

Hard test for Bechtel on U.S. nuclear waste plant

Unfortunately the regulators are not only non-progressive but they are really stupid!

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Bechtel has issued a strong refutation of the critical appraisal of its contribution to the Hanford nuclear clean-up facility in Eastern Washington State, in which the CBS television program '60 minutes' made it appear that "a mindless contractor, overseen by an inept agency, has 'squandered billions of dollars in taxpayers' money'."

The program attacked the contractual basis of the job by alleging that years of time were wasted by rushing to build major facilities – fast-tracking – before they were fully designed.

The agency whose name was blackened is the Government's Department of Energy which is undertaking what is described as the largest environmental clean-up project in U.S. history, to safely dispose of 53 million gallons of highly radioactive waste left over from production of nuclear weapons during the Cold War.

The Hanford waste treatment plant being installed under a design and build contract will employ advanced radiochemical technology to sort the waste so that encased in glass it can be isolated from the environment. The plant is designed to safeguard the people of Washington State by preventing these materials seeping away from temporary storage, migrating through groundwater and polluting the Columbia River.

Alleging that the clean-up operation was a botched job by the U.S. Government, the program presented by Leslie Stahl of CBS claimed that Bechtel had ignored warnings about the need to upgrade seismic design standards, knowingly accepted defective processing tanks from a manufacturer and wasted hundreds of millions of dollars by pushing the fast-track approach to construction before the design was complete.

Bechtel comments: "It is remarkable that with all the investigative resources at their disposal, '60 Minutes' failed to shed light on the real issues that have made WTP such a challenging project."

The original ground-motion criteria for the design were reviewed by numerous independent experts. When the Defense Nuclear Facilities Safety Board requested more information about the characteristics of the sub-soil, the Department of Energy commissioned a study, which resulted in a decision to upgrade the seismic aspects of design by 40 per cent.

Having been given that decision, Bechtel defends its review of tens of thousands of design documents to ensure that they complied with the new standard. "That's not a mistake", says the company – "it's the price of getting things right."

'Misleading and untrue statements'

Bechtel also says that the television program offered a misleading account of issues surrounding the quality of stainless steel tanks fabricated by an outside supplier. Leslie Stahl claimed that deficient welds were missed by the contractor and discovered only by independent inspectors employed by the State.

This statement, says Bechtel, was not true. As documentary evidence shows, the inspector was a sub-contractor responsible for checking that the tanks when installed complied with State environmental permits. "We discovered the quality problems, reported them to the Department of Energy and ensured that the vendor fixed the defects."

And a claim that design and construction flaws on the submerged bed scrubber vessel demonstrated failings by both client and contractor was contradicted by the project record.

An allegation from an employee of the Government Accountability Project that Bechtel had demanded a \$15 million bonus for installing the vessel was refuted by explaining that this payment was a contractual fee, not a special bonus, for reaching an agreed construction milestone.

The Bechtel statement says that as of December 2005, design was 60 per cent done, more than 40 per cent of the materials had been purchased and construction was more than 25 per cent complete.

If the design-build process had not been employed on the contract, says the company, the facility would still be in the phase of design and redesign, without any procurement or construction progress. Also, there would still be no experience with the nuclear quality supply chain challenges. As a result, the cost estimate would still be understated by an order of magnitude.

"The design-build approach on WTP has worked", asserts Bechtel. "It has led to an earlier understanding of what it will really cost to deliver this plant. And because of proper integration between design and construction, all of the construction to date is sound."

As Bechtel National's chairman Tom Hash, testified before a Congressional panel last month, in hindsight the challenges they faced on the Hanford plant were bigger than they expected.

"It has taken us several years of experience -- while overcoming major technical hurdles - to know enough to forecast the likely cost and duration of this project."

After commissioning two teams of industry and academic experts to evaluate the technical risks and cost-and-schedule estimates, the U.S. Department of Energy and the Congress have now been assured that the project faces no insurmountable hurdles and that current estimates are defensible.