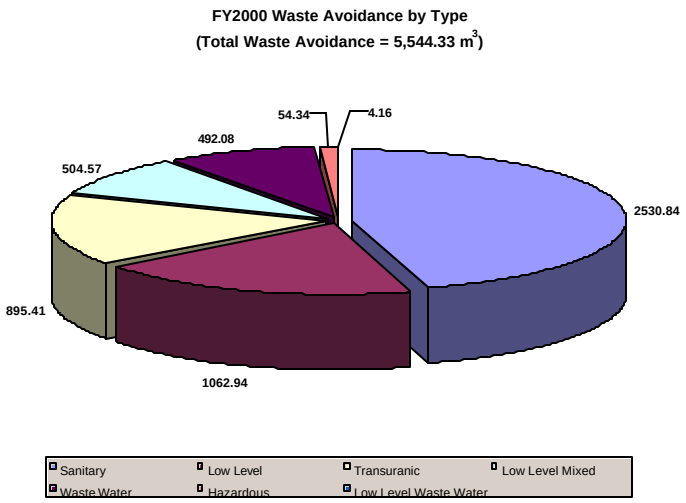
RECYCLING AND WASTE REDUCTION

With a clear mission of Site closure, everything at the Rocky Flats Environmental Technology Site has the potential to become a waste product. Through the conscious efforts of all individuals at the Site, many of these potential waste products are being reused or recycled, and many other waste products are not being generated in the first place, a priority established in the 1990 Pollution Prevention Act. This results in a significant avoidance of waste generation at the Site, which in turn results in waste management and disposal cost avoidance.



In March 2000, Kaiser-Hill pledged to integrate nine essential management elements into Site operations in the form of an Environmental Policy signed by the company president. One of these elements is to "minimize waste and pollutants, conserve natural resources and energy, and recycle materials in every aspect of our operations, cleanup, and closure of the Rocky Flats Site." FY2000 proved to be successful in maximizing recycling and waste avoidance. During FY2000, seventy-three pollution prevention accomplishments resulted in over 5,000 cubic meters of waste avoidance; a resulting cost avoidance in excess of $31 million. Additionally, during FY2000, over $500,000 in affirmative procurement products were purchased, enhancing the local market for recovered materials and contributing to Department of Energy goals for affirmative procurement.

As the end state of Site closure approaches, pollution prevention focus must shift to opportunities in soil, water, and building remediation operations. One significant waste stream generated during building demolition is concrete rubble. Each of the Closure Projects continues to identify opportunities for implementing innovative technologies in their closure operations.

FY00 Highlights and Accomplishments

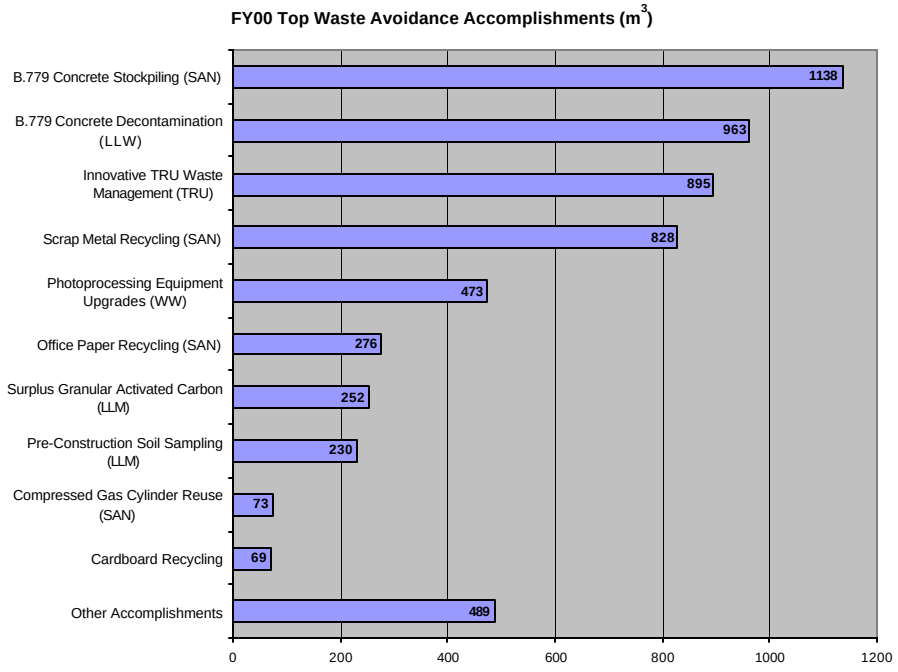
- Three technological improvements in the processing, storage, and disposition of transuranic waste were implemented at RFETS. Use of the Pipe Overpack Container, Filtered Bag-Out Bags, and Improved Gas Generation Testing Methods avoided the generation of nearly 900 cubic meters of transuranic secondary waste resulting in a cost avoidance of over $30 million.
- In conjunction with Earth Day 2000, a contest among the closure projects to submit innovative environmental stewardship, waste reduction, and pollution prevention ideas was held. The winning entry proposed utilizing a building itself as a containment structure during under-building remediation rather than destroying the building and constructing a temporary containment structure. All entries are being investigated for implementation in closure operations.
- Over 1,000 cubic meters of free release concrete generated by the demolition of Building 779, a former plutonium process development laboratory, was stockpiled for use as backfill material at the Site. During FY2000, RFETS worked with regulators and stakeholders to develop a Rocky Flats Cleanup Agreement Standard Operating Protocol for recycling concrete. Concrete rubble that meets free release criteria will be used as backfill on-Site, thereby avoiding significant waste generation, the need to purchase equivalent volumes of backfill from off-Site sources, and the associated reduction of approximately 19,000 on-Site shipments of backfill material.
- Kaiser-Hill was awarded the "Outstanding Achievement in Recycling" award from Colorado Recycles, a non-profit organization dedicated to the promotion of voluntary recycling by citizens and businesses.

Kaiser-Hill was recognized for making environmental stewardship a key element in the closure of the Site through efforts to minimize waste and pollutants, conserving natural resources and energy, and recycling materials in every aspect of Site operation and cleanup.

- RFETS transferred over 250 cubic meters of granular activated carbon to the Rocky Mountain Arsenal. The granular activated carbon, no longer needed at RFETS, would have been discarded. Instead, the Rocky Mountain Arsenal will make use of the material in their environmental remediation efforts.
- RFETS prevented the disposal of 20 metric tons of sanitary waste in the setup of a D&D training center. Numerous items, originally planned to be purchased off-Site, were found on-Site:
    - Four on-Site gloveboxes will be modified for reuse in lieu of purchasing new gloveboxes.
    - Numerous nonstandard-conforming steel waste boxes originally destined to be recycled as scrap metal will be reused as training feedstock.
    - Expired Level B Garment suits targeted for sanitary waste disposal were identified as acceptable for use at the training facility.
    - Excess steel and aluminum sheet, pipe, bar, and box sections originally targeted for disposal as LLW were surveyed as clean and will be reused as training feedstock.

FY2001 Goals and Project Plans

- Strive to meet applicable waste reduction and energy efficiency goals established by the DOE Secretary.
- Continually improve RFETS's efforts to reduce wastes and recycle by learning from efforts at other DOE sites and commercial industry, as well as sharing information between Site Closure Projects.
- Update the Site's waste minimization and pollution prevention program plan. Kaiser-Hill will produce a five-year Pollution Prevention Program Plan Through Closure, going beyond DOE's requirement to produce a three-year plan.
- Achieve 100 percent compliance with the Affirmative Procurement program for the purchase of recycled products.
- Investigate all options for reusing or recycling materials prior to disposing of such items as waste.



Note: Pollution Prevention photographs are located at http://rfetshp/P2/P2Photos/photos.asp