

SWORDS INTO PLOWSHARES; TRANSFORMING COLD WAR EQUIPMENT INTO JOBS

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ABSTRACT

At the end of the Cold War, the Savannah River Site (SRS) was faced with the downsizing of over 10,000 employees. To help alleviate the drastic effect on the region, SRS initiated several programs to offset the impact of downsizing and assist the local communities in developing new jobs. One of the programs undertaken was the reuse of excess assets, primarily industrial equipment, to assist in forming new companies, expanding existing companies, and attracting new companies to the local SRS region.

Over the past four years, SRS has formed partnerships with state and local economic development organizations and the private sector to create and implement a program that has led to major successes in the region. Using Section 3155 of the 1994 Department of Energy Appropriations Act (the Hall Amendment) as the vehicle to transfer excess equipment to the private sector, SRS has assisted the local community in creating, expanding, or attracting twenty-seven companies. These companies have created over 1800 jobs, and project over 5800 employees within the next three years. Some major companies, such as the EFCO Corporation of Monett, Missouri have been introduced to the area by SRS employees and attracted by the availability and economic benefit of excess SRS equipment. EFCO has invested \$21 Million in a new facility that is based on the reuse of aluminum extrusion presses that SRS had used to manufacture reactor internals and reactor fuel during the Cold War. Smaller companies, such as Mid-Am Metal Forming of South Carolina and Bitz America, were also formed with assistance from local economic development organizations and equipment transfer from SRS. Many of the new companies were either formed by or utilized former SRS employees, as well as SRS employees that are on Entrepreneurial Leave of Absence from SRS.

Creating the programs and the infrastructure to review and determine the available equipment, identify the industries that could use the equipment, and interact with those potential customers while interfacing with the various state and local economic development organizations has been unique, challenging, and, most importantly, successful. Just as challenging was changing the culture of a bureaucracy to support the new role of SRS assisting private industry and the local communities. This paper will detail those programs, responsibilities, strategies, issues, and the perspective of an SRS employee who took an Entrepreneurial Leave of Absence to work with a newly formed local company.

INTRODUCTION

The Savannah River Site is owned by DOE and operated by an integrated team that is led by the Westinghouse Savannah River Company (WSRC). With the end of the Cold War, the mission of the SRS changed from the manufacture of special nuclear material to a future that lies in several additional areas: reducing the danger of nuclear proliferation, transferring applied environmental technology to government and non-government entities, cleaning up and managing the environmental legacy of the site, and assisting in the economic development of the local area.

The fourth area, assisting in the economic development of the local area, has led to the development of a program that emphasizes the reuse of excess SRS assets, primarily manufacturing and industrial equipment. The program works with the local communities in attracting companies to relocate to the area, forming new companies, and expanding existing companies in the area. The lessons learned from that program will be discussed and recommendations for developing and/or refining future programs will be provided.

SITE HISTORY

The Savannah River Site was constructed during the early 1950's to produce materials used for nuclear weapons, primarily plutonium-239 and tritium. Five heavy-water reactors were built to produce these materials. Numerous support facilities, including two chemical separation plants, a heavy water extraction facility, a nuclear fuel and target fabrication facility, support utilities, and waste management facilities were also built. The SRS complex covers 198,344 acres, or 310 square miles, in western South Carolina, bordering the Savannah River and the state of Georgia.

Nuclear fuel and target assemblies were manufactured on site and irradiated in the reactors. The irradiated materials were moved from the reactors to one of two chemical separation plants on dedicated railroads. In these facilities, known as "canyons," the irradiated fuel and target assemblies were chemically processed to separate usable nuclear materials and resultant waste products. After further refinement, the nuclear materials were shipped to other DOE sites for final application and the waste products were stored in large, double-walled tanks. The waste products are currently being vitrified in the SRS Defense Waste Processing Facility and stored onsite to await final disposition at a geologic repository.

INITIAL DOWNSIZING AND RELATED IMPACTS

From a peak of approximately 24,000 contractor employees in 1992, the SRS workforce has decreased to 13,200 contractor employees at the end of 1997. Most of this reduction was accommodated by early retirements and enhanced voluntary separation programs. An additional impact of the end of the Cold War was the increase in the number of surplus facilities and in the amount of excess equipment that became available at SRS. Up to this time, DOE's approach to disposition of excess assets was to make them available for reuse throughout the federal complex and then offer them to the public through auctions held at the local sites.

As the DOE struggled to develop ways to help the local communities offset the impact of the reduction of employees at the DOE sites, the reuse of the surplus facilities and equipment to assist the local communities was pursued. DOE developed, and Congress approved, tools such as section 3155 of the 1994 Department of Energy Appropriations Act (commonly referred to as the Hall Amendment) to assist local communities. This section of the Hall Amendment

permitted transfer of excess personal property at less than fair market value in order to mitigate the adverse economic conditions resulting from downsizing DOE facilities. In addition, DOE Headquarters encouraged the field offices to develop programs that would result in beneficial reuse of the available facilities and equipment in the areas around the DOE sites.

DEVELOPMENT OF THE EXCESS ASSET PROGRAM AT SRS

With the passage of the Hall Amendment and the encouragement of DOE-HQ, SRS began to work with the local communities to determine what equipment might be best suited to assist in economic development in the region. One of the first attempts was based on information from the DOE site at Hanford and on discussions at the newly formed DOE Private Sector Working Group. This involved the use of aluminum extrusion presses that were no longer being used at SRS. Contacts were made with the Kaiser Aluminum Company and several visits and technical sessions resulted. Although not ultimately successful, WSRC and some local community officials were convinced of the viability of reusing the presses. WSRC conducted a mail campaign to all companies listed in the Standard Industrial Code covering aluminum extruders. A response was received from a company in Monett, Missouri that eventually led to a major success for the local area and for SRS. (Further discussion of this will be provided later)

As this project progressed, a process and procedures for formally carrying out the required steps; excessing the equipment; processing the excess equipment through the DOE screening process; developing a "Fair Market Value" and a discounted selling price that were consistent and appropriate; obtaining the necessary export control, hazardous material, and radiological reviews; developing the contract (usually DOE prime) for transfer of the equipment; working with the company and the site for removal of the equipment (with the requisite safety plans, site training, radiological screening, etc.) were developed and refined. The initial development of this process was very slow due to the lack of experience in these areas and the need to overcome the bureaucracy that questioned the need to do this on an urgent (in government terms) basis. As the project became successful, a strategy and a process evolved.

ASSET DISPOSITION STRATEGY AND PROCESS

The strategy associated with the reuse of excess assets at SRS is based on the use of the Hall Amendment to offset the impact of downsizing at SRS. Specific points of that strategy include:

- Assist the local area in developing new jobs. For SRS, the local area is specifically defined as the five counties in South Carolina and Georgia that are contiguous to the site and in which the majority of the SRS employees reside.
- Involve local economic development organizations in the program.
- Provide the excess assets to private sector "partners" at very favorable prices. Those prices are based on a methodology first developed at the Mound site and accepted by DOE.
- Require that the private sector partner commit to creation of new jobs, both in the short term as well as a longer term (five years) growth period.
- Establish a priority for the reuse of excess assets for economic development as high as possible under the existing federal and Department of Energy acquisition regulations.

In order to implement this strategy, a consistent process has been developed, agreed upon by all affected parties, and implemented at SRS. Although some individual opportunities may occasionally deviate, the basic process includes the following steps:

- The monthly listing of equipment that has been declared excess during the previous thirty days is reviewed and equipment that may be usable for economic development is identified and "reserved." A data base that has been developed and is shared by all organizations that are involved in disposition of excess assets is used to track the excess equipment through each step in the process, from identification through final transfer to the customer.
- A list of the reserved equipment that is sent to local economic development organizations. The local ED organizations can then pass this list, or specific equipment from that list, to companies which they are recruiting or companies in the area which are expanding. WSRC personnel in the Economic Transition Department are available to assist in further identification or clarification of the available equipment. WSRC personnel may also advertise specific equipment during this time.
- Companies expressing interest in any of the available equipment are referred to the WSRC personnel.
- As noted above, the equipment is initially reserved for a seventy day period. If a specific company is identified during the seventy days, the equipment is then specifically reserved for that company for whatever time necessary to reach contractual agreement. If a specific company is not identified during this seventy day period, the excess equipment is released back to the standard disposition process.
- Once a company is identified that will commit to creation of new jobs through reuse of the equipment, a specific WSRC contact will work with that company to refine the company's list of desired equipment, bring company representatives in to view the equipment, and assist the company in developing plans and cost estimates to remove the equipment.
- The company will provide a letter requesting excess equipment to the DOE Program Manager. The letter will also describe the intended use of the equipment and estimate the number of resulting jobs.
- The WSRC contact will develop a fair market value and a discounted selling price for the equipment. Those are based on a methodology that has been developed and refined within the DOE complex and provides a very favorable discount to companies that will commit, and follow through, on creation of jobs in the local area. The company's cost of removing the equipment is also credited in the determination of the selling price.
- The WSRC contact will also work with the DOE contract representative and the company to develop a contract for sale of the equipment.
- After approval of the contract by DOE and the company, the WSRC contact will assist the company and help coordinate in removal of the equipment from the site.

PROGRAM SUCCESSES

The reuse of excess assets to support economic development in the local area has been very successful at SRS. Currently, twenty-seven companies have been created, expanded, or

transferred to the area, with the creation of 1150+ jobs and a projection of 4000 employees within the next three years. Examples of those companies are provided below.

The EFCO Corporation, which has constructed a new \$21Million facility in Barnwell, SC, is the biggest success that can be directly attributed to the availability of excess assets at SRS. After the initial identification of EFCO as a potential customer for the two excess aluminum extrusion presses at SRS, a coordinated effort by WSRC, DOE, the South Carolina Department of Commerce, the Tri-County Alliance (the economic development organization for three local counties), and South Carolina Electric & Gas was successful in attracting a planned EFCO east coast expansion to Barnwell, SC. With the recent addition of a second shift, EFCO now has ~ 400 employees. With the incorporation of the second press into their facility, projected employment will reach 1300-1400. This facility manufactures architectural aluminum window systems for large buildings.

Following the start of operations at the EFCO facility, WSRC personnel, working with local ED personnel, pursued a "cluster approach" that targeted companies that would provide support services or products to EFCO. Two companies that can provide metal forming and anodizing services for EFCO have established facilities in the area. One of them, Mid-Am Metal Forming of South Carolina, has just opened a new \$1.5Million facility in Williston, SC. Another, Long Branch Machine and Welding, has been created and provides machining services for EFCO. A major glass manufacturer that supplies glass to EFCO selected a local site as one of its final two choices, but chose to construct a new facility in Macon, Georgia. We are continuing to pursue this cluster approach and expect other successes in the near future.

Another opportunity for creation of new companies comes from employees that choose to accept voluntary separation or early retirement and start a business. In addition to several who have taken licenses for technology from the site, at least two companies have been started by ex-SRS employees utilizing excess SRS equipment. Bitz America manufactures industrial drill bits and has contracts with major companies such as Boeing. Soil Remediation Barriers provided environmental remediation services.

Many additional small companies that provide unique products have either transferred to or have been created in the area. Two examples are B&B Products and CamoVision, Inc.. B&B transferred operations from Phoenix, Arizona "back home" to Allendale, SC. B&B provides glass etching materials that are environmentally friendly and have recently gone international, with major contracts from Japan. CamoVision provides camouflage glasses for military and hunting operations, as well as additional camouflage products for military application.

The excess asset program also provided an unexpected opportunity for very positive community relations for the site. One of the local communities suffered a tragic fire in the county courthouse. The fire destroyed most of the county's administrative offices and courtrooms. Within a week, WSRC had located and arranged for the transfer of seven large modular offices, office furniture and other necessary support equipment. Assistance in site engineering was also provided to the community. As a result, the county was back in operation in a very short time and will continue to use the "temporary" office location once the courthouse is renovated.

ISSUES AND LESSONS LEARNED

As with any new program that is initiated by DOE (or any other large organization), issues will be created that must be addressed and resolved for the program to be successful. Some of the more significant issues that developed at SRS, and the resulting lessons learned, are discussed below.

Fairness of opportunity/advertising the excess equipment – Providing equal opportunity for access to the equipment among competing companies/organizations was initially envisioned as a major problem in the very early stages of the program. Fortunately, this has not developed as a real problem; there is not a large number of companies at any given time and the local organizations have existing understandings or very quickly agree on reasonable priorities. SRS did hold a general open house and invited any and all interested parties to tour representative excess facilities and view the type of equipment that would be excess. The open house was repeated, but has been replaced by a submittal of equipment lists to the local economic development organizations.

Priority of economic development reuse – This was a major point of contention in the early days of the program. SRS had established reuse programs with state governments, educational institutions, and GSA, as well as the screening programs with other DOE sites and other federal agencies. With the support of the site manager and the local communities, a Memorandum of Agreement was established with excess operations and material control that placed economic development reuse ahead of all other reuse with the exception of the DOE complex.

Pricing the excess equipment – The Hall Amendment established the opportunity to price the equipment at less than Fair Market Value (FMV). How far below FMV, and how to determine FMV in the first place, were open to determination at each DOE site. DOE has now developed a pricing process, termed the Mound Process, that is generally used across the complex. This process generally prices the equipment at 75% less than FMV. A method of determining FMV, based on equipment lifetime, remaining useful life, initial purchase price, and equipment condition has been developed at SRS. That process has been benchmarked by independent equipment appraisals and auction results for similar equipment. In specific instances, independent estimates of FMV have been requested by DOE. In general, we have learned that the equipment is rarely worth our initial estimates, especially when it gets as far as the excess auctions.

Site support for removal of installed equipment – Funding for removal of installed equipment or, in some cases, large portable equipment was not included in any of the site budgets. Some funding was available initially from DOE-HQ to offset downsizing, but that was very limited. Eventually, the cost of site support was included in the price of the equipment and paid by the recipient.

Retention of revenues – Until very recently, the revenue from the sale of excess assets had to be submitted to the US Treasury. The sites had long requested that the revenue from excess asset sales be retained at the field office level to support preparation of additional equipment for sale, etc.. The requirement to submit the sale proceeds to the US Treasury was modified in late 1998; this should help make additional equipment available for economic development support.

Tracking the status of excess equipment sales – Keeping track of the status of the excess equipment as it is reserved, designated for a specific company, reviewed for offsite release, approved by DOE, contracted for sale, prepared for site release, and picked up by the company was very difficult. Several databases contained information for part of the process; each data base was maintained by different people; none of the systems interacted; and all the empires were protected. As a result, equipment that had been designated for economic development was “lost” to other uses along the way. To address this, a data base was developed that tracked the equipment each step of the way, protected it for the proper use, provided up-to-date information on approvals for each step of the process, and provided the necessary records. All affected parties can query the database, but input is restricted to an agreed upon minimum number of people.

LESSONS LEARNED FROM AN EMPLOYEE/ENTREPRENEUR

Over the past three years, several SRS employees have taken advantage of the SRS Entrepreneurial Leave of Absence (ELOA) to start a new business or provide critical expertise to new companies during the start-up phase. While most of the employees on ELOA have been associated with the technology transfer area, at least one has chosen to utilize the ELOA to assist a company that was attracted to the region by the Excess Asset Program. Mark Eidson, currently on Leave of Absence from WSRC, provides first hand knowledge and feedback on the Excess Asset Program from the perspective of a company to which equipment was transferred.

Mark has spent the past year providing management and marketing expertise to Mid-Am Metal Forming of South Carolina (Mid-Am) in the start-up of a new manufacturing facility. Mid-Am services the architectural metal, automotive, and several other industries that use shaped metal components in their products. Mid-Am uses a process called stretch forming, developed in the aerospace industry, to curve and shape customer-provided metal to their specifications.

The parent company, Mid-Am Metal Forming, Inc., is headquartered in Rogersville, Missouri. The parent company was looking to expand its operations to a southeastern manufacturing facility in order to better serve its east coast customer base. One of their major customers, EFCO, had already selected a site near the Savannah River Site, as discussed earlier in this paper. When contacted by personnel from the SRS Excess Assets Program, Mid-Am was leaning towards a site between Atlanta and Augusta, Georgia, where many of its key customers are located. The availability of excess assets from SRS, coupled with state and local economic development incentives, convinced Mid-Am that a site within the local region around SRS would be best from a financial standpoint. Without the assistance of the SRS Excess Asset Program, the \$1.5 Million investment made by Mid-Am, and the twenty jobs created thus far by the company, would have gone elsewhere.

Mid-Am was able to use metal working equipment that was no longer being used at the site. Additionally, equipment obtained from the site that was not directly used in Mid-Am's process was traded in on new equipment that would be used in its manufacturing operation. This saved Mid-Am thousands of dollars in start-up capital. This savings enabled Mid-Am to ramp up more quickly, hire personnel at a faster rate, and turn a profit in its first full year of operation.

Mid-Am is currently exploring the possibility of obtaining more equipment from the site to assist in expanding its newly constructed facility in only its second year of operation. This expansion will consist of a finishing line and additional quality control inspection equipment. The critically needed QC inspection equipment will allow Mid-Am to enter a new market, the aircraft industry. The finishing line will offer new and existing customers an additional service and is expected to lead to an increased market share for Mid-Am, further investment in the local community, and the immediate creation of fifteen additional jobs.

The assistance provided by the site's Excess Assets Program, and the management/marketing expertise provided by Mark Eidson, have been invaluable to Mid-Am. With this assistance, Mid-Am achieved all the first year goals set forth in its business plan and provided a positive impact on a community that was strongly affected by the downsizing at SRS.

REFINING THE PROGRAM

There is one specific area that should provide significant benefit for the excess asset programs at all the DOE sites: retention of revenue from the sale of assets. Until very recently, this revenue was returned to the US Treasury. A recent DOE memorandum, "Refocusing the Asset Sales Initiative," permits the revenue to be retained at the local sites. This should greatly assist in solving the up-front funding problems that have plagued the program and allow excess assets to be prepared for disposition. A warehouse concept could well be initiated where excess assets that are prime candidates for economic development reuse are displayed and quickly available for job creating opportunities.

An additional use of excess assets that was piloted at Oak Ridge and has been implemented at Savannah River is the "Assets for Services" contract. In this approach, a facility(ies) and the associated installed equipment are decontaminated by a private sector company through a service contract. The payment for D&D of the facility, in whole or in part, is the equipment that has been decontaminated and, in some cases, additional excess equipment from the site. The contractor, or a partner company, sells the equipment on the open market and the proceeds from the sale are retained by the contracting company(ies). Further use of this "Assets for Services" approach could provide significant cost savings for DOE.

CONCLUSIONS

The use of excess assets for economic development purposes in the local communities has certainly been a success at the Savannah River Site. The creation, re-location, or expansion of twenty-seven companies, with a projected employee base exceeding 4000 within the near future, is multiple testimony to that success. A second benefit for the site has been the good will created by a program that obviously cares about and assists the local communities as they are significantly impacted by downsizing at the DOE facilities. Continuation and refinement of the program will further improve economic conditions for the communities that both depend upon and support the Savannah River Site.