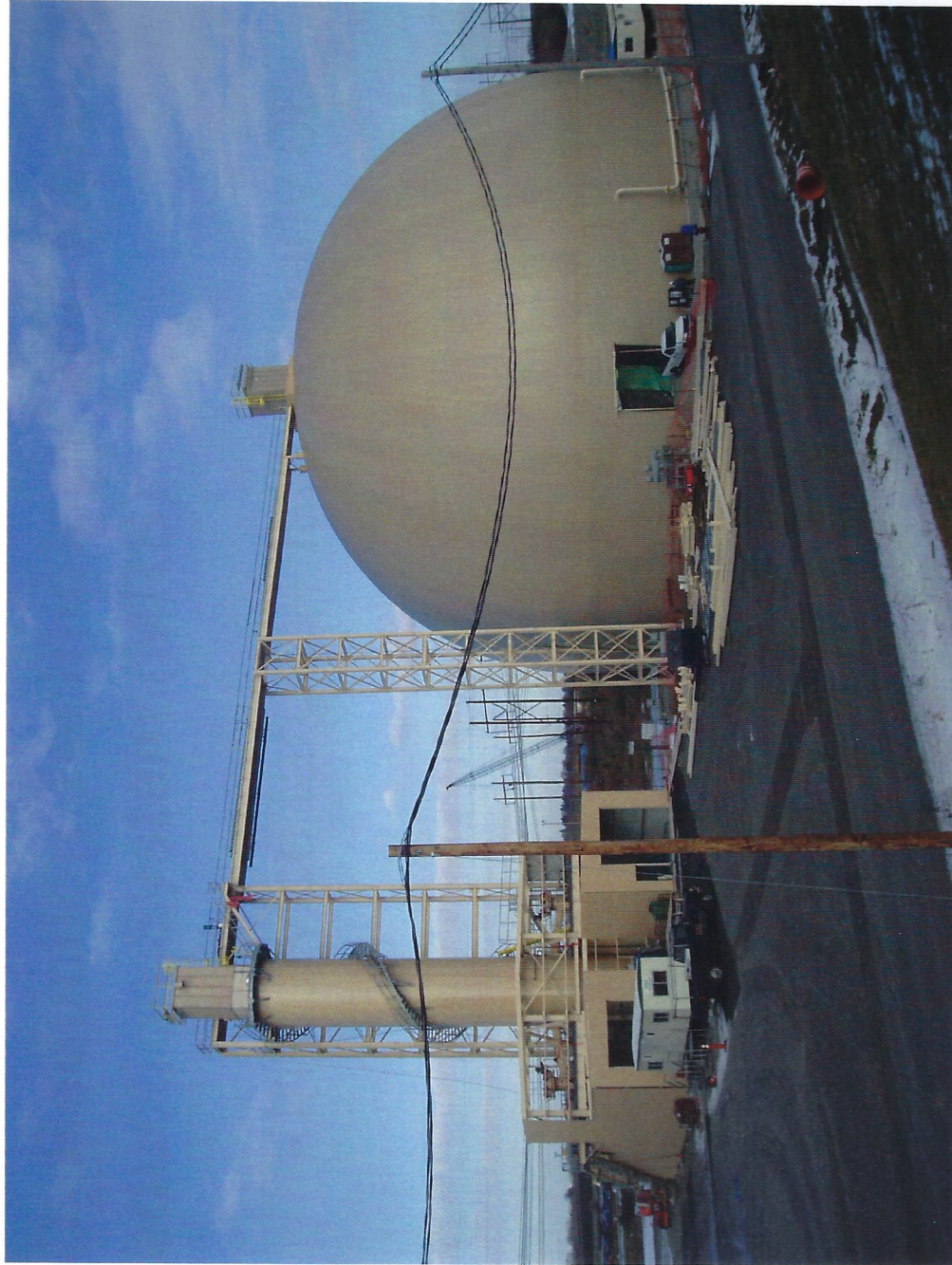
Ash Reduction Process – Flow Diagram



Ash Reduction Process – Process Building



Ash Reduction Process – Product Ash Dome and Truck Loadout

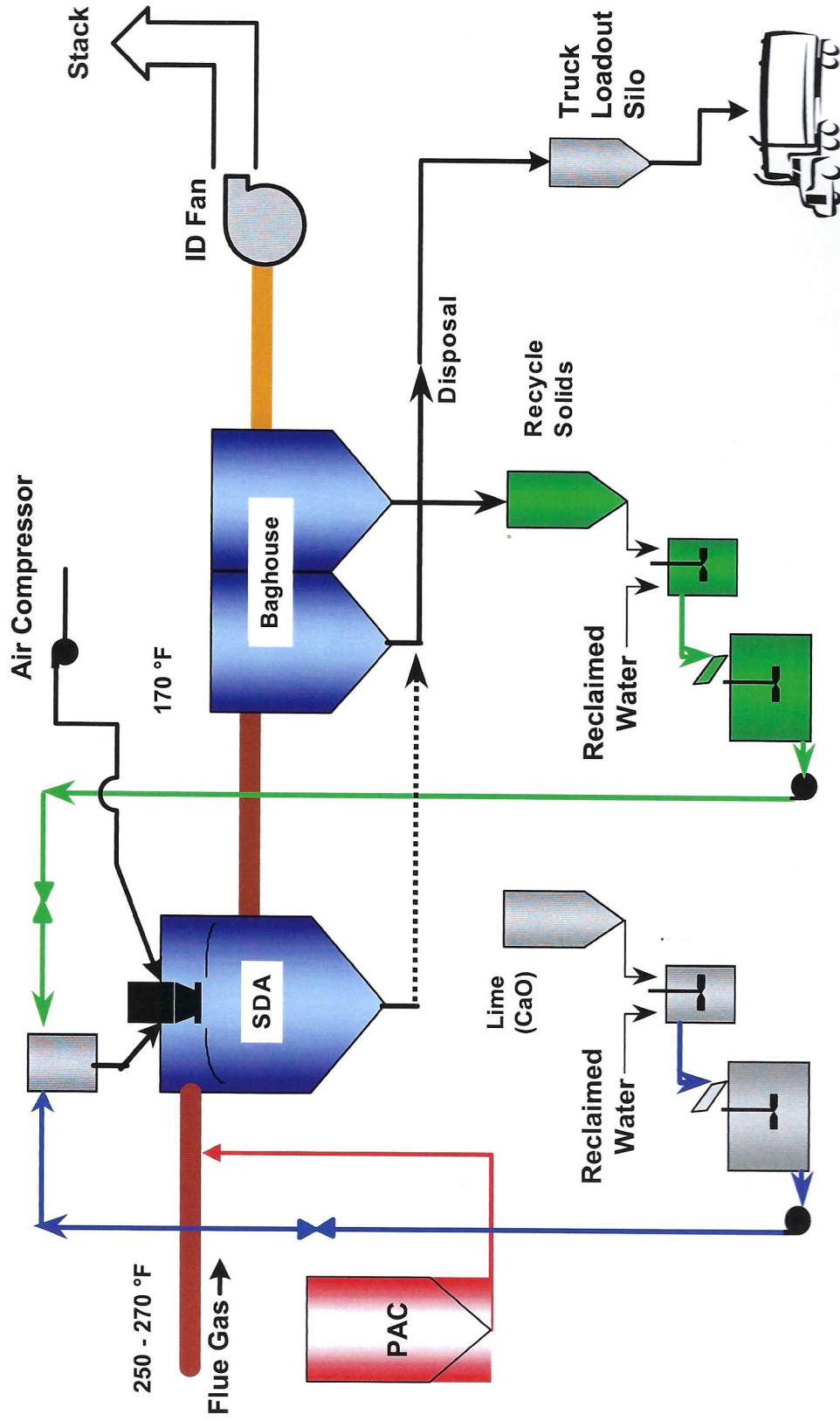


Spray Dryer Absorber

SO₂ Reduction Technology and Mercury Reduction System (MRS)

- In service target – late 07/early 08

Units 1 & 2 MRS & SDA Projects – Process Flow Diagram



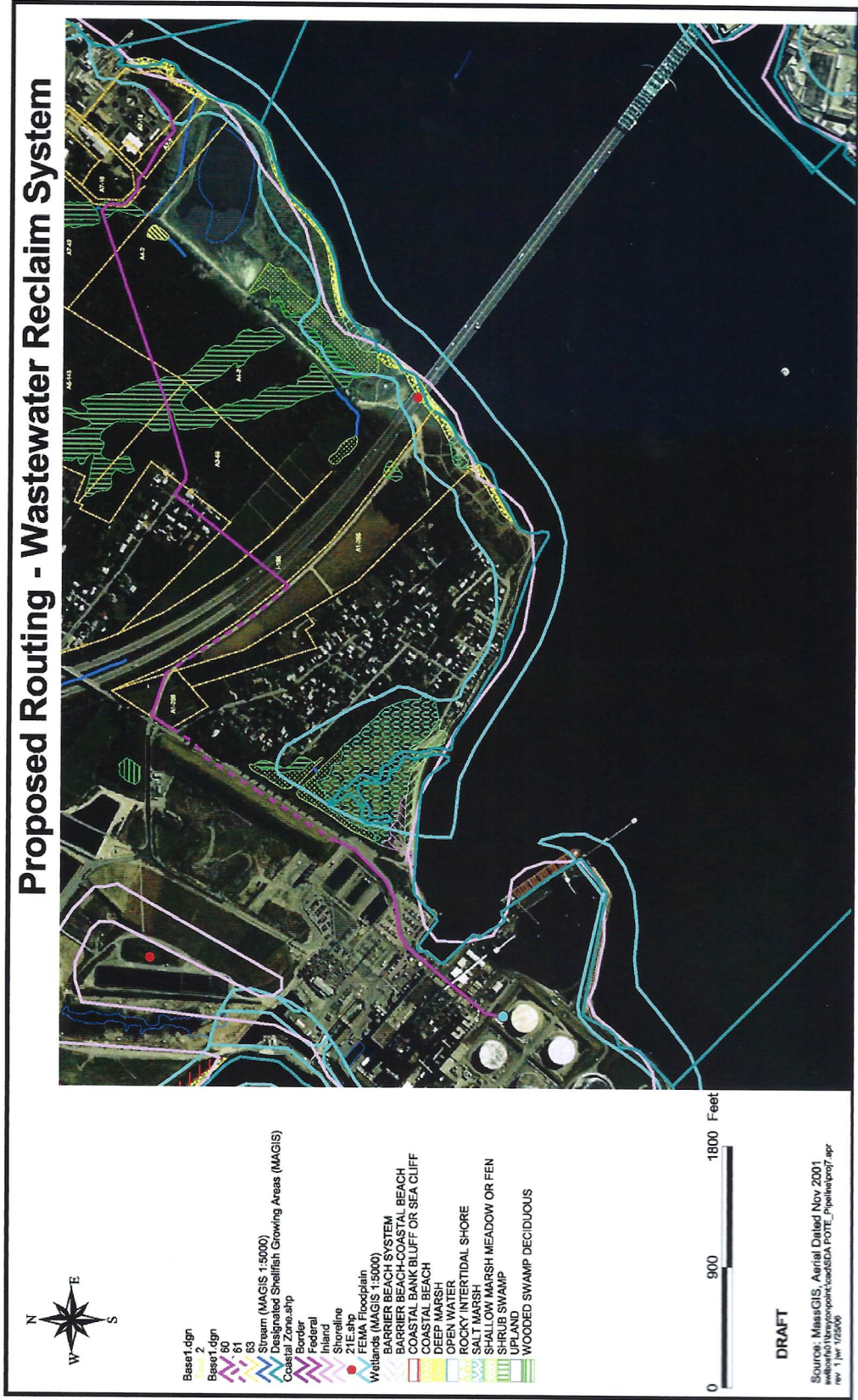
Units 1 & 2 MRS & SDA Projects – Construction Site



Units 1 & 2 MRS & SDA Projects – Construction Site



Proposed Pump Station & Pipeline Route



Reclaimed Water System

(Grey Water System)

- Construction has begun
- In service target – August 2007

Reclaimed Water Storage Tank Foundation



Easement Access East of Somerset WWTF



Soldier Piles and Timbers used for excavation shoring



Somerset WWTF Discharge Pit

Soldier Pile Installation

Reclaimed Water Tie-In Structure Excavation Shoring

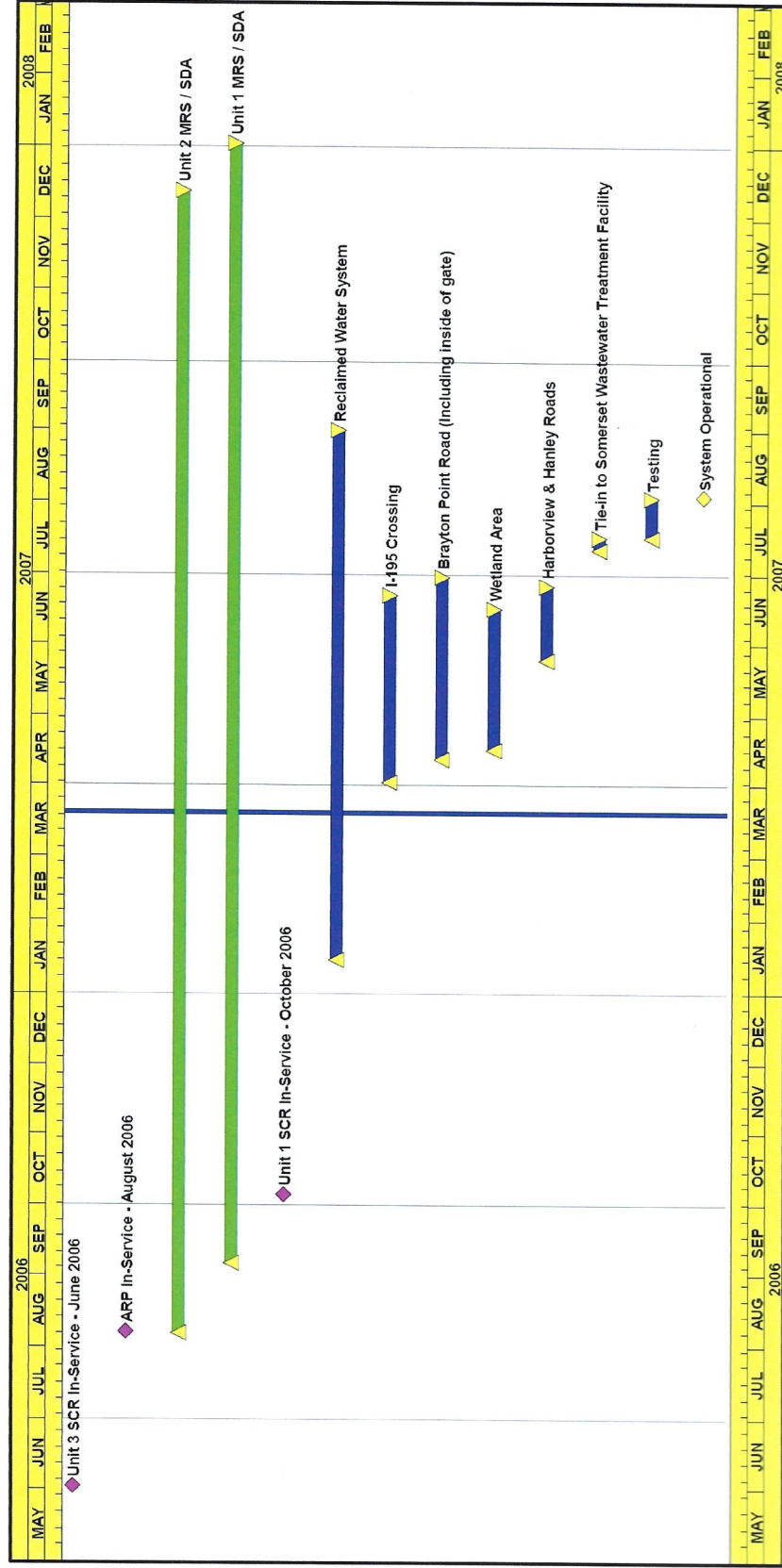


Somerset WWTF 30" RCP Outfall Pipe

10" HDPE Pipe Fusion – South of I-195, North of O'Neil Street



Brayton Point Environmental Projects – Schedule

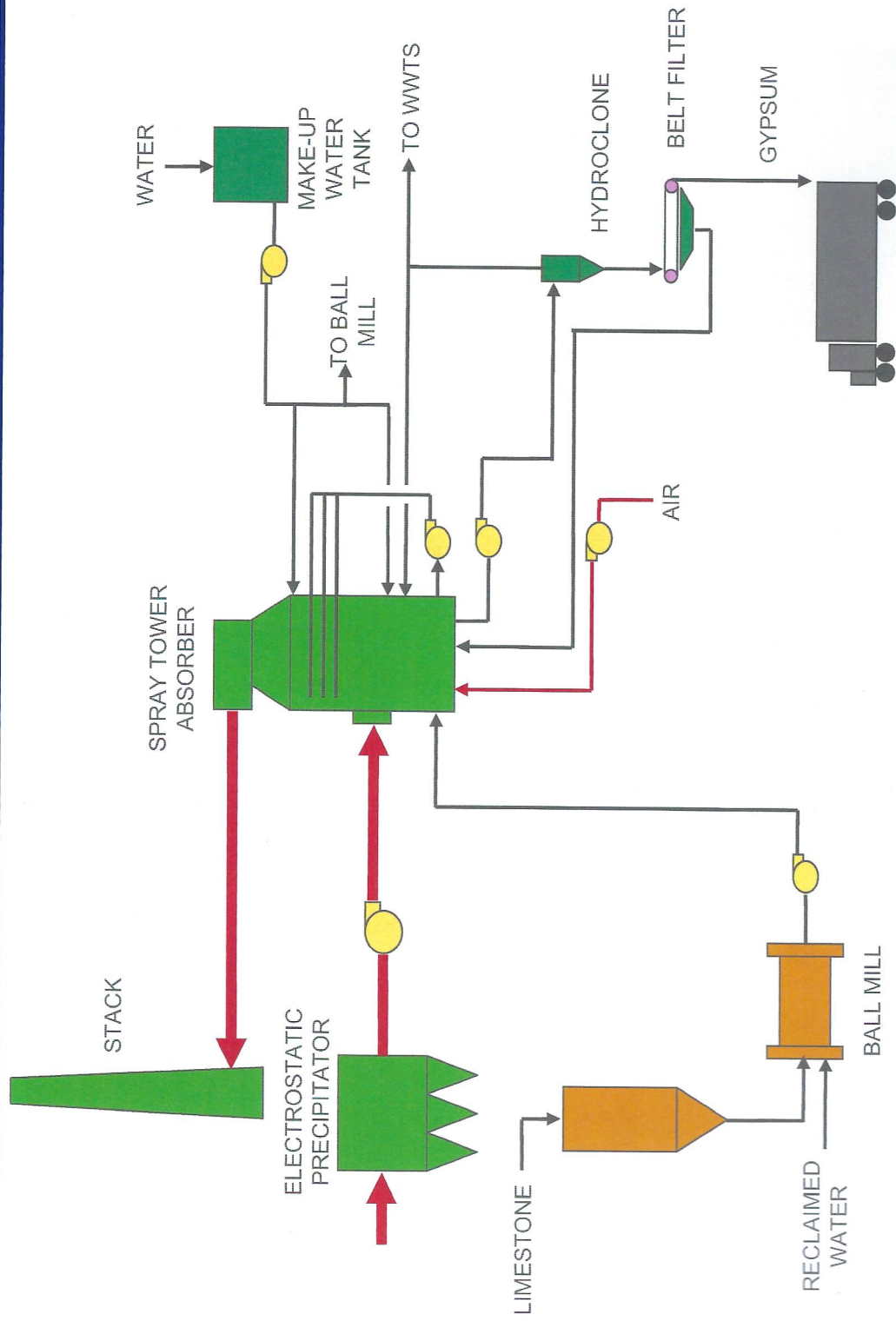


Wet Flue Gas Desulfurization

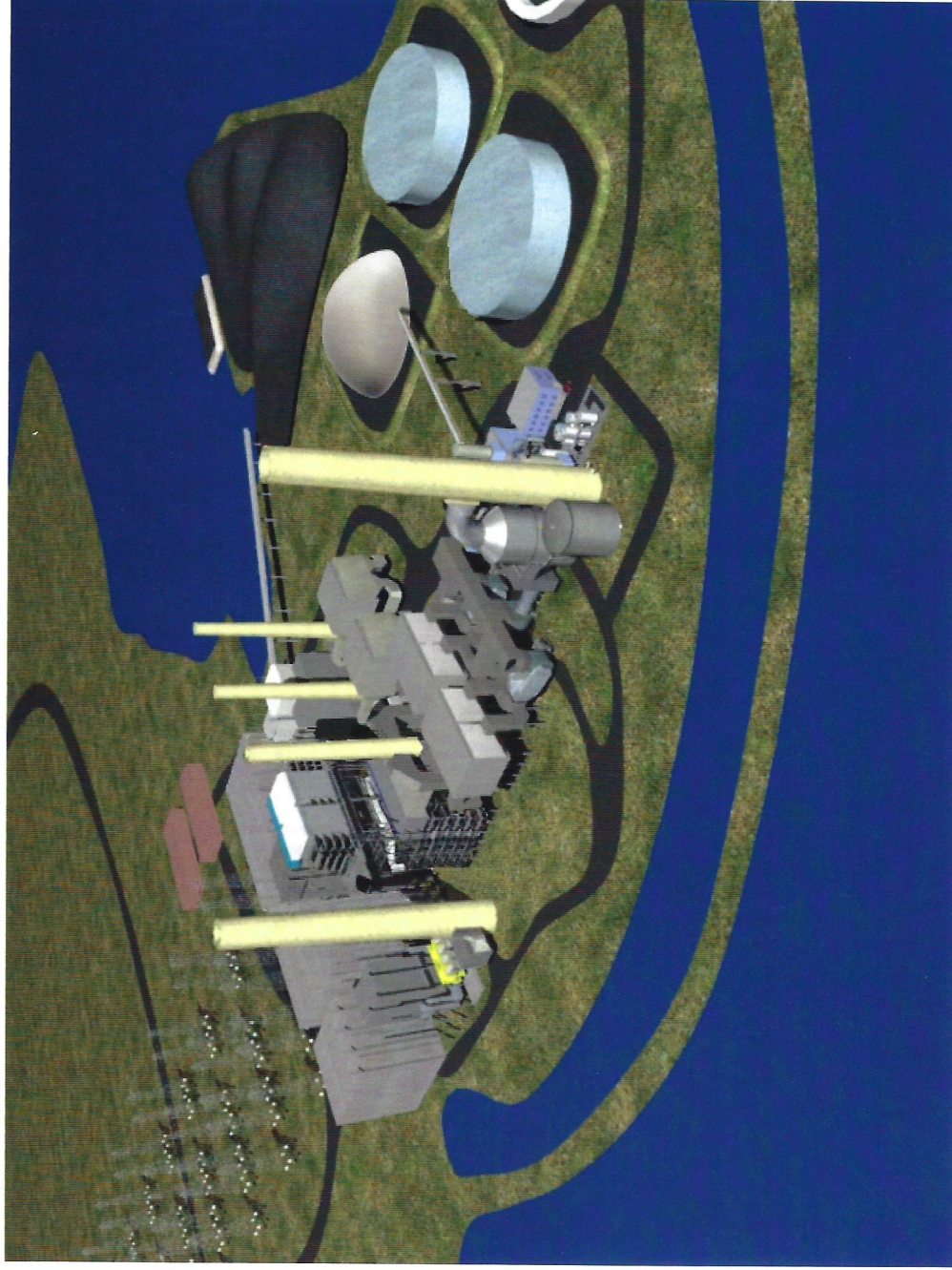
SO₂ Reduction Technology

- Sulfur and mercury reduction system for Unit 3
- Currently review technology options
- Current in service target – late 2012

Wet Flue Gas Desulfurization – Flow Diagram



Wet Flue Gas Desulfurization – Artist's Rendering



Massachusetts Investments

2005 - 2013

- Acquisition 1/1/05 \$656 million
- Environmental Focus*
 - 2005 - 2007 \$340 million
 - 2008 - 2013 \$280 million
- Total Investment \$1.28 billion

* Primarily Brayton Point



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