

RECLAMATION

Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

Designing Solutions for an Engineering Marvel

Mechanical Engineer, Grand Coulee Dam

[music]

Don Jones: There's no end to need for engineering people here. From small jobs to big jobs—overhauling the third power house to designing a new shaft for a motor, sizing cranes, designing containment for blast walls between transformers. Whole spectrum... tons of stuff going on in this facility.

[music]

Every job is extremely specific and unique. There's not a lot of cookie-cutter work that happens here for engineering. It's unique tasks, unique requirements, unique solutions.

You have to be able to think on the fly, make decisions, be able to understand what people are telling you.... That's a huge part of it. You're dealing with electricians, mechanics, machinists, welders, crane riggers. You're dealing with all the different crafts that are here at a place this size—hundreds and hundreds of people. Each one of them have a different problem and a different way of telling you what their need is. And you have to be able to listen. You have to be a good listener and a good problem solver, both. And you have to do it fast because you have to keep going. There's a lot going on.

[music]

It's an amazing piece of engineering and construction work. What's interesting is... you go back through the old drawings in the old books on the design of this place back in the '30s. They didn't have calculators. They didn't have anything electronic. They had slide rules and a pencil and paper. I mean, as an engineer I can look back at some of the construction techniques.

[placing concrete]

How they cooled the concrete... they had it all figured out—what temperature they had to keep it at for optimization on the strength of the concrete so it didn't cool too quick. Pretty amazing people.

[music]

It's a really good place to be. It's actually a fairly good-paying job. The benefits are better than any benefits I've ever had before. And the job security... I've been laid off from jobs before, and I feel like the job security here is pretty good. But working here, I've been a lot busier with a lot bigger variety than any of the other places I've worked. Surely every week there's a couple new projects that are thrown at me. There's just a lot happening. There's a lot of activity.

There's going to be some element of every other hydroelectric facility represented here. So if you're looking for just having experience that you can claim is the best you can get, that's Grand Coulee.

[music]