

Alaska Energy Cost Reduction Program Progress Report

Grantee: Alaska Power & Telephone Company

Project Name: Upper Lynn Canal Power Supply Projects (Denali)

Financial Assistance Award # 296-07

Period of Report: Third Quarter 2008 (July 1, 2008 to September 30, 2008)

Project activities completed:

- Install the substation transformer and cabling then energize substation.
- The valve-house exterior was seal up against the weather.
- The fusion welding of the high-density polyethylene (HDPE) penstock was completed.
- HDPE penstock pipe placement and backfill was completed.
- The above ground ductile iron pipe installation was completed.
- Completed the concrete supports and thrust blocks on ductile iron pipe making the penstock continuous from intake to turbine.
- Control equipment installation for the spillway gates, the sluice gate and inlet valve were completed.
- Spillway gates were raised to fill diversion to full pool elevation.

Project existing or potential problems:

Numerous challenges to installing the HDPE pipe slowed completion by several weeks. Locating suitable backfill material required 150 trips between Skagway and the site.

There was soil erosion around the lower 500 feet of buried penstock water leakage around the south dam abutment. A consultant was brought in to review the situation and suggested corrective actions. Grouting is the solution for the abutment leakage. The erosion around the penstock will be corrected by placing concrete under each pipe joint along with a drainage pipe at each joint to eliminate future erosion.

Activities targeted for Next Reporting Period, Forth Quarter 2008:

- Uncover and place concrete under the lower penstock joints and install drain pipes.
- Install the power and communications conduits and cables from the powerhouse to the valve-house.
- Clean sediment from tailrace and finish slope stabilization on right of ways
- Fill penstock with water and pressure test.
- Commission the equipment and synchronize to the ULC grid.
- Drill and grout for leakage at the south dam abutment.
- Demobilize construction equipment.