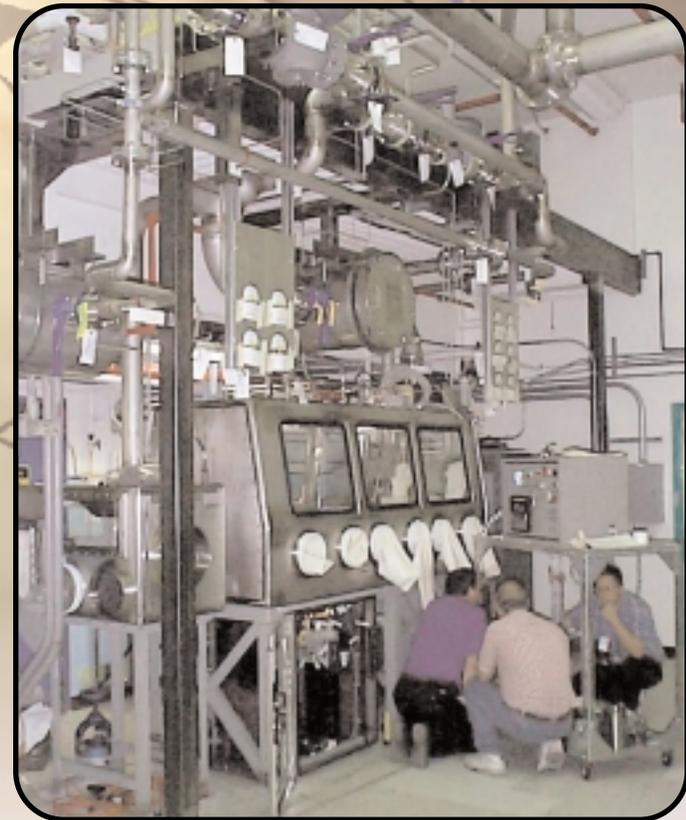


TRANSFORMING THE PLATEAU

Nuclear Material Stabilization

At the Plutonium Finishing Plant, the processing of plutonium metals was initiated six weeks ahead of a November scheduled start date. Early startup of this milestone effort supports a commitment to the Defense Nuclear Facilities Safety Board to complete packaging this spring of the metal inventory in containers that meet requirements for the safe, 50-year storage of stabilized plutonium materials. Through December, 12 percent of the inventory had been stabilized and packaged in containers with the new bagless transfer system, shown here undergoing final checks prior to startup in late September.



CONTENTS

HIGHLIGHTS

RESTORING
THE RIVER
CORRIDOR

TRANSFORMING
THE
PLATEAU

PREPARING
FOR THE
FUTURE

SUPPORT
& SERVICES

ENVIRONMENT,
SAFETY &
HEALTH

WHAT'S
NEXT?

HANFORD
SITE MAP

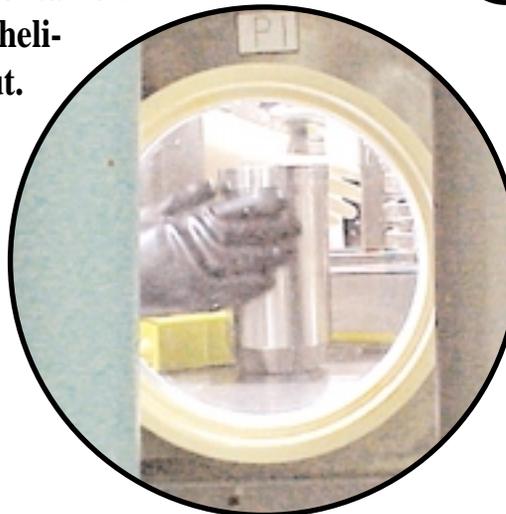
CONTACTS

The Plateau

Nuclear Material Stabilization

The new bagless transfer method allows workers to package stabilized plutonium material in special welded, stainless steel containers without taking it out of the glovebox. This significantly reduces worker radiation exposure and accelerates packaging. In these photos, a transfer can of stabilized material moves through an enclosed conveyor from the glovebox in which it was prepared toward the bagless transfer system glovebox. There, a nuclear process operator places the can into a long-term storage container.

The container is then purged with helium and automatically welded shut. The third photo shows the operator removing the safely sealed container, which will eventually be welded inside a second, outer can for added security during storage.



CONTENTS

HIGHLIGHTS

RESTORING
THE RIVER
CORRIDOR

TRANSFORMING
THE
PLATEAU

PREPARING
FOR THE
FUTURE

SUPPORT
& SERVICES

ENVIRONMENT,
SAFETY &
HEALTH

WHAT'S
NEXT?

HANFORD
SITE MAP

CONTACTS



Nuclear Material Stabilization

The rate of plutonium stabilization and packaging is expected to continue to accelerate with the installation of upgraded hardware and streamlined procedures. Recent improvements, many suggested by employees, are also reducing material handling and limiting worker exposure, which is increasingly important with so many plutonium stabilization operations under way at the same time. For example, Fluor Hanford radiation control technician Tony Hays devised a cradle to hold a



can of plutonium material for 90 seconds, rather than having a worker hold the can, while instruments measure the radioactivity in the material. Another employee designed the lead-shielded fabric bag, shown above, in which a can of plutonium material can be transported, cutting radiation exposure to the worker by 90 percent.



CONTENTS

HIGHLIGHTS

RESTORING
THE RIVER
CORRIDOR

TRANSFORMING
THE
PLATEAU

PREPARING
FOR THE
FUTURE

SUPPORT
& SERVICES

ENVIRONMENT,
SAFETY &
HEALTH

WHAT'S
NEXT?

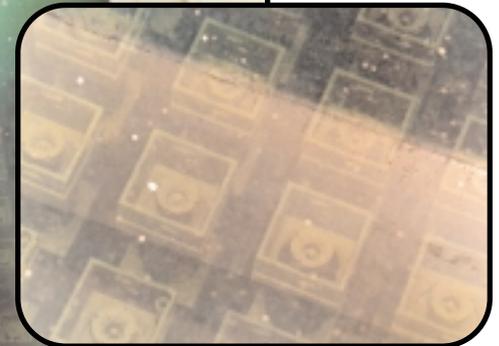
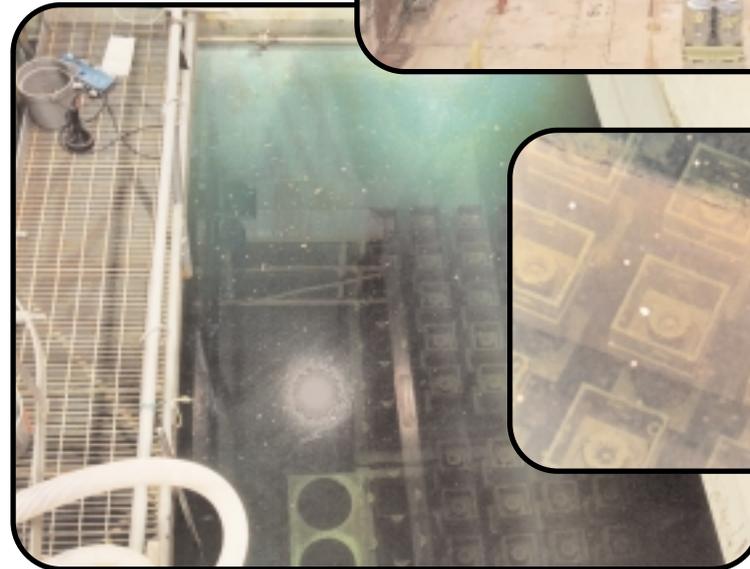
HANFORD
SITE MAP

CONTACTS

The Plateau

Spent Nuclear Fuel Project/Waste Management

Removal of excess equipment from the canyon “deck” and of the contents in four canyon “cells” continue inside T Plant, in 200 West on the central plateau, in preparation to receive sludge from the K Basins, located near the Columbia River, in support of the Spent Nuclear Fuel Project. Another important preliminary step is to remove and dry nearly 16 metric tons of spent nuclear fuel from the Shippingport (PA) Atomic Power Station that have been in underwater storage at T Plant since the late 1970s. The 72 rectangular Shippingport fuel assemblies (inset) must be out of T Plant’s pool cell by August 2002 to allow time to clean and prepare the pool and four nearby cells to receive the K Basins sludge. The Tri-Party Agreement calls for all sludge to be removed from the K Basins by September 2004 and moved into T Plant in early 2005.



CONTENTS

HIGHLIGHTS

RESTORING
THE RIVER
CORRIDOR

TRANSFORMING
THE
PLATEAU

PREPARING
FOR THE
FUTURE

SUPPORT
& SERVICES

ENVIRONMENT,
SAFETY &
HEALTH

WHAT'S
NEXT?

HANFORD
SITE MAP

CONTACTS



Waste Management

The first shipment of mixed low-level waste requiring thermal treatment heads offsite to the local Allied Technology Group (ATG) facility. ATG completed construction and installation of a new plasma melter for this purpose, and is expected to treat more than 700 cubic meters of mixed waste from Hanford each year for five years. After treatment, the waste will be returned to Hanford for safe disposal in a mixed waste trench.



In support of the Office of River Protection, Fluor Hanford completed installation of a tie-in to the 200-Area Treated Effluent Disposal Facility from the future tank waste treatment plant.

CONTENTS

HIGHLIGHTS

RESTORING
THE RIVER
CORRIDOR

TRANSFORMING
THE
PLATEAU

PREPARING
FOR THE
FUTURE

SUPPORT
& SERVICES

ENVIRONMENT,
SAFETY &
HEALTH

WHAT'S
NEXT?

HANFORD
SITE MAP

CONTACTS



Environmental Restoration on the Plateau

In addition to Fluor Hanford's cleanup efforts on the Site's central plateau, a Bechtel Hanford-led team continues decontamination and decommissioning work at the Plutonium Concentration Facility, also known as 233-S, in the 200 West Area. All piping ties to the adjacent REDOX "canyon" facility have been removed. As shown here, safely removing contaminated pipes inside the Facility required workers to wear an extensive amount of protective clothing.

