

**CLIENT**

**CONFIDENTIAL**

**LOCATION:**

New York

**CONSTRUCTION VALUE:**  
\$3 Million

**PROJECT START:**  
2004

**PROJECT COMPLETE:**  
2006

**SCOPE OF WORK**

Project Management, Validation Master Plan generation and qualification of Feed Water System, Clean Steam System and WFI system

**PROJECT DESCRIPTION**

Process Utilities expansion project was designed to increase the production and storage capacity of process utilities to meet the demands of the Client due to increased production activities. The added production and storage equipment were integrated with the existing systems and qualified.

A&J provided validation services and project management on this project, which included the following equipment.

**1. Feed Water System (RO/DI) # 2 - Equipment manufactured by GE**

- Pre-treatment skid - Multimedia Filters, Softeners, Carbon tower
- Feed Water generation - RO Membranes, UV Lights, Pre & Post Filters
- Polishing - EDI Machine
- RO/DI Water Storage Tank and distribution piping
- Local PLC Control System
- Integration of new system to the existing Feed Water System
- Feed Water Sampling

**2. Clean Steam System**

- Clean Steam Generator # 2 (Mueller)
- Local PLC Control System
- Tier-In of Clean Steam Generator to Clean Steam system
- Clean Steam Quality testing to EN285
- Clean Steam condensate sampling

**3. Water for Injection (WFI) System**

- Multiple Effect Water for Injection Still # 3 (Mueller)
- WFI Storage Tank and Distribution Lines
- Local PLC Control System
- Tie-In of WFI Still # 3 and Storage Tank to the existing WFI System
- WFI Sampling

**4. Tie-In of Local PLC Control Systems to existing Honeywell DCS System**

