

HYDROELECTRIC MAINTENANCE AND REPAIR

TACOMA PUBLIC UTILITIES
CUSHMAN 2
HOOD CANAL, WA

DESCRIPTION

Repair and maintenance on several projects spanning the Cushman 2 dam and powerhouse.

SERVICES PROVIDED

NAES Power Contractors supplied planning, supervision, labor, equipment and materials for multiple projects at the Tacoma Power Cushman 2 project. Cushman 1 (built in 1926 under the orders of President Calvin Coolidge) is 275 feet high and 1,111 feet long. Located downstream, Cushman 2, completed in 1930, is 235 feet high and 575 feet in length. Together they produce 127 million kilowatt hours annually. All work was done under the maintenance agreement with Tacoma Public Utilities (TPU).

- Repair bearing oil tub wicket gate linkages and replacement of turbine water seals on units 31, 32 and 33
- Design, fabrication and installation of a rail system for removal and repair of the dam's floating drum gates; installation of zinc anode cathodic protection system
- Removal, refurbishment and reinstallation of 25-ton bypass valve; construction of steel structure to support the crane needed to lift and replace the valve from the top of the dam and facilitate the valve replacement
- Removal of 6,000 yards of dirt from powerhouse after mudslide
- Removal and replacement of 126 butterfly valves on the unit 33 penstock



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