

ACCELERATING CLEANUP AND SAVINGS THROUGH THE USE OF INNOVATIVE STRATEGIES ON THE RESERVATION

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ABSTRACT

The goal of the U. S. Department of Energy-Oak Ridge Operations (DOE-ORO) Reindustrialization Program is to accelerate cleanup of facilities and equipment. This is accomplished through a variety of innovative means, which include offering underutilized facilities, equipment, technologies, and materials to commercial entities in exchange for remediation, as well as using innovative contracting strategies to save dollars and accelerate cleanup schedules. Experience has shown that no one model is appropriate for all initiatives. Different approaches have been successfully implemented to meet Reindustrialization's goal. Collectively, these innovative approaches represent over \$800 million in cost savings. In addition to providing information on some of the more successful approaches, this paper provides further detail on some of the decontamination projects that have been undertaken by private companies to accelerate cleanup of the ORR.

INTRODUCTION

Through the U. S. Department of Energy-Oak Ridge Operations (DOE-ORO) Reindustrialization Program, underutilized facilities, equipment, technology, and materials at the Oak Ridge Reservation (ORR) are made available to private industry for reuse. With a current focus on East Tennessee Technology Park (formerly the K-25 Site), DOE leases the underutilized facilities and equipment to the Community Reuse Organization of East Tennessee (CROET), which subleases them to private industry. CROET then uses a portion of its lease revenues to finance cleanup activities in an effort to attract businesses. Cleanup is performed by private companies through bartering arrangements, which typically involve the use of facilities and/or equipment at reduced rates in exchange for decontamination services. Companies leasing space on the ORR assume the cost of utilities and maintenance, which eliminates DOE's cost for surveillance and maintenance and allows DOE the opportunity to use the dollars saved for other activities. Another innovative approach to significant savings has been realized through the award of fixed-price and no-cost contracts that involve the exchange of assets for cleanup services. Collectively, these innovative approaches represent over \$800 million in cost savings. In addition to providing information on some of the more successful contract approaches, this paper provides further detail on some of the decontamination projects that have been undertaken by private companies to accelerate cleanup of the ORR.

INNOVATIVE CONTRACT APPROACHES

Some of the program's biggest cost savings have been returned through contracts that apply the value of assets at ETTP toward lowering project costs. The Three-Building

Decontamination and Decommissioning and Recycling Project being performed by British Nuclear Fuels, Inc., at Buildings K-29, K-31, and K-33 is a high-profile example of this type of contract. Under this fixed-price contract, DOE will complete the first gaseous diffusion plant D&D project in the U. S. in a manner that saves more than \$550 million of taxpayer funding. These significant cost savings are being achieved, in part, by granting BNFL possession of the recyclable metal (nickel, steel, aluminum, and copper) in the buildings. In turn, BNFL is performing the contract at a lower price than possible under traditional contract approaches. Additional cost savings are being achieved through avoided future surveillance and maintenance costs, as the building is being cleaned up and made available for private sector reuse far ahead of previously expected schedules. The project has had the additional benefits of creating more than 500 jobs for skilled Oak Ridge area workers, many of whom had been displaced during recent downsizings due to decreasing federal budgets.

A similar arrangement is being used to cleanup the K-1420 Decontamination and Uranium Recovery Facility. DOE entered into a fixed-price contract with Decon & Recovery Services to decontaminate the former Class 2 nuclear facility to industrial criteria in exchange for approximately \$10 million in surveillance and maintenance-related funds and use of the building once the decontamination is complete. The value of the cleanup had been estimated at \$26 million, for a savings to the government of \$16 million.

Another type of non-traditional contract approach is being used for utility systems operations and roads and grounds maintenance at ETTP. DOE-ORO has leased the utilities and roads and grounds to CROET, which has contracted for their operation and maintenance with Operations Management International, Inc. (OMI). Under this arrangement, OMI is offering commercial utility rates to ETTP tenants and thereby increasing the attractiveness of the site to business. The savings achieved through private-company utility system and roadway operations and maintenance is estimated to reach \$76 million over the next 20 years and also allow funds for a facilities improvement program.

BARTER

Several barter-type transactions have been negotiated and proven to be successful vehicles in reducing the government mortgage at ETTP. Savings to the government through these types of transactions totals approximately \$3 million in current year dollars. Examples of some of these types of transactions include the following:

Decontamination and Equipment Removal in Building K-1401. Approximately 140,000 square feet of space was decontaminated by American Technologies, Inc. (also a tenant of the building) in exchange for recoverable equipment and materials that were radioactively contaminated and considered a liability. The no-cost contract awarded to perform this work represents a savings to the government of about \$400,000.

Decontamination and Equipment Removal in Building K-1200. Materials and Energy Corporation of East Tennessee (M&EC), a waste treatment company, is decontaminating approximately 70,000 square feet of space in exchange for favorable lease rates for the decontaminated bays in this building. As a no-cost contract, this effort is estimated to save \$2 million over traditional approaches.

LEASING

Each building or facility leased from DOE to CROET represents a savings because of the transfer of related landlord-type activities. These include direct building maintenance, materials, utilities, and other expenses that would typically be incurred by DOE. To date, leases have been signed with more than 20 companies to occupy space at ETTP for commercial operations. Several of these lessees are unique because they are not only diversifying the business base at ETTP, but also remediating formerly contaminated areas in exchange for favorable lease terms. The following are several examples.

Building K-1200 Equipment Removal and Cleanup Project. East Tennessee Materials and Energy Corporation (M&EC), a waste treatment company, has been awarded a no-cost contract to remove classified and unclassified components and equipment from 47,000 square feet of space in the K-1200 Center and South Bays. The M&EC lease area covers 94,000 square feet under roof and 90,000 square feet of outside area. At the end of the lease term, all areas will be restored in accordance with Tennessee Department of Environment and Conservation (TDEC)-regulated license and permit closure plans. This cleanup, valued at approximately \$2M, is being bartered in exchange for favorable lease rates.

Building K-1037 Equipment Removal and Decontamination Project. PCC Enterprises, LLC (PCCE) has leased approximately 30,000 square feet of space in Building K-1037. As a result of innovative barter arrangements, PCCE has facilitated the radiological decontamination of approximately 10,000 square feet of floor area and approximately 4,000 square feet of equipment surfaces. In addition, 65 tons of underutilized equipment and materials have been removed from the lease footprint. The decontamination and cleanup effort was conducted by a TDEC-licensed contractor that disposed of approximately 50 cubic yards of low level radioactive waste, 80 square feet of asbestos, and 80 gallons of polychlorinated biphenyls.

Removal of Contamination in Building K-1006. In exchange for reduced lease payments, Materials and Chemistry Laboratory (MCL) is performing decontamination in Building K-1006, removing radioactively contaminated laboratory hoods in exchange for reduced lease payments. MCL was formed by a group of displaced workers who incorporated and leased a laboratory and its contents, including five electron microscopes.

Reuse of Y-12 Equipment. Idle machine tools setting in various buildings at the Y-12 facility in Oak Ridge are now being recovered and put back into reuse by private industry. LOGIXX Automation Inc. is a manufacturer of equipment for the wood and

metal sign industry. In making their product, they require various pieces of metal working equipment. Moving to Oak Ridge from Golden, Colorado, offered the opportunity for them to restore, recycle, and reuse metal working equipment from Y-12 and forgo the need for large outlays of capital to purchase new equipment. LOGIXX has identified approximately 25 pieces of equipment that they will restore, decontaminate where necessary, and place into service in their new operation. This allowed DOE to get rid of equipment that represented a potential waste stream and liability for only the cost to stage the equipment for removal by LOGIXX. The recovery and reuse of this equipment represents a classic case of recycling.

Cleanup in Building K-1401. Some tenants prefer not to engage in cleanup activities. CROET has developed an innovative strategy wherein a company can pay in-advance lease payments as a lump sum into an available decontamination pool. CROET then applied these payments received in advance from the pool to hire a contractor to remove contamination from a leasable area in Building K-1401. This area was later leased to a tool-and-die maker, Dienamic Tooling Systems.

CONCLUSION

By combining innovative contracting approaches, bartering arrangements, and leases, Oak Ridge has achieved considerable savings and accelerated cleanup. The success stories discussed in this paper are presented as learning tools that can be used by other federal sites considering a reindustrialization effort. They serve as flexible models that can be adapted to the particular needs of sites and potential tenants.