

Balance of Plant Engineering and Component Installation Services

Background

Westinghouse provides balance of plant (BOP) engineering and component installation (E&CI) services that deliver engineering solutions across the entire plant, beyond traditional steam supply system services. From specialty consulting to integrated, comprehensive solutions for engineering projects, Westinghouse's BOP E&CI services integrate customers' needs and address them to optimize plant performance.

Description

Westinghouse has extensive in-house design engineering capabilities and provides specialized welding, machining and component field installation. Westinghouse's installation services' capabilities are also complemented by its subsidiary, WesDyne International LLC, specializing in inspection services for the power industry with several locations in the United States and Sweden.

Westinghouse can:

- Develop design change packages for component modifications, such as: condenser change-outs, moisture separator re-heater upgrades, feedwater heater replacements and digital instrumentation upgrades.
- Provide BOP E&CI services for power uprate projects.
- Perform heat exchanger inspections and maintenance, as well as turbine generator inspections on all major manufacturers' equipment.
- Provide motor, pump and valve diagnostics and refurbishments.
- Perform integrated, comprehensive solutions for component removal and installation projects.

- Respond to engineering, procurement and construction contracts for buried pipe solutions for infrastructure program management, including non-destructive examination, evaluation, design engineering for mitigation, installation project management and licensing.
- Provide customers with on-site staff augmentation services.
- Provide construction management and support services, including rigging, engineering, interference analysis, machining, welding and metrology.
- Provide engineering services relating to electrical power equipment, thermo-hydraulic/heat balance and pipe stress analysis.
- Perform asset management, BOP system analysis/optimization and scoping/feasibility studies.



Workers replace feedwater heater bundles

Benefits

Westinghouse is a proven and consistent supplier of nuclear, fossil and geothermal plant services, and its BOP E&CI services allow the customer to concentrate on operating the plant versus managing suppliers. Westinghouse has time-tested processes for project management, engineering, procurement and installation field services work. To simplify contracting activities, Westinghouse provides a wide range of services from simple engineering staff augmentation to integrated, comprehensive solutions for the project management of large, complex component replacements and plant-wide modification projects.

Experience

Westinghouse has a broad range of worldwide BOP E&CI services experience. Examples include:

- BOP engineering analysis for a margin recovery power uprate program.
 - Power uprate, including contractual responsibility for all BOP.
 - Installation and design change packages in support of feedwater heater replacements.
 - Installation and design change packages in support of moisture separator reheater replacements.
 - BOP uprate feasibility study and BOP uprate detailed analysis.
 - Redesign and modification of the secondary cooling water system to meet operational and seismic qualifications.
 - Integrated, comprehensive solutions for the installation of the moisture separator reheater rebundling project to include removing existing tube bundles, modifying internals and replacing two tube bundles.
 - Feedwater nozzle thermal sleeve replacement and safety injection valve replacement project.
 - Main turbine replacement covering engineering supervision, documentation updates and preparation of the design modification packages.
- Upgrade of circulating water systems, including the mechanical, electrical and control systems detailed engineering, and design and modification change packages.
 - Design change package support for sump strainer projects.
 - Design change package preparation for thimble replacement project.
 - Buried pipe engineering, non-destructive examination.
 - Performance of all aspects of design change packages (DCPs) from conceptual design to DCP delivery and installation supervision.
 - Sole-source provider of architectural engineering services.