

24 MW SLUDGE & WASTE WOOD FIRED POWER PLANT

CLIENT: Snowflake White Mountain Power Company
LOCATION: Snowflake, Arizona

The scope of this project was as follows:

- 1) Evaluate existing used power plant equipment for installation in a paper mill sludge and wood waste fired power plant. Plant includes a 200,000 #/hr, 850 psig, 900°F bubbling bed boiler and a 24 MW extraction and condensing turbine/generator.
- 2) Selection of all equipment.
- 3) Determine equipment required on the boiler to meet present DEQ & EPA requirements.
- 4) Complete engineering for power plant, sludge dewatering, and wood yard installation.
- 5) Project Management.

The following engineering tasks were completed as part of this project:

- ▶ Power Plant Heat and Mass Balance Evaluation
- ▶ Overall Plant General Arrangements and Layouts
- ▶ Structural, Including Top Hung Boiler Structure
- ▶ Boiler Island Design around B&W Field Erected Boiler
- ▶ Air Emission Permitting
- ▶ Emission Controls Design
- ▶ Turbine Island Design
- ▶ Cooling Tower Installation Design
- ▶ Sludge Dewatering System Design
- ▶ Design of all Foundations
- ▶ Building Design
- ▶ Developed all P&ID's
- ▶ Design of all Electrical Systems Including Utility Substation Tie-Ins
- ▶ Design of Instrumentation and Controls
- ▶ Piping Design
- ▶ FM and Insurance Carrier Requirements
- ▶ Drawing Requirements and Standards
- ▶ Budget Controls
- ▶ Project Scheduling
- ▶ Project Management



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