

BUNDLED SUBCONTRACT STRATEGY SAVES LIFECYCLE COSTS, REDUCES RISK FOR CERCLA DISPOSAL FACILITY PROJECT AT INEEL

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ABSTRACT

Bechtel BWXT Idaho, LLC (BBWI) implemented a creative subcontracting strategy for a vital portion of its cleanup work at the U.S. Department of Energy's Idaho National Engineering and Environmental Laboratory (INEEL). The innovative subcontract is saving millions of taxpayer dollars by combining or 'bundling' many different parts of a disposal facility construction and operation project.

INTRODUCTION

BBWI awarded a bundled subcontract to a team led by Stoller, Inc. to operate and complete construction of the INEEL CERCLA Disposal Facility (ICDF) near the INEEL's Idaho Nuclear Technology and Engineering Center. The ICDF is designed to consolidate contaminated soil and debris taken from CERCLA cleanup sites across the INEEL.

INEEL stakeholders frequently criticize DOE's accelerated cleanup plans, saying quicker just means doing a poorer job. It means looking for smarter, more efficient ways to clean up contaminated sites. The subcontracting approach used by BBWI is an example of this.

The Stoller team is operating a state-of-the-art disposal facility near the Idaho Nuclear Technology and Engineering Center to consolidate contaminated soil and debris generated from sitewide cleanup actions.

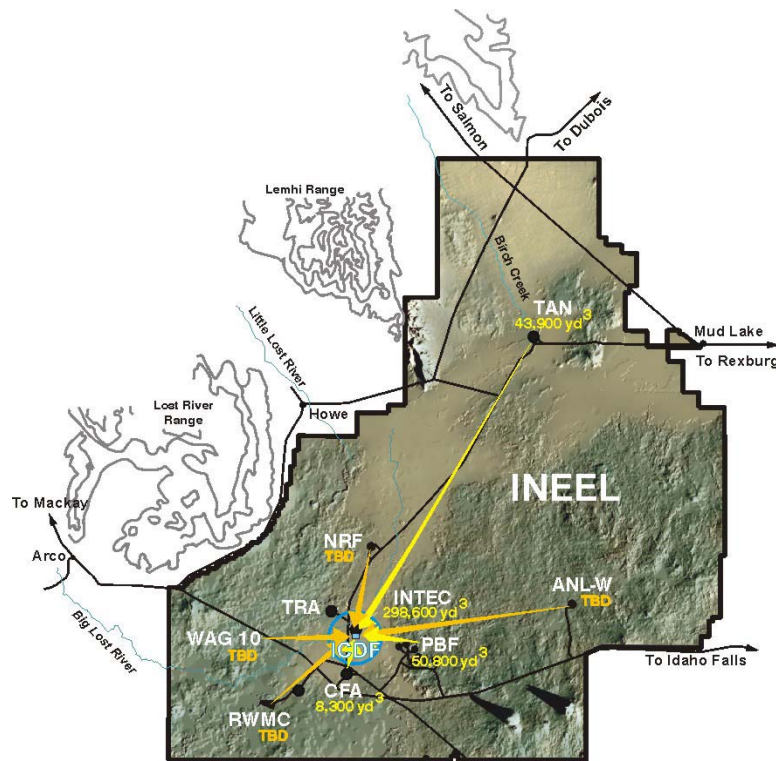
The ICDF includes a 510,000-cubic-yard landfill, lined evaporation ponds, and treatment, storage and administrative facilities. It is designed to safely contain contaminated soils and debris from several CERCLA cleanup sites across the INEEL's 890 square miles. By containing these soils within a lined and monitored disposal facility, the risk of contaminant migration to the aquifer, as well as the spread of windblown contamination, is greatly reduced. Many similar landfills designed to contain CERCLA cleanup soils and debris have been built at Superfund sites across the United States.



Fig. 1 Contaminated soil is excavated from a site at the INEEL

THE SUBCONTRACT WORK

The project includes the excavation of uncontrolled contaminated soils at many areas across the INEEL's 890-square-mile facility in the Idaho desert, transportation and placement of these soils and debris within a lined disposal cell, as well as completing construction of the second half of the disposal cell.



Thousands of cubic yards of CERCLA cleanup soil and waste from across the site will be consolidated at ICDF

Fig. 2

THE OLD APPROACH

The problem with the original plan for operation of the ICDF stemmed from the compartmentalized management structure set up for CERCLA cleanup at the INEEL. Each facility area at the INEEL was managed under one of ten Waste Area Groups set up in the Federal Facility Agreement and Consent Order signed in 1991 by the DOE, EPA and the state of Idaho. With the exception of Waste Area Group 10, which covered INEEL-wide concerns and the Snake River Plain Aquifer, each Waste Area Group (WAG) was its own facility. Under a 1999 CERCLA record of decision for the Idaho Nuclear Technology and Engineering Center (INTEC), soil contaminated from past operations at INTEC and other the INEEL facilities was to be excavated and disposed of in a lined and capped landfill in order to keep moisture from transporting contaminants down to the Snake River Plain Aquifer, the primary water source for as many as 200,000 Idahoans.

The original plan developed for design, construction and operation of the ICDF. Each facility waste area group would have been independently responsible for the excavation and transportation of the contaminated soil within the facility boundaries to the ICDF.

The problem was in the inefficiency of the original plan. Construction of the second landfill cell was to be done by the same company that completed the first cell. The CERCLA cleanup at each of the sites across the INEEL's 890 square miles was to be individually managed. Each waste area group could have been responsible for soil removal at their sites. The excavation and transportation of waste could have been handled individually by up to five different subcontractors working at each of the different contaminated soil sites, with BBWI handling actual waste placement in the landfill cell, as well as backfill and capping activities when the landfill reaches capacity.

THE NEW APPROACH

The solution to the problem lay in a new strategy that was chosen as a smarter way to reduce the substantial oversight and coordination that would have been required if multiple subcontractors were used. Rather than self-perform the work under an overly-complex management structure, with each waste area group responsible for excavation in its area, BBWI adopted a bundled subcontract strategy that made the entire process more efficient, and was done as a small business set-aside in keeping with an initiative from BBWI's DOE customer.

The strategy eliminated the need for capital equipment purchases and also reduced the possibility of any delays and potential for accidents with many companies operating simultaneously at the disposal facility. The bundled subcontract was awarded to a small business in keeping with a DOE push to involve local small businesses in cleanup work at its facilities.

The innovative strategy adopted for the ICDF is important to BBWI and to DOE for several reasons. First, it is an efficient approach to a complex challenge. It demonstrates that BBWI can meet and exceed DOE's aggressive accelerated cleanup schedule by fundamentally changing the way work gets done at DOE facilities. The strategy also meets BBWI customer expectations that more small businesses get involved in cleanup work at DOE sites.

Bidders were evaluated based on three criteria: technical expertise, plan of work concept, and safety record and commitment. The companies on the team were required to have extensive DOE experience in excavation, packaging and transportation of radioactive and hazardous wastes, and they have a demonstrated commitment to worker safety and quality. The subcontracting strategy was developed using lessons learned from DOE's Hanford and Oak Ridge sites.

A memorandum of intent was signed with the Paper, Allied-Industrial, Chemical and Energy Workers (Local 8-0652) union allowing the 'leasing' of employees to the operating subcontractor. The memorandum also specified which work would and wouldn't be performed by the site's PACE union employees and which work was Davis-Bacon covered, and thus could be performed by building trades union workers. Since the contract began, the Department of Labor ruled that all the ICDF work is Davis-Bacon covered, which means that Stoller, Inc., the ICDF subcontractor, can go directly to the building trades for their labor.



Fig. 3 Contaminated soil is placed in the landfill cell and compacted

THE BENEFIT - COST SAVINGS AND MORE EFFICIENT CLEANUP

Cost savings realized by taking this subcontracting strategy come from the management efficiency resulting from one organization having direct control over the excavation and transportation of the waste material from different sites across the wide area, as well as the placement of waste in the landfill cell. Close coordination is necessary to ensure the work is done smoothly and safely, especially when transportation and vehicles and equipment used for the construction of the second landfill cell will be operating in the same general area.

The same strategy could be applied to achieve better contract performance and savings at sites across the country where similar short-lived but complex cleanup projects make self-performance more cumbersome and expensive than BBWI's bundled subcontract approach.