Oldcastle Infrastructure™
A CRH COMPANY

"Recent inspections of the existing interceptor had indicated signs of severe corrosion and even complete system bypass."

2011 PACIFICORP LEMOLO No. 2 Re-Route

Discharge / Re-route to Toketee Lake, Douglas County, Oregon

Oldcastle Infrastructure Nampa, Idaho Supplies 3,000 foot pipeline for Lemolo No. 2 Hydroelectric Development Project

OCTOBER 2011- Douglas County, Oregon: Oldcastle Infrastructure supplied 3,000 feet of precast concrete pipe, elbow , transition pieces and manholes for the out-flow pipe and the in-flow pipe of PacifiCorp's Lemolo No. 2 tailrace re-routing project in Douglas County, Oregon . PacifiCorp, a PacifiCorp Company, was required to reroute the Lemolo No. 2 powerhouse discharge to Toketee Reservoir in accordance with the North Umpqua Settlement Agreement Section 5.4. After a seven year design process, construction of PacifiCorp's Lemolo No. 2 tailrace re-routing project is almost complete.

Oldcastle Infrastructure provided a 108" diameter concrete pipeline that transitioned into 96" diameter concrete pipe and then back into 108" concrete pipe. The pipe is t-lok lined pipe in portions to meet hydraulic design criteria. The precast concrete pipe was manufactured in 12 foot lay lengths with numerous custom castings. The pipeline makes multiple turns and grade changes. Inlet and outlet pieces were poured with a steel rings cast into the pipe for their connection to a cast in place head wall. In addition, Oldcastle supplied three T-Top manhole pipe sections with 48" manhole being cast into the pipe section for access to pipeline.

Components

96" ASTM C-76 Class III – 882 LF

96" ASTM C-76 Class III T-Lock – 1,709 LF

108" ASTM C-76 Class III – 288 LF

108" ASTM C-76 Class III T-Lock – 144 LF

48" Tee Manholes – 3 Each

2011 Pacificorp Lemolo No. 2 Re-Route Discharge / Re-route to Toketee Lake, Douglas County, Oregon

The Lemolo No. 2 tailrace re-routing project consists of in-water construction of the cofferdam for the inlet and an outlet structure. To stay on schedule, they were built from both ends. The 3000 feet of pipe was buried along the Toketee-Rigdon road and across the Toketee recreation area. The pipe will carry 700 cfs from the Lemolo 2 plant tailrace and eliminate ramping in the Lemolo 2 full flow reach of the North Umpqua River.

Weekly Brothers, Inc. is the general contractor overseeing the construction and McMillen LLC is the project engineer. The project is scheduled for completion at the end of October, 2011.

PROJECT DESCRIPTION

Construction of a 108" diameter concrete pipeline transitioning into 96" diameter concrete pipe and then back into 108" concrete pipe, providing a new tailrace water discharge reroute from the Pacificorp Energy's Lemolo #2 powerhouse to Toketee Lake. The pipe is t-lok lined pipe in portions to meet hydraulic design criteria. Pipes are being wet cast in standard 12' lay lengths, with numerous custom castings required. The pipeline makes multiple turns and grade changes. Inlet and outlet pieces are poured with a steel rings cast into the pipe for their connection to a cast in place head wall.

DESCRIPTION OF WHAT OLDCASTLE DID FOR THE PROJECT

Oldcastle Infrastructure purchased 4 new 12' long forms, 3-96" and 1-108" diameter pipe forms. Oldcastle produced 4 pieces of pipe a day utilizing an elliptical cage for reinforcing. Two single miter elbows for pipeline turns were made and two transition pieces going from 108" to 96" pipe were also made. Three T-Top manhole pipe sections were made with 48" manhole being cast into the pipe section for access to pipeline. 8 ton Meadow Burke lifting inserts were cast into the pipe to facilitate handling, both in the factory and at the jobsite. Hydrostatic joint tests Were required on the pipe so we had to build massive bulkheads and hydrostatic test the joints. It required over 11,000 gallons of water for 108" pipe test. We also had to D-load test the pipe, which had to be performed in our Utah facility with shorter 8' lengths. Total D-load requirement was over 100,000 lbs of force put onto the pipe. The contractor is providing their own transportation, hauling one pipe per load. The contractor is required to successfully joint test, in the field, each piece of pipe prior to installing the next pipe.

About Oldcastle Infrastructure

Oldcastle Infrastructure, A CRH Company, is the leading provider of building materials, products and services for infrastructure projects to several market sectors nationwide, including: Building Structures, Communications, Energy, Transportation and Water.

For More Information Contact:

Address: 16419 Ten Lane, Nampa, Idaho 83687
Phone: 208.465.0176
Fax: 208.465.7129
oldcastleinfrastructure.com