

**Alaska Energy Cost Reduction Program  
Progress Report**

**Grantee:** Alaska Power Company (a/k/a Alaska Power and Telephone Company)

**Project Name:** APC South Fork Hydro Project

**Grant #** 2195156

**Period of Report:** September 1 to September 30, 2005

**Project activities completed:**

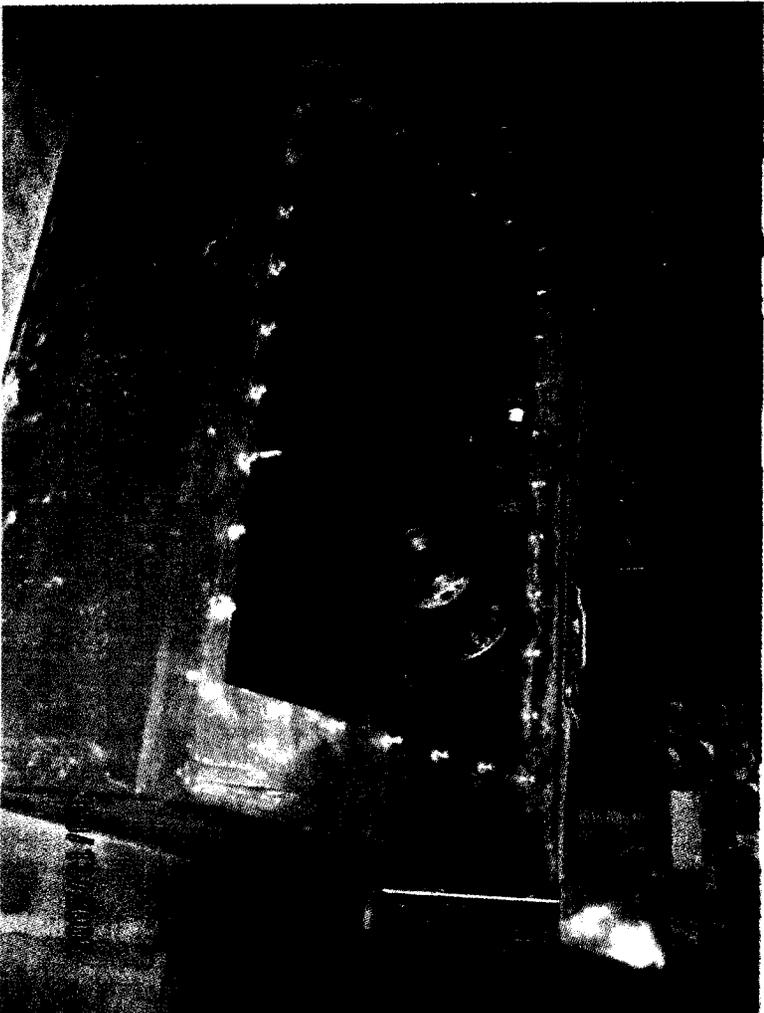
- Environmental details punch list was completed. Final inspection and approval received from Mark Mifmillo of the Alaska Department of Natural Resources and Allen Edsall, Environmental Controls Monitor.
- Received and installed permanent bridge at 3.5 mile on Black Bear Lake access road.
- Excavated and realigned the penstock joints that were out of specification.
- Transmission Line completed and energized
- Substation completed and energized.
- Power and communications lines completed to the diversion.

**Project existing or potential problems:**

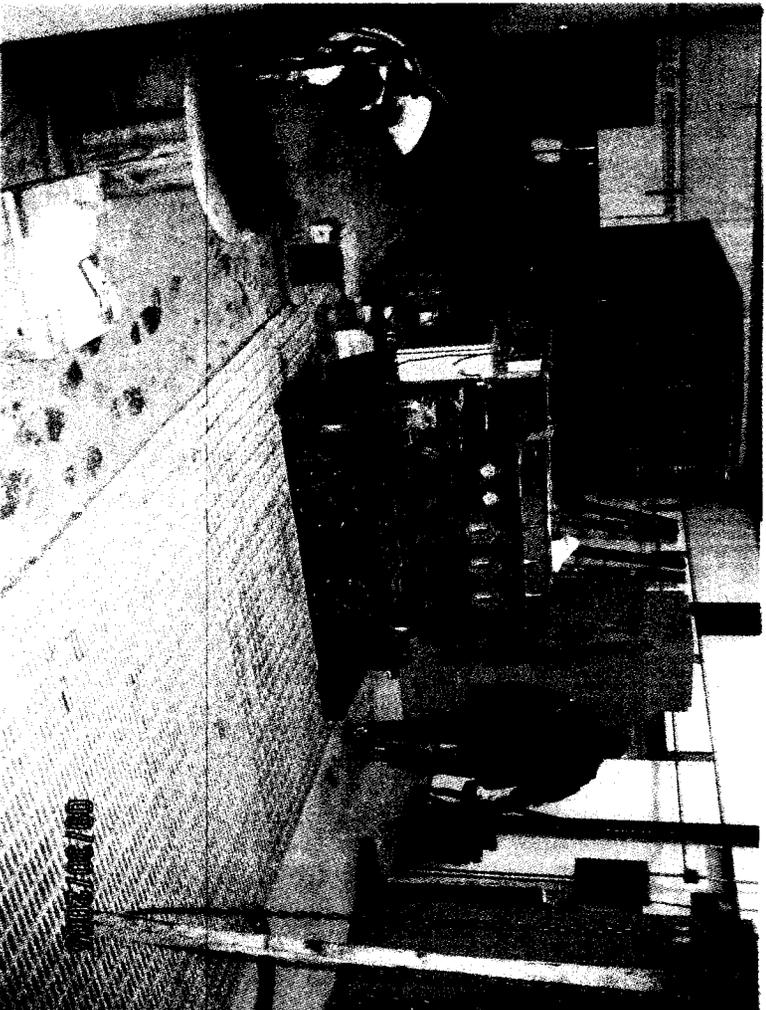
Excavation to realign two joints damaged the penstock. A Romac repair band would not hold during pressure testing so alternatives are being investigated. While draining the penstock following the pressure test, significant leakage was noted from the drainpipe installed under the tailrace pipe. Methods to seal the joints in this 48 inch plastic pipe are being investigated since leakage could saturate the underlying soils and cause slumping.

**Activities targeted for the Next Reporting Period, October 2005:**

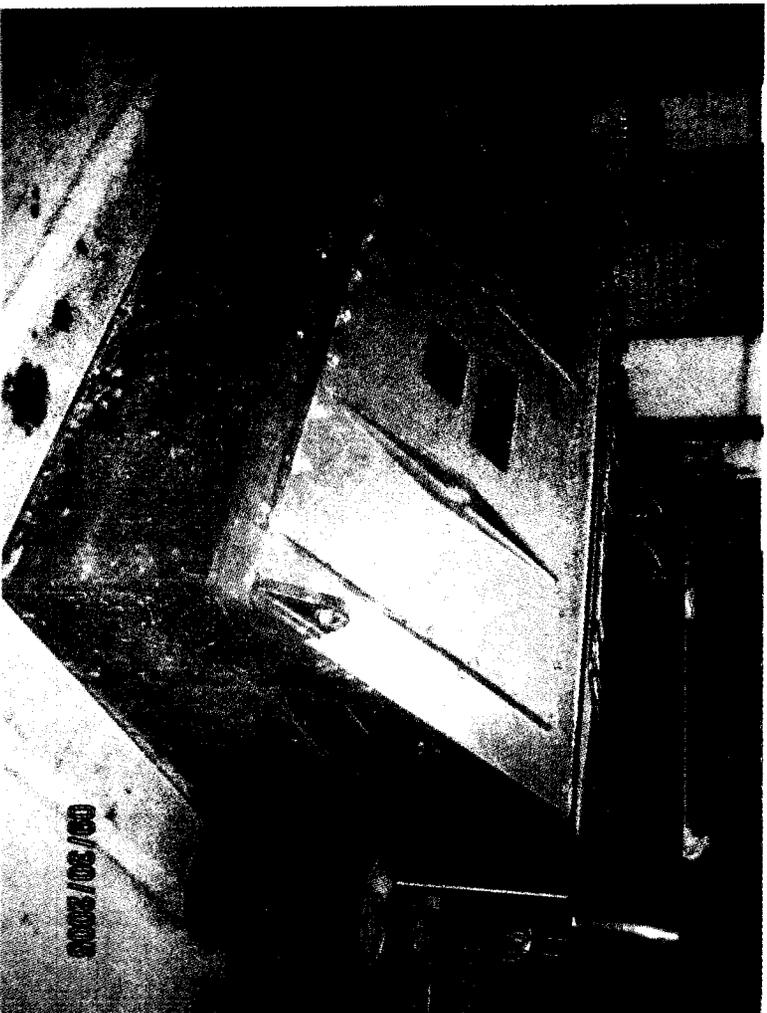
- Complete all equipment installation at the powerhouse and diversion.
- Test and commission powerhouse equipment and systems
- Repair the damaged penstock and pressure test
- Seal the tailrace from leakage
- Connect to BBL grid and test control interface between the hydro plants.
- Upgrade the BBL SCADA system to include the South Fork plant.
- Demobilize construction equipment.



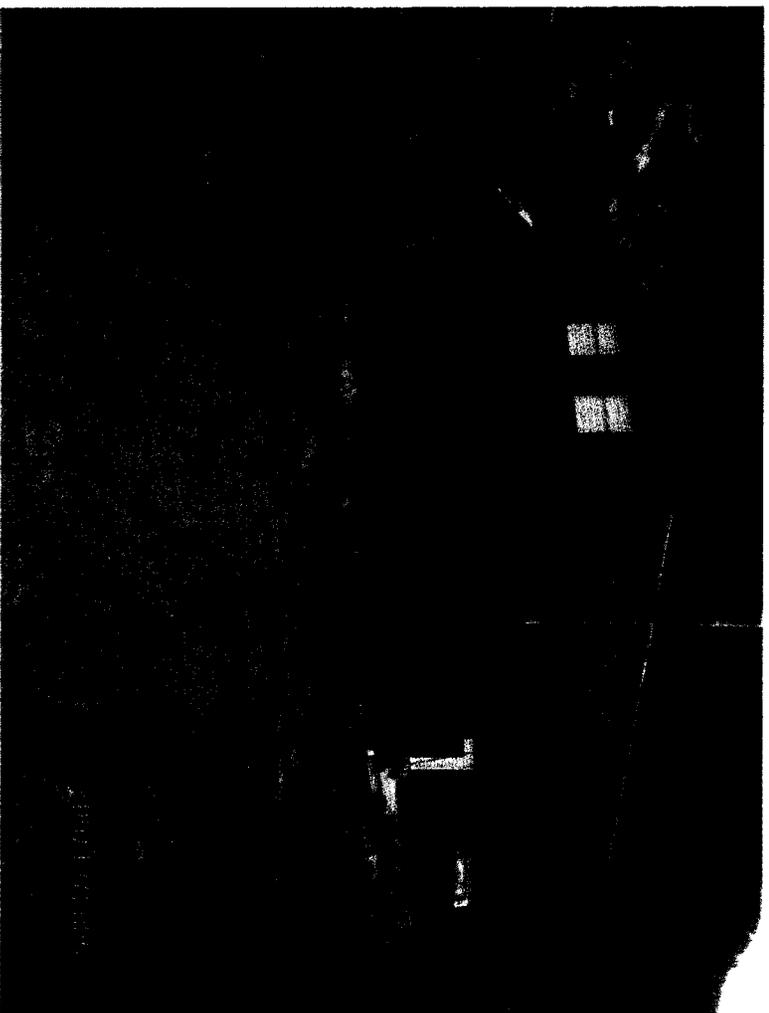
Newly installed turbine case remains open.



Generator and lubrication unit



Completed turbine



Completed power with all connections



Switchgear install and ready for final testing