

Allison Creek Hydroelectric Project 2015 Construction Update



The newly constructed Allison Creek Power Plant in early spring

Photo courtesy McMillen

In the 2014 December edition of Ruralite, CVEA provided members an update on the Allison Creek Hydroelectric Project and told members what was accomplished during the first construction season.

The first season ended mid-November, after having met or exceeded every goal of the project, including ground clearing and building of the lower and upper access roads, blasting and building of the tunnel, building of the powerhouse structure, laying the first stretch of the penstock, and installation of the feeder line.

One of the most important accomplishments in 2014 was the construction of the powerhouse building. The powerhouse had to be constructed tall enough to pick up the turbine housing and lift it to its final position.

The building consists of very strong steel beams that are able to withstand the weight of a crane designed to pick up the extremely heavy turbine and generator. Attached to the beams are insulated, fabricated walls that were engineered specifically for Valdez weather and seismic conditions.

After the exterior was completed, the powerhouse was left secured and unmanned for the winter and weathered the harsh conditions well.

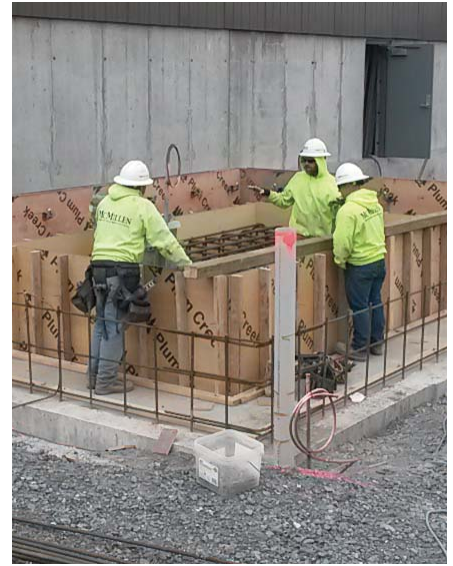
This year's warm weather brought an early spring to Valdez and an early start for work at the project site. Crews and equipment mobilized in April and work began in earnest in May.

This season, work began on the inside of the powerhouse; prioritizing lighting, switching, and the overhead bridgecrane.

The 35 ton crane was successfully installed and tested to 125 percent of the safety margin in early June. This will allow for installation of the pelton housing, pelton and generator; which were completed and assembled in the factory, tested, and sent to Valdez last year, where they are now stored awaiting installation later this summer.

Blasting for the penstock trench inside the tunnel started in April and continued through mid June. Penstock will be placed in the trench, covered in bedding material, and completely encased in concrete for protection.

Crews have also worked on the transformer pad and contain-



Top left, cofferdam behind the diversion dike at the intake area

Top right, crews building the transformer pad and containment walls

Far left, preparations for blasting the penstock trench inside the tunnel

Left, 35 ton overhead bridge crane during testing

Photos courtesy McMillen

ment walls, the foundation, forms, and rebar for the emergency generator building, and completed construction of the coffer dam behind the diversion dike at the intake area. This will channel water from the area, serve as a barrier, and keep debris from entering the water while the diversion structure is being built.

Milestones for the 2015 season include completion of the penstock, construction of the diversion structure, and installation of the powerhouse equipment.

CVEA is still on target to begin producing commercial hydropower from the project in 2016 when the creek allows a full commissioning of the power plant.

For project information and up to date photos and videos of construction activities, visit the award winning Allison Creek website at <http://allisoncreekhydro.cveahydro.org> or visit cvea.org and click the Allison Creek logo. ■