

Challenges for Bruce Power Station

Gentlemen, can you tell us where you work?

We are employed by Bruce Power, located on the shores of Lake Huron in Ontario, Canada. Bruce Power is a partnership of Canadian companies and unions, running the Bruce A and B generating stations. These hold four aCANDU reactors each. Six of those units are currently operational and combine to produce more than 4,700 megawatts, which is enough to power every fifth hospital, home and school in Ontario. We are also in the process of restarting the remaining two units at Bruce A, which will provide another 1,500 megawatts of emission-free electricity.

That sounds like a major project.

It certainly is! I believe this is the world's biggest retrofit ever of a nuclear power plant, and is costing around \$5.25 billion dollars, which makes it the largest infrastructure project of any kind in Canada. Everything right up to the steam generator units is being replaced.

Mr Gottscheu, what is your position at Bruce Power?

I am the Section Manager Mechanical Maintenance, a job I took up about two years ago.

And what kind of challenges keep you busy?

Well, we have things under control from

the technology perspective. I would therefore say there are basically two challenges at this time. Firstly, skills resources and training and secondly, parts obsolesce and availability. Ten years ago the industry was in a very healthy position, staffed by a lot of knowledgeable people. However, these baby boomers will soon start to leave, so we must avoid a brain drain. Fortunately, we are seeing more interest from young engineers in a career in the nuclear sector. Finding spare parts can be tricky. Sometimes replicators can help us out, but to date I am unaware of any replicators who provide valves or valve components. Obviously it is very expensive for the smaller companies to go through the certification process, but that may happen soon.

And Mr Cook, can you tell us about your job?

Sure. I am the First Line Manager Maintenance. My job is to look after valve crews and deal with issues that crop up on a day-to-day basis. That primarily involves actuators but we do also get involved in valve work.



Do you keep spare valves in stock?

In an ideal world, it would be great to have replacement valves sitting on the shelf. Then if we pull out a motor-operated valve for repairs we can immediately put in a replacement. However, like many plants we are facing the problem of obsolescence. We are therefore starting to consider finding item equivalencies. However, that is a major programme and not something to be undertaken lightly. It involves determining the exact requirements and reviewing products from alternative suppliers. During this phase, we will also consider how we might benefit from new technologies. After all, most nuclear plants were built 30 to 40 years ago and a lot has changed since then.

How could the supply industry help you further?

One issue is that some greases are no longer available. We are all therefore having to assess substitutes, but of course ideas are always welcome. Fortunately, the AECL [Atomic Energy of Canada Limited] has taken the lead on this issue.



An aerial view of the Bruce Power site with the Bruce B Generating Station in the foreground.

