TA-2

High low 70s
Low near 45

New on today's
Bulletin Board

Clean up scheduled for Friday, Saturday at Española Valley High School

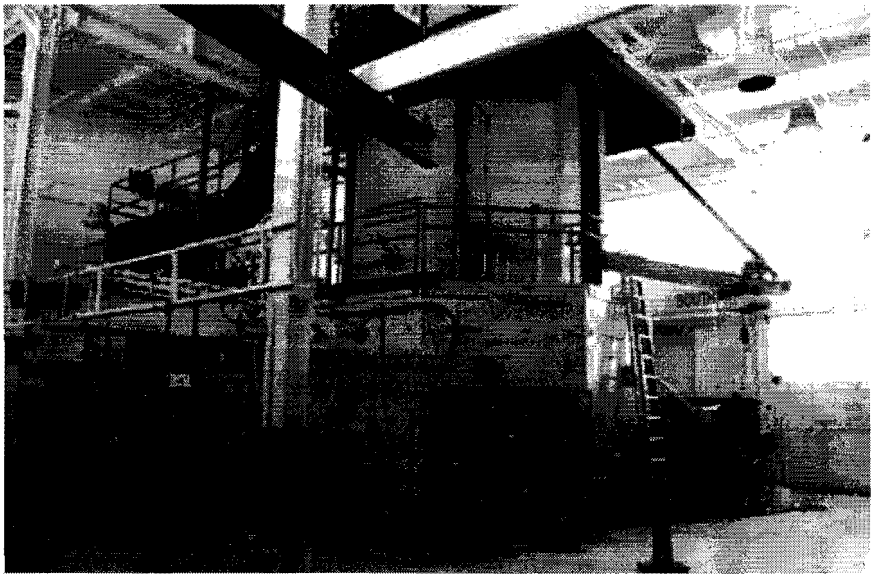
Bulletin Board
Calendar
Director's News
Cafeteria Menu
Commuter's Corner
Job Openings
Reader's Forum NEW!
Research Library
Road Closures
Official Documents
More News

Previous Issue
Search
Newsbulletin Archive

Got a news tip for the Newsbulletin? Click here.

Los Alamos NATIONAL LABORATORY
DAILY NEWSBulletin

Wednesday, May 15, 2002



A biological shield, center, surrounds the core of the tan reactor in which primary coolant was used for cooling th reactor's core. *Photo by LeRoy N. Sanchez, Public Affairs*

Laboratory decommissionin Omega West Reactor startin next month

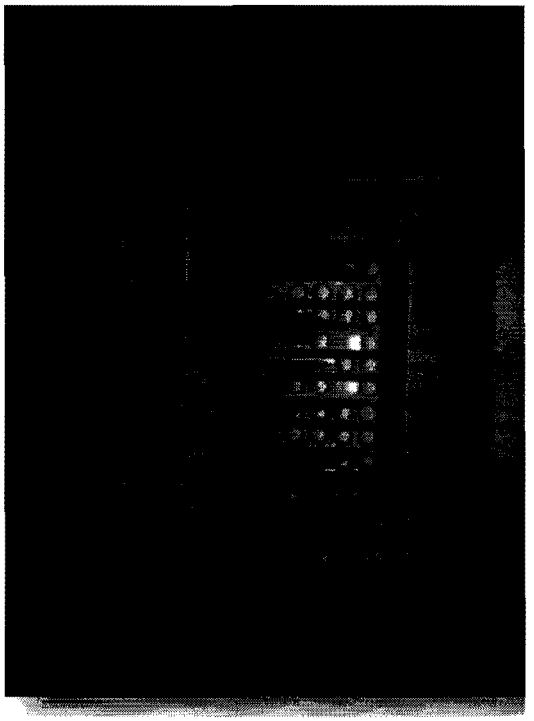
The Laboratory in June plans to begin decommissioning and demolishing the Omega West Reactor. The project is schedulec completed in September 2003.

The Omega West Reactor is located at Technical Area 2 in Los

Canyon and TA-61 on the south mesa of the canyon. The Cerr Grande Rehabilitation (FWO-CGRP) Project Office is leading thi project, having developed the contract that incorporates requir and high incentives for waste minimization in recovery of the C Grande Fire.

"This project is slated to be yearlong because of the complexit job. We also must ensure that the work is performed safely an there are no environmental impacts," said Keith Rendell of Construction and Facility Services (FWO-CFS).

The history of the OWR is as long as it is varied. The reactor was completed in 1956 and operated eight hours a day, five days a week, at a power level of eight megawatts thermal.



Donald W. Barr of Isotope and Nuclear Chemistry (C-INC) said, "The reactor's original purpose in 1956 was for conducting nuclear research by collecting nuclear data of isotopic species in support of the weapons program." Barr was a staff member that used the facility when the reactor first became operational.

Cherenkov radiation, when it is intense, appears as a we bluish-white glow in the pools of water shielding the nu reactor. The Cherenkov radiation is caused by electrons the reactor traveling at speeds greater than the speed o in water, which is 75 percent of the speed of light in a va *Photo by Jose "Mitzie" Ulibarri, former Information Services (IS*

The Omega West Reactor and several other structures are loca flood plain; the project will focus on reducing the potential for radioactive contamination to spread in the event of a flash floo Removal of the buildings eliminates the potential risk of contar to the water and land should a catastrophe occur, added Rend

Rendell said the subcontractor company that wins the bid "mu: adhere to the Lab's decommissioning and demolition health an plan by submitting a specific health and safety plan to cover b workers and the environment."

Decommissioning and demolition involves disposing of all wast including radioactive and hazardous waste. "The waste is segr classified and disposed of properly by the subcontractor with 8 percent sent to a treatment storage facility," explained Rendel subcontractor also must strive to meet requirements for the re of at least 18 percent of all materials removed from the site. T waste includes wood, concrete, iron, steel and glass.

During the 1960s-70s, the reactor also was used for neutron activation analysis to determine elemental compositions of soli Gene Peterson of Actinide, Catalysis and Seperations Chemistr (C-SIC). Peterson was group leader of Medical Radioisotope an Reactor Applications as well as program manager for Isotope Production and Distribution in 1993.

According to Peterson in the late 1980s alternative funding sou were needed for the continuation of the reactor, so the U.S. ra pharmaceutical industry petitioned the Department of Energy t the Omega West Reactor as a possible production source of Molybdenum-99. "About 85 percent of all medical isotopes use imaging and treatment are derived from Molybdenum-99. We expected to produce approximately 30 percent of the U.S. dem Molybdenum-99 starting in 1993," he said.

The reactor has not operated since December 1992. Peterson operator error caused the reactor to power up beyond normal causing the system to shut down automatically. During the cou an investigation of the incident, the reactor was shut down. Du the shutdown, operators noticed that the reactor was leaking t contaminated primary coolant water into the ground. The cool was found in a 30-inch diameter pipe buried underground. The of the leak was a delay line that was later fully excavated. The Laboratory found that the 70-foot-long pipe underwent stress corrosion cracking, which was enhanced by a bacterial action. subsequent leaks were found after metallurgical tests were cor Although the cooling system could have been repaired, DOE de to permanently shut down the reactor. The reactor's fuel rods removed in 1994, allowing the reactor to be placed in a safe sh mode.

Peterson said, "I always enjoyed being associated with the OW I felt good that I could help to develop a future mission for the

medical isotope program. However, I'm still disappointed that didn't take the Molybdenum-99 project at the reactor to a succ conclusion."

--Kathryn Ostic

Other Headlines

Lunch Buddies participants recognized by the Laboratory more

Laboratory decommissioning Omega West Reactor starting nex month more...

Los Alamos News Letter more...

April continues months long trend of dry, warm conditions in tl region more...

Ergo Expo today at Laboratory more...

SCC open house for Lab workers set for Tuesday more...

Questions? Contact the Newsbulletin at newsbulletin@lanl.gov or 667-6103.
