

## **Valve Work during Power Plant Outage: White Paper**

**Situation:** A large, natural gas-fired power plant needed over 100 valves opened, inspected, and rebuilt (when necessary) within 30 days during a scheduled 12-week outage.

### **Overview of the Power Plant:**

- located in south central Pennsylvania;
- 2 combustion turbine engines, 2 heat recovery steam generators, and 1 steam turbine generator;
- the combustion turbines burn natural gas to generate power and produce steam; the steam goes to the steam turbine that generates additional power and leaves minimal environmental impact;
- zero liquid discharge with high efficiency provides reliable, low-cost electricity.

**Solution:** Millennium Power Services was contracted to check and perform maintenance on the 100+ multiple isolation and control valves ranging from 1" to 28". Nine MPS technicians worked onsite, opening, inspecting, then machining (when needed) valves and actuators.

For convenience and cost-savings, and to enable completion within the required timeframe, an MPS mobile machine shop was sent to the site. It was equipped with an 18" swing lathe, 42" milling machine, welder, sandblaster, hydraulic press, workbenches, hand tools, and more.

MPS was also responsible for subcontracting forklift and crane services, scaffolding services, and insulation services that related to their part of the overall project.

**Results:** Originally planned for 30 days, the scope of MPS involvement grew as the job progressed. Throughout the work, MPS documented and reported all fact-findings and recommendations. They also attended daily safety meetings.

The client stated that all MPS work was successful. No MPS recordable injuries were experienced.

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