

Clean Air Project: Scrubber Equipment Schematic

- 1 BOOSTER FANS (3)**
MK1 – One 500,000 acfm @ 18 iwg, 893 rpm; 2,700 hp motor
MK2 – Two 590,000 acfm @ 20 iwg, 893 rpm; 4,200 hp motor
- 2 COMMON FLUE GAS INLET DUCT**
Flue gas from Units 1 and 2 are combined in an optimized duct assembly with flow directing vanes and directed to the absorber inlet
- 3 QUENCH HEADERS**
A diesel-driven pump provides emergency cooling spray for protection of the fiberglass chimney flue and certain absorber elements upon loss of scrubber slurry recirculation
- 4 ABSORBER TOWER**
120-foot high, 57-foot diameter at base, 45-foot diameter at top; Alloy 2205 stainless steel
- 5 NORMAL WATER LEVEL**
49.5 feet above base—top of neck-down area
- 6 ABSORBER AGITATORS (5)**
Three-blade, 9 foot-2 inch diameter impellers; 50 hp motors
- 7 OXIDATION AIR HEADER GRID**
Supplied from two 14,660 acfm, 12,500 hp blowers
- 8 RECIRCULATION PUMPS (4)**
4,100 gpm, two with 1,200 hp and two with 1,400 hp motors
- 9 DUAL FLOW TRAYS (2)**
Boiler gas dispersion and equalization across entire vessel diameter to maximize mixing with scrubber slurry spray and maximize mercury removal
- 10 SLURRY SPRAY HEADERS (4)**
Full distribution spray nozzle system at four levels for thorough mixing of gasses and scrubber slurry (100 nozzles per header—one level for each pump)
- 11 MIST ELIMINATORS (2)**
Assists with the removal of excess moisture from saturated gas before going up the chimney
- 12 ABSORBER OUTLET DUCT**
Transition alloy steel duct from absorber to chimney
- 13 CHIMNEY LINER**
20-foot diameter by 315-foot tall fiberglass chimney liner, located in a 40-foot diameter by 434-foot tall concrete chimney

