Dworshak Lake Will Submerge Historic Cabin

Sixty-year-old Boehls Cabin on Little North Fork will be under 75 feet of water.

Dworshak Dam Preparation Work Is Progressing Well

By BOB WERNER
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AHSAHKA, Idaho — Dworshak Dam construction moved into late July with half of its 3.7 million yards of excavation behind it, and an ingenius set of quarry shafts and tunnels well on the way to completion.

The mighty dam's impact on the Clearwater Valley, Orofino and Lewiston is beginning to put increasing stress on school facilities and traffic. Employment climbed to 740 mark last week for the big Army Engineers construction job on the North Fork of the Clearwater.

J. L. "Whitey" Wixson, a veteran dam-builder for Morrison Knudson Company, is manager of the project for the contractors, the Dravo Corporation, a Pittsburgh and Bellevue, Wash., firm. Wixson has a closed-circuit television monitor to watch the excavation work, some 1,000 feet below his offices, and reports staisfactory progress in bringing the canyon slopes down to the bedrock on each side of the river.

Big rock fills are being built from surplus quarry rock, not suited for making cement, to hold 140-foot cable way towers on either side of the river and for yarding areas to stockpile dam concrete forms and other materials such as penstock sections and pipes.

Quarry Rock

The two towers of the cableway, which will carry an 18-yard cement bucket on a 4½-inch steel cable, will be anchored by 140 tons of ballast and will travel up and down river about 700 feet to aid dumping the giant buckets of cement and aggregate in the exact spots needed along the 3,000 foot long structure. Actual pouring of concrete will start late next winter.

Quarr rock for the six million yards of aggregate, scheduled to go into the 693-foot high dam, will come from the center of a mountain across the river from the newly completed $200,000 viewpoint built by the Corps of Engineers.

Efficient moving of rock is assured by the remarkable system planned for the quarry. Dozers will shove rock into a 20-foot diameter shaft which feeds into an underground primary crushing plant in the center of the mountain. After the rock falls nearly 500 feet it will be fed into the crusher and come out on a belt through a 770-foot long tunnel to a batching plant.

Contractors are now two-thirds of the way through their 13,000 yards of preparatory quarry excavation. A 100-foot tall crushing chamber will be serviced by a 20-foot tunnel. Men will have to wear ear pads similar to those used around jet airplanes to withstand the noise from the jaws of the giant rock crusher.

To drill the big shaft, now down about 50 feet of its 438-foot final length, the contractors bored the 20-foot tunnel some 700 feet into the mountain and then came down from the top with a nine-inch hole to make the initial connection. After that they hooked on 48-inch reamers and pulled the drills back up, reaming out a four-foot diameter hole. Early shooting of the weathered rock had a tendency to plug up the 4-foot hole, but blasting has solved most of the problem and the big 20-foot diameter shaft is now dropping at the rate of six to 10 feet per day.

Most of the other excavation is on the dam keyways and includes 1,875,000 yards of common and 1,850,000 yards of rock. Assisting Wixson with the project planning are Ron Maxwell superintendent, Ed Hershberger, Joe Jordan and Bob Stearns, engineers.

Son of Senator

Jordan came to the job from the Bechtel Corporation at San Francisco, and is a son of Sen. Len Jordan.

Anchors are also being drilled high above the future crest of the dam to hold the lighting towers with a 2¼ inch cable strung with some 420 big 1,000-watt mercury vapor lights. The lighting cable is 4,000 feet long and will be one of two strung across the river 700 feet apart.

A giant 14-yard shovel has been loading 110 ton K D Dart Trucks as a basic part of the rock excavation work at the top of the quarry and getting the area down from 2,100 feet to about 2,040 feet where the good rock is found. With the lighting of the viewpoint and the power for the mixing plants the Washington Water Power Company expects to develop an eventual 30,000-kilowatt load at the dam site.

Corps of Engineers now have some 50 men on the project under resident Engineer Donald H. Basgen, who came to the job from Green Peter Dam in southern Oregon. He is assisted by Robert Moore who has had dam building experience on several jobs including John Day Dam.

Chicago Bridge and Iron Company has moved in a small crew of men and erected a 150-foot tower to handle the big sections of penstock which will be shipped to Ahsahka from the steel mills at Provo, Utah. Six penstocks, over 800 feet long will be installed, the largest being 19 feet in diameter.

Since they cannot be moved in one piece by rail or truck "third" and "half" sections will be welded into 30 foot "cans" at the Ahsahka yard and then hauled upstream a mile to be placed in proper position for the concrete pouring. Steel width varies from ⅝" at the intake to 1¼ at the bottom of the dam and the cans will weigh up to 45 tons. Initial installation at the dam power plant in 1971 will be for only three generators.

Inspection by Governor

X-ray examination of each welding seam will insure perfection on a very exacting job, says D. L. Macom supt. Automatic welders will handle the girth or circumference welds with experts hand finishing the job which has a price tag of about $5 million.

Idaho State Land Board members visited the dam recently on their biennial tour of the North Fork area and Gov. Don Samuelson inspected operations including fish traps, shops and viewpoint. The board has been concerned with fire protection programs and the reluctance of the Corps of Engineers to attorneys to permit that agency to share in suppression costs as do the Forest service and BLM. More conferences are planned in August to seek a formula that will satisfy the Army lawyers.

Tony Campbell office manager for Dworshak Dam Constructors said the company in 11 months has spent $881,000 on maintenance of some 142 pieces of equipment. Vern Anderson, in charge of maintenance has 59 mechanics working three shifts to keep the big "Eucs," dozers and trucks running.

Total cost of the flood control and power dam will be about $230,000,000 and will include a $5,000,000 suspension bridge at Dent, 15 miles upstream to restore traffic between Orofino and Elk River. When that project gets under way next year, and cement pouring starts employment will probably climb to about 1,400 men.

To help meet the needs of trailer residents, Orofino schools have a plan to complete a dozen new classrooms this summer in portable buildings and are renting other similar structures. Perhaps a third of the workers have had to find housing space in Lewiston, Kamiah or other nearby communities.