

HYDROELECTRIC MAINTENANCE AND REPAIR

TACOMA PUBLIC UTILITIES
ALDER DAM
NISQUALLY RIVER, WA



DESCRIPTION

Extensive maintenance and repair work for Unit 12 of the Alder Dam powerhouse.

SERVICES PROVIDED

NAES Power Contractors supplied supervision, labor, equipment, and materials for the Unit 12 repair work at the Alder Dam powerhouse. Alder Dam was constructed in 1945 as a part of the Nisqually River Project, and measures 330 feet in height and 1,600 feet in length. The powerhouse has two 25 MW GE turbine generators producing 228 million kilowatt-hours of electricity per year.

NAES Power Contractors was responsible for the entire project from pre-shutdown operational tests to post-assembly alignment checks.

- Pre-shutdown runout and load rejection testing and inspections; check shaft alignment
- Complete teardown of unit to remove turbine shaft, including:
 - Removal of generator deck plates; pulling bearings and dismantling pot
 - Pulling generator rotor, cleaning stator and inspecting generator wedges
- Hand cap runner fitted bolts to attach runner to shaft
- Rigging, removing and shipping turbine shaft to machine shop for installation of new shaft sleeves
- Ship upper and lower guide bearings to vendor for rebabbiting
- Support installation of PDA system
- Complete reinstallation of removed generator/turbine components
- Starting up high-pressure lube system and hand rotation of unit
- Complete post-assembly alignment checks and runout and load rejection testing



NAES Power Contractors provides world class maintenance and construction services for energy facilities, and is a wholly owned subsidiary of NAES Corporation, the global leader in third party power plant operations.

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