

PNNL technology proves a good fit

Holographic imaging system wins award for innovative use

By John Trumbo
Herald staff writer

Hip hugger jeans and shirts that show off well-built torsos will be easier to make with a new technology developed at Pacific Northwest National Laboratory in Richland.

A holographic imaging system that was developed more than a decade ago by the laboratory for security applications is how Pennsylvania-based Intellifit can obtain 360-degree, high-resolution 3-D body measurements for custom-fit clothing.

It is tailoring without a tape measure. Customers don't have to strip down and store workers don't have to estimate measurements on a fully-clothed customer.

A low-power radio wave beamed at the body collects data points that help calculate exact measurements.

So accurate and innovate is the system that the Federal Laboratory Consortium has awarded the DOE lab a 2005 Excellence in Technology Transfer Award.

Mike Schwenk, the lab's director of intellectual asset management, said the system uses a millimeter wave to scan. The original idea was to develop a technology for



Special to the Herald/PNNL
The Intellifit System takes customer measurements through their clothing to assure a good fit. The system sends a safe, low-power radio wave that collects data points that are used to calculate numerous body measurements accurately.

remote scanning at airport terminals for security purposes.

"We wanted to see if we could see something that was hidden on a person that a metal detector would miss," he said.

Millimeter waves harmlessly penetrate clothing and reflect off the body, sending signals back to a transceiver. The

transceiver then sends the signals to a high-speed computer that creates a final 3-D holographic image.

Intellifit's body measurement software is then used in conjunction with the 3-D holographic image to obtain 80 accurate body measurements.

The technology worked.

And much to the pleasant surprise of researchers, it also has other uses, such as measuring a human body for best-fit clothing.

Another company, Safeview Inc. of Santa Clara, is using the technology's ability to show the presence of metallic and non-metallic objects, such as plastic and ceramic weapons that could be threats for aviation, prisons, buildings and border crossings.

The holographic imaging system also can spy drugs hidden under clothing.

The consortium, which is made up of more than 700 federal laboratories and centers nationwide, recognizes federal laboratories and their employees who have made significant contributions in transferring federally funded technology into the private sector.

The Richland lab's technology is among 24 recognized nationwide by the consortium this year.

A formal ceremony honoring the winning entries will be at the consortium's national meeting in Orlando, Fla., on May 4. The technology also earned an R&D 100 Award and the magazine editors' choice award for "Most Promising New Technology" in 2004.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com.

Fluor supports DOE in I-297 lawsuit

By **Annette Cary**

Herald staff writer

Hanford contractor Fluor Hanford on Thursday joined the list of organizations and people asking to intervene in a federal lawsuit to overturn the Hanford cleanup initiative.

But Fluor, a prime contractor for the Department of Energy at the Hanford nuclear reservation, is the first to ask to join the federal government's side.

Last week, supporters of Initiative 297 filed a motion to intervene on the side of the state of Washington. They included Yes on I-297: Protect Washington; Heart of America Northwest; the Government Accountability Project; the Washington Public Interest Research Group; Democratic state Sen. Adam Kline; Republican state Rep. Toby Nixon; and Spokane Councilman Bob Apple.

Last month, voters approved the initiative intended to stop DOE from bringing more radioactive waste to Hanford until waste already there is cleaned up. Hanford is heavily

contaminated from the past production of plutonium for the nation's nuclear weapons program.

The federal government believes the initiative attempts to give federal powers to the state and puts the government, contractors and workers at risk of lawsuits if they move waste from one Hanford facility to another without permits that could take years to obtain.

"Overall, I-297 may restrict Fluor's current operations, which include handling, storing, treating and transporting mixed waste at Hanford," Fluor attorneys wrote in court papers seeking to join the lawsuit. "This, in turn, will impede ongoing cleanup activities."

Operation of many Hanford facilities could be affected by any decision made by the court on the issue, Ron Gallagher, chief executive of Fluor Hanford, told staff in a memo.

DOE began preparing to shut down some cleanup operations and some projects at its national research laboratory in Richland on Dec. 2, the day the initiative became law.

Since then, DOE and the state of Washington have agreed to take no action on the initiative until spring.

However, DOE will not send most types of radioactive waste to Hanford until a decision is made in the case, which should be no later than May 13 under the agreement.

Supporters of the initiative wrote in court papers that by joining the case they will ensure "zealousness in representation."

They noted that Sen. Dino Rossi, the governor-elect pending a vote recount, made statements opposing the initiative before it passed. In addition, outgoing Gov. Gary Locke said he had concerns about some policies in the initiative, according to court papers.

"There is nothing in I-297 that in any way interferes with cleanup," said Gerald Pollet, executive director of Heart of America Northwest. He called DOE claims "off the wall."

■ Reporter **Annette Cary** can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

22 DEC 04

Fluor still reviewing K Basin dive plan

By Annette Cary

Herald staff writer

Fluor Hanford plans to continue studying whether divers may safely be sent into Hanford's K Basins to speed cleanup there.

Fluor had hoped to make a decision this week whether to drop the plan as unfeasible or move forward toward a possible dive as early as January.

More testing is needed, Fluor spokesman Geoff Tyree said Tuesday. That will include lowering a mannequin in a dive suit into the basins to see how it picks up contamination and practice washing the radioactive particles off the suit.

If Fluor decides to go ahead and hire divers, it may not happen as soon as January, Tyree said. The testing will determine the schedule, he said.

Fluor is looking at ways to speed up the removal of radioactive sludge left in the huge indoor pools of water from irradiated nuclear fuel. The leak-prone basins are 400 yards from the Columbia River.

Fluor is expected to miss a Dec. 31 commitment to DOE to have the sludge in the most contaminated basin, K East, corralled in underwater containers.

Divers could do the difficult cleanup work quicker than workers who are maneuvering long-handled tools to the bottom of the murky pools about 20 feet below the steel grating that covers them.

Divers who specialize in radioactive environments now perform underwater jobs at commercial nuclear reactors. They've also been used to clean four spent nuclear fuel storage basins at the Idaho National Engineering and Environmental Laboratory.

CH2M Hill upgrading ventilation systems

Contractor raising stacks on vents to better protect workers

By Annette Cary

Herald staff writer

CH2M Hill Hanford Group is improving ventilation systems on some of Hanford's huge underground tanks of radioactive and chemical waste to better protect workers from vapors.

The Department of Energy contractor has been working to better understand what chemicals are in the 53 million gallons of waste in the tanks. In addition, in a step that's more visible to concerned workers, it's making engineering improvements.

Tank vapors became a concern after some workers said they feared breathing chemical vapors from the tanks had made them seriously ill. A series of government reports, both federal and state, concluded that not enough was known about what was in the tanks to know that workers were being adequately protected.

A year ago, CH2M Hill raised the vent on one of Hanford's 149 old single-shell tanks from about 3 feet above the ground to 15 feet. Studies showed roughly a 10-to-1 dilution of the chemical vapor resulted, said Joel Eacker, vice president of project delivery.

The contractor picked eight more tanks to raise the ventilation stacks this winter. Two recently have been completed, two more are in progress and four are scheduled for early 2005.

"We believe it's safer, and workers see it as visible progress," Eacker said.

The stacks not only better disperse the vapors, but also move the vapor release away from workers' breathing space.

Workers continue to wear scuba-style, supplied air respirators in areas near the tanks where they might be exposed to fumes.

CH2M Hill chose the eight tanks based on a formula that ranked them by the types and amounts of hazardous chemicals they contain and how much work was being done near them. The single-shell tanks have passive ventilation systems, causing them to release more vapors in certain weather conditions.

More single-shell tanks could be given stack extensions, depending on vapor sampling results.

Hanford's 28 newer double-shell tanks have active ventilation systems with fans that better dilute vapors released into the air. All but one of the double-shell tank farms — the tanks are grouped in fields — were designed with ventilation systems that had 27-foot stacks.

Workers have installed an extension at the AP Tank Farm ventilation system to make it as high as the other stacks. It nearly doubled in height, which is expected to result in double the dilution of vapors from its eight tanks.

23 DEC 04

HEHF close-out process drags on

Nonprofit hopes to use net earnings for charitable purposes around Tri-Cities

By Annette Cary

Herald staff writer

The Department of Energy and the Hanford Environmental Health Foundation have not been able to agree what is owed to Hanford's former occupational medicine contractor, although it's been six months since the contract ended.

The foundation, or HEHF, has complained that the close-out process has taken too long.

DOE has gone through its routine process to determine what is appropriate

for the government to pay and what is not, said Colleen French, spokeswoman for DOE's Richland office.

In October, the foundation submitted a final bill to DOE for just under \$2 million. It included some previously billed items that DOE had not covered, including severance payments for HEHF employees.

"Despite the desire of both parties to quickly resolve open items, the close-out process has been time-consuming and prolonged," Lee Ashjian, chief executive of HEHF, said in a letter sent to Keith Klein, manager of DOE's Richland office, when the bill was sent.

"Consequently, our ability to discharge our close-out obligations, wind up our business affairs, and distribute our

remaining assets for the benefit of the community continues to be impacted," Ashjian wrote in the letter obtained by the Herald.

Net earnings of the nonprofit corporation will be used for charitable purposes in the Tri-Cities, according to the letter.

HEHF was formed to provide occupational medicine services for Hanford and it held the contract for 38 years. It lost the last contract competition, and AdvanceMed took over occupational medicine services in June.

Only a couple of outstanding issues remain, French said.

"We've been working to evaluate their billing based on federal acquisition guidelines," and continuing to discuss issues with HEHF in frequent conversations, she said.

She declined to discuss specifics of the proposed payment, citing procurement regulations.

According to the bill HEHF sent to DOE in October, the largest amount owed was nearly \$1.2 million for severance and dismissal payments to 26 employees. Ten were laid off in 2003 and the rest lost their jobs when the contract ended in June.

Some 24 of the employees were owed severance benefits under HEHF's employee benefits policy and the other two had written agreements with HEHF, according to the bill.

HEHF earlier billed DOE for \$453,130 in severance payments, which DOE had not allowed.

See **HEHF**, Page B2

25 DEC 04

Hanford community rallies around ill co-worker

By Genoa Sibold-Cohn

Herald staff writer

Forrest Day has been on disability leave since April for a disease that causes bone marrow failure and required a stem cell transplant.

But the 50-year-old Richland man's co-workers at CH2M Hill and friends within the Hanford community haven't forgotten him this holiday season.

Hundreds of Tri-Citians who have known Day over his 20-year career at Hanford, both as a friend and as a soccer coach, have donated \$5,400 to his

family to help pay up to \$250,000 in medical bills.



Day

The effort started small when Karen Carlson, a CH2M Hill financial analyst, organized care packages and visits to see Day in Seattle starting in November.

Day had his transplant at Fred Hutchinson Cancer Research Center in September, but had to stay for three months following

the surgery.

Day and his wife Mary lived in an apartment 1½ miles from the center. She used emergency family leave from her job at Washington State University Tri-Cities to be with him.

Mary said they periodically received DVDs, soup mixes, cards and Starbucks gift certificates from friends and co-workers in the Tri-Cities.

But the greatest gifts began Dec. 17, when they were forced to come home early after Mary's mother, Patricia Littleton, died in Arizona of a heart attack.

Mary, who was upset and tired

following her mother's death, called Carlson asking if someone from CH2M Hill could drive them and their belongings back to Richland.

Forrest's co-workers did even better. They paid for a limousine to drive the couple home and a CH2M Hill employee drove their Nissan Altima back to the Tri-Cities.

"It was so comfortable for my husband because of his back," said Mary, who said her husband has problems with his spine. "It was an incredibly generous gesture."

When they got inside the lim-

ousine, they found gift baskets filled with cheese and chocolate.

And they returned home to find their house had been decorated with Christmas lights, decorations and a Christmas tree. The elves responsible were friends and co-workers.

Word about Forrest's disease, transplant and return home has spread through the Hanford community in the past month and hundreds of people contacted Carlson to donate money.

"People would come by my office that I didn't even know

See **Rallies**, Page B2

2 JAN 03

Pacific Northwest National Laboratory stands on achievements while looking toward future

The day's news on Jan. 4, 1965, reported on riots in Saigon, Martin Luther King's drive to register black voters and the election of the son of Louisiana "Kingfish" Huey Long as the U.S. Senate's Democratic whip.

But the dominant headline in the Tri-City Herald on that Monday said Battelle Memorial Institute from Columbus, Ohio, was coming to the Tri-Cities to manage the Hanford Laboratories and its 1,928 employees.

"Battelle Takes Key to Progress," that headline declared.

The official change had occurred Sunday, Jan. 3.

Corporate giant General Electric was departing from Hanford after running the site for the federal government for 19 years. Coming in

was a company that in the next four decades would help transform Benton and Franklin counties' economies and the region's cultural, social and political life.

Battelle was the world's largest

contract research and development organization, with more than 5,000 employees worldwide. But few envisioned the unique role Battelle could play as operator of the Pacific Northwest Laboratory and the potential it brought to the Tri-Cities.

At the 1965 transfer ceremony in Richland, W. E. Johnson, the General Electric Co. manager, said the

See **Key**, Page A7

Lab wins Hanford testing contract

*Maryland company
gets \$58 million job*

By Annette Cary

Herald staff writer

The Department of Energy has awarded a contract to operate its primary laboratory for highly radioactive samples at Hanford to Advanced Technologies and Laboratories International Inc.

The five-year contract for Hanford analytical and testing services at the 222-S Laboratory is valued at \$58 million. A 90-day transition period started Monday with the signing of the contract, which was required to be awarded to a business with fewer than 500 employees.

Advanced Technologies and

See **Hanford**, Page B2

SUNDAY, DEC. 26, 2004

TRI-CITY HERALD

Briefs

PNNL offers directory of area tech businesses

Pacific Northwest National Laboratory has released The Technology Business Directory, a searchable online database of more than 260 Tri-City-based high-technology businesses.

The directory describes each business's products and services and gives contact information for each firm, and includes companies in Benton City, Burbank, Kennewick, Pasco, Prosser, Richland and West Richland.

The directory is at www.pnl.gov/edo/tbd/tbd.aspx. For more information, send an e-mail to gracie.downard@pnl.gov or call 375-2803.

LIGO tour to include talk of spacequakes

The Laser Interferometer Gravitational-Wave Observatory, or LIGO, public tours take place on the second Saturday of each month.

The next tour will be from 1:30 to 4 p.m. Saturday. Directions to the observatory are available at www.ligo-wa.caltech.edu or by calling 372-8181. Admission is free. The tour will include a discussion of LIGO's quest to detect and study the "spacequakes" created by exploding stars, colliding black holes and other violent events in the universe.

After the tour, a "Say Hello to Einstein at Home" session is planned at 7:30 p.m. in the observatory for free.

— By the Herald staff

24 DEC 1984
DOE to investigate if plant can withstand temblor

By Annette Cary

Herald staff writer

The Department of Energy has slowed the pace of construction at the \$5.8 billion vitrification plant at Hanford over concerns about whether it is adequately designed to withstand a powerful earthquake.

"My objective is to minimize the risk of rework," said John Eschenberg, the DOE's Office of River Protection project manager for the plant.

He's asked contractor Bechtel National to stop placement of the structural concrete in the plant's largest building, the pretreatment plant, until earthquake design issues are resolved. The plant has a footprint the size of four football fields and will stand about as high as a 15-story building.

He's also temporarily stopped overtime work for construction

crews at the vitrification plant.

The Defense Nuclear Facilities Safety Board, which provides independent oversight of federal nuclear weapon sites, has been discussing seismic standards for the vitrification plant with DOE for more than a year.

Many studies have been done over at least two decades to determine the likelihood and effects of earthquakes at Hanford. But DOE had Pacific Northwest National Laboratory with the University of Texas drill another bore hole to measure the speed at which sound waves move through the ground in central Hanford.

The study concluded in October that in some layers of sand and gravel sandwiched between basalt rock more than 500 feet deep the

6 JAN 05
*State, federal officials
fly over Hanford Reach
to survey elk population*

By Anna King

Herald staff writer

The twirling rotors of the Hiller Soloy helicopter broke the silence of the Hanford Reach, searching the snow-dusted landscape for elusive herds of elk.

Pilot Jim Pope, owner of Clarkston-based Leading Edge Aviation, skillfully skimmed the slopes of sagebrush and bunch grass while he and

Fastfacts

What: Meeting on the growing elk population.

When: 12:30 to 3 p.m. today.

Where: Washington State University Tri-Cities Consolidated Information Center.

Fish & Wildlife Service and the state Department of Fish and Wildlife were counting elk, trying to get an accurate estimate of Hanford Reach National Monument's population. Teams of

his crew listened to rock 'n' roll blasting in their helmets. Then he dropped over the edge of Yakima Ridge, revealing 300 elk that took off in a cloud of Rattlesnake Mountain dust.

Pope and officials from the U.S.

counters scoured the Reach for hours Tuesday and Wednesday.

Over the two days, officials say they found 670 of the fleet-footed beasts. The effort is the first helicopter survey of the animals, although using a helicopter is common in other parts of the state to estimate populations and manage hunting seasons.

In the Reach, the Hanford elk have found the perfect refuge — where hunting isn't allowed. However, the elk frequently wander off the site to munch nearby wheat and alfalfa fields, angering farmers who say the population must be better controlled.

And just what to do about that growing population has been the subject of hot debate.

See **Wranglers**, Page A2

9 JAN. 05

*PNNL evolves
to meet the
changing needs
of nation,
nuclear
industry over
the decades*

By JOHN TRUMBO • HERALD STAFF WRITER

In the beginning there was the bomb, and the war was at an end.

And the bomb became fallout and learning to live in an Atomic Age.

By the time Battelle took over the Hanford Laboratories in 1965, the Cold War had chilled the world. The Beatles had invaded. Nuclear physicists were excited by the prospect of radioactive energy producing electricity "too cheap to meter," and Bill Bair was testing theories about the effects of radionuclides on genetics at the newly named Pacific Northwest Laboratory in north Richland.

Bair, now 80 and retired in Richland, says the bomb changed his life in at least two ways.

First, it kept him alive. The bombs that devastated Nagasaki and Hiroshima in 1945 ended the war and plans to invade Japan.

That gave the young Army infantryman an opportunity to build a career in the new field of radiological physics.

After earning a degree in chemistry on the GI Bill, Bair received what he claims is the world's first

Second of a Sunday series on Pacific Northwest National Laboratory's 40th anniversary.

Next Sunday: The lab as a partner in the community, and what it promises for the future.

doctorate in radiation biology following studies in 1950 at the University of Rochester in New York. Then, he had to choose whether to go on to Yale or federal laboratories at Oak Ridge, Tenn., or Hanford.

Bair chose the West and stayed the next 50 years in the Tri-Cities.

His assignment was to study inhalation toxicology.

See **Mission**, Page A10

Ex-Hanford scientist named to foundation

11 JAN 05

A former Hanford laboratory scientist, Battelle researcher and Richland City Council member has been appointed by President Bush to head the National Science Foundation, based in Arlington, Va.

Arden Bement's nomination for a six-year term will require Senate confirmation.



Bement

Bement received the appointment in late November, after having served as acting director for nine months. He went to the foundation after serving as director at the National Institute of Standards and Technology since December 2001. Bement also was a member of the U.S. National Science Board for six years until 1995. The board guided NSF activities and was a policy advisory body to the president and Congress.

Bement holds master's and doctorate degrees in metallurgy, having graduated from the Colorado School of Mines, the University of Idaho and the University of Michigan. He has honorary doctorate degrees from Cleveland State University and Case Western Reserve University.

6 JAN 85

SAIC gets contract to study FFTF shutdown

By the Herald staff

Science Applications International Corp. has been awarded the contract for an environmental study for decommissioning Hanford's Fast Flux Test Facility.

The contract is valued at about \$2 million, and work will be done by the company's Richland office. The contract was held by Battelle, which operates Pacific Northwest National Laboratory in Richland.

The Department of Energy determined that Battelle had a conflict of interest after it was awarded the \$4.8 billion contract as the lead on a team to operate the Idaho National Laboratory in November. Science Applications International Corp., or SAIC, was also a bidder in DOE's original request for quotations for the study.

The study still is expected to be completed and a decision issued by the end of this year. In the meantime, work to permanently shut down the research reactor is under way.

Dismantling the reactor requires the environmental impact study. DOE is considering options including entombing the reactor or removing both the dome and the underground components to leave a cleaner site.

The radioactive sodium from the sodium-cooled reactor would have to be treated. DOE is considering building a processing system or shipping it to the Idaho National Engineering and Environmental Laboratory, which has a processing system. That connection to the Idaho nuclear complex created the conflict of interest for Battelle.

7 JAN 05
*\$250 million campus will
replace aging facilities
in Hanford's 300 Area*

By John Trumbo

Herald staff writer

Pacific Northwest National Laboratory has selected an architectural and engineering firm from New Jersey to make the first conceptual drawings for a \$250 million campus in north Richland that will replace aging facilities in the 300 Area of Hanford.

"We look at this as very significant. It is starting the momentum of getting the project going," said Dwayne Coburn, project director for the replacement project.

CUH2A of Princeton is teaming with JUB Engineers of Kennewick and Integris of Spokane to produce the design for approximately 500,000 square feet of facilities on federal land a few miles south of Hanford.

The design process will begin in February with preliminary sketches and conceptual designs taking shape by the end of May. Construction could begin this summer on facilities that would involve private financing.

Coburn said Congress provided \$1.6 million in 2004 and is committing for the project in 2005.

The campus will rely on funding from state and private sources, too.

"The first step is to bring on a firm to conceptualize what we need, from a master planning perspective and what we want the buildings potentially to look like," Coburn said.

The replacement campus will house capabilities, equipment and staff that do critical science and technology research and development now done in 20 buildings dating back to the 1950s. Those facilities are scheduled to be removed as part of cleanup from the Hanford nuclear production years following the Manhattan Project. The cleanup deadline is 2009.

See **Drawings**, Page B7

7/28/05

Unused Hanford wells pose threat to water

By Annette Cary

Herald staff writer

Hundreds of unused wells at Hanford that can spread radioactive contamination to ground water are not being decommissioned promptly, according to a report released Thursday by the Inspector General's Office of the Department of Energy.

The report blames lack of a comprehensive decommissioning plan for delays.

DOE management agreed Hanford has room for improvement, but said it met targets for decommissioning wells last year and is committed to decommissioning 520 wells by the end of fiscal year 2006.

Thousands of wells were drilled at Hanford to monitor ground water for contaminants left from 50 years of production of plutonium at the site for the nation's

nuclear weapons program.

The majority were drilled before requirements to limit the possible migration of water down the well casing to the ground water. As old wells have been abandoned, they've become potential pathways for contaminants to be carried to the ground water and eventually reach the Columbia River.

In one case, DOE discovered in 1985 that one high-risk well, and possibly multiple wells, had allowed uranium to migrate to the ground water.

"Despite the passage of almost two decades, action was not taken to decommission these dangerous wells," according to the report.

It estimated that as many as 3,500 of Hanford's approximately 7,000 wells are unused and need to be decommissioned as promptly as possible to prevent additional ground water contamination.

7 JAN 05

Davis named head of energy science at PNNL

J. Michael Davis, former assistant secretary for conservation and renewable energy for the Department of Energy, is the new leader for energy science and technology at the Pacific Northwest National Laboratory in Richland.

Davis replaces Mike Lawrence, who held that position while also serving as deputy laboratory director for campus development during the past year. Lawrence will continue working on the project to develop a \$250 million new campus to replace aging facilities in the 300 Area at Hanford.

Davis brings three decades of experience, including being chairman of the National Hydrogen Association and former chief executive officer of ReliOn (formerly Avista Labs) and H2fuel LCC, both of Spokane, until March 2004. As associate director of the lab's energy science and technology directorate, Davis will oversee wide-ranging projects in the energy sector.

9 JAN 05

2 cracks found at K East Basin

Although cracks are below radioactively contaminated water, seepage concerns EPA

By Annette Cary

Herald staff writer

Two large cracks have been discovered in the walls of Hanford's K East Basin below the level of its radioactively contaminated water.

A preliminary investigation has detected no water leaking through the cracks into the ground.

But the Environmental Protection Agency is suspicious that small amounts of contaminated water are seeping from the basin, whether through those cracks or small or undiscovered cracks elsewhere in the old concrete pool, said Larry Gadbois, an EPA environmental scientist.

"It's at least oozing water," he said.

A more complete engineering study of the newly discovered cracks could be ready by the end of this week. It is expected to show how deeply into the walls the cracks extend.

"Any abnormality in the K Basins we are going to take a look at seriously," said Colleen French, spokeswoman for the Department of Energy's Richland office.

The K East Basin had two major leaks in the past, releasing several million gallons of radioactive water into the surrounding ground in the 1970s and 1990s. Each of the basins holds 1.2 million gallons in an indoor pool just 400 yards from the Columbia River.

The newly discovered cracks are in a 5-foot-by 30-foot section of the pool called the weasel pit. The biggest crack is 10 feet long and the other is 2 to 4 feet long. A video of the cracks shows that at least one

of them clearly extends beyond the surface of the basin wall, which is a couple of feet thick.

"These basins are old," Gadbois said. "We know they are way past their design life."

The K East and West Basins were built in the 1950s for holding fuel irradiated in Hanford reactors until it was processed to remove plutonium used in the nation's nuclear weapons program. When processing at Hanford stopped, 4.65 million pounds of fuel were left stranded in the basins for more than a decade.

Last year, Hanford workers removed the last of the highly radioactive fuel from the basins. But they are still in the early stages of removing radioactive sludge that's left from corroded fuel and concrete that sloughed off the walls of the basins.

The weasel pit had 4 to 6 feet of sludge to be removed.

In the past, fuel or equipment that might be cracked or that otherwise appeared abnormal was moved to the weasel pit for inspection. Workers then used long-handled tools poked through a steel grating 20 feet above the bottom of the pool to manipulate the items and turn them over and around for closer inspection.

The 17 feet deep water in the K Basins shields workers from radiation.

They called the work to maneuver the suspect items "weaseling around" and the pool became known as the weasel pit.

Last year, workers found an unexpected pile of debris in the weasel pit that had been hidden by the sludge. They lowered a video camera into the pool to try to discover more about the debris and found another surprise — the cracks in the pit wall. Signs that indicated past major leaks in K East

See **Cracks**, Page B2

16 JAN 85

*PNNL's future
promises
technological
advancements,
economic growth,
even physical
changes at
Hanford campus*

BY JOHN TRUMBO • HERALD STAFF WRITER

Imagine a world where refrigerators and home heating systems adjust themselves.

Where the flip of a switch is noted by a power source hundreds of miles away.

And where the Northwest's electrical power grid is managed by computer to switch optional energy use to times when prices are lowest.

Or a world where a single blood test can identify a potential disease or cancer long before symptoms arise, allowing for simpler, more effective treatment than radical surgeries or radiation.

And imagine a government, scientists, educators and private industry joining in partnerships to benefit

humans worldwide.

The Pacific Northwest National Laboratory's record over 40 years suggests such technology is coming soon.

Since Battelle took over the Hanford labs in 1965, the post-nuclear age has produced the compact disc, radio frequency identification tags, holographic

This is the third and final installment in a series about Pacific Northwest National Laboratory's 40th anniversary.
Inside: PNNL's history as a community partner – and player.

imaging, solid oxide fuel cells, ultrasonic imaging for medical use, faster and faster supercomputers and biological answers for environmental cleanup.

"People have no idea what our fingerprints are on," said Mike Schwenk, director of intellectual asset management for PNNL in Richland.

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13 JAN 05
*Hanford contractors' attorneys say lawyers for plaintiffs
haven't shown illnesses were caused by radioactive releases*

By Annette Cary

Herald staff writer

SPOKANE — Attorneys for Hanford downwinders have not shown that their clients' illnesses were caused by radioactive releases from the nuclear reservation, said attorneys defending early Hanford contractors Wednesday.

They're asking federal Judge William Fremming Nielsen to rule on a standard of proof in the case that would help determine which illnesses were caused by Hanford emissions.

It's an issue that's already been to the 9th Circuit Court of Appeals in the case that's more than 13 years old. About 2,000 people who lived downwind of Hanford

when it was producing plutonium for the nation's nuclear weapons program are suing former contractors, saying radioactive releases gave them thyroid cancer, thyroid disease or other cancers.

In 2002, the appeals court ruled that a former judge on the case had improperly dismissed thousands of claims by people who could not show that they'd been exposed to enough radiation from Hanford to at least double their risk of cancer or thyroid disease. The ruling revived the case.

The appeals court threw out the blanket causation standard and gave plaintiffs a chance to show that radiation caused illness in individual cases, defense attorneys said. But plaintiff attorneys have failed to come up with new evidence, said defense attorneys.

Plaintiffs want to argue that any exposure and any statistical increase in risk, no matter how small, permits a finding that Hanford emissions caused a downwinder's thyroid disease, defense attorneys wrote in court papers.

By that standard, "You just have to prove you live in the Pacific Northwest to have a case," said defense attorney Kevin Van Wart in federal court in Spokane on Wednesday. "It's money in the bank."

Defense attorneys pointed out that substantial numbers of people are likely to develop thyroid disease, whether they live downwind of Hanford or not. About 8 percent of people develop hypothyroidism, and about 20 percent have antibodies that are a marker of an autoimmune thyroid disease that can lead to hypothyroidism. Numbers are even greater among people the age of most plaintiffs who were living downwind of Hanford in the 1940s and 1950s.

15 JAN 25
*Justice Department claims
voter-approved initiative on
Hanford unconstitutional*

By Annette Cary

Herald staff writer

A federal judge has allowed parties to intervene on both sides of the U.S. Department of Justice's lawsuit claiming that Initiative 297 is unconstitutional.

The initiative was passed by voters in November to prevent the Department of

Energy from shipping more waste to Hanford until waste already there from the past production of plutonium is cleaned up.

U.S. Judge Alan McDonald ruled Friday that the Tri-City Industrial Development Council and Fluor Hanford could intervene in the suit on the side of the U.S. government. A week earlier, he ruled that a group he identified as "drafters, sponsors and proponents" of the initiative could intervene on the side of the state of Washington.

TRIDEC is asserting a claim not raised by the federal government, the judge

found. It says the initiative violates the contract clause of the U.S. Constitution because it impairs existing contracts at the Hanford nuclear reservation.

The Department of Energy was preparing to stop some work on many Hanford and Pacific Northwest National Laboratory projects on the day the initiative took effect until McDonald granted a temporary restraining order.

Doing work with many hazardous materials without new permits could violate the new law and leave workers personally liable to lawsuits, DOE said then.



Herald file photos

Members of the Mid-Columbia Symphony stand near the outdoor fountains of the Pacific Northwest National Laboratory campus in Richland in October 2000. Conductor Robert Bode, center, led the symphony in its opening concert, which was narrated by Xavier

Hubert, left. Mary K. French, at right, was first violinist for the symphony. The lab has been a major benefactor for the symphony for years, donating more than \$20,000 annually, as well as volunteers and even musicians.

Major employer pumps major bucks into Tri-City economy

Payroll alone added \$280 million in 2004, plus goods and services, spinoff jobs

By John Trumbo
Herald staff writer

In 1960, the population of Benton and Franklin counties was 85,412 and the per capita income was \$7,913.

By 2000, the census counted 198,900 people and reported per capita income, not adjusted for inflation, had grown to \$19,081.

Figured another way, gross personal income of the two counties in 1960 was \$676 million, and in 2000 it was \$3.8 billion — approaching a sixfold increase.

A major driver of that change arrived in 1965 to operate what's become the Pacific Northwest National Laboratory under federal contract.

No one can say with certainty how much money has come into the Tri-Cities thanks to the north Richland lab operated by Battelle for the past 40 years, but it likely is in the tens of billions of dollars.

"Some people have this idea that every October (the start of the federal budget year), a truck filled with federal money rolls up out here," said Gary Spanner, who manages the lab's Economic Development Office and Office of Small Business Programs.

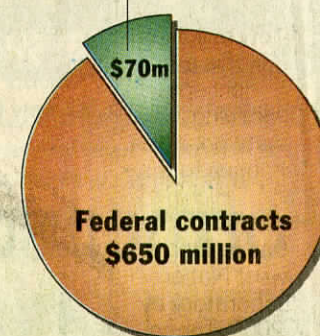
But the investment isn't only from Uncle Sam. It began in 1965 when Battelle itself spent \$30 million to build its first new buildings to complement existing research facilities.

Since then, the lab has paid taxes and salaries for employees who now number 3,900. In 2004, the payroll pumped close to \$280 million into the Tri-City economy.

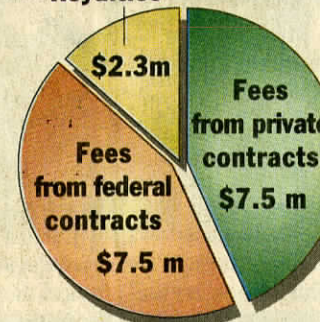
And then there are the costs

PNNL bottom line

Private contracts



Licensing/Royalties



SOURCE: PNNL

Herald/Sherry Emery

\$24 million bioproducts sciences and engineering facility proposed on the WSU-Tri-Cities campus. It needs \$14 million from the state to add to \$10 million in capital cost support from the lab.

PNNL plans to add about \$9 million for lab equipment that will be available to WSU staff and students.

The lab has a critical role in what happens at the Tri-Cities Science and Technology Park too, said LoAnn Ayres, executive director of the university-managed 4,000-acre park, a non-profit association with more than 300 company members and about 12,000 employees.

"Without PNNL's presence, the park wouldn't be here," said Ayres. Having a national labora-

Generous giving

Battelle support includes time, effort — and \$15 million

By John Trumbo
Herald staff writer

From city councils and school boards to charities and the arts, Battelle's presence has saturated the Mid-Columbia.

Over 40 years an estimated \$15 million in contributions has supported worthy causes and nonprofit organizations.



hours of service from Battelle employees — called Team Battelle in recent years — to benefit community projects and service groups.

"It's an opportunity for employees to get involved in the things they are passionate about," explained Lisa Enderlin, who coordinates the Team Battelle program at PNNL in Richland.

The lab created Team Battelle in October 1998 as a way to encourage organized community service through employee initiative.

"Instead of having the company picking the cause, the employees pick what they want. We then provide opportunities for them to promote that," said Enderlin.

The idea took off. It has produced 117 projects in the past six years.

The beneficiaries are many and varied, including the Mid-Columbia Symphony, the CREHST museum, the American Red Cross and the Children's Developmental Center.

"Battelle is a very open, community-minded organization," said Gary Petersen, who worked at PNNL's communications department for many years. "Battelle believes its staff are full members of the community. We were expected to serve."

And he said the high caliber of Battelle's employees, who now number 3,900, provides a wealth of expertise in management and finance. "This is a wonderful asset to the community," Petersen said.

For example, lab director Len Peters recently joined the board of Kadlec Medical Center, and Wayne Martin, a manager in natural resources area, is chairman of the Columbia Basin College board of trustees.

The lab's first director, Sherwood Faucett, believed the arts were as important as science.

Petersen said his first boss, Clyde Tipton, started a program of acquiring regional and local art to put on display at the lab.

"The idea was to purchase the art, have it on display for 10 years, then sell it off so we could buy some more," Petersen said.

But somewhere along the line, people forgot about the selling part, so the lab has ended up with a sizable art collection. "It's a huge amount by now," he said.

Retired Battelle scientist Bill Bair, who has been in Richland half a century, remembers how lab employees melded into the Tri-Cities and made longtime commitments like his.

"Battelle would bring in people who had a thirst for culture and arts. That's why we have a good symphony and theater groups," he said. "Battelle has been a good citizen here. They promote that attitude with the staff."

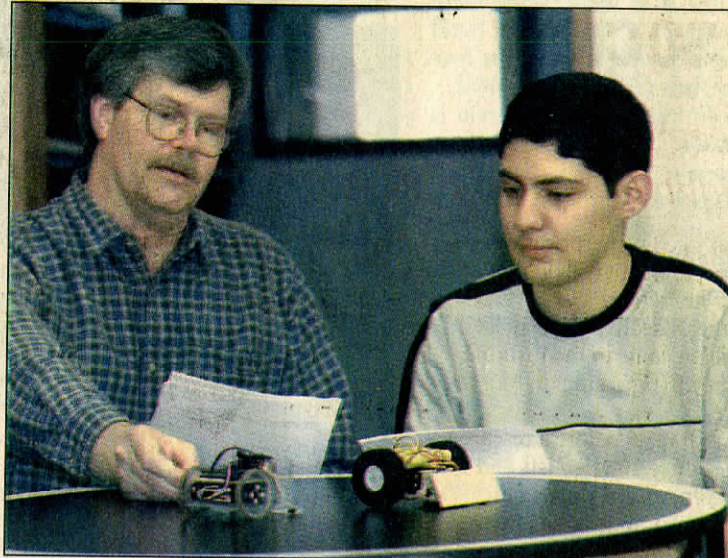
Ken Pointer, executive director of the Mid-Columbia Symphony, can appreciate that attitude.

Battelle's support is both backbone and much of the skeleton of the symphony. Lab employees volunteer in many ways, from working on newsletters to serving on the board and even as musicians.

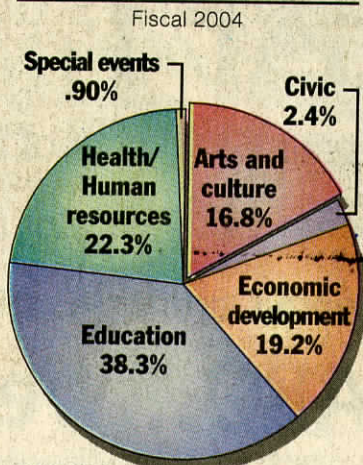


Above: Battelle employees devote thousands of hours annually to community service. Amoret Bunn, left, a scientist at PNNL and one of the judges for the Tri-City science fair in 1999, listens as Becky Apley, who was a Christ the King School eighth-grader at the time, explains her electronic birdhouse project.

Right: Gordon Anderson, technical group leader at Battelle's Instrument Development Laboratory, helps Southridge High School senior Gabe Guillen in February 2002 with a sumo robot he built in a program that pairs science mentors with students.



Battelle's corporate charitable contributions



Herald/Sherry Emery

For a long time Battelle has put up \$20,000 to sponsor a symphony night each year. More recently, the company has decided to pay for an office in downtown Richland that serves as a performing arts business center.

Battelle support also plays a big part at the Columbia River Exhibition of History Science and Technology museum, said Gwen Leth, museum director.

When the Columbia River Salmon Powwow was held in 1989, "energetic and enthusiastic Team Battelle volunteers set up the stage, sold tickets and did anything

we needed," she said.

"When they accept a project, they buy into it. There is ownership there for them," Leth said.

For example, Battelle's Mike Schwenk is the CREHST board president, and other Battelle employees have shared their science and computer expertise to help set up exhibits, such as the high-tech, touch-screen geology education center and the Lewis and Clark exhibit.

"One of our biggest gifts from any entity is for our facility to be part of the Reach Center. Battelle has put up \$1 million, which needs a \$2 million match," Leth said.

PNNL volunteerism also has been important for the Children's Developmental Center, said Executive Director Cathy Tames.

"It's been a tremendous amount," she said, noting that support has come as in-kind donations and financial help to get the center's building, and in participating in the fund-raising golf tournaments and other programs.

And thanks to Battelle employees, the American Red Cross blood donor program in the Tri-Cities receives several hundred pints of blood annually, said Phyllis Burk, donor consultant for the American Red Cross.

"They do four blood drives, of two days each, every year," Burk said. Each day has at least 50 donors, producing more than 400 donations in a year.

Team Battelle's consistency in giving blood is important for meeting the Red Cross' goals, Burk said.

for services, supplies and utilities. Lab spokesman Greg Koller said the lab has purchased more than \$219 million just in goods and services over the past 40 years, mostly in the Tri-Cities.

Beyond being a major employer, the lab also has helped create new jobs just by being here. Mike Scott, a lab economist, estimates roughly 1,300 current jobs in Benton and Franklin counties can be traced to the lab through companies with their roots in the lab, either by commercialization of its science, licensing of its patents or simply by assistance from its researchers.

In addition, Scott figures there are about 4,700 more jobs in the Tri-City economy as a result of the lab's 3,900 employees — or 1.2 jobs generated for each lab employee.

And there's more.

In fiscal 2004, the lab also paid \$52.4 million in employee benefits, \$1.6 million in business and occupation taxes, \$838,000 in sales and use taxes and \$1.1 million in property and leasehold taxes.

And then there's the goodwill contributions, which Koller says have topped \$15 million since 1965. In 2004 alone, Battelle contributed \$781,907 to civic and philanthropic organizations, Koller said.

More than one-third of that went for education, while approximately one-fifth each went for economic development and health/human services. About one-sixth went to arts and culture.

Since the late 1960s, several infusions of hundreds of millions more dollars have come through construction at government and private expense of the \$230 million Environmental Molecular Sciences Laboratory and the cluster of private office buildings Battelle leases on Q Avenue.

And in recent years the lab's ventures with Washington State University Tri-Cities, the Port of Benton and Energy Northwest have added further economic benefits.

The lab teamed with the port and Energy Northwest in the early 1990s, creating the Advanced Process Engineering Laboratory, a high-tech incubator. A few years later, PNNL joined with the university in building the Consolidated Information Center.

Currently planned is a

tory helps attract technology-oriented businesses, she said.

"There's a glow coming from the lab that attracts other companies. I call it intellectual culture," she said. "It's the firms that can grow up around PNNL. That's the exciting new future."

The science and technology park and the lab need each other, said lab director Len Peters.

"We want to help catalyze jobs for the community because this lab will only prosper if we have a vibrant science and technology community that extends beyond us," he said.

The lab benefits the Tri-Cities in other ways as well.

Among the national labs, PNNL is unique in its ability to emphasize economic diversification by doing privately funded research.

Since 1965, the lab has helped grow nearly 100 private companies — sometimes called spin-offs. Their value, along with that of their estimated 3,200 employees, can't be calculated, but no one has a better feel for it than Spanner, whose job for 10 years has been to make technological resources available to help the technology sector grow.

Every morning on his 2½-mile commute, Spanner passes 30 companies that got their start through technology assistance or technology licensing. "It's very gratifying," he said.

He said about 58 percent of the start-up companies with roots at PNNL are still in business, a survival rate three times higher than the national average.

"So we feel we are having a (positive) impact," Spanner said.

Yet another big bonus is PNNL's technology transfer program.

"The lab is a major generator of intellectual property that makes technology transfer possible," Ayres said.

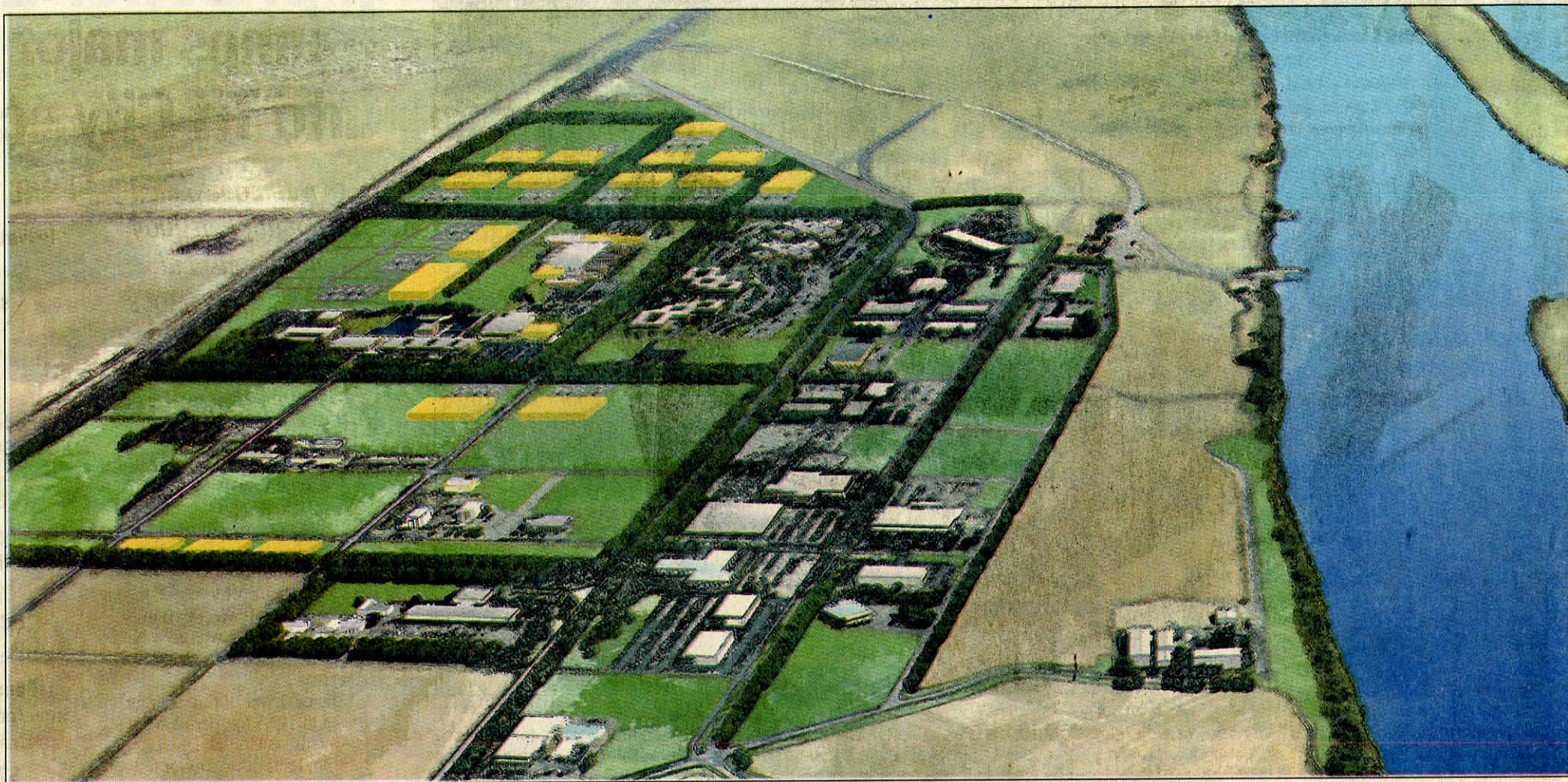
Under its government contract, Battelle can take technology it develops and apply for patent protection. Further development of the technology can create a commercially viable product.

After expenses, resulting royalties Battelle receives are split 51-49. The larger share is reinvested in the national lab, while the rest can be used as Battelle sees fit for research and development or education.

Such technology transfers also generate further business opportunities, Ayres said.

Yellow buildings in this aerial conceptual drawing indicate possible changes to the Richland campus of the Pacific Northwest National Laboratory by 2009. The triangle-shaped area with yellow buildings at the top of the drawing is on 110 acres recently split off from the Hanford site for lab use.

Drawing courtesy of PNNL



From WWII-era to nation's 'most modern lab'

\$250 million project will update aging buildings by 2009

By John Trumbo
Herald staff writer

Mike Lawrence is a man with a singular mission. Figure out how to get \$250 million, use it to replace 700,000 square feet of research laboratory space that houses about 1,000 workers and have it all ready by 2009.

Along the way, he'll face the red tape endemic to the federal bureaucracy and a Congress that's struggling to manage a 2005 deficit expected to reach the \$330 billion range.

west National Laboratory, he is the point man to bring together all the people and resources needed to build new research labs to replace Cold War-era labs in Hanford's 300 Area.



Lawrence

"This is the lab's No. 1 priority this year, and next year," Lawrence said. "And it has to be the community's No. 1 priority. If we lose this and don't replace it, it will have a huge impact on this community."

The race is on because the Department of Energy wants the Columbia River corridor at Hanford, which includes 300 Area, cleaned up by 2012. That in turn means PNNL

It's a big deal, says Lawrence, because the 300 Area includes 45 percent of PNNL's experimental lab space, 75 percent of PNNL's federally owned facilities and all of the lab's nuclear and radiological facilities.

The work done there also generates about \$200 million worth of the lab's annual research contracts.

Lawrence and a project team believe only 500,000 square feet of replacement space is needed, but they also realize that another 300,000 square feet of lab facilities should be built to allow for expansion in such critical research missions as national defense, homeland security and human cell analysis called proteomics.

The plan calls for \$175 million in federal money, which will cover the 500,000-square-foot portion, and another \$75 million from private and

"We aren't replacing for replacement's sake. This is just to maintain our current research capabilities," Lawrence said.

A big help came recently when the federal government agreed to dedicate 110 acres of the Hanford site north of the existing PNNL property for lab use.

Lawrence said another important step came in late September when Deputy Secretary of Energy Kyle McSlarrow formally approved replacement of the 300 Area labs with new facilities. It was "critical decision zero," Lawrence said.

Congress is starting to move, too, with startup funding. The first \$1.6 million came in 2004 at the behest of U.S. Rep. Doc Hastings, R-Wash. Congress has agreed to put in another \$10 million during 2005.

built," Lawrence said.

The next critical decision will be in June when a design team can predict the construction cost estimate, he said, adding that it is vital Congress set aside construction money in 2006.

Lawrence said the extra 300,000 square feet is important for the lab's future missions. "The goal is to grow in certain areas. We expect to go from \$640 million (2004's federal contract) to \$1 billion, and have 4,600 employees," Lawrence said.

Although it will be difficult to lock in construction money by 2006 to allow for construction to be completed in time by the 2009 deadline, Lawrence said officials in Washington, D.C., say it can be done.

"They've told us to stick with the '09 date," he said. "This will enable us to have the most modern lab in the

Battelle used family fortune to help fund his dream of science helping society

But he died at 40, before seeing those dreams grow into reality

By John Trumbo
Herald staff writer

Pacific Northwest National Laboratory's connection to Battelle Memorial Institute is rooted in America's 19th century steel industry.

John Battelle of Ohio forged a fortune making the steel that industrial magnates needed to build empires and lay the foundation for the nation's greatest capitalistic growth spurt since its birth 100 years earlier.

When Battelle died in 1918, his son Gordon inherited a handful of steel companies and \$5 million. As a young man, Gordon Battelle had developed an interest in research, which appealed to him more than making steel. He was intrigued by how research and science could benefit society.

Once his family's assets were within his reach, he could pay for his dream of making that happen.

But in 1923, before he could build on that dream, Battelle died at age 40 from complications following surgery to remove his appendix.

In his will were instructions to use \$1.5 million of his estate to establish Battelle Memorial Institute "to conduct research to benefit industry and humankind and ensure that scientific technologies are put to work."

Battelle's will also said a portion of the net earnings should be given "to such char-

itable institutions, needy enterprises or persons ... as in their judgment will do the greatest good for humanity."

Upon his mother's death two years later, another \$2.1 million came to the Institute, which officially began operating on March 27, 1925.

It took four more years before a research building, with a staff of 20 scientists and engineers, opened in Columbus, Ohio, in October 1929. It was just three weeks before Black Tuesday and the stock market crash that ushered in a decade of economic misery known as the Great Depression.

The institute survived, achieved breakthroughs in metallurgy and used government contracts during World War II to grow Battelle's reputation.

Its most famous private contract development success came in the 1950s with the invention of dry facsimile copying,

the technology that created Xerox machines.

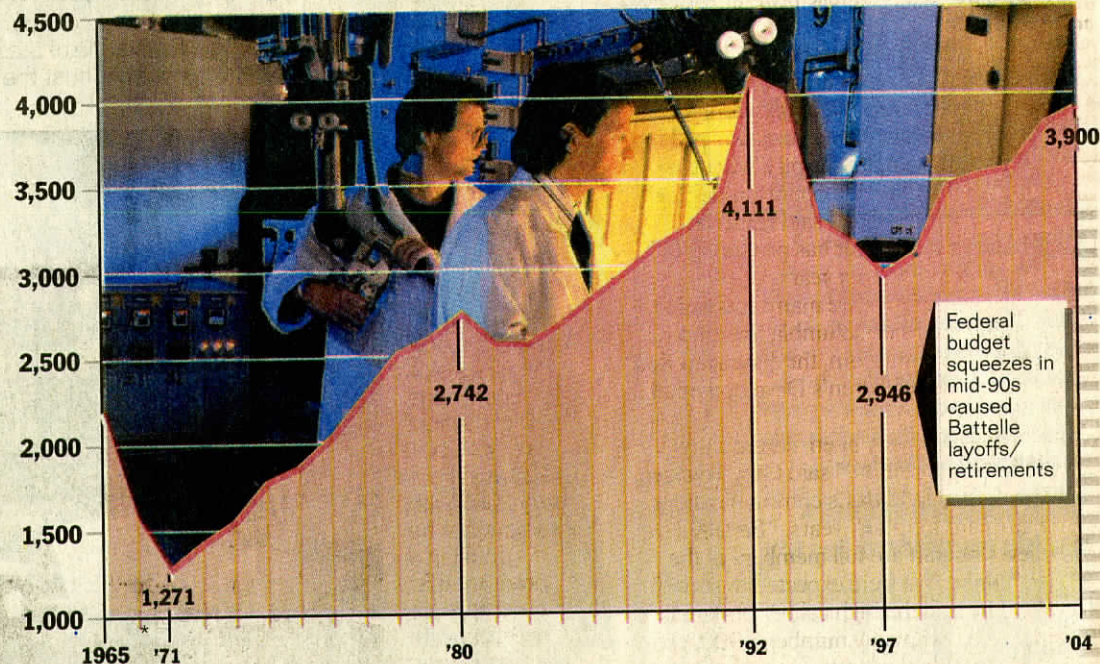
Today, Battelle has 16,000 scientists and contracts with nearly 2,000 agencies and companies, both government and private. It is a charitable trust organized as a 501(c)3 nonprofit corporation and operates worldwide on an annual budget of approximately \$2.6 billion.

■ **Editor's note:** Story is based on information provided by the Battelle Seattle Research Center and the Pacific Northwest National Laboratory.



Gordon Battelle

PNNL employment over four decades



*In 1970 about 600 PNL employees were transferred to Westinghouse as part of the FFTF design team.

SOURCE: Battelle

Herald/Sherry Emery

PNNL: Partnerships will be 'critical'

Continued from A1

In just four decades, lab researchers have earned more than 1,200 patents, many of which already have changed life in the 21st century.

Smart home appliances and an energy grid that can respond intelligently and instantaneously to shifting demands for electricity will be commonplace within 10 years, said Rob Pratt, a staff scientist working in energy.

So will predictive medicine based on simple blood tests, said Dick Smith, a Battelle Fellow and team leader on mass spectrometry of proteins.

The next decade also is expected to bring major physical and economic change to the Tri-Cities as Battelle develops an expanded \$250 million PNNL campus in north Richland to replace 1950s-era facilities in Hanford's 300 Area.

Schwenk sees the new campus as an unprecedented opportunity to take the relationship between the lab and the community to a

deeper level. Battelle employees won't be the only occupants of the PNNL campus. The goal is to build it to accommodate as many non-Battelle researchers as possible.

"Who we partner with and the way we go about partnering is critical. It will take more than Battelle," Schwenk said.

"This is about partnering with companies and on specific projects. That's a little different than sitting down with the government and talking about what might happen. The lab has never done it that way before.

"In 2009 or 2010 when the work is finished, if all that is out here is just Battelle, we will have failed," he concluded.

The future also will see greater emphasis on national and homeland security, said Mike Kluse, associate director for PNNL's national security directorate.

The lab's proposed budget for fiscal 2005 has \$400 million in contract research designated for national and homeland security, which is more than half of the \$700 million budget for all the

lab's government-related work.

Kluse expects that to grow by 50 percent in four years to \$600 million because of federal budget priorities.

The primary challenges are preventing the spread of weapons of mass destruction and dealing with the threat of terrorism, but Kluse's team also is involved in making the world a safer place through securing nuclear materials all over the globe.

"There is a lot of work going on country-to-country," he said, noting one of the lab's growing functions is to train people from throughout the world how to secure their own borders and how to be effective in responding to crises because of accidents or terrorism.

"Fifteen years ago, the lab's focus was on the environment. Today, it is national security. Down the road, it may be energy," Kluse said.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com.

Hanford office faces penalties for race, sex discrimination

By Annette Cary

Herald staff writer

Notices will be going up at the Richland Operations Office for Hanford warning that it has discriminated against one of its employees on the basis of race and sex.

The postings and a payment of \$100,000 to the employee are among the penalties ordered this week by the Office of Federal Operations of the U.S. Equal Employment Opportunity Commission.

The Department of Energy rejected a 2003 decision by an EEOC administrative judge, but the decision was upheld on appeal. EEOC again found that DOE discriminated against Geneva Ellis-Balone because she is black and female.

The case stems from Ellis-Balone's difficult pregnancy in 1997. The appeal

review found DOE delayed acting on her request to telecommute, then questioned who would care for her children if she worked at home. That was not how a comparable request by a white male was handled, the EEOC found.

DOE must make the payment of \$100,000, plus \$35,060 in attorney fees and \$3,500 in costs, within 30 days. It also has been ordered to provide eight hours training on race and sex discrimination to human resource management staff and consider disciplinary action against staff found to have discriminated against Ellis-Balone.

The notices must be posted for 60 days "in conspicuous places."

"We are hoping that DOE does not take steps to further delay implementation of the remedial actions ordered by

the judge," said Ellis-Balone's attorney, Lucinda Luke of Richland.

DOE is evaluating the EEOC decision and has not made any decisions on actions to take, said Erik Olds, a DOE spokesman in Richland. It will follow all legal requirements, he said.

Ellis-Balone's supervisor supported her request to telecommute in 1997. But when she submitted her request to the human resources department, it did not respond for a month. Then, the department said it would need seven additional items of information.

By that time Ellis-Balone's condition had worsened and she was using a heart monitor, according to testimony made to EEOC.

EEOC compared her case to a white man whose request to telecommute was

approved with no further information required, although he also had children living at home. Unlike Ellis-Balone, no home inspection was suggested.

Another woman employed at the Richland Operations Office also testified that her request to telecommute had been delayed and questioned, and she had been continually informed that she could not use telecommuting as a substitute for babysitting.

Requests by men to telecommute were approved in less than 10 days, but requests by pregnant women were delayed, according to the EEOC findings. Making sure that children would not affect job performance at home was an acceptable question, but not if only women were being asked, the EEOC noted.

Ellis-Balone also was denied advance sick leave. The EEOC report said that appeared to be the policy for pregnant women, which it found to be sex discrimination.

The appeal decision found that evidence supported Ellis-Balone's contention that "she felt emotionally and physically drained by having to meet the unreasonable demands" of the human resource management staff.

She also suffered pain related to her pregnancy, had several flare-ups of an eye condition and was depressed and stressed because of the staff's actions over eight months, according to the decision.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

12 JAN 03

2003 lawsuit filed by state seeks to stop DOE from sending more transuranic waste to Hanford

By Annette Cary
Herald staff writer

YAKIMA — The Department of Energy is violating state and federal law by storing certain untreated waste mixed with hazardous chemicals at Hanford and planning to bring more of the same type of waste to the nuclear reservation, state attorneys claimed Tuesday in federal court.

At issue is a lawsuit filed in 2003 by the state to stop DOE from sending more transuranic waste to Hanford.

Transuranic waste is debris such as laboratory equipment or protective clothing contaminated with plutonium or other radioactive materials that are slow to decay. U.S. District Court Judge Alan McDonald already has ordered DOE to stop sending transuranic waste to Hanford until the issue is resolved.

McDonald warned attorneys that the issue is so complicated that he will not be making a quick decision.

The state argued Tuesday that the state has the authority to regulate when transuranic waste must be certified as ready to send to a permanent repository in the New Mexico desert. Hanford has enough waste suspected to be transuranic to fill about 75,000 drums.

"The fact that (mixed transuranic) waste has been

stored at Hanford for 30 years is why we're here today, and DOE plans to ship more," said Andrew Fitz, assistant attorney general for the state.

If the state wins the summary judgment motion, it also would give the state authority not to accept shipments of transuranic waste mixed with hazardous chemicals at Hanford.

The motion hangs on whether an exemption approved by Congress covers storage of transuranic waste. Federal and state authorities agree Congress has exempted transuranic waste from state and federal laws that require it to be treated before its disposed of in the ground, which in this case is the New Mexico repository.

DOE argued that the exemption also allows it to store the waste untreated before it is sent to New Mexico.

But the state argued that DOE must treat waste if it is stored before being sent to the repository under state authority over hazardous chemical materials.

Congress felt the risks of storage were great enough that it needed to legally prohibit storage of untreated waste as a way to forestall treatment, Fitz argued.

Mixed transuranic waste may be safe to dispose of in untreated form at the federal repository, the Waste Isolation Pilot Plant in New Mexico, Fitz said. "But it

does not follow it is safe to store at facilities all over the country, like Hanford," he said.

Much of the state's concern is that although DOE plans to send the transuranic waste to New Mexico, it may become stranded at Hanford. Much of the transuranic waste DOE plans to import and certify for shipment at Hanford is so radioactive that regulations have yet to be approved that would allow it to be sent on to the New Mexico repository.

Temporarily moving transuranic waste to Hanford from other sites would allow DOE to clean up and close those smaller sites. DOE believes it has the authority to store waste untreated during the decades it will take to move transuranic waste to New Mexico.

Large volumes of waste need to be certified as appropriate for shipment to New Mexico and then sent. In addition, cleanup is continually generating more transuranic waste.

"It's a massive undertaking," said Mike Zevenbergen, a U.S. Department of Justice attorney.

Even without regulatory deadlines enforced by the state, DOE is motivated to get transuranic waste to New Mexico as quickly as possible, he said.

In addition to the arguments made Tuesday, DOE and the state are fighting over waste shipments to Hanford on several fronts. The state also is arguing that transuranic waste should not be shipped to Hanford because a record of decision on the shipments issued by DOE was faulty.

Most recently, voters in November approved an initiative intended to bar most radioactive waste from being sent to Hanford until waste already there is cleaned up. The federal government filed suit at the end of November saying the initiative is unconstitutional.

The state and federal government have reached an agreement stopping most waste from being sent to Hanford at least until spring.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

DOE urged to reopen FFTF negotiations

By Annette Cary

Herald staff writer

The Government Accountability Office has ruled in favor of a team of Tri-City contractors who protested the award of a \$235 million contract to SEC Closure Alliance to dismantle Hanford's Fast Flux Test Facility.

The GAO sustained the protests filed by FFTF Restoration Co., a team formed by Federal Engineers & Constructors and Nuvotec, both of Richland: EPW Closure Services, led by Environmental Chemical Corp., of Burlingame, Calif., also filed protests, but GAO denied them.

GAO has recommended that the Department of Energy reopen negotiations on the contract but released no further information to clarify or explain.

FFTF Restoration Co. was waiting for a copy of the GAO decision Thursday, said

Lori Ramonas, Nuvotec vice president for strategic communication.

The team's protest focused on schedule, costs and environment, safety and health issues, she said. But company officials did not know what argument the GAO had found convincing.

DOE will review the GAO decision and determine the most appropriate course of action, said Erik Olds, spokesman for DOE in Richland.

The contract to finish shutting down the research reactor, then dismantle it, was awarded by DOE to SEC Closure Alliance in September. The team is lead by SEC Federal Services of Safety and Ecology Corp., or SEC, of Knoxville, Tenn.

Fluor Hanford has been doing the work, but DOE decided to open bidding on continuation of the project only to small businesses.

Transition of the work from Fluor to the SEC Closure Alliance was halted in October when both the other finalists for the contract filed protests with GAO.

SEC Closure Alliance also had little information Thursday on the GAO decision, which it characterized as sustaining certain aspects of the FFTF Restoration Co. protest.

The alliance "remains optimistic relative to the outcome of this next phase of the procurement," said Anne Smith, a spokeswoman for SEC.

When Energy Secretary Spencer Abraham awarded the contract, he said the alliance offered the best value to the taxpayer. SEC's proposal called for completing the work by 2011.

In addition to SEC, the alliance includes Los Alamos Technical Associates, Parallax,

See **FFTF**, Page B2

19 JAN 05

Delvin crafts act to clarify Hanford law

Legislation would explain exemptions in I-297

By Annette Cary

Herald staff writer

Washington state Sen. Jerome Delvin, R-Richland, is preparing legislation intended to clarify that medical and other research and manufacturing is exempt from the restrictions in Initiative 297 governing Hanford waste.

Delvin's announcement came Tuesday as officials from IsoRay Medical of Richland were on a scouting trip to Idaho, where they are being recruited to relocate their medical isotope company to an area more politically friendly to the nuclear industry.

In November, voters approved



Delvin

Initiative 297, which was intended to prevent more radioactive waste from being sent to the Hanford nuclear reservation until

waste already there is cleaned up. Hanford produced plutonium for the nation's nuclear weapons program for 50 years.

On Dec. 1, the day the initiative took effect, the Department of Energy started taking action to

See **Hanford**, Page A2

26 JAN 05
*Officials don't
find radioactivity
on 3 Reach elk*

By Anna King

Herald staff writer

Three elk were killed Tuesday by U.S. Fish & Wildlife Service officials on the Hanford Reach National Monument, staining the sparse grass crimson to answer an important question.

Early in the morning, officials tracked the animals and selected a few from the herd of nearly 700 elk to be killed and tested to determine if they had been contaminated by radioactivity from the Hanford reservation.

Scientists from Pacific Northwest National Laboratory took bone, liver and muscle samples for testing. But initial Geiger counter tests of the animals showed no indication of contamination.

The results will influence whether Fish & Wildlife officials can trap and relocate the animals or whether more of the animals will have to be shot.

The rapidly reproducing elk herd has found the Reach to be the perfect refuge, with no hunting, plenty of food in nearby farms and few natural predators.

In the process, the animals have angered farmers and set off a debate about what to do with the growing population.

Officials with the Fish & Wildlife Service, which manages the Reach monument, say they need to cull the herd by about 100 animals by winter's end. But officials have said no private hunting will be allowed in the protected area this season.

Instead, special hunting permits have been issued to private hunters to kill any elk that wander off the Reach to forage. If those hunters do not kill 100 elk, government officials will step in to either trap or shoot them by the third week of February while the cold weather keeps the herd together.

But first, wildlife officials want to make sure the elk herd is healthy — in particular, free of any radioactive contamination.

Mike Ritter, Fish & Wildlife deputy project leader at the

See **Hunt**, Page A2

17 JAN 05

Hanford radiation study completed

Results need to be reviewed before release of disease rates in exposed children

■ Each Monday the Herald takes a look back at a person or issue in the Mid-Columbia's past.

By Annette Cary

Herald staff writer

A federal agency has completed data collection and analysis in a study of the rates of heart and autoimmune disease in children who were exposed to radiation that drifted off the Hanford Nuclear Reservation.

The study is being reviewed and still must be approved for public release. No release date has yet been set.

The Agency for Toxic Substances and Disease Registry, or ATSDR, started the study in early 2003 in response to a request by a citizens advisory group to the federal government.

In 1986, the federal government released

thousands of documents that showed Hanford had emitted radioactive particles during World War II and the Cold War. The nuclear reservation made plutonium for the nation's nuclear weapons program.

Since 1986, public meetings about possible health effects of the radiation releases have drawn large crowds of people asking if all sorts of health conditions might be linked to radiation exposure from living near or downwind of Hanford.



The health problem that doctors thought most likely to be linked to Hanford — thyroid disease — was the subject of a study by the Centers for Disease Control that cost more than \$20 million. However, it did not find evidence that greater doses of radioactive iodine was linked to increased incidence of thyroid disease.

But the Hanford Health Effects Subcommittee, which is no longer funded by

the federal government, said those who lived downwind of the nuclear reservation feared they were experiencing other health problems because of exposure to radiation.

ATSDR, which is an agency of CDC, picked heart disease to study because it frequently came up as a concern of those who lived downwind of Hanford during its production years. Little, if any, scientific evidence exists to show heart disease may be linked to radiation exposure.

Autoimmune disease also was picked from a long list of concerns raised by residents. Limited studies may show a link between autoimmune disease and radiation, Caroline Cusack, the ATSDR epidemiologist leading the study, said when it was launched in 2003.

Autoimmune illnesses occur when body tissues are attacked by the body's own immune system. They include lupus, fibromyalgia, chronic fatigue, multiple sclerosis and rheumatoid arthritis.

Researchers randomly selected 4,500 people born between 1945-51 for the

study. Some were from Benton, Franklin and Adams counties, all near Hanford. Others were selected from Mason, San Juan and Whatcom counties to serve as a control group.

Researchers were not able to locate as many people as they had hoped, Cusack said last week. But enough were found to complete the study.

Researchers interviewed 1,280 people. They could not find 2,500 of the people selected. Others had died or refused to participate. Only people who had lived for at least a year in the selected counties were included in the study.

Participants were interviewed by phone about their health and general background. Those who had been diagnosed with an autoimmune disorder or indications of cardiovascular disease, such as a stroke or high blood pressure, were sent a form so researchers could confirm the information with the participant's doctor.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

20 JAN 05
*Bodman says DOE
needs to remove 99%
of Hanford tank waste*

**By Annette Cary
and Les Blumenthal**

Herald staff writers

WASHINGTON — The Department of Energy should honor its commitments to remove 99 percent of the waste in Hanford's underground tanks, President Bush's nominee for energy secretary said Wednesday.

Samuel Bodman's comment came during a confirmation hearing before the Senate Energy and Natural Resources Committee that was marked by gentle questioning from senators.

Bodman, who already has held top posts at the Treasury and



Bodman

Commerce departments under Bush, is expected to be confirmed easily by the Senate.

"There is great concern that the administration may close the dangerous tanks without cleaning them up to the high standard (of the Tri-Party Agreement) that would protect the health of the environment," Sen. Ron Wyden, D-Ore., told Bodman.

Congress adopted legislation last year allowing DOE to renegotiate the definition of high-level waste stored at its sites in South Carolina and Idaho.

See **Energy**, Page A2

25 JAN 05
*State likely to block
transuranic waste
shipments to Hanford*

By Annette Cary

Herald staff writer

The state of Washington won a court ruling Monday giving it the authority to bar shipments of certain types of radioactive waste to Hanford and authority over that type of waste already stored at Hanford.

"This is a really incredible win for the state," said Sheryl Hutchison, spokeswoman for the Washington State Department of Ecology.

U.S. District Judge Alan McDonald in Yakima granted partial summary judgment to the state in its suit to bar shipments of transuranic waste mixed with hazardous chemicals to Hanford. That waste is typically debris, such as equipment or protective clothing, that has been contaminated with plutonium that remains radioactive for thousands of years.

In addition, the summary judgment ruling triggers a requirement that the Department of Energy meet a schedule for getting mixed transuranic waste at Hanford certified for shipment to a permanent repository in New Mexico.

Hanford regulators already had drawn up a schedule under the Tri-Party Agreement, but legal deadlines had not taken effect pending the outcome of the lawsuit.

"This supports our belief that federal law gives us the authority to determine whether and how much and under what conditions transuranic mixed waste can come to this state for temporary storage," Hutchison said.

The state is likely to say no more mixed transuranic waste may be sent to Hanford until that type of waste already here is cleaned up. That's the standard that voters set in November by passing Initiative 297, which addresses mixed transuranic and

See **Waste**, Page A2

21 JAN 05

Broken line closes Hanford building

The 2750 Building in central Hanford was evacuated for about 45 minutes Thursday afternoon after a freon line used in cooling the office building was punctured during maintenance work.

The line was fixed and the building approved for employees to re-enter by about 2:30 p.m. Department of Energy contractor CH2M Hill Hanford Group uses the building in the 200 East Area.

29 JAN 05

Hanford regulators ask DOE to weigh request because of budget woes

By Annette Cary

Herald staff writer

Amid fears of declining budgets, Hanford regulators are asking the Department of Energy to consider ~~delaying work~~ to demolish Hanford's Fast Flux Test Facility.

"Competing demands for increasingly scarce cleanup resources compel us to focus on those projects that have the greatest potential to address environmental risk," said a letter sent to DOE by the Environmental Protection Agency and the Wash-

ington State Department of Ecology.

Energy department officials have said for the last year that the 2004 and 2005 budgets likely are the peak for the Hanford nuclear reservation cleanup project.

The energy budget request for fiscal year 2006, scheduled for release Feb. 7, is expected to drop. Less money may be available to DOE because of federal budget pressures in part because of the war in Iraq and the deficit.

In addition, the Hanford budget could drop because workers have finished two expensive projects — stabilizing plutonium left at the Plutonium Finishing Plant and moving irradiated nuclear fuel out

See **Delay**, Page A2

Judge sets standard for Hanford trial

Plaintiff lawyers must prove emissions 'probably' caused illnesses in downwinders

By Annette Cary

Herald staff writer

A Spokane federal judge agreed to neither standard of proof proposed by defense and plaintiff attorneys to decide whether illnesses suffered by plaintiffs were caused by the Hanford nuclear reservation.

The plaintiffs have the burden to prove to the jury that past emissions from Hanford "probably or more likely than not" caused the illnesses of people living

downwind of Hanford who are scheduled to have their cases heard this spring, Judge William Fremming Nielsen wrote in a ruling issued near the close of business Friday.

He agreed with an earlier 9th Circuit Court of Appeals ruling that plaintiffs will not have to show that estimated radiation doses doubled the chance of illness, the standard proposed by attorneys representing early contractors at Hanford.

"Radiation is known to be capable of causing illnesses even at the lowest doses," Nielsen wrote, paraphrasing the 9th Circuit's ruling.

But he also rejected the standard of proof proposed by plaintiffs — that radiation had been a "substantial factor" in causing the illnesses.

Defense attorneys had been concerned that the substantial factor test might make it possible for people who had even very small doses of radiation to say that any exposure to radiation was a substantial factor in their illness.

Plaintiff attorneys may ask for clarification as the court starts four weeks of intermittent hearings on the admissibility of scientific testimony today, said Richard Eymann, a Spokane plaintiff attorney.

Plaintiff attorneys remain confident they will prove their cases, he said.

Both sides will know more as they see how the judge applies his ruling over the next four weeks.

See **Hanford**, Page B2

^{1 FEB 25}
Stops to focus on high-tech plans for post-Hanford economy

By Chris Mulick
Herald Olympia bureau

OLYMPIA — The right people will be listening today when community leaders pitch their vision for a major component of the Tri-Cities' post-Hanford economy. State Rep. Shirley Hankins, R-Rich-

land, is bringing House Speaker Frank Chopp to town for a series of appointments that, in part, will focus attention on plans to center a high-tech economy around new Pacific Northwest National Laboratory facilities in north Richland.

Hans Dunshee, D-Snohomish,

chairman of the House Capital Budget Committee, and Jeff Morris, D-Anacortes, chairman of the House Technology, Energy and Communications Committee, also are expected to participate, as are all four House members serving the Tri-Cities.

The tour will include stops at the tank waste treatment plant being built at Hanford, the HAMMER training center and

a drive along Horn Rapids Road. That area could be the future home of new PNNL labs to replace the ones being vacated in Hanford's 300 Area.

About Some 1,000 workers involved in half of the laboratory's research and development activities will be moved into new facilities with an estimated 500,000

See **Tour**, Page B5

4 FEB 03
DOE looks to PNNL, HAMMER for growth

By Mary Hopkin

Herald staff writer

Hanford employment has peaked and will decline steadily after this year.

That's the message Julie Erickson, Department of Energy deputy manager at the Pacific Northwest Site Office, gave Thursday to nearly 200 people attending the Tri-Cities Regional Economic Outlook Forum at Three Rivers Convention Center.

"By this time next year, the project engineering staff will have gone from about 1,300 today to about 400," she said. "But construction staff will have grown by several hundred."

But, Erickson said, DOE won't be leaving.

"DOE is rapidly focusing on the future of Pacific Northwest National Laboratory and HAMMER as a key for economic growth as the cleanup mission is fulfilled," Erickson said.

HAMMER offers training for emergency workers on how to handle hazardous materials accidents and for border guards and other national security workers.

The event was sponsored by the TRIDEC and Key Bank.

See **Forum**, Page B2

4 FEB 05

Supreme Court should decide key issues about Initiative 297, says state

By Annette Cary

Herald staff writer

Letting the Washington Supreme Court decide key questions about the Hanford cleanup initiative could clear the way for a federal decision, said federal Judge Alan McDonald in Yakima on Thursday.

The federal government has sued the state in federal court, claiming that Initiative 297, intended to bar shipments of radioactive and hazardous chemical waste to Hanford, is unconstitutional.

The state has asked McDonald to let the Washington Supreme Court decide questions, such as what waste the initiative bars, before constitutionality questions are decided in federal court.

"The scope of the constitutional issue might be greatly simplified" by a ruling from the state court, McDonald said, after telling attorneys he still wanted to think about his decision before issuing it.

But as the judge was wrapping up the hearing, Kenneth Amatz, a U.S. Justice Department attorney, asked what would happen to an agreement in place now that stops the state from enforcing the initiative if the questions are turned over to the state

See **Court**, Page B2

5 FEB 05

PNNL helps Russian scientists find potential of research project

Lab's role is to help coordinate Russians, Maryland firm to commercialize antibody work

By John Trumbo

Herald staff writer

Russian scientists who not long ago could have been working on projects unfriendly to Western interests are part of a collaboration directed by the Pacific Northwest National Laboratory to develop research involving antibodies.

Teimur Aliev and Peter G. Sveshnikov from Moscow and their research team in Russia are trying to develop genetically engineered enzymes that could be useful in treating psoriasis, rheumatoid arthritis and diabetic blindness. There also is a possibility that an engineered antibody can be created that would eliminate the problem of transplant rejection.

"There are lots of interesting directions and targets and diseases that can be addressed," said Aliev, whose expertise is in bio-organic chemistry

with the Russian Academy of Sciences and enzymology at the Moscow State University.

The two men are focused on creating genetically engineered enzymes and building on the work of Russian Dr. Simon Skurkovich, who 30 years ago proposed that autoimmune diseases may be triggered by an excess of cytokines in the body. Cytokines are chemicals that regulate growth and influence bone formation.

The work has attracted the attention of New Horizons, a diagnostics and biological detection corporation in Columbia, Md., which is working with Aliev and Sveshnikov to refine, evaluate and test the research results. New Horizons hopes the research team in Russia will share in the profits of commercialization, said Dave Trudil, New Horizons vice president.

PNNL's role is to coordinate and facilitate between the Russians and New Horizons, said PNNL's Dick Weller, a veterinarian.

After four years, everything is beginning to come together.

See **PNNL**, Page B2

Oregon governor gets primer on PNNL

By John Trumbo

Herald staff writer

Oregon Gov. Ted Kulongoski got a first-hand look Friday at the Pacific Northwest National Laboratory in Richland, getting a primer on molecular research and how nanoscience and microtechnologies hold commercial promise for Oregon and Washington.

Kulongoski's visit to the Environmental Molecular Sciences Laboratory at PNNL apparently is the first time an Oregon governor has toured the Department of Energy research laboratory.

"I've learned today we can be more productive by working together using the brain power of the lab," Kulongoski said

Kulongoski's visit follows plans for PNNL to send staff to Oregon State

after a one-hour tour of three research suites.

PNNL Director Len Peters showed Kulongoski a reaction engineering lab, mass spectrometry lab and microscopy lab. The visit came just after PNNL announced plans to place 20 PNNL staff members at the Microproducts Breakthrough Institute on the Oregon State University College of Engineering campus in Corvallis.

The institute is part of the Oregon

Nanoscience and Microtechnologies Institute, which seeks to turn research at the microscopic level into commercially useful technology.

Landis Kannberg, PNNL co-director of the Microproducts Breakthrough Institute, said teaming of the university and Oregon industries has grown to nearly \$20 million worth of work since the institute was founded in 2002.

"This has great potential," Kannberg told Kulongoski while explaining examples of half a dozen machines displayed in the reaction engineering laboratory.

Some, which can be held in the palm

See **Governor**, Page B2

5 FEB 05

State makes offer to delay action on Initiative 297

State willing to wait on enforcement until legal matters taken care of

By Annette Cary
Herald staff writer

The state of Washington has offered not to enforce or implement the Hanford waste initiative, including trying to bar new waste shipments, until legal matters are resolved.

The federal government has warned that resolving legal issues in the Initiative 297 suit could take years. However, the state's offer could give it a better chance of getting certain questions answered in the court jurisdiction it prefers.

Voters passed the initiative to stop the Department of Energy from sending more radioactive waste to the nuclear reservation until waste already there is cleaned up. The state and federal governments earlier agreed to wait until spring to take action

related to the initiative.

However, even if the state waits until those legal matters are resolved, the state will continue efforts to bar DOE from sending more waste to Hanford by other means, including an earlier lawsuit, the state wrote in a letter Friday to Judge Alan McDonald in U.S. District Court in Yakima.

The federal government sued the state late last year, claiming the initiative passed by voters in November was unconstitutional. However, most waste shipments to Hanford already were on hold under a lawsuit filed in 2003 by the state.

McDonald already has decided in that case that the state has authority which would allow it to block one type of nuclear waste, called mixed transuranic waste, from being sent to Hanford. Typically, that waste is used equipment or other debris tainted with plutonium and hazardous chemicals.

McDonald could rule on more types of waste this spring after a hearing in the suit brought by the state.

In the suit brought by the

222-S Lab

Small Business Administration dismisses protest. **B2.**

4 FEB 05

Investigation finds vit plant workers scared to complain

*Employees worried
they'd lose their jobs*

By Annette Cary
Herald staff writer

An investigation into worker complaints at the \$5.8 billion vit-rification plant under construction at Hanford found workers feared retaliation for reporting safety and other issues.

The investigation ordered by the Department of Energy also turned up some racial discrimination and sexual harassment problems. In addition, workers were dissatisfied with the Labor Relations and Employee Concerns programs.



Henschel

Despite worker fears of retaliation, the investigation did not turn up any instances, said John Eschenberg, DOE's Office of River Protection project manager for the plant.

But workers saying they feared reporting safety, medical or labor relations issues is a problem, said Jim Henschel, project director for DOE contractor Bechtel National. It creates what labor

See **Workers**, Page A2

6 Feb 05

Hanford pumping hits early objective

By Annette Cary

Herald staff writer

Hanford has stopped one of six operations to pump contaminants out of ground water beneath the nuclear reservation after getting radioactive pollutants down to 10 times the drinking water standard.

"It's not clean, but the heart of it has been taken out," said Dick Wilde, a vice president in charge of ground water issues for Department of Energy contractor Fluor Hanford.

More than 210 million gallons of water have been pumped out of the ground near a former processing plant in central Hanford over the last decade. Treatment has collected 440 pounds of radioactive material from

the water before it was released back

into the ground.

"It's an interim objective, not a stopping place," said John Price, project manager for environmental restoration at the state Department of Ecology. "It helps us go on to the next step."

Work on cleaning ground water at the Hanford nuclear reservation remains in the early stages.

As Hanford produced plutonium for the nation's nuclear weapons program during World War II and the Cold War, 450 billion gallons of liquid waste were released into the ground.

That's left 80 square miles of the ground water beneath the reservation contaminated at levels above drinking water standards.

In the 200 West Area of central Hanford, the U Plant contaminated ground water by dumping waste water into storage cribs, or underground drainage fields, to percolate into the ground.

The massive plant, often called a canyon because of its shape and size, was used to remove plutonium from fuel irradiated in Hanford reactors.

A pump and treat system was started in the mid-90s to remove two radioactive materials, uranium and technetium 99, from the ground water in the area of U Plant.

The two isotopes contaminate only 1.5 square miles total of Hanford ground water.

But they are of special interest because both take thousands of years to decay.

Technitium 99 travels easily in water, while uranium tends to bind to soil and is less likely to reach the ground water.

But in the early 1980s, acid was used for cleanup at U Plant. When it was dumped into cribs, it made the soil acidic enough that it no longer held the uranium well.

Regulators agreed in the 1990s that work needed to start on cleaning up the U Plant plume even though Hanford was far from making final decisions on ground water cleanup.

An interim goal of getting radioactive contaminants to 10 times drinking water standards was set with public input.

The ground water in central Hanford is not used for drinking water and

See **Hanford**, Page B2

FFTF supporters to meet Thursday

8 FEB 2009

Supporters of restarting Hanford's Fast Flux Test Facility plan a public meeting at 7 p.m. Thursday to discuss whether the Department of Energy has followed the law concerning decommissioning the research reactor.

The meeting will be at the Pasco Laborers' Hall, 204 W. Clark St., Pasco. For more information, go to www.usa-cargo.info. An online petition has been posted.

8 FEB 05
Site would see \$267 million less in fiscal 2006; state's congressional legislators question DOE commitment to cleanup

By Annette Cary

Herald staff writer

The Bush administration would spend \$267 million less at the Hanford nuclear reservation in the 2006 fiscal year under the federal budget proposal released Monday.

Hanford's budget would be a little more than \$1.8 billion, down from a little less than \$2.1 billion this year — a cut of about 12 percent.

Energy Secretary Samuel Bodman attributed the cuts to a

combination of work completed at Hanford and "legal difficulties."

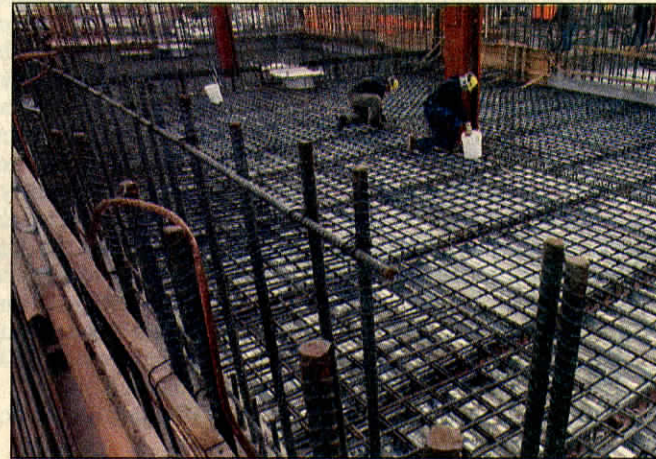
But Washington's congressional delegation was not buying the explanation. Members were particularly annoyed that DOE would cite lawsuits filed over cleanup as a reason to make cuts.

DOE earlier had said the current year's budget would be the peak, "but this proposal goes further than previously anticipated," said Rep. Doc Hastings, R-Wash., in a prepared statement.

Rep. Jay Inslee, D-Wash., a new member of the House Energy and Commerce Committee, called the cuts draconian.

Sen. Maria Cantwell, D-Wash., said in a prepared statement, "This budget does not give me confidence that the

See **Hanford**, Page A2



Construction workers tie together reinforcing bars for a concrete floor at the Low Activity Waste building at the vitrification plant at Hanford. The Bush administration is proposing cutting the budget for construction of the plant from \$690 million this year to \$625.9 million in fiscal year 2006.

Herald file

Hanford seeks ways to treat contaminated ground water

By Shannon Dininny

The Associated Press

For years, cleanup efforts at the Hanford nuclear reservation have focused on countless barrels and vats of toxic and radioactive waste. Much of that waste still remains, but it's the contamination beneath the reservation and the scenic areas nearby that will be a larger focus in the months and years ahead.

An estimated 80 square miles of ground water under the south-central Washington site was contaminated during decades of plutonium production for the nation's nuclear weapons arsenal. More than 1.7 trillion gallons of radioactive and hazardous waste leaked into the soil, contaminating the ground water and the nearby Columbia River and making it the nation's most contaminated site.

Ground water remediation at

to the public and environment: packaging 4.4 tons of plutonium and removing spent nuclear fuel from leak-prone pools of water just a few hundred yards from the Columbia River.

Ground water work has centered on finding and removing the sources of contamination, such as tearing down contaminated buildings and digging up waste sites, in an effort to stem the flow and prevent plumes from growing. That work continues, but the focus of the cleanup is also shifting to the ground water itself.

"Everything comes back to ground water. It's the reason we dig up burial sites, dig up waste," said Keith Klein, manager of the Energy Department's Richland Operations Office. he said. "Some of this has just never been done before. It's a different kind of challenge."

water — at the site.

In a separate report, the inspector general also criticized the agency's ground water cleanup efforts, finding the current pump-and-treat systems to treat ground water had been largely ineffective. Those systems pump water out of the ground, treat it with chemicals to remove the contaminants and inject it back into the ground.

But pump-and-treat systems haven't totally failed. Last week, for the first time, officials shut off such a system because the interim cleanup goals had been reached. Those goals did not include meeting drinking water standards, but simply preventing a contamination plume from growing, said Dick Wilde, who runs the ground water program for contractor Fluor Hanford.

Other areas still pose chal-

lenges. For tritium, a radioactive byproduct of the weapons production process, there are no technologies to effectively treat Hanford's ground water, said Dibakar Goswami, hydrogeologist for the state Department of Ecology. But because tritium decays more quickly than other radioactive isotopes, it is less of a cleanup priority.

In another area, scientists are researching planting willows to soak up the radioactive byproduct strontium-90 near the river.

More difficult still are contaminants that take millions of years to decay. That could include unknown contaminants under 177 aging underground tanks, where an estimated 1 million gallons of radioactive brew leaked into the soil, contaminating the aquifer.

"These are complicated prob-

lems. We use the current levels of technology and do whatever we can, and during this process, look for alternate technologies that may work better," Goswami said.

Regulators and citizens have raised concerns that the federal government may find Hanford's ground water contamination too expensive to fix.

Cleanup agreements call for ground water to be returned to its highest beneficial uses, but at what cost? How clean is clean enough?

Energy Department officials also point to an increase in money spent on ground water cleanup. About \$75 million of the roughly \$2 billion Hanford cleanup budget in 2005 will go toward ground water remediation — up from about \$45 million in 2002, said Briant Charboneau, who manages the Energy Depart-

ment's ground water program.

About 10 percent of the ground water money goes to researching new technologies, Charboneau said.

But regulators say more money needs to be spent on new technologies, because money for that area has declined drastically. They also remain concerned that risks will be managed not by cleanup, but by controlling access to the site in the future.

All of these issues are likely to come up as all sides re-evaluate ground water cleanup goals in the years ahead.

"We've kind of gone after the low-hanging fruit. Now, there's tough work ahead and people have to really want to do it," the EPA's Ceto said. "We're going to have to be smart in how we use the money we get to reprioritize this year."

8 FEB 25

Stanford, PNNL team on program to stop terror

*Center operated by lab to
make software to map data*

By Mary Hopkin

Herald staff writer

Stanford University professors and students will be helping Pacific Northwest National Laboratory scientists create new software and technological devices to help identify and stop terrorist threats in the United States.

The prestigious California university has been chosen as the first regional Visualization and Analytics Center under the Department of Homeland Security's National Visualization and Analytics Center, operated by PNNL.

Jim Thomas, the center's director, said he hopes to establish two to four more regional centers at qualifying universities throughout the country next year, with more in the future.

The national center was started last spring with a \$2.5 million Homeland Security grant to create software to map data, using a variety of factors to show the potential statistical relationships of people, places, activities and time elements.

Thomas said the universities chosen as regional centers will coordinate with PNNL, using professors and students to help create new technology. The teams will work in labs at their own universities but also travel periodically to the Tri-Cities.

The program will not only help create new science, but also nurture the talents of future scientists, officials said.

"It will create the next generation of technology to prevent terrorist attacks and stimulate young students working in this area," Thomas said.

Each regional center will be charged with specific research tasks to develop new ways to analyze large amounts of complex information, including text, measurements, pictures and video data to help counterterrorism analysts be better informed.

Thomas said since last year, NVAC has held several workshops and conferences, bringing between 300 and 500 visitors and scientists to the Tri-Cities.

11 FEB 05

FFTF backers vow reactor fight still on

About 100 people turn out in support at town hall meeting

By Cara Fitzpatrick

Herald staff writer

Supporters of Hanford's Fast Flux Test Facility turned out en masse Thursday night at a town hall meeting and declared that the fight to save the research reactor is not over.

"We're here to tell you that the FFTF is alive," said Ed Dailey, a member of the USA Concerned Americans for Responsible Government

Opportunities, or USA CARGO, which organized the meeting.

Nearly 100 people packed the auditorium at the Pasco Labor Hall on West Clark Street to listen to a series of speakers talk about the future of the reactor, the need for nuclear power and the possibility of making medical isotopes at FFTF for cancer research.

"Fighting cancer is important. We all need to get up and scream that we need FFTF," said Bob Schenter, a nuclear physicist and president of the

See **FFTF**, Page B2

By Anna King

Herald staff writer

PROSSER — Benton County Commissioner Max Benitz Jr. demanded Thursday that any elk hunted on the Hanford Reach National Monument be killed by the public.

U.S. Fish and Wildlife Service officials disagreed.

Benitz expressed his displeasure during an informal meeting on the elk's future in the Benton County Courthouse.

"You are excluding the public," he said. "Nobody's better than the public."

Benitz said killing the elk in a government hunt would be a mistake.

Fish and Wildlife officials have been struggling for solutions to cull about 100 elk from the fastest-growing herd in the state. The herd numbers about 700 animals.

So far about 60 have been killed, even with a special extended hunting season on state and private land. Hunters are not allowed on federal land).

11 FEB 05

Commissioner wants public to join hunt; agency disagrees

The elk have become notorious for their crafty escapes from hunters into protected land and for their propensity to trample Benton City-area farmers' crops.

Greg Hughes, project leader for the Hanford Reach monument, said a government shoot is a final option.

He said the federal agency is writing its draft management plan, and to allow public hunters on the Reach before the plan is penned would jeopardize the tenuous relationships with all interested parties.

The plan is slated to be released for public review this summer.

"I am looking at something we can do before it's signed," Hughes said. "If you get ahead of yourself (by allowing public

hunting on federal land), someone can sue."

Some groups don't want any hunting on the Arid Lands Ecology Reserve, which is part of the Reach, Hughes said.

Mike Ritter, Fish & Wildlife deputy project leader, said the agency has considered trapping and relocating some of the animals, but that plan recently was abandoned because there is no money available. To trap and relocate each animal could cost from \$350 to \$680, he said. The elk would be captured by dropping a net from a helicopter, and the animals would be relocated using stock trailers.

But time is getting short, Ritter said. The recent warmer weather has prompted the herd to move and split into smaller groups, making helicopter capture more difficult with each passing day.

In cold weather, the elk usually huddle in the draws and coulees of the lower areas of the ALE.

See **Hunting**, Page A2

Hanford waste treatment plant under way

Bulk vitrification of tank waste will be tested in pilot project

By Annette Cary

Herald staff writer

Construction has started on a test plant that could be turning radioactive waste at Hanford into glass by the end of the year.

"We're not talking about laboratory or bench scale quantities of low-activity tank waste, but vitrifying up to 300,000 gallons of treated tank waste," said Roy Schepens, manager of the Department of Energy's Office of River Protection.

He spoke at a ceremony Wednesday at Hanford to mark the start of construction at the bulk vitrification pilot plant.

Two years ago, DOE and regulators began discussing whether technology existed that could speed up treatment of some of the 53 million gallons of radioac-

tive and chemical waste held in Hanford's underground tanks.

DOE is building a \$5.8 billion vitrification plant, the Waste Treatment Plant, to turn all of Hanford's high-level radioactive tank waste and some of the low-activity radioactive tank waste into glass logs for permanent disposal.

The waste started accumulating during World War II when Hanford began making plutonium for the nation's nuclear weapons program.

But the Waste Treatment Plant never was planned to be able to treat all the waste by a legal deadline of 2028.

Instead DOE and regulators have been looking at alternate technologies, picking bulk vitrification as the primary technology for pilot testing and demonstration out of

22 evaluated.

"The goal was straightforward: Move away from a one-size-fits-all approach for treating 53 million gallons of tank waste by investing in available and proven commercial technologies," Schepens said.

The bulk vitrification process mixes radioactive waste with Hanford's silica-rich soil in a steel box up to 24 feet long. Two electrodes are inserted to heat the mixture to 2,400 degrees.

The mixture melts, then cools into a brick of black glass. It looks like volcanic obsidian, but it is more durable, according to DOE contractor CH2M Hill Hanford Group. The box, including the electrodes, can then be permanently buried at Hanford with the waste immobilized in the glass.

DOE, CH2M Hill and contractor AMEC Earth and Environmental can

See **Hanford**, Page A2

Use of Hanford 'canyons' for waste storage not studied enough by DOE, audit says

By Annette Cary

Herald staff writer

The Department of Energy has not adequately studied the idea of using Hanford's huge processing plants as a permanent home for other nuclear waste, according to a report issued Tuesday by DOE's Office of Inspector General.

Preliminary estimates from 1995 showed that using the processing plants, often called canyons because of their shape and size, could save as much as \$17 million to \$500 million in waste disposal costs at Hanford. Some are longer than the Space Needle is tall.

Using the canyons for waste disposal also could reduce the need for landfills to be added or expanded to hold debris, some of it tainted with radioactive material, according to the audit report.

It blames contractor Bechtel Hanford for doing an inadequate job on a report about what to do with U Plant, the first of Hanford's five canyons that could be demolished. DOE did not provide adequate oversight, the audit said.

DOE is expected to issue a decision in May on how to close out U Plant.

It was built in the 1940s to process plutonium for the nation's nuclear weapons program from nuclear fuel irradiated in Hanford reactors. However, it was never used for plutonium processing and was later modified to recover uranium from nuclear waste.

DOE's preferred alternative for disposing of the plant includes moving some equipment or other waste below the canyon deck level, filling remaining space with grout, then demolishing the building to the deck level. It would be capped with a protective barrier.

DOE does not favor the option of placing contaminated soils and construction debris from elsewhere at Hanford as fill to be grouted in the bottom of the canyon. More contaminated soil would be piled around the reactor to serve as a base for the protective barrier.

Since U Plant is the first of five processing canyons at Hanford that could be decommissioned, the project is seen as a road map for other work.

"Our audit disclosed that the department did not thoroughly evaluate the feasibility and potential cost savings

Judge says Hanford cleanup initiative will not be enforced

Key questions on I-297 turned over to state's Supreme Court

By Annette Cary
Herald staff writer

The Hanford cleanup initiative will not be enforced until legal decisions are made, U.S. Judge Alan McDonald ordered Tuesday as he turned key questions over to the Washington Supreme Court.

Federal and state courts must rule before Initiative 297 may be enforced at Hanford or Pacific Northwest National Laboratory, McDonald wrote in court documents.

McDonald's decision to move key questions to the state Supreme Court was a victory for the state. Last week it told the judge it would agree to take no action to enforce the initiative until

Hanford
Report says Hanford should look into using canyons to store waste. **B1.**

decisions were made, if key elements were moved to the state court.

"It confirms our position that it's appropriate for a state court to decide what a state law means," said Sheryl Hutchison, spokeswoman for the state Department of Ecology.

Voters passed the initiative in November to stop the Department of Energy from bringing more radioactive waste to Hanford until waste already there is cleaned up. The site is massively contaminated from 50 years of producing plutonium for the nation's nuclear weapons program.

I-297 debate heats up in Legislature

Issue has split legislators from east side 8th District

By Chris Mulick

Herald Olympia bureau

OLYMPIA — The head of a Richland company that makes medical isotopes told legislators Friday that he wants out of the political pickle he's in and needs Initiative 297 clarified to keep his company doing business in Washington.

"I don't want to be treated as a pawn in this political game," said Roger Girard, chief executive officer of IsoRay Medical. The federal government has argued that the voters' passage of I-297 in November

threatens the firm's operations.

The measure, put up and backed by Hanford watchdog Heart of America Northwest, sought to prevent the federal government from importing new wastes to Hanford until existing wastes are cleaned up.

Olympia



With I-297's passage, the government also moved to stop a wide range of activities at Hanford and the Pacific Northwest National Laboratory, where part of

The federal government sued, arguing the measure violates the U.S. Constitution on multiple grounds.

IsoRay's production is done.

A federal judge has ruled the initiative will not be enforced until the lawsuit is resolved, which could take two years.

In the meantime, IsoRay, which manufactures cancer-treating radioactive isotopes, is worried it won't be able to attract the investors it needs until it is given final clearance.

It already has five investment partners lined up waiting for the issue to be resolved, Girard said, and at least one bill before the Legislature would clear it up.

The company also could move out of state and is being wooed by Idaho, New Mexico and Nevada.

"They have to live with uncertainty, which we can evaporate right now," Heart

of America Northwest Director Gerald Pollet told the House Technology, Energy and Communications Committee on Friday. "This bill makes it crystal clear. Let's eliminate the confusion."

But opponents of I-297, who believe the initiative actually would hamper Hanford cleanup rather than help it, argue the Legislature should let the issue play out in court and that more legal questions are bound to be raised.

They also believe leaving the initiative flawed improves the chances it will get tossed out.

The issue has split legislators from the 8th District, which covers most of Benton

See **I-297**, Page B2

15 FEB 85
*Spokesman-Review reported
results slanted to government*

By the Herald staff and The Associated Press

A landmark study that estimated radiation doses to the public from emissions from the Hanford nuclear reservation allegedly was shaped to favor the government's position in defending lawsuits, a newspaper reported.

The Hanford Environmental Dose Reconstruction Project, a \$27 million, 10-year study that began in the late 1980s, is part of a massive class-action lawsuit

headed for trial in April in Spokane.

The Spokesman-Review of Spokane reported Sunday that some of the Battelle Pacific Northwest Laboratories staff in Richland who worked on the study also worked for the U.S. Justice Department and for the Chicago law firm hired to defend Hanford contractors against claims by more than 2,000 people alleging that their health was damaged by exposure to radioactive iodine-131 releases during World War II and the Cold War.

The newspaper reported that documents show that after the secret Hanford releases were finally made public in 1986, the Justice Department opposed a dose study as

useless public relations but changed its mind when the first lawsuit for radiation damages was filed.

However, lab spokesman Geoff Harvey said the allegation as reported in the Spokesman-Review fails to mention that an independent technical steering panel, made up of 14 experts selected from across the country, directed Battelle in the study, and that the Department of Energy handed off management of the study to the Centers for Disease Control, to ensure detached oversight. He was unable to say whether any Battelle staffers who worked on the study

See **Hanford**, Page B2

15 FEB 05
*Commissioners hear
farmers' concerns about
crop-eating animals*

By Anna King

Herald staff writer

PROSSER — What's to be done with the wandering elk that frolic in Benton City farmers' fields and create havoc for federal and state officials still is unclear, and time for finding an answer is running out.

On Monday, Benton County commissioners discussed the situation during their regular meeting at the Benton County Courthouse and listened as landowners complained that their rights are being trampled.

"We are all frustrated this has gone on too long," said Commissioner Claude Oliver. "We have agencies that aren't stepping up to the plate and coming up with a solution."

Oliver told the 15 landowners the county would support them but couldn't do much more than recommend the group seek higher political support or pursue legal action if they can't resolve the issue.

County, state and federal officials have been talking with tribes and the public to find a solution for the growing herd that now numbers about 700 animals. And it's not clear who has jurisdiction over the elk that wander off the protected Hanford Reach National Monument.

Commissioners supported landowners' list of demands to the state last week asking for signs, road restrictions, officers and a shortened hunting season this year. The landowners also want the state to issue permits that landowners themselves can hand out to hunters without jeopardizing the money they receive for crop damage.

"It's really funny," said Steve Harrison, a farmer who owns fields adjacent to Rattlesnake Mountain. "If a dog comes on your property and kills your chicken, you can shoot it. But if an elk comes across and eats your crops, you can't do anything about it."

Some landowners have been criticized by hunters for charging fees to hunt on their property.

Most involved agree the herd needs to be reduced to about 350 animals. But how that should be done is stirring controversy.

A government hunt is the U.S. Fish & Wildlife Service's last option to reduce the herd this year, said Greg Hughes, project leader for the Hanford Reach monument. There is no money for a trap-and-relocate program previously considered, nor can there be public hunting on the Reach before a draft management plan is complete, he said.

The federal agency has been waiting for comment from Benton County officials and the state before making a decision, Hughes said. But

17 FEB 03

Sirens to sound today in Hanford's 300 Area

Emergency sirens will be activated today in the 300 Area of Hanford just north of Richland.

The sirens will sound for about a minute between 12:30 p.m. and 1:30 p.m. and a message will be broadcast to make clear it is a drill.

Briefs

PNNL scientist elected to national academy

Subhash C. Singhal, Battelle Fellow and director of fuel cells research at Pacific Northwest National Laboratory, was elected to the National Academy of Engineering, the only

PNNL scientist to currently hold the distinction.

Singhal was cited by the Academy for "the development and promotion of solid oxide fuel cells for clean and efficient power generation," having brought the



Singhal

technology from experimental units to functioning, 200-kilowatt power generating systems.

Academy membership is among the highest professional distinctions awarded to engineers.

Singhal joined PNNL in 2000 after 29 years with Siemens Westinghouse Power Corp. and holds a doctorate in materials science and engineering from the University of Pennsylvania and a masters of business administration from the University of Pittsburgh.

16 FEB 05
*Safety board sees need for improved protection
against criticalities at Plutonium Finishing Plant*

By Annette Cary

Herald staff writer

More vigilance is required at Hanford's Plutonium Finishing Plant to protect against radiation-emitting criticalities, according to a new report from an independent federal safety board.

The Defense Nuclear Facilities Safety Board pointed out two 2004 analyses in which operators failed to understand how much plutonium was left in a glove box. The lead-and-glass box was used to shield workers from radiation emitted by nuclear materials they handled with gloves extending inside the box.

Enough plutonium was present to result in a criticality accident, an unplanned and runaway nuclear reaction, under some abnormal conditions, according to the report.

"The root causes of these errors appear to be a lack of trained personnel and inadequate criticality safety procedures," board Chairman John Conway wrote in a letter to the Department of Energy.

Beginning in 1949, the Plutonium Finishing Plant turned plutonium produced by Hanford's nuclear reactors into metal buttons the size of hockey pucks for shipment to the nation's

See **Vigilance**, Page A2

17 FEB 25
*Newly found cracks in
K East Basin most likely
don't go through concrete*

By Annette Cary

Herald staff writer

Newly discovered cracks in the leak-prone K East Basin at Hanford do not appear to extend all the way through the concrete, according to an engineering report.

The indoor pool 400 yards from the Columbia River holds 1.2 million gallons of water contaminated with radioactive sludge. Built in the 1950s, it's long past its design life.

The K East Basin has leaked several million gallons of radioactive water into the soil in the past. But the newly discovered cracks do not appear to be allowing detectable amounts of water to leave the basin, according to the report, prepared by Fluor Hanford, a Department of Energy contractor.

The cracks were discovered after a video camera was lowered into a portion of the pool called the weasel pit to try to determine what was hidden in 4 feet of sludge that had accumulated there.

The K East and West Basins were built to hold fuel irradiated in Hanford reactors until it was processed to remove plutonium used in the nation's nuclear weapons program. When processing at Hanford stopped, 4.65 million pounds of fuel were left stranded in the basins for more than a decade.

Last year, Hanford workers removed the last of the highly radioactive fuel from the basins. Now, work is under way to remove sludge that formed from corroded fuel, dust and concrete that sloughed off the walls of the basin.

CH2M Hill cleared in lawsuit

23 FEB 05

Jury rules company didn't discriminate or harass worker

By Annette Cary

Herald staff writer

A federal jury sided Tuesday with a Hanford contractor in a discrimination suit brought by a Hispanic worker.

The jury found that Ed Aguilar proved none of his six federal and state claims against CH2M Hill Hanford Group. They included discrimination, retaliation, harassment and creating a racially hostile work environment.

"These are unfounded, baseless charges against good people trying to do their jobs," said James Kalamon of Spokane in closing arguments for CH2M Hill.

Whenever Aguilar was unsatisfied with his job, he charged harassment and discrimination, Kalamon said. Aguilar has worked as a Hanford millwright since 1981 and has served as a shop steward.

He has accused supervisors, co-workers and organized labor of treating him unfairly, Kalamon said.

Aguilar endured years of name-calling at work to keep his job, said his attorney, Jack Sheridan of Seattle. But Aguilar filed suit after being required to take a drug test after a fender-bender in a government car, Sheridan said. Most non-Hispanic workers in similar accidents were not required to take drug or alcohol tests, he said.

Kalamon said rather than being offended by the name-calling, the millwright joined in what

Kalamon called "banter." When other workers would call him Tattoo, from the television show *Fantasy Island*, Aguilar would respond "Da plane. Da plane," Kalamon said.

Two workers testified that when Aguilar asked them to stop calling him another name that Aguilar considered racially pejorative, they did.

There was confusion and uncertainty about the drug test when Aguilar had his accident, Kalamon said. But the person who made the decision to require the test did not know his name, he said.

Aguilar's attorney had asked for compensation for pain and suffering and for punitive damages.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

24 FEB 05
*Vit plant contractor
loses \$300,000 over
numerous safety woes*

By Annette Cary

Herald staff writer

The Department of Energy will withhold \$300,000 from the quarterly fee paid to the contractor building the \$5.8 billion

vitrification plant because of safety problems at the Hanford construction site.

The deduction amounts to 10 percent of the \$3 million profit Bechtel National could have earned in a payment due March 31.

"The number of serious safety events that have occurred on the construction site has increased," wrote Roy Schepens, manager of

DOE's Office of River Protection in a letter sent to Bechtel National on Wednesday.

The plant is being built to turn some of the 53 million gallons of radioactive waste now held in underground tanks at Hanford into more stable glass logs for permanent disposal.

After near-miss accidents in the first half of 2004, Bechtel National stopped construction for

a day at a cost of \$500,000 to discuss safety concerns with workers.

But problems have continued.

"Following a series of events involving dropped items, Bechtel had its closest call this week," wrote the Defense Nuclear Facilities Safety Board in a Dec. 10 staff report. The board provides

See **Fee**, Page A2

15 FEB 05
K Basins cleanup taking longer than expected, but project moving forward

By Annette Cary

Herald staff writer

Fluor Hanford has no hope of meeting a March 1 legal deadline to have radioactive sludge in the leak-prone K Basins at Hanford vacuumed into containers.

But regulators are encouraged that the difficult and problem-plagued project may at last be headed toward success.

Fluor Hanford was fined \$935,000 last summer for multiple and extensive safety

violations as it prepared to start pumping sludge from the K Basins in spring 2003. Earlier it had been fined \$76,000 for missing a 2002 deadline to start removing sludge.

Pumping did not start until last November under a new plan, new management and new deadlines.

But vacuuming up the sludge has taken far more time than Fluor budgeted. Now it may not have the sludge corralled in containers until summer.

"It is a slow process, but it is going to get us there," said Larry Gadbois, a scientist with the Environmental Protection Agency, the regulator for the project. "It's very painstaking — more than we thought."

The K Basins, two huge indoor pools of water, were built in the 1950s to hold fuel irradiated in Hanford reactors until plutonium could be removed for the nation's nuclear weapons program. The basins were far past their design life in the mid-1980s when 2,300 tons of irradiated fuel were stranded in the water when Hanford stopped reprocessing fuel.

The last of the fuel was removed last year. But left behind was a radioactive sludge from fuel that had decayed over decades in the water, desert dust and concrete that sloughed off the sides of the pools. When the sludge is disturbed, it disperses in a muddy cloud in the water.

Work to remove the most radioactive sludge started about three months ago in

what workers called the weasel pit, a small extension off the K East Basin where they once put potentially damaged fuel or equipment for closer inspection.

The sludge there had accumulated to about 4 feet deep. Compared to the sludge dispersed among debris in the main part of the basin, the project looked easy: "Go down and stick a vacuum into a pile of dirt," said Pete Knollmeyer, Fluor Hanford vice president of K Basins Closure.

But as in so much of the sludge project, the unexpected occurred.

Because of the high radioactivity of the sludge, workers stand on steel grating about 21 feet above the bottom of the pool

See **Deadline**, Page A2

17 FEB 05
*I-297's restrictions spurred
medical isotope company
to consider move to Idaho*

By Annette Cary
Herald staff writer

IsoRay Medical will stay in the Tri-Cities, at least temporarily, after signing a lease allowing it to expand its manufacturing operation into an unused Richland building offered by Pacific EcoSolutions.

The move buys the promising startup company time to decide whether to build its permanent plant in the Tri-Cities or in Idaho.

In the meantime, the leased building will allow the company to produce medical isotope treatments for up to 600 cancer patients per month with a staff that is to expand from 19 to 90.

"We've been unwilling participants in the political arena," said Roger Girard, IsoRay chief executive.

The company had planned to open a production center in the Tri-Cities this fall to employ up to 250. But after getting caught in the politics of Initiative 297, it appeared to have little choice but to move out of state, Girard said.

Voters passed I-297 in November to bar the Department of Energy from sending more radioactive waste to Hanford until waste there is cleaned up. The nuclear reservation is massively con-

taminated from 50 years of producing plutonium for the nation's nuclear weapons.

On the day the initiative was to take effect, DOE moved to stop a wide range of activities that use radioactive materials that might fall under the initiative. DOE's interpretation affected both cleanup work at Hanford and research at Pacific Northwest National Laboratory in Richland.

The national lab stopped manufacturing medical isotopes under its contract with IsoRay until a court injunction temporarily halted the new law from being enforced. Not knowing how the initiative will be interpreted in court has made getting permanent financing for production in the Tri-Cities difficult, Girard said.

Two bills are proposed in the Legislature to clarify that medical manufacturing operations are exempt from the initiative, but they will require a two-thirds majority to pass.

Without passage of one of them, IsoRay can't stay in Washington, Girard said.

"The interim facility gives us the chance to get this solved," he said.

The startup company, founded in 1998, believes it has a better way to kill prostate cancer cells. In prostate brachytherapy, tiny radioactive seeds are injected to release a targeted dose of

1 MAR 05

Benton County letter asks DOE about FFTF drill plans

Officials question legality, say hole would make reactor unusable

By Annette Cary

Herald staff writer

Benton County is asking the Department of Energy whether it plans to drill a hole to drain the last of the sodium from Hanford's Fast Flux Test Facility before an environmental study is completed.

The county has been told, "Such action would conclusively remove the reactor from operation and from any further consideration for DOE reuse in the future," said the letter written by county Prosecutor Andy Miller at the request of Commissioner Claude Oliver.

The hole could be drilled as early as late March, Oliver said.

However, DOE planning documents show that drilling would occur in June, said Colleen French, spokeswoman for DOE in Richland.

Supporters of restarting the research reactor want it used to produce isotopes for new cancer treatments and other industrial and research uses. But both Republican and Democratic administrations have concluded that there is no financially viable use for the reactor.

Sodium has been drained from the secondary cooling loops and work began last year to drain sodium from the primary cooling loops. The last of the sodium sits below pipes that have been used for draining, and plans call for a hole to be drilled to drain it.

DOE has permission to shut down the reactor or deactivate it. But in a federal court ruling, DOE

was told it needed to complete an environmental study before taking the next step, decommissioning the reactor, which could include demolishing it.

The county letter questions whether drilling the core of the reactor might be considered decommissioning, which cannot be legally done until the environmental study on decommissioning is finished.

The environmental assessment that allowed the shutdown covers the sodium drain, French said.

The document says, "Plant modifications would be necessary to support sodium drain operations." DOE believes that would include drilling a hole in the reactor core bottom support plate, French said.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com

4 MAR 05
DOE assistant secretary Shaw makes first Hanford visit

By Annette Cary

Herald staff writer

Hanford workers concerned about health problems from inhaling tank vapors may be screened through a new University of Washington program starting next month.

John Shaw, the Department of Energy's new assistant secretary for environment, safety and health, announced the start of the program Thursday during his first visit to the Hanford nuclear reservation.

It was a chance to bring a message to workers that new Energy Secretary Samuel Bodman and Shaw's office are committed to their health and safety. Shaw said

in an interview after the tour.

In July, a report by the National Institute for Occupational Safety and Health emphasized the importance of medical monitoring



Shaw

for workers who might be exposed to tank vapors. Hanford has 177 underground tanks holding 53 million gallons of radioactive and hazardous chemical waste left from the past production of plutonium for the nation's nuclear weapons program.

In the report, 65 percent of workers who volunteered to be interviewed complained of either short term or chronic symptoms after breathing chemical vapors

vented from the tank to the atmosphere.

Many changes have been made over the last year to protect workers in the tank farms, including a congressional order and money to initiate medical screening of the workers in a program run by Dr. Tim Takaro at the University of Washington. The \$790,000 appropriation is to pay for the new program and also to continue a broader screening program for former Hanford workers through the university.

Some workers feared that a past occupational medicine contractor had been pressured to maintain a good safety record, although DOE investigations found no impropriety.

Tank farm workers with vapor concerns may choose to be screened by the current occupational medicine contractor, AdvanceMed Hanford, or the

new university program. Workers also may use the university program to get a second opinion, Takaro said.

Takaro will assemble an advisory board of workers and expects to offer screening at several medical centers or hospitals in the Tri-Cities and at Harborview Medical Center in Seattle. Screening will include a physical exam, a blood test, a chest X-ray and a breathing test at no cost to the worker. If needed, workers will be referred to a specialist for further testing.

Takaro also plans to do some characterization and estimation of exposure and help with an assessment of what additional monitoring will be done.

The program has funding only through November.

"We'll work with Dr. Takaro and see what happens," Shaw said.

Shaw's tour also included a visit to the HAMMER training center and the \$5.8 billion vitrification plant that is under construction to turn tank waste into a stable glass form for permanent disposal. He made a surprise visit to a medical clinic and also sought out workers to talk to throughout the tour, he said.

"What surprised me the most is no one readily identified a major problem," Shaw said. "Hanford is a well-run site. The sentiments of the workers reflect that."

He presented the DOE's Voluntary Protection Program Star flag to Hanford's 222-S Laboratory, Hanford's primary analytical lab for highly radioactive samples. Star sites are considered by DOE to be models of excellent safety and health programs.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

5 MAR 05
*Hanford board critical
of lack of action on
transuranic wastes*

By Annette Cary

Herald staff writer

The Hanford Advisory Board is questioning why the Department of Energy is proposing significant budget cuts when it has not made plans to clean up large amounts of

radioactive waste buried more than 30 years ago.

Followup

Tests show no airborne contamination from nitric acid spill. **B1.**

“The board is seriously concerned that the Department of Energy does not currently plan to

characterize, retrieve, treat or properly dispose of the large volume of unsegregated contaminated materials ... buried at the Hanford site prior to 1970,” the board wrote in a letter to DOE and regulators Friday.

In 1970, Congress ruled that transuranic waste must be disposed of in a deep geological repository. Transuranic waste is typically equipment, protective clothing or other items contaminated with plutonium or other long-lived radioisotopes.

Because the United States did not open a geological repository until 1999, waste was buried or stored at Hanford starting in 1970 in ways meant to allow it to be eventually retrieved.

Fluor donates \$10,000 to reading foundation

Fluor has donated \$10,000 to the Mid-Columbia Reading Foundation for the Books for Babies program.

It's the eighth year that Fluor has given the foundation a gift of \$10,000 for the program.

The Books for Babies project is a partnership with Kadlec Medical Center, Kennewick General Hospital, Lourdes Medical Center and Prosser Memorial Hospital.

About 5,000 English and Spanish packets were given to new parents in 2004. The packets contain a board book for the baby, informational pamphlets for parents and a teddy bear magnet reminding parents to read to their baby.

The Mid-Columbia Reading Foundation asks parents to read with their children at least 20 minutes a day beginning at birth.

Hanford compensation plan topic of meetings

The Department of Labor plans meetings at 2 and 6 p.m. today in Richland to discuss a two-part program to compensate former and current Hanford workers whose health was damaged by working at the nuclear site.

Under the revised program, benefits are available not only to workers who suffered cancer after exposure to radiation, but also those with a wide variety of illnesses caused by toxic substances at Hanford. That includes exposure to asbestos

9 MAR 05

Hanford lab dispute ends, operator can resume work

*Losing bidder for managing
222-S Laboratory protested
giving ATL 5-year contract*

By Annette Cary

Herald staff writer

The last protest against the award of a contract to operate Hanford's 222-S Laboratory has been dismissed, allowing Advanced Technologies and Laboratories International to resume work to begin operating the lab.

"I have believed all along that the technical basis for this contract award was sound and that ATL will be a strong addition to the River Protection Project team," said Roy Schepens, manager of the Office of River Protection for the Department of Energy at Hanford, in a prepared statement Tuesday.

"I have requested that ATL immediately resume its transition work at the laboratory, and we'll complete that transition safely and with as little disruption as possible to the work and employees at 222-S," he said.

The 222-S Lab is Hanford's primary laboratory for testing highly radioactive waste samples. ATL's five-year contract for analytical and testing services at the lab is valued at \$58 million.

Nuclear Analytical Services, a losing bidder on the project, dropped a protest filed with the Government Accountability Office after the Department of Energy answered nine allegations in the protest, according to DOE. A decision by GAO was not due until April 25.

The procurement process by the Office of River Protection was fair, thorough and well-documented, said Jou Hwang, ATL president, in a prepared statement.

Information on the basis of the protest has not been released, although GAO protests may be filed for a range of reasons based on how DOE evaluated safety and health, technical and management approach, experience and past performance, key personnel and cost of proposals.

Earlier, the Small Business Administration dismissed another protest filed by Nuclear Analytical Services after it found that ATL meets size requirements to receive a small-business contract.

Scientists speak in Ohio on energy-related projects

By John Trumbo

Herald staff writer

President Bush's visit to the Buckeye State on Wednesday included a stop at the Battelle Memorial Institute in Columbus, Ohio, where three scientists from the Pacific Northwest National Laboratory talked about their work on energy-related projects.

Bush learned firsthand about how PNNL is developing technologies for a smarter and more reliable national energy grid, better ways to build a coal-fueled

zero-emission power plant and the latest science on fuel cell systems.

"One of the reasons I went to Battelle was I wanted to see what innovative ideas they had about energy conservation. What were some of the true brains of America thinking about when it comes to encourage energy conservation?" Bush said in a speech after visiting Battelle.

Bush said "utilizing the brains of America, like those I met at Battelle" will help him deliver on a pledge to see clean coal technologies developed by 2010.

The president said he always thought it was possible to build a coal-fueled, zero-emission power plant, but after meeting PNNL's Ken Humphreys, who explained

ground-breaking work on new ways to capture or absorb carbon dioxide from energy emission, Bush said, "I now believe it's really possible."

Toward that goal, which is called the FutureGen Initiative, Bush said his budget for 2006 brings clean coal funding to \$1.6 billion over five years.

PNNL spokesman Greg Koller said PNNL's Jeff Dagle told the president how the Richland lab has developed a power grid system that provides real-time, systemwide data to utilities and transmission operators within the Eastern power grid, helping avoid costly problems and blackouts.

PNNL's Greg Whvatt provided Bush a

close look at a fuel cell power unit being designed as an auxiliary power source for the Army's Bradley Fighting Vehicle. The fuel processor will generate hydrogen from synthetic diesel, providing increased fuel efficiency, among other things.

Bush mentioned his visit with Battelle staff several times in his closing speech, thanking them and Battelle Vice President Bill Madia for the tour.

"I want to thank the entrepreneurs at Battelle, the scientists and thinkers at that important organization for showing me firsthand what's possible," he said.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com

16 MAR 05

Hanford initiative bound for high court

*Federal, state governments
advocate different analysis
of law passed in November*

By Annette Cary

Herald staff writer

The federal government is advocating an extreme interpretation of the Hanford cleanup Initiative 297 in an effort to win its argument that the initiative is unconstitutional, Washington state attorneys argue.

The state attorney general filed the arguments this week with the Washington state Supreme Court, after a federal judge agreed to allow the state court to decide key questions about interpretation of the initiative.

"The United States urges an extreme interpretation because it hopes for an extreme result: that the entire (initiative) will be struck down as unconstitutional," the state argued.

But the state argues a straightforward interpretation of the wording of the document is consistent with the voters' intent. It's also more likely to withstand constitutional scrutiny.

In November, voters in every county except Benton and Franklin approved the initiative to stop the Department of Energy from importing more waste to Hanford until waste already there is cleaned up.

Hanford is contaminated by radioactive and hazardous chemical wastes from more than 40 years of production of plutonium for the nation's nuclear weapons program.

The questions to be answered by the state Supreme Court center on the federal government's claim that the initiative, which was enacted as the Cleanup Priority Act, authorizes the state to regulate materials that the federal government has the exclusive jurisdiction to regulate.

But the initiative does not change the state's regulatory authority over radioactive waste mixed with hazardous chemicals, the state argued. Instead, it mandates that the state use all the regulatory tools it has to protect the state against serious environmental risks posed by contamination, the state said.

The state attorney general is asking the state Supreme Court to find that even if some parts of the initiative are unconstitutional, that would not invalidate all of the constitution.

"The primary intent of the voters was to prioritize the cleanup of mixed waste in Washington," the state argued.

The federal government has argued that preventing waste from being brought into the state is the heart of the initiative. But the state said other parts of the initiative, such as a section requiring an advisory board and a tax on federal cleanup spending, also promote cleanup of the site.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.

18 MAR. 05

Radioactive fuel among surprises dug up at Hanford burial grounds

By **Annette Cary**
Herald staff writer

Hanford workers are finding some nasty surprises that are slowing work as they dig up waste and debris buried by early Hanford workers.

As excavators shovel up dirt and rusted debris from burial sites as big as football fields not far from the Columbia River,

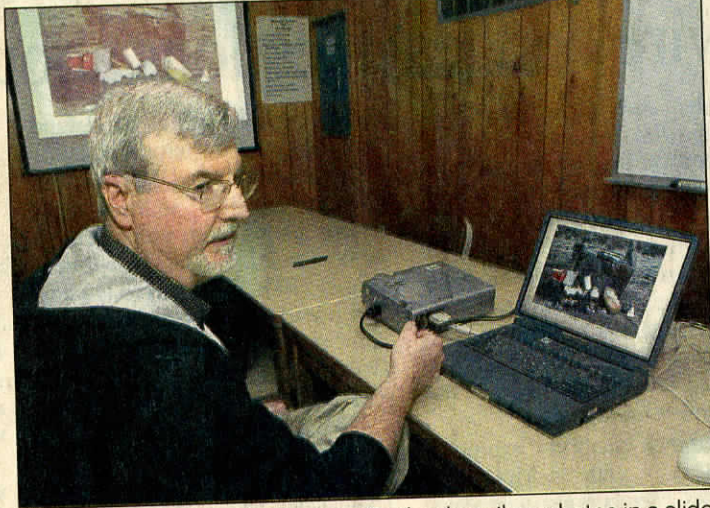
workers know to expect the unexpected. But they've still been surprised by what they've found: irradiated nuclear fuel, a locked safe, plutonium-

contaminated equipment and a cache of five forklifts.

"This shows taking out the burial grounds is the right thing to do," said Dennis Faulk, environmental scientist with the Environmental Protection Agency. "It's truly removing an environmental risk."



Miller



Bechtel Hanford employee John Darby describes photos in a slide show that documents some of the unusual discoveries made while workers excavate burial sites near the 300 Area at Hanford. He is displaying a photo of a radiation-contaminated safe that still contained several liquid-filled bottles when it was dug up.

For much of the four decades that Hanford produced plutonium for the nation's nuclear weapons program, the nuclear reservation was considered not only a place to produce plutonium but also a permanent dump site for materials contaminated in the process.

Much of the work done in the last decade to clean up the ground along the Columbia River has removed soil tainted by contaminated liquids.

Workers knew they would find piping, concrete and contaminated soil at the effluent

pipes leading from the early reactors to the Columbia River. The only surprise was how much soil they would have to remove.

But since work started a year ago to dig up waste burial sites around the B and C reactors, workers have had frequent surprises.

"You can have a different material in every bucket that comes out," said Rex Miller, the task lead for contractor Bechtel Hanford for remediation at the B and C area. "Workers give it a high degree of respect."

If needed, the excavator operator wears a respirator with supplied air. A monitor on the bucket shows what vapors are being released as debris is uncovered.

Unusual items, such as gas cylinders, are set aside. But most of the debris is hauled to sorting areas and piled to be searched for potentially harmful items.

The most disturbing find at the B and C reactors' burial grounds has been nuclear fuel that was irradiated in reactors. Fuel was supposed to be carefully inventoried.

Workers first discovered a piece of what they thought might be a fuel rod in a burial ground that's a little bigger than a football field and as deep as 38 feet. They stopped operations there and shifted work to a burial ground associated with C Reactor. But within two weeks, they discovered irradiated fuel there, too.

The fuel is so radioactive that workers cannot get close to it. They must stand in baskets suspended from heavy equipment 15 feet above the ground and manipulate the fuel with long-handled tools.

Now two fuel rods and various broken pieces are enclosed in a bunker built in the sorting

Briefs

Hanford contractor to speak to engineer group Wednesday

Robin Kummer, with CH2M HILL Hanford Group, is the guest speaker at Wednesday's meeting of the Association for the Advancement of Cost Engineering. The event at the Shilo Inn in Richland begins at 5 p.m. The cost is \$18. RSVP to Mike O'Neill at mwoneill@bechtel.com or William Riker at william_p_riker@rl.gov by 4 p.m. Monday.

24 MAR 05
Washington Closure to oversee river corridor project

By Annette Cary

Herald staff writer

The Department of Energy awarded a \$1.9 billion, seven-year contract Wednesday to Washington Closure to clean up the 210 square miles of Hanford's Columbia River corridor.

Washington Closure is a limited

liability corporation owned by three contractors with decades of experience at Hanford: Washington Group International, Bechtel National and CH2M Hill. Washington Group will take the lead on the project as majority owner. Subcontractors are Eberline Services

See **Contractor**, Page A2

24 MAR 05

Hanford contractors picked for Idaho job

A team of CH2M Hill and Washington Group, called CH2M-WG Idaho, was picked Wednesday to become the contractor responsible for cleanup at the Idaho National Laboratory.

The contract, which begins May 1 and runs through Sept. 20, 2012, is valued at about \$2.9 billion.

CH2M-WG Idaho will be responsible for treatment and disposal of radioactive waste, retrieval of buried waste, management of spent nuclear fuel and disposition of nuclear facilities.

The contract requires the new team to offer employment to more than 2,600 employees already working on cleanup there.

CH2M Hill and Washington Group, along with Bechtel National, also were awarded a \$1.9 billion, seven-year contract to clean up the Columbia River Corridor at Hanford. CH2M Hill already operates Hanford's tank farms. Washington Group is the incinerator contractor at the Umatilla Chemical Depot and the principal subcontractor to Bechtel National on the vitrification plant construction at Hanford.

Elk killed on Reach prove free of radioactivity

By Anna King

Herald staff writer

Tests of elk killed on the Hanford Reach National Monument in January showed no indication of radioactive contamination, Department of Energy officials have reported.

The three adult elk that were killed were given initial Geiger counter tests in the field, but scientists from Pacific Northwest National Laboratory took bone, liver and muscle samples for further analysis.

"This was more of a verification," said Steve Wisness, a Richland-based DOE official. "We didn't expect any problem at all."

The elk tested below detectable levels for cesium and plutonium contamination, he said. And the strontium found in the elk was similar to levels found in organisms around the world, he said.

Wisness said most living things have small amounts of radioactive particles from past atmospheric nuclear weapons testing. There also are naturally occurring sources of radioactivity, he added.

Dana Ward, DOE testing program manager, said the Hanford Reach elk actually have less radioactivity than

See **Elk**, Page B2

28 MAR 05
PNNL

*researchers
say extremely
cold ice
helped give
the universe
form*

By John Trumbo

Herald staff writer

In the beginning, there was not much out there. Some minuscule ice grains and itty-bitsy bits of dust drifting about in a vast near-void.

The universe was without form, much less planets and other heavenly bodies, and it was *sooooo* cold that even the ice was weird.

At 40 degrees Kelvin, which is 387 degrees below zero Fahrenheit, ice forms with a fluffy frosting, making the tiny grains less likely to ricochet off each other, say scientists at the Pacific Northwest National Laboratory in Richland.

It's that fluffiness, says Martin Iedema, a member of a research team assigned to investigate the genesis of planet formation, that made it possible for bits of ice-coated debris to collide and stick together. Thanks

to that characteristic of super-cold ice, the frosted particles could get together sufficiently to develop enough mass for the beginnings of a planet.

At least, that's the theory.

Iedema, who has an undergraduate degree in astronomy and a master's degree in materials science, said the discovery of sticky ice may explain the mystery of how planets could have formed.

He and others on the team, including Rich Bell, Hanfu Wang and research leader and laboratory fellow James Cowin, have explained their sticky ice theory in a report published in the *Astrophysical Journal*.

Working at PNNL's W.R. Wiley Environmental Molecular Sciences Laboratory, the team used a vacuum chamber to create the fluffy ice on a copper plate. They noticed

See **Sticky**, Page B2

28 MAR 05

States announce more Hanford budget meetings

Tri-Party Agreement agencies to hold only gathering Wednesday

By Annette Cary
Herald staff writer

The one Hanford budget meeting to be held by the Tri-Party Agreement agencies is planned for Wednesday in Richland.

But after hearing complaints that other residents of the Northwest need information and a chance to comment, Washington and Oregon state officials have announced their own Hanford budget meetings.

"The public should have an opportunity to offer its two cents on what cleanup work gets performed under a reduced

budget," said Todd Martin, chairman of the Hanford Advisory Board, in a prepared statement. "One meeting isn't sufficient to collect such input from the citizens of the Northwest."

The three Tri-Party agencies agreed this spring to hold only one meeting to discuss the budget and then hold general public meetings on Hanford later in the year, possibly in conjunction with Hanford Advisory Board meetings in Richland, Seattle and Portland.

The agencies include the Washington State Department of Ecology, the Environmental Protection Agency and the U.S. Department of Energy.

In recent years, much of the public comment at Hanford's spring public hearing in the Tri-Cities has not addressed budget

issues, DOE has pointed out.

Last year, many Hanford workers attended to discuss safety concerns at the nuclear reservation. The Bush administration was proposing a peak budget for Hanford in fiscal year 2005 that would provide nearly \$2.1 billion for cleanup of contamination left from the past production of plutonium for the nation's nuclear weapons program.

But the proposed budget for Hanford this year is a little more than \$1.8 billion, and interest in discussing the budget is expected to be greater.

The meeting Wednesday will be the first look at the proposed fiscal year 2007 budget.

A workshop is planned from 8:30 a.m. to 1 p.m. to cover Hanford's cleanup goals, chal-

lenges in the coming year and budget priorities.

An evening public meeting will be at 6:30 p.m. Both are at the Red Lion Hanford House, 802 George Washington Way.

State-sponsored meetings will be held in April or May in Portland, Seattle, Spokane and Hood River, Ore. They include:

■ **Portland** — 7 p.m. April 6, Oregon State Office Building, Room 121, 800 NE Oregon St.

■ **Hood River** — 7 p.m. April 7, Hood River Valley Adult Center, 2010 Sterling Place.

■ **Seattle** — 6:30 p.m. April 25, The Mountaineers Building, 200 Third Ave. West.

■ **Spokane** — 6:30 p.m. May 4, REI, 1125 N. Monroe St.

■ **Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.**

25 MAR 05

Centenarian celebrates a life tied to Hanford

*Nicholas Speed Jr.
among oldest of early
Hanford workers*

By Annette Cary

Herald staff writer

Nicholas A. Speed Jr. still can tell you the day he started work at Hanford during the race to produce plutonium for the nuclear bomb that helped end World War II: June 19, 1944.

He'd left his family in Arkansas to earn a better living at Hanford. At the time, the average length of employment was 10 days, he said. Workers quickly became discouraged with the bleak environment and fierce dust storms.

But Speed stuck it out.

Today, he'll celebrate his 100th birthday, still living in the same government-built duplex he was assigned within months of beginning work.

He's the patriarch of a large extended family that would make its way from Arkansas to build a better life in the Tri-Cities. It was just one of many



Herald/Molly Van Wagner

Nicholas Speed Jr. of Richland turns 100 today and is one of the oldest living members of Hanford's first generation of workers. He purchased his B House after it was built in 1944 and still lives there with his wife, Leola.

extended families to arrive in the Tri-Cities the same way from the South, a trend that often seems to be overlooked as the history of the area is retold, say his two sons.

"That was a hard, hard period," said one of those sons, Nicholas Speed III of Hermiston. The South was still trying to recover from the Depression, and years of cotton

crops had depleted the farmland.

The younger Speed's father, known as Nick to co-workers and Allen to family, had made a deal with a brother-in-law, who wanted Allen Speed's help to get his sons out of small-farm poverty. The brother-in-law would take care of the Speed homestead in Heber Springs, Ark., if Speed would take his

nephews one at a time, help them get jobs and train them in a craft.

Speed worked construction jobs, lending tools to his nephews and vouching for them to the hiring boss.

One of Speed's jobs was helping build the Oak Ridge, Tenn., plant, the first research and manufacturing site for the Manhattan Project, which developed the atomic bomb.

As that job was finishing, he heard that workers were needed for a government project in Washington.

"They gave me \$50, and I drove my own car out," Allen Speed said.

One of the nephews he'd helped was already working at Hanford, and Allen Speed came out with a brother-in-law. As soon as they found apartments in Prosser, their families joined them.

"You got housing where you found it," as thousands of people came to the desert to build Hanford, said Nicholas

See **Hanford**, Page B2

24 MAR 05
*Talks reopen as regulators
request delay in demolition
work at research reactor*

By Annette Cary
Herald staff writer

The Department of Energy expects to issue a revised request next month for the work to finish shutting down, then possibly tearing down Hanford's Fast Flux Test Facility.

The move to reopen negotiations on a contract for the work comes despite a request by regulators that DOE consider delaying the demolition of the research reactor.

DOE should instead focus on spending its limited money on cleanup projects that have the greatest potential to address environmental risk, the Environmental Protection Agency and the Washington State Department of Ecology told DOE in January.

DOE awarded a \$235 million contract to SEC Closure Alliance to dismantle FFTF in September. But FFTF Restoration Co., a team formed by Federal Engineers & Constructors and Nuvotec, both of Richland, protested the award to the Government Accountability Office.

The GAO ruled in favor of the Tri-City team in January, finding DOE failed to adequately account for accelerated

schedule proposals and weigh contingency costs equally.

"DOE intends to fully implement the GAO recommendations," Keith Klein, manager of DOE's Richland Operations Office for Hanford, wrote in letter to the GAO this month.

The GAO recommended that DOE amend the request for proposals to make clear how fast it wants to complete work on FFTF, reopen discussions with bidders whose proposals were in the competitive range and then obtain revised proposals.

The Tri-City-based team and SEC Closure Alliance team, led by SEC Federal Services of Safety and Ecology Corp., of Knoxville, Tenn., will be

allowed to submit new bids.

In addition, a third bidder on the project, EPW Closure Services, led by Environmental Chemical Corp., of Burlingame, Calif., is expected to be invited to submit a new offer.

Several events have occurred since the original request for proposals was issued in December 2003, DOE told the GAO. DOE is evaluating the extent to which those changes will require an amendment of the request.

Developments since 2003 include the request by regulators to defer cleanup work at FFTF once fuel and liquid

See **FFTF**, Page B5

Fluor Hanford to lay off up to 200

By Annette Cary

Herald staff writer

Fluor Hanford told employees Monday that it plans to lay off up to 200 workers next month.

Fewer workers will be needed because of projects that have been completed, such as the removal of irradiated nuclear fuel from the K Basins, and the contractor continuing to work more efficiently, said Geoff Tyree, spokesman for Fluor Hanford.

In addition, Fluor will receive less money from the Department of Energy in

the current fiscal year than originally expected, he said.

Earlier this month Fluor sent a memo to workers warning them to expect near-term layoffs and also more layoffs during the balance of its contract. Fluor's contract for managing the Hanford site and performing cleanup ends in September 2006.

Fluor employs 4,039 people, including subcontractor employees. The layoffs may include not only Fluor employees, but also employees at Day and Zimmermann Protection Technology Hanford, Duratek Federal Services of Hanford and Numatec Hanford Corp. Union and nonunion

employees may be included.

Fluor is asking for volunteers through March 30. It's offering employees who are laid off a week of salary for every year worked up to 20 years and will pay the company's portion of medical premium for up to a year.

Help will be offered to employees looking for new jobs, including coaching on writing resumes and interviewing, according to Fluor.

Employees picked for layoffs will be notified April 18, and April 29 will be their last day on the payroll.

The list of types of employees who will

be considered for the job cuts is lengthy, and includes engineers, mechanics, millwrights, clerks, buyers, instrument technicians and nuclear waste process operators.

In 2004, Fluor laid off 60 workers in January and 55 in June. Employees have been worried about larger layoffs since the proposed Hanford budget for fiscal year 2006 was announced last month. It proposes cutting the budget for Hanford from nearly \$2.1 billion this year to a little more than \$1.8 billion in fiscal year 2006.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

29 MAR 05
Budget drop from \$2 billion to \$1.8 billion would hinder DOE's plans, Ecology says

By Annette Cary

Herald staff writer

Hanford's proposed fiscal year 2006 budget appears to abandon Department of Energy plans for accelerated cleanup on some key projects, according to the Washington State Department of Ecology.

That's just one of the criticisms being leveled at a proposed budget for cleaning up the nuclear reservation that would drop spending from about \$2 billion to about \$1.8 billion next year.

DOE's environmental management program nationwide is being cut by \$548 million, but Hanford alone would suffer 54 percent of the cut, said Sen. Patty Murray, D-Wash, speaking at a hearing of the Senate Energy and Water Appropriations Subcommittee.

"This fact, combined with the absolute lack of sound rationale for the majority of Hanford budget cuts, can easily lead one to believe Washington state was targeted by DOE and OMB (the Office of Management and Budget)," she said.

The numbers actually are worse than they appear on paper, disproportionately reducing the amount that will be available to spend on cleanup, according to the state Department of Ecology.

That's because a significant proportion of the money Hanford would receive would go for costs that either remain constant or cannot be reduced proportionally with funding reductions, Nolan Curtis, program administration section manager for the Department of Ecology, said at a committee meeting of the Hanford Advisory Board.

That includes maintenance, pensions, security and other overhead.

In fact, in some instances those costs are going up and must be paid for out of the reduced budget. Contractor pension costs have increased and in the current year are expected to be \$20 million greater than budgeted. The fiscal year 2006 budget will have to set aside more money to cover those costs.

Regulators of the Hanford site — the state and the federal Environmental Protection Agency — are both concerned

See **Proposal**, Page A2

29 MAR 25

CH2M Hill needs to pay more attention after safety lapses over 14 months

By Annette Cary
Herald staff writer

A team appointed by the Department of Energy is satisfied with improvements in safety management at Hanford's tank farms, but cautioned that continued reinforcement of the changes is needed.

"This is the beginning of improvement, not the end," the team's summary concluded. "A year or more of continued, deliberate management attention will likely be required to assure sustained improvement and culture change."

The team was appointed last year after the Department of Energy reduced the fee paid to CH2M Hill Hanford Group by \$300,000 after six incidents involving radiation contamination or other safety concerns in the 14 months ending in August.

A few days later, the Defense Nuclear Facilities Safety Board, which provides independent oversight of DOE's nuclear sites, questioned whether the contractor was adequately following a rigorous safety program at the tank farms.

CH2M Hill manages 177 underground tanks at Hanford that hold 53 million gallons of radioactive and chemical wastes from the past production of plutonium for the nation's nuclear weapons program.

In one incident, workers were pulling a 36-foot-long device out of an auxiliary tank in an underground vault when the radiation dose rate meter went off the scale. Rather than leaving the equipment hanging from a crane, workers decided to continue work.

One worker's finger received a dose of radiation above administrative limits but still below legal limits as he applied duct tape to a bag surrounding the equipment contaminated with tank waste.

In December, the safety improvement team for DOE concluded CH2M Hill had a solid plan for correcting actions. This month it spent two weeks at Hanford to make sure the plan was implemented and working.

It found no major issues for the contractor to address.

"This was a big achievement for CH2M Hill," said Zack Smith, acting assistant manager for the tank farms project for DOE's Office of River Protection.

Among the corrections made was doing a better job of briefing workers before a project started, including providing more information about what problems might occur that should cause work to be stopped.

In the past, planning and preparation for projects was not always done by the crew that did the work. Now the same

Being known to DOE helped team get Hanford contract

By Annette Cary

Herald staff writer

The team that won the Hanford river corridor contract worth \$1.9 billion Wednesday is well known at the nuclear reservation, as well as across the Department of Energy complex.

That experience helped the Washington Closure team of Washington Group International, Bechtel National and CH2M Hill in the competition for the contract.

DOE wanted to find a contractor that had demonstrated success at other DOE sites, had prior experience in large-scale hazardous remediation, used innovative techniques at a high-risk facility, had the ability to manage risk and a good performance record, said Mike Waldron, DOE spokesman.

"Our three companies have more than 30 years experience at Hanford, and we are looking forward to the opportunity to apply new environmental approaches proven effective at our other environmental closure projects," said Stephen Hanks, chief executive of Washington Group, in a prepared statement.

Washington Closure is not discussing specifics of its plans with the 90-day transition from present contractor Bechtel Hanford yet to begin. Most Hanford contract awards in recent years have been protested to the Governmental Accountability Office, which halts the transition, while complaints are investigated.

Washington Closure has named Pat Pettiette president and project manager for the river corridor project. The project includes placing the four remaining plutonium production reactors in safe storage, or cocooning them; cleaning up waste sites and burial grounds near the Columbia River; tearing down contaminated facilities and operating a huge landfill for radioactive waste in central Hanford.

Pettiette has served as the executive vice president for operations for Washington Group at its Boise headquarters.

"He's accustomed to solving unique engineering and construction problems," said Jack Herrmann, vice president of communications for Washington Group's energy and environment business unit. Pettiette managed construction of the

Hong Kong airport, which extends over water.

Washington Group, which will take the lead on the project team, is the product of a series of mergers in recent decades, Herrmann said. It includes Westinghouse Government Services Group, a former prime contractor at Hanford; Raytheon Engineers and Constructors; and Morrison Knudson.

Washington Group has operated the Savannah River, S.C., nuclear site for 15 years and is the prime contractor at the Waste Isolation Pilot Plant in New Mexico, the nation's underground repository for waste contaminated with plutonium and other long-lived isotopes.

Closer to the Tri-Cities, it is the incinerator contractor at the Umatilla Chemical Depot and is the principal subcontractor to Bechtel National on the construction of the \$5.8 billion vitrification plant. Washington Group will operate the plant that will turn radioactive waste now in Hanford's underground tanks into a stable glass form.

The company, based in Idaho, employs about 27,000 people in 40 states and

30 countries. It filed for Chapter 11 bankruptcy in 2001 after it acquired Raytheon Engineers and Constructors, but emerged intact in 10 months.

On Wednesday it won the Hanford contract as part of the Washington Closure team and also a \$2.9 billion contract in partnership with CH2M Hill for cleanup work at the Idaho National Laboratory in Idaho.

Herrmann said the company is prepared to tackle both projects at once.

"That's what we do," he said. "That's why we pick strong teammates."

CH2M Hill operates the tank farms at Hanford, 177 underground tanks that hold 53 million gallons of radioactive waste left from the past production of plutonium for the nation's nuclear weapons program.

Bechtel has done work to clean up the river corridor for 11 years and also is building the vitrification plant.

It's been at Hanford off and on since World War II when it worked on the underground waste tanks with Morrison Knudson. It also built the Fast Flux Test Facility.

Much of the work done on the seven-year river corridor contract will be performed by employees already working on the expiring Environmental Restoration Contract held by Bechtel Hanford since 1994.

"The Hanford landscape looks far different today than it did a decade ago," said Craig Weaver, president of the energy and environment division for Bechtel National, in a prepared statement. "It is much cleaner, and employees, the public and the environment are much safer than they were in 1994."

Among accomplishments were developing the concept of cocooning reactors removing 350 pounds of spent fuel elements and sludge from the N Reactor fuel storage basin; building and expanding DOE's most efficient low-level radioactive waste disposal site and cleaning up nearly 60 percent of the estimated 10 million tons of contaminated soil and debris along the Columbia River.

Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.

30 MAR 05
DOE proposes more money than Hanford would get for 2006

By Annette Cary

Herald staff writer

The Department of Energy is proposing a fiscal year 2007 Hanford budget of nearly \$2 billion.

That's up from \$1.8 billion proposed for 2006, an amount that has regulators concerned about how much cleanup it will buy. And it still is a little below the current annual budget of almost \$2.1 billion.

The 2007 proposal will be discussed at a public meeting tonight in Richland.

The Richland Operations Office, which is responsible for cleanup in the central plateau, cleanup of the Columbia River corridor and overall operation of the Hanford Nuclear Reservation, would receive \$929 million in the 2007 proposal.

That's down from \$998 million this year, but up from the \$878 million proposed for 2006.

"This is the bare minimum of what we are going to request," said Greg Jones of the Richland office.

DOE headquarters, which supplied the initial target number from the Office of Management and Budget, recently told the Richland office it can go over the target in some areas.

The Office of River Protection, which is responsible for construction of the \$5.8 billion vitrification plant and Hanford's huge

Fastfacts

What: Hanford public meeting.

When: 6:30 p.m. today.

What: Budget workshop.

When: 8:30 a.m. to 1 p.m. today.

Where: Red Lion Hanford House, 802 George Washington Way, Richland.

See **Budget**, Page A2

2 APR 05

Bechtel announces vit plant layoffs

92 union workers, mostly pipefitters, will be out of job

By Annette Cary

Herald staff writer

Bechtel National has notified 92 union craft workers, mostly pipefitters, that they are being laid off at the \$5.8 billion vitrification plant under construction at Hanford.

The layoffs come as construction slowed after a new study indicated design standards might not adequately protect against a powerful earthquake. The Department of Energy contractor also

faces a proposed budget cutback for fiscal year 2006.

The contractor has told employees that the project will cost more and take longer to finish than previously estimated because of the new seismic design standard.

Now the project employs about 1,500 union craft workers and 2,000 engineers, managers and other professionals.

Bechtel had planned to cut 800 engineering positions steadily through 2005 before seismic standards became an issue.

Now engineers will be needed to look at thousands of calculations made since design work started four years ago and assess what design changes will be needed. New seismic data shows the design stan-

dard needs to be strengthened by 38 percent.

In some cases, enough conservatism may have been included in the design or construction. But the new design standard will mean some changes such as increasing the number of pipe supports and other equipment needed. The building is being constructed as design work progresses to meet a legal deadline to have the plant built and tested by 2011.

The plant is expected to turn much of the 53 million gallons of radioactive and chemical waste in Hanford's underground tanks into a stable glass for permanent disposal. The waste was left from 50 years of processing fuel irradiated in Hanford reac-

tors to extract plutonium for the nation's nuclear weapons program.

In December, DOE began to slow work because of the suspected need to address earthquake safety. It suspended work on equipment orders for the upper elevations of the two buildings affected by the new seismic information, the Pretreatment Facility and the High-Level Waste Vitrification Facility. Both would handle the most highly radioactive waste.

Bechtel also cut most overtime and moved some workers to unaffected buildings under construction for the plant.

"The reduction in craft workers reflects

See **Layoffs**, Page B2

Campaign urges Hanford workers to speak out

Government Accountability Project launches TV, radio spots on whistleblowing

By Annette Cary

Herald staff writer

The Government Accountability Project has launched a television and radio campaign to encourage Hanford workers to blow the whistle on wrongdoing at the nuclear reservation.

The advertisements feature former Hanford worker Matt Taylor, who believes he was retaliated against for questioning safety at the site in the late 1990s.

"I finally asked some questions," Taylor says in the advertisements. "I got harassed for it, even got threats against my home. And like others who spoke up, I lost my job."

GAP received a \$22,000 grant for the media campaign from the Proteus Fund, a Massachusetts-based foundation dedicated to strengthening the social justice movement. The ads are airing on radio and television stations mostly in the Tri-City and Yakima areas.

"We perceive a lot of safety issues at the Hanford site," said Tom Carpenter, director of GAP's nuclear oversight program. The number of workers contacting the whistleblower advocacy organization is up, he said.

"As the facility ages and work speeds up, there is more risk," he said. But at least some Department of Energy contractors at Hanford appear to have had some cultural shift to emphasize that safety is important, he said.

Work is under way to clean up massive radioactive and chemical contamination at the Hanford site, where plutonium for the nation's nuclear weapons program was produced for more than 40 years.

GAP pushed for safety improvements at the tank farms where huge underground tanks of radioactive waste vent chemical vapors into the air. After some workers complained of consistent health problems after breathing vapors, a series

of government investigations concluded that workers might be at risk.

Now workers use supplied-air respirators in many parts of the tank farms.

The ads encourage Hanford workers to take a stand to protect their community, the environment and themselves, Carpenter said. No telephone number is given, but workers are directed to www.whistleblower.org where forms may be downloaded.

Taylor, a union truck driver, questioned safety when barrels of uranium chips were unearthed in the late 1990s in the Columbia River corridor at Hanford.

He went on to work for other subcontractors, filing at least four complaints

with the Department of Labor, saying he was being blacklisted in retaliation for raising earlier safety concerns. Taylor also believes that fellow workers harassed him because they were concerned about their job security.

He left Hanford in 2001 after settling a final complaint with Foster Wheeler Environmental Co., which said the unsafe acts Taylor alleged had not occurred.

They included taking no measures to stop contaminated dust from blowing and cutting a potentially radioactive pipe without proper precautions.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

7 APR 05

Cleanup work put on hold until protest over Hanford contract is settled by GAO

By Annette Cary

Herald staff writer

Fluor Closure Co. believes the Department of Energy incorrectly evaluated key aspects of both its proposal and the winning proposal for the \$1.9 billion river corridor cleanup contract at Hanford, Fluor Corp. said Wednesday in a prepared statement.

On Tuesday, Fluor Closure filed a protest with the Government Accountability Office over the March 23 award of a seven-year contract to Washington Closure to clean up the Hanford Nuclear Reservation along the Columbia River. The transition of the contract from Bechtel Hanford to Washington Closure has been stopped until the GAO makes a decision. Its deadline is July 14.

"We believe the combination of factual errors, apparent unequal treatment of the bidders and departures from DOE's announced evaluation criteria warrant a review of the award process," said Fluor's statement.

The decision to file what is Fluor's first DOE protest was not made easily, the company said. But it said ensuring that all bidders are given a fair opportunity to compete for the contract is in the region's and the taxpayers' best interest.

Fluor said it is not seeking a complete contract rebid, but wants DOE to seek revised proposals from the bidders, then make a new award in accordance with its stated evaluation criteria.

Fluor Closure has not released information about the other members of its bidding team.

Washington Closure is a limited liability corporation formed by Washington Group International, Bechtel National and CH2M Hill.

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We believe a combination of factual errors, apparent unequal treatment of the bidders and departures from DOE's announced evaluation criteria warrant a review of the award process.

Fluor Corp.
statement

”

6 APR 05
*Work to continue while GAO
reviews Fluor's complaint
over other group getting bid*

By Annette Cary

Herald staff writer

A protest against the newly awarded \$1.9 billion contract for cleaning up Hanford's river corridor stopped the transition of the project to a new contractor Tuesday afternoon.

Losing bidder Fluor Corp. filed the protest with the Government Accountability Office, said Todd Nelson, spokesman for Washington Closure. Washington Closure, led by Washington Group International, was awarded the new seven-year contract March 23.

The GAO has 100 days to rule on the protest, and no work on a transition may be done while the decision is pending.

Work will continue to be done by Bechtel Hanford, which already has had 10 short-term contract extensions while

the Department of Energy worked to award a contract.

In April 2003, DOE awarded the contract, but the decision was overturned by the end of the year in a successful protest, and Bechtel Hanford kept doing the work.

"Obviously, we're disappointed," Nelson said. "We're ready to go. We hope it's a short protest."

The project includes placing the four remaining plutonium production reactors in safe storage, or cocooning them; cleaning up waste sites and burial grounds near the Columbia River; tearing down contaminated facilities and operating a huge landfill for radioactive waste in central Hanford.

No information was available late Tuesday on Fluor's grounds for the protest.

Many of the companies forming teams to bid on the current river corridor contract also bid two years ago. But the teams have shuffled players.

Two years ago, Fluor was on the team

that was awarded the river corridor contract. Washington Group at the time teamed with Fluor Federal Services and Earth Tech to submit the bid. It was successfully challenged by a team of Bechtel National and CH2M Hill on the grounds that it was based on unrealistic cost calculations.

When DOE put out a new request for proposals, Washington Group formed a limited liability corporation with the team that had challenged the previous bid award, Bechtel National and CH2M Hill.

Protests of major contract awards by DOE at Hanford have become routine. DOE is planning to issue a new request for proposals this month after its award of a small-business contract for shutting down Hanford's Fast Flux Test Facility was successfully challenged. An award to operate the 222-S Laboratory at Hanford recently was upheld by the GAO.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.

14 APR 05

Hanford contractor changes name to BNG

BNFL Inc. has changed its name to BNG America.

Philip Strawbridge, BNG America president and CEO, said in a press release Wednesday the change "reflects our presence in the U.S. as an American company and allows us to take advantage of additional synergies that will be created with our parent company, British Nuclear Group, as it transforms to operate under a U.S.-style business model and begins to accelerate the cleanup of nuclear waste in the United Kingdom."

BNG America will continue to operate projects for the Department of Energy, including Hanford, and at commercial nuclear utility sites.

BNG America's subsidiaries also have changed names. BNFL Fuel Solutions is BNG Fuel Solutions, and BNFL Savannah River Corp. is BNG America Savannah River Corp.

8 APR 05

State legislators from Tri-Cities back less destructive FFTF draining

By Annette Cary

Herald staff writer

With the final draining of sodium from Hanford's Fast Flux Test Facility possibly just weeks away, supporters of the research reactor say a less destructive draining method should be used.

State Sen. Jerome Delvin and Reps. Shirley Hankins and Larry Haler, all from the Tri-Cities, have joined Benton County Commissioner Claude Oliver in writing a letter to state officials.

Now plans call for draining the last of the sodium from the reactor by drilling a hole in the core, but other draining methods are possible that won't destroy the structural integrity of the reactor, they said.

Legislators and Oliver are asking Gov. Christine Gregoire, Attorney General Rob McKenna

and Jay Manning, director of the state Department of Ecology, to intervene.

The state has already joined the Environmental Protection Agency in asking the Department of Energy to consider delaying tearing down the reactor so money for that project can be used for more pressing environmental risks at the Hanford nuclear reservation.

The state and EPA support draining the liquid sodium from the reactor and other actions to leave it in a safe condition.

Oliver and the legislators are asking that no action be taken that could destroy a critical portion of the reactor until DOE finishes an environmental study on decommissioning the reactor and then issues a decision.

The decommissioning decision is not expected to be made

this year.

Both Republican and Democratic administrations have concluded there is no financially viable use for the reactor.

DOE has won a federal court decision making clear it can do work to permanently shut down the reactor such as draining the sodium, but needs to finish the environmental study before it can decommission, or tear down, the reactor.

Some supporters of the reactor have not given up on saving it for a possible restart, however.

They would like it used to make isotopes for medicine and also believe it could play a role in researching the next generation of nuclear power plants.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

8 APR 05
*DOE contractor preparing to estimate whether
vit plant construction will meet deadline, budget*

By Annette Cary

Herald staff writer

Bechtel National has laid off 185 additional construction workers at the Hanford vitrification plant and is warning that more layoffs are being planned.

The layoffs come as the Department of Energy contractor is preparing a report to estimate whether the vitrification plant will be completed and tested on time and within its \$5.8 billion budget.

"We now have preliminary numbers that show technical and

engineering issues will have a substantial impact on our budget and schedule," wrote Jim Henschel, project manager for Bechtel National, in a message Thursday to employees.

Construction is being slowed at the plant to turn radioactive waste into a stable glass form for disposal after DOE said the design standard for key parts of the plant was inadequate to withstand a worst-case earthquake.

Bechtel National is now

See **Bechtel**, Page A2

13 APR 05

Company will say Thursday how many workers it plans to let go from vit plant project

By Annette Cary

Herald staff writer

Bechtel National expects to announce more layoffs Thursday, this time from among construction and nonconstruction workers at the \$5.8 billion vitrification plant being built at Hanford.

"Unfortunately, more cuts are necessary," said Jim Henschel, Bechtel National project manager, in a message in the employee newsletter Tuesday. The com-

pany has laid off 276 construction workers in recent weeks, from a total work force on the project of about 3,500.

Bechtel management is hoping that after Thursday, no more layoffs will be needed in the short term. It will take a look at staffing again in June, but good estimates now could mean no layoffs are needed then.

Nonconstruction workers will be given 60 days notice if they are laid off. Bechtel expects to announce Thursday how many

Hanford
Judge says four downwinders don't have good enough claims to sue. **B1.**

nonconstruction workers will be laid off, but individual workers may not be notified for several days.

Work has slowed at the construction project since December, when a new study indicated that the plant might not be adequate in a worst-case earthquake. Engineers are reviewing and validating thousands of engineering calculations to increase the design standard by 38 percent in parts of the plants that will handle high-level radioactive waste.

The plant must be ready by 2011 under legal deadlines to treat radioactive waste left from the past production of plutonium at Hanford for the nation's nuclear weapons program. The plant will turn high-level

radioactive waste and some low-activity radioactive waste into a stable glass form.

As recently as late February, Bechtel had hoped to avoid layoffs.

But because of the seismic issue, other technical issues and challenges in building the plant, it's become evident that engineering must advance further ahead of design, said John Eschenberg, project manager for the Department of Energy's Office of River Protection.

Construction started as designing the plant was under way to meet the 2011 deadline. Now the design is about 70 percent complete, and construction is about 35 percent complete.

See **Bechtel**, Page A2

13 APR 05

7 now to go to federal trial over Hanford causing health problems during war era

By Annette Cary

Herald staff writer

The number of Hanford downwinders who will have their cases heard in a long-anticipated federal trial April 25 has dropped from 12 to 7 as a judge decided four don't have strong enough claims and one voluntarily halted her claim.

Today, defendants in the case will make summary judgment arguments in Spokane, asking to have the remaining bellwether plaintiffs dismissed.

In 1991, the first claims were filed by

people who lived downwind of Hanford when plutonium was being produced during World War II and the Cold War for the nation's nuclear weapons program. Radioactive releases, primarily iodine 131, drifted downwind to settle on crops and the grass where dairy cows grazed.

After years of legal maneuvers, appeals and a change of judges in the case, U.S. District Judge William Fremming Nielsen ordered that attorneys for the plaintiffs and the early Hanford contractors each pick six defendants to serve as bellwethers.

His hope is that by seeing what a jury would decide on a sampling of plaintiffs will help a settlement to be reached out of court on the estimated 2,500 plaintiffs in the suit who believe Hanford emissions damaged their health.

Nielsen has told downwinder attorneys

that the scientific testimony offered by some of its medical experts does not appear to be strong enough to support the claims of four of the bellwethers.

All four bellwethers appeared to have relatively low doses of radiation. Radioactive iodine, which could have been consumed in contaminated milk or fresh produce, settles in the thyroid, where it can cause cancer or other disease.

One bellwether plaintiff who will not go to trial, Dorothy Workman, received four-tenths of a rad dose of radioactive iodine. In comparison, if a doctor prescribed radioactive iodine to perform a diagnostic thyroid scan, the dose might be 50 to 150 rad.

"It's clear to me that (plaintiff's expert witness) can't conclude that that exposure even comes close to a more-probable-than-not cause of the thyroid problems that she

had," Nielsen said in a hearing earlier this year to consider scientific evidence.

Earlier, bellwether Karla Griffin volunteered to drop out of the case after realizing that other family members who were not exposed to Hanford radiation had also developed thyroid disease. In some cases, a family history of thyroid disease may indicate that the cause of the disease was primarily hereditary rather than the result of Hanford emissions.

The five plaintiffs who will not go to trial were all picked as bellwethers by defense attorneys.

"They picked the very weakest (claims) out of 2,500," said plaintiff attorney Tom Foulds. "Most of the clients of mine and of other attorneys have more than adequate

See **Lawsuits**, Page B2

14 APR 05

HAMMER in Richland plays host to teams from Idaho, Alaska and Washington

By Nathan Isaacs

Herald staff writer

Exploding cars, terrorist booby traps and mysterious mists were just a few of the obstacles tossed at three National Guard units this week during a unique training exercise at the HAMMER training center in north Richland.

The guard's Civil Support Teams are specially trained to respond to weapons of mass destruction found or triggered within the United States and its territories.

The 32 teams, with 23 more on the way, are strategically based throughout the country to be able to respond to a terrorist

attack within four hours. The teams training at HAMMER hailed from Washington, Idaho and Alaska. A team from Oregon is being certified.

Congress created the teams in 1999. The teams paid about \$30,000 each for the exercise, excluding lodging, meals and transportation.

The HAMMER event was the first time the three units trained together. Also participating in the terrorism-response exercise was the Hanford Fire Department and Hanford Patrol, the Tri-County Hazardous Materials Team, the Washington state Department of Health, Seattle and Richland bomb squads, as well as police officers and firefighters from throughout the Mid-Columbia.

"This is excellent training and in keeping with HAMMER's philosophy of 'Training as real as it gets,'" said Tom Calihan, pro-

gram manager at HAMMER.

HAMMER was created in 1997 to train Hanford workers about radiological and hazardous materials they would encounter during the cleanup. But the center's mission has expanded to train police, firefighters, the military and others using realistic, life-sized props.

The made-up scenario unfolded Tuesday with an FBI agent infiltration of a radical church group espousing the overthrow of the government and using the sales of methamphetamine to pay for the operation.

The undercover agents reported finding evidence of an imminent terrorist attack, leading to a raid of the "People's Church" compound by authorities. Inside, they found evidence of nerve and mustard gas,

See **Guard**, Page B2

Bechtel to cut 700 more jobs

*Layoffs at vit plant hit
1,000 in past month*

By Annette Cary

Herald staff writer

Bechtel National announced it is laying off another 700 workers Thursday, bringing the total jobs cut at the Hanford vitrification plant in recent weeks to nearly 1,000 workers.

The layoffs announced Thursday include about 350 union construction workers, who received notices in their paychecks. The additional 350 are not construction workers and will be notified over the next week that their jobs will end in 60 days.

"We will periodically review our staffing plan, but I am hopeful that no further reductions in the Waste Treatment Plant work force will be necessary," Jim Henschel, project

manager for Bechtel National, said in a message to employees.

The cuts will drop the staff from about 3,800 a month ago to 2,800, which will include about 2,050 nonconstruction workers and 750 union construction workers.

Work at key buildings of the plant has slowed to allow the engineering to advance further ahead of construction, in part because of concerns about earthquake safety.

The \$5.8 billion plant is being built by Bechtel National for the Department of Energy to turn thousands of gallons of radioactive waste now held in underground tanks into a stable glass form for permanent disposal. The waste is left from more than 40 years of plutonium production at Hanford for the nation's

See **Bechtel**, Page A2

21 APR 05

Letter criticizes Hanford budget

*Northwest delegation
wants funding restored
to keep work on track*

By Annette Cary

Herald staff writer

The Hanford nuclear reservation budget for next year should include \$239 million more than proposed by the Department of Energy, according to all 14 U.S. congressional representatives from Oregon and Washington.

They have sent a letter to the House Energy and Water Appropriations Subcommittee saying that DOE's proposed budget reductions go too far.

DOE wants to cut Hanford's 2006 budget by more than \$290 million in cleanup funding from the 2005 level of about \$2.1 billion, by the delegation members' calculations.

They want funding restored to keep big Hanford projects on track. Those include building the \$5.8 billion vitrification waste treatment plant, retrieving radioactive waste from aged underground tanks and continuing cleanup work both along the Columbia River and Hanford's central plateau.

Both areas of the 586-square-mile nuclear reservation are extensively contaminated with radioactive and hazardous chemical wastes left from more than 40 years of producing plutonium for the nation's nuclear weapons program.

DOE warned last year that the 2005 budget was the largest it expected to spend on Hanford cleanup. But the budget requested by DOE for next year "will unnecessarily and unjustifiably delay cleanup progress," the congressional representatives wrote.

They're concerned DOE might not be able to meet legal deadlines for cleanup of the site. The budget also could jeopardize accelerated cleanup, which was planned to get the site cleaned up by 2035 rather than 2070.

Although the earliest DOE projections for 2007 show some money could be restored, the congressional

See **Hanford**, Page A2

19 APR 03

Fluor Hanford lays off 148 workers

More layoffs are expected during balance of contract ending in September 2006

By Annette Cary

Herald staff writer

Fluor Hanford gave layoff notices to 148 workers Monday, including 36 who volunteered to quit their jobs.

Last month the Hanford contractor told employees that up to 200 workers could be laid off in the announcement scheduled for Monday. While no further

layoffs have been announced, workers have been warned that more layoffs are expected over the balance of the Fluor contract that ends in September 2006.

The Fluor layoffs are in addition to about 1,000 jobs cut this spring by Bechtel National, which is building Hanford's \$5.8 billion vitrification plant to treat radioactive waste. That included 350 non-construction workers who are receiving their layoff notices this week.

Fluor employees losing their jobs have been given two weeks notice. They also will receive one week of severance pay for every year worked up to 20 years and

Fluor will continue to pay the company's share of health insurance premiums for up to a year.

The layoffs announced Monday included union and nonunion workers, said Fluor spokesman Geoff Tyree. Fluor had asked for volunteers to resign from a long list of job categories, including engineers, mechanics, clerks and nuclear waste process operators.

Fluor employs 4,039 people, including subcontractor employees, to manage the Hanford site and perform cleanup work.

Fewer workers will be needed because

of projects that have been completed, such as the removal of irradiated nuclear fuel from the K Basins, and the contractor continuing to work more efficiently, according to Fluor. In addition, some lower-priority work is being eliminated.

The Department of Energy is proposing cutting the overall Hanford budget from nearly \$2.1 billion this year to a little more than \$1.8 billion in fiscal year 2006.

Last year, Fluor laid off 60 workers in January and 55 in June.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

21 APR 05
*Filings claim initiative
crafted to interrupt
cleanup work at Hanford*

By Annette Cary

Herald staff writer

Initiative 297 was intended not only to limit or eliminate the federal government's waste shipments to the Hanford nuclear site, but also to interrupt operations there, the federal government has charged in new court filings.

The state argued earlier this spring that the U.S. Department of Justice is advocating an extreme interpretation of the Hanford cleanup initiative in an effort to win its argument that the initiative is unconstitutional and cannot be enforced.

The initiative, overwhelmingly passed by voters in November, would require that waste left from the past production of plutonium at Hanford for nuclear weapons be cleaned up before the Department of Energy sends more waste to the site. The federal government is spending more than \$2 billion this year on cleanup at Hanford.

The federal government filed suit in federal court in December

See **I-297**, Page B2

22 Apr 05
*DOE planning to raze 220
buildings in the area by 2015*

By Annette Cary

Herald staff writer

The giant shears on the end of an excavator arm snipped through I beams and ripped up the sheet metal roof of one of Hanford's oldest buildings Thursday as if they were little more than cardboard and paper.

It is the end of the 1944 building that once was used to form the fuel for Hanford's plutonium reactors.

But it also is the beginning of a new era for Hanford's 300 Area just north of Richland.

The 313 Metal Fabrication Building is the first major building to be demolished in that area of the Hanford nuclear reservation. By 2015 at the latest, the Department of Energy plans to have all 220 buildings razed.

Now the area contains a hodgepodge of buildings that started changing the skyline along the Columbia River during the race to produce plutonium during World War II.

Contractor Bechtel Hanford already has

hauled hundreds of thousands of tons of contaminated soil away from the outer portions of the 300 Area for disposal in central Hanford.

"This is the first visible removal," said Leif Erickson of DOE's Richland Operations Office.

Tearing down the 76,000-square-foot high-bay building and hauling the debris to a landfill in central Hanford is expected to take until August.

Work would be faster, but for the building's history of contamination from not only radioactive materials but also solvents, other process chemicals and the metal beryllium.

It's a "gentle demolition" if there is such a thing, said Mike Mihalic, the task lead on the project for Bechtel Hanford.

Because of contamination in the building, workers want as little dust as possible.

Thursday, on the second day of demolition, workers sprayed water from fire hoses from two angles as the excavator shears tore off pieces of the building and dropped them to a pile of rubble below. Industrial-sized misters

added more moisture to the debris.

To protect workers, seven air monitors check for contaminants around the work site. The excavator operator wears full radiological protective gear and a respirator. More monitors give readings of the air quality within the cab and at the end of the arm of the excavator.

Beryllium, an exotic metal machined into rings for the end of fuel rods, left dust within the building. Breathing the small metal particles can lead to an incurable lung disease found in some nuclear workers with an allergylike sensitivity to the metal.

The building had been surveyed for beryllium up to 8 feet high, the zone where people would most likely come in contact with it.

But when Bechtel took control of the building and did more surveying, it found substantial amounts of beryllium in the dust in the rafters.

At first the contractor tried to wipe down areas where beryllium was detected or

See **Hanford**, Page A2

23 APR 00

Research reactor's fate lies in hands of DOE

By Annette Cary

Herald staff writer

The state of Washington has no plans to intervene to save Hanford's Fast Flux Test Facility in what looks like its final days, after years of state support of attempts to find a mission for the research reactor.

"Despite multiple reviews and despite exhaustive efforts by many people to come up with viable options for the FFTF, nothing has emerged," wrote Jay Manning, director of the state Department of Ecology in a Friday letter. "Ultimately, the decision of whether to operate this facility to preserve it for future use or to permanently take it out of service is a USDOE (Department of Energy) decision."

DOE expects to be ready to drill a hole to drain the liquid sodium from the reactor's core

late next week. Since work began to drain sodium from the reactor's secondary cooling system, supporters of the reactor have warned that a restart would be more difficult and expensive.

They have no hope the reactor could ever be restarted once a hole is drilled to remove the last of the sodium.

Benton County Commissioner Claude Oliver, joined by the Tri-Cities state legislative delegation, told the state earlier this spring that a less-destructive draining method should be used.

Manning, responding on behalf of Gov. Christine Gregoire, pointed out that during the past decade the state has supported saving FFTF if a viable mission could be found. But without one, a timely and safe deactivation should be planned and implemented, he said.

The state has several times agreed to extend legal deadlines for permanently shutting down the reactor to allow further study

of potential alternatives for its use.

Through the years, DOE has considered whether the reactor might be used for producing tritium for weapons, making isotopes for cancer treatment and industrial needs, or for research, including supporting the next generation of nuclear energy reactors.

However, both Republican and Democratic administrations have concluded there is no economically viable use for the 400 megawatt reactor, which operated from 1982 to 1992.

The governor remains committed to the economic development of the Tri-Cities area and building on the community's technological expertise and resources through entities such as the Pacific Northwest National Laboratory and the Tri-Cities campus of Washington State University, according to Manning.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

21 APR 05
**Homeland secretary
invited to HAMMER**

Sen. Patty Murray, D-Wash., on Wednesday invited the new homeland security secretary, Michael Chertoff, to visit the HAMMER training center in Richland as part of a pitch to increase homeland security use of the center.

She issued the invitation at a hearing of the Senate Appropriations Committee.

HAMMER can provide critical training for local emergency officials, but the Department of Energy has not designated it as a regional training center, she said. Now emergency responders in the Northwest may use their local budget or Department of Homeland Security funding to travel to training sites farther away, she said.

DOE sets hearing today on worker safety rules

The Department of Energy plans a hearing on proposed new worker safety rules from 10 a.m. to 2 p.m. today in the auditorium of the Federal Building in Richland.

DOE officials will take testimony via a videoconference on a DOE proposal to convert unenforceable safety rules for industrial and construction hazards to enforceable regulations. Now DOE cannot issue fines and penalties to its contractors for those hazards as it can for radiological hazards.

Hanford is the only field site being given a hearing, after a request by the Paper, Allied-Industrial, Chemical and Energy Workers International Union Local 8-369.

25 APR 05
First of six bellwether trials starts after over a decade of downwinders' legal battles

By The Associated Press

SPOKANE — Harriet Fugitt spent an idyllic childhood at her family's dairy farm in the Benton City area south of the Hanford nuclear reservation, where her father worked helping to make plutonium for the nation's Cold War weapons.

"We swam in the river. We played outdoors. But what worries me most is we lived on a dairy and drank the milk," she said. "We just had what we thought was a terrific life. We never knew it was killing us."

At a trial that starts today, a U.S. District Court jury will be asked to decide



Fugitt

whether those everyday activities exposed Fugitt and her neighbors to radioactive contamination that spewed from Hanford plutonium factories, adversely affecting their health.

Fugitt, 66, who now lives north of Spokane with her husband, Warren, takes medication for a thyroid that does not function.

She blames Hanford environmental releases for "a whole salad bowl" of ailments, including fibromyalgia, fatigue, headaches, joint and muscle pain, and sensitivity to chemicals and some foods.

She is one of nearly 2,300 people, called the Hanford downwinders, who have sued major contractors who ran the federal nuclear reservation for the government after it started making plutonium in 1944.

Starting today, the first six "bellwether" cases will be tried together to determine whether the contractors' operations caused the downwinders' health problems.

The five-week trial is the culmination of more than 14 years of legal wrangling between attorneys for the downwinders and the some of the country's largest corporations.

Barring a last-minute settlement, a jury will decide whether the government — which indemnified the contractors under the Price-Anderson Act — must pay

See **Hanford**, Page A2

24 APR 05

Hanford health expo planned for May

The Hanford Health and Safety Exposition will be from 7 a.m. to 7 p.m. May 3-4 at TRAC in Pasco.

The free event is expected to bring 30,000 visitors through the doors of TRAC to see demonstrations and displays.

Among the highlights are the vehicle crash demonstrations that play out an accident scenario each day at 10 a.m., 2 p.m. and 5:30 p.m.

26 APR 05

Jury to decide whether radioactive releases caused illnesses

By Annette Cary

Herald staff writer

SPOKANE — Shannon Rhodes, her feet dangling off her chair as a 5-year-old, drank from a big bottle of milk in an old black and white photo, one of the first images shown Monday to 12 jurors in the start of a trial to decide

whether Hanford emissions damaged the health of those who lived downwind.

Other plaintiffs were shown playing on the grass as babies and toddlers and marching in Richland's Atomic Pioneer Day parade, all during the years when Hanford was releasing radioactive iodine to drift downwind and settle to

the ground. It contaminated the grass they played on and the milk they drank.

"These children gave something very precious to the war effort: their health," said plaintiff attorney Richard Eymann in opening arguments of the long-awaited Hanford downwinder trial Monday in federal court in Spokane.

The children shown in photos, and who sat in the front row of the courtroom Monday as adults, would later develop

thyroid cancer or other thyroid disease. They believe their illnesses were caused by radiation that their attorneys described as raining down out of the sky.

But the best scientific studies show otherwise, countered defense attorney Kevin Van Wart.

"There is no evidence that without Hanford these plaintiffs would not have their thyroid conditions," he said. Millions of people across the country are

diagnosed with thyroid disease every year, he said.

It's the plaintiffs' burden to show that more likely than not radioactive releases from the Hanford nuclear reservation caused their illnesses.

The jury picked Monday morning will decide the cases of six plaintiffs out of about 2,200 in the lawsuit that's dragged on through delays and appeals since 1990.

See **Downwinder**, Page A2

25 APR 05
*Endorsement was required
for designation to proceed*

By Annette Cary

Herald staff writer

The Department of Energy will not object to Hanford's B Reactor being designated a National Historic Landmark, according to a letter from DOE to the Atomic Heritage Foundation.

The approval of DOE, as the federal government owner of the B Reactor, was required for the nomination to proceed.

"The National Park Service in Seattle told us it was very important to them that the owner endorse or give a nod of approval," said Michele Gerber, presi-

dent of the B Reactor Museum Association. "We think this is something to celebrate."

However, DOE's mission remains to clean up and close the Hanford site, cautioned Paul Golan, DOE's principal deputy assistant secretary for environmental management, in the letter.

B Reactor is one of nine along the Columbia River at Hanford that produced plutonium for the nation's nuclear weapons program. DOE plans to have the river corridor cleaned up by 2012, including tearing down reactors to their highly radioactive core and "cocooning" them for longterm storage.

DOE needs to decide in the next few years whether to tear down B Reactor or save it for a museum.

B Reactor was the first full-scale plu-

tonium production reactor in the world, built as the United States raced to develop the atomic bomb during World War II. It produced the plutonium for the first man-made nuclear explosion, the Trinity test in New Mexico, and the plutonium used in the bomb dropped on Nagasaki that helped end the war.

A study by the National Park Service to develop recommendations for the significance, preservation and long-term management of B Reactor and other Manhattan Project sites across the nation will help DOE decide what to do with B Reactor, Golan wrote.

The B Reactor Museum Association already has displays set up in the reactor. But because the reactor is in a portion of Hanford closed to the public, only

See **Reactor**, Page B2

26 APR 05

Hanford safety plan nears resolution

Today last day to submit opinions on proposal to monitor working hazards

By Annette Cary

Herald staff writer

John Swain can sum up his skepticism about the Department of Energy's proposed new worker safety rules in one photograph.

The picture shows his left eye swollen closed under a large red welt after he says he was exposed to chemical fumes at Hanford's tank farms in 2003.

A check at a Seattle hospital after the exposure found a dramatic decrease in lung capacity, the burly, bearded Hanford worker recounted at a recent DOE hearing by video-conference in Richland.

His exposure occurred the same year Congress told DOE to convert its main occupational safety and health order into legally binding regulations that are enforceable through fines and penalties.

Now radiological safety problems at Hanford are subject to fines and penalties under the federal Price Anderson Act, but industrial and construction safety hazards are not. The Occupational Safety and Health Administration does not have authority over most Hanford work.

The proposed fines included in new safety rules would be set at levels similar to those leveled by OSHA, but would be administered by DOE. They could be given in addition to the action DOE already may take, withholding a portion of a contractor's fees for safety problems.

But the Government Accountability Office, organized labor leaders and some workers fear that the proposed safety rules could be too easily avoided by Hanford and other DOE contractors.

"It contains 10 broad exemptions. These exemptions will undermine the minimum safety standards set forth in the law," according to a statement by the Paper, Allied-Industrial, Chemical and Energy Workers International Union Local 8-369.

Exemptions include conflicts with contractual requirements. That could include a conflict with obligations to meet the Tri-Party Agreement, which sets legal deadlines to finish Hanford cleanup work, said Richard Miller of the GAO watchdog group.

Contractors also might claim costs do not justify the benefits, he said.

"If we provide more exemptions for contractors, they will find more loopholes to not protect us," said Dave Roberts, another tank farm worker at the hearing.

"It is wrong to let companies and

officials put in for safety exemptions when they do not go into the tank farms like workers do," Swain said. "Maybe before they apply for exemptions, they should be required to plumb vapors into their offices."

Improvements have been made in the past 18 months for workers near underground tanks holding millions of gallons of hazardous chemical and radioactive waste. The older tanks vent fumes into the air.

Workers now wear supplied-air respirators around venting tanks, some stacks have been raised to vent above workers' breathing space and significant effort has been made to identify the mix of hundreds of chemicals in the tanks.

"You need to exercise extreme caution with exemptions," said Jill Molnaa, a Hanford Atomic Metal Trades Council safety representative for tank farm contractor CH2M Hill Hanford Group. "Worker involvement is the key."

Today is the last day to submit comments on the proposed worker safety rules. They may be e-mailed to rule851.comments@hq.doe.gov using the subject line of "Worker Safety and Health Rule Comments." More information is available at www.eh.doe.gov/rulemakingwsh.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

29 APR 05

Continued ban on Hanford waste sought

By Annette Cary

Herald staff writer

YAKIMA — The state of Washington asked a federal judge Thursday to continue to bar the Department of Energy from sending certain types of radioactive waste to Hanford for disposal or storage, saying federal environmental studies continue to be inadequate.

But the federal government told U.S. District Judge Alan McDonald that it had addressed his earlier concerns and should be allowed to ship waste to Hanford.

Long before November, when voters passed Initiative 297 to bar the federal government from sending more waste to Hanford until waste already there is cleaned up, the state had filed suit.

In 2003, the state won a temporary stop to the importation of waste tainted with plutonium to Hanford for storage. In 2004 it expanded the suit to stop DOE from sending low-level waste and low-level waste mixed with hazardous chemicals to Hanford for permanent burial.

McDonald did not rule Thursday, but

said he would make a decision soon. He also reopened an issue that had appeared to be settled.

In January, he agreed with the state that it had the authority to bar shipments of plutonium-tainted waste, or transuranic waste, if it were mixed with hazardous chemicals to Hanford.

But Thursday he asked if the state would not be willing to accept what could be a small amount of that waste that DOE had planned to ship from Ohio, helping to allow that site to be cleaned up and closed.

On the other types of waste that are in dispute, the state is arguing that DOE failed to do adequate environmental studies before deciding to send waste to Hanford. DOE has said it wants to consolidate transuranic waste at Hanford from other sites to allow them to be closed and that the waste would eventually be sent to a national repository in New Mexico.

But the state is concerned that transuranic waste New Mexico has not yet agreed to accept could be stranded at Hanford. That includes "remote handled" transuranic waste too radioactive to be

analyzed at Hanford's existing facilities and transuranic waste contaminated with PCBs, said Joe Shorin, assistant attorney general for the state.

DOE attorneys argued they had addressed the court's earlier concerns, including more environmental study on transporting the waste and the risk of terrorism. Hanford is gaining experience with less radioactive transuranic waste, called "contact handled," that will allow it to evaluate and work with remote handled waste, said U.S. Department of Justice Attorney Cynthia Huber.

McDonald agreed to a temporary injunction to sending low level and mixed low level radioactive waste to Hanford after the state expanded its lawsuit in 2004. The state asked Thursday that it be extended. Among its concerns is that a 2004 environmental study by DOE failed to adequately address the risk to groundwater by adding more radioactive waste to the waste already planned to be buried at Hanford.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

Hanford illnesses detailed during trial

By Mary Hopkin

Herald staff writer

SPOKANE — The six people who believe federal operations at Hanford caused their cancer began detailing Thursday how the disease has ravaged them as the Hanford downwinder trial continued in U.S. District Court in Spokane.

Shannon Rhodes, 63, recalled she grew up on a Colfax-area farm her Irish immigrant great-grandparents had settled in 1869.

"We had a garden and grew vegetables and fruit," said Rhodes. "I took care of the chickens. We traded the eggs for milk from my aunt and uncle."

During harvest, she and her cousins ate wheat and barley right out of the fields.

"I didn't know anything about the Hanford plant back then," she said. "I don't remember people talking about it."

But when she was 36, she noticed a lump on the left side of her neck and went to doctors who removed her left thyroid gland and a tumor "the size of a baseball."

She continued life as a single mother raising two teenage daughters and working as a successful real estate agent, then met Ken Rhodes in 1980. He asked her to marry him and told her he was there to take care of her.

"He had no idea at the time what that would mean," she said.

In 2001, they retired and moved to Coeur d'Alene. When Rhodes went in for a routine checkup, her bloodwork showed high levels of calcium, leading to further tests. Doctors removed her left superior parathyroid, which had grown to nearly 50 times its normal size.

A year later, a routine chest X-ray revealed a dark spot on a lung. Doctors didn't think it was anything to worry about, Rhodes said, but ordered a follow-up X-ray in nine months.

By then, it had grown remarkably, Rhodes said. A biopsy showed the thyroid cancer had metastasized to her lung.

29 APR 05

Commissioner urges halt to FFTF drilling

PROSSER — A Benton County commissioner on Thursday urged the U.S. Department of Energy to put off drilling to the core of Hanford's Fast Flux Test Facility until the county has time to consider filing an injunction.

Drilling is scheduled to start today. The effects would be irreversible and amount to the decommissioning of the 400-megawatt reactor, Commissioner Claude Oliver wrote in a letter to DOE.

The department never officially decided to permanently shut down FFTF, just deactivate it, Oliver said Thursday during an emergency special commissioners' meeting in Prosser. Oliver was the only commissioner to attend.

Decommissioning the reactor has been proposed but before that can happen an environmental impact study has to be completed, he added.

"It is Benton County's position that the scheduled 'reaming and drilling to the core' is not an almost irreversible consequence, but is completely irreversible," Oliver said in the letter.

"Therefore, we would request that you not 'ream and drill to the core' until Benton County has the opportunity to consider filing an injunction motion ... on the basis that 'reaming and drilling to the core' is an act of decommissioning."

Supporters had hoped to use FFTF to produce isotopes for cancer treatment and industrial needs as well as materials to support nuclear research and the next generation of nuclear energy reactors.

30 APR 85

Doctor testifies cancer likely from Hanford

By Mary Hopkin

Herald staff writer

SPOKANE — Dr. Inder Chopra told a federal jury Friday that it's "highly probable" the thyroid cancer suffered by three Hanford downwinders was caused by radioactive iodine releases at the nuclear reservation.

In fact, if Gloria West, Steve Stanton, and Shannon Rhodes had not been exposed to Hanford releases when they were tots in the 1940s, "it is highly unlikely

they would have thyroid cancer," said the endocrinologist professor and thyroid specialist from the University of California Los Angeles.

Chopra's testimony took nearly five hours Friday on the fifth day of the federal lawsuit in U.S. District Court in Spokane.

A jury is being asked to decide the cases of six plaintiffs out of about 2,200 in the lawsuit. The results of this trial may be used as a litmus test to determine how other cases might be settled.

Chopra said Friday that he examined West, Stanton and Rhodes, reviewed their medical charts and talked to them about their medical histories. "I have to come to the conclusion that iodine-131 was the cause," he said. "They were affected by a substantial dose at a critical stage of life."

From 1945 to 1947, the radioactive iodine drifted out of the 200-foot-tall stacks above Hanford's plutonium processing plants and settled on fields at dairy

See **Cancer**, Page B2

Deadline missed to get K East sludge into underwater containers

By Annette Cary

Herald staff reporter

The Environmental Protection Agency is fining the Department of Energy \$75,000 for failing to meet the legal deadline to get radioactive sludge in Hanford's K East Basin into underwater containers.

EPA has fined DOE before for missing deadlines on the sludge project, but not since regulators allowed DOE to start fresh on the project with a new plan and new set of deadlines.

Under the new deadlines, DOE was required to have the radioactive sludge in K East corralled in

containers by March 1. EPA said with that deadline missed nearly two months ago, the work only is a little more than half done.

In addition, EPA has issued a notice of violation for not following

In court

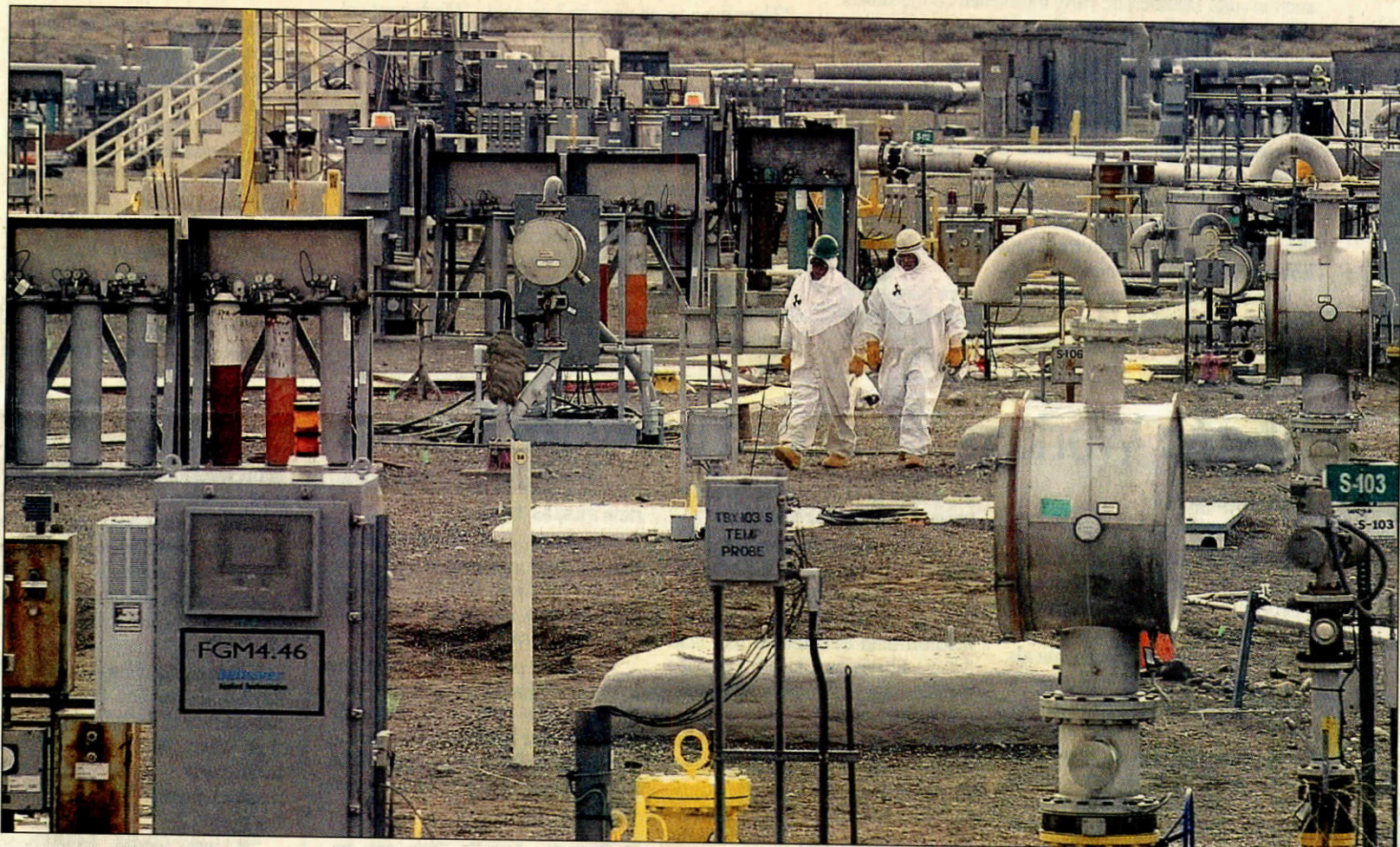
Continued
ban on
some Han-
ford wastes
sought. **B1.**

a required plan for analyzing radioactively contaminated debris removed from the K Basins for nearly 2½ years.

That potentially allowed waste contaminated with plutonium to be buried at a Hanford landfill. The federal government requires that such waste be sent to a national underground repository in New Mexico.

See **Fine**, Page A2

Hanford contractor to evaluate tank workers' health



Herald file

CH2M Hill Hanford Group plans a study of the medical records of more than 5,000 current and former tank farm workers to look for possible long-

term health problems that could be linked to exposure to vapors from Hanford's underground waste tanks.

CH2M Hill Hanford to study health

3 MAY 25
Hanford contractor to analyze workers' medical records, look for health problems possibly linked to tank vapors

By Annette Cary

Herald staff writer

CH2M Hill Hanford Group plans a study of the medical records of more than 5,000 current and former workers to look for possible long-term health problems that could be linked

to exposure to vapors from Hanford's underground waste tanks.

The study will look at the medical records of workers who have entered the tank farms even once since 1990.

The Hanford contractor assembled a panel of national medical experts in areas such as toxicology and respira-

tory health last year after state and federal investigations questioned whether enough was known about the vapors to be sure workers had not been harmed.

The underground tanks hold 53 million gallons of radioactive and chemical waste from the past production of plutonium at Hanford for the nation's nuclear weapons program. Older tanks vent chemicals into the air, particularly when atmos-

pheric conditions change.

Some workers who have breathed the vapors have complained of symptoms such as a metallic taste in their mouths, nose bleeds, dizziness and shortness of breath. They've questioned whether the vapors could cause long-term health problems.

The main component of the vapors is believed to be ammonia. But the

See **Study**, Page A2

10 MAY 05

Hastings to stick by Hanford fight

Representative vows to push for adequate cleanup funds

By Jeff St. John

Herald staff writer

U.S. Rep. Doc Hastings said Monday that he'll continue to fight for more federal funding for Hanford cleanup, calling the Department of Energy's proposed 2006 budget "not adequate" to meet legal deadlines for cleanup of the nuclear reservation.

"The challenge that I feel I have is to make sure we do not compromise the accelerated (cleanup) process," Hastings, R-Wash., told a Pasco Chamber of Commerce audience at the Red Lion Hotel in Pasco.

DOE has proposed cutting Hanford's

2006 budget by about \$269 million from the 2005 level of about \$2.1 billion. Hastings criticized the cuts, saying they could jeopardize accelerated plans to get the site cleaned up by 2035 rather than 2070.

But he added that he is "confident" that efforts by himself, along with other U.S. congressional representatives from Washington and Oregon, will succeed in increasing next year's funding.

In a wide-ranging discussion, Hastings also reiterated his support for President Bush's plan to partially privatize Social Security, a proposed free trade agreement with Central American countries and the proposed Black Rock Reservoir project.

On Social Security, Hastings said, "personal accounts are the way to go to get a handle on mandatory spending," and expressed optimism that Congress would see legislation to address the issue this year.

As part of a plan to ensure the solvency of Social Security in the next 40 years, Bush has proposed allowing workers to divert a portion of their payroll taxes from their government-paid Social Security benefits into private investment accounts.

Critics of the plan have said private accounts will do nothing to solve Social Security's long-term solvency problems and in fact could worsen them by requiring the federal government to borrow money to fund personal accounts.

Hastings addressed those criticisms in

part by noting that current proposals for personal private accounts are "voluntary in nature," not mandatory.

"It's going to take a big educational process for the American people to understand what's going on," he said.

On the proposed Central American Free Trade Agreement, or CAFTA, Hastings said it would help Washington farmers by reducing tariffs on American apples, cherries, pears and other crops exported to Guatemala, El Salvador, Honduras, Costa Rica and Nicaragua.

But he conceded the plan is "facing a whole lot of opposition from the Congress." Some lawmakers, including Washington state U.S. Democratic Reps.

See **Hastings**, Page B5

10 MAY 05

Acceptance of materials in exchange for other ban, strict deadlines

By Annette Cary

Herald staff writer

The state of Washington opened the door Monday to allowing some radioactive waste to be sent to Hanford.

State attorneys told U.S. District Court Judge Alan McDonald that Washington would be willing to accept a small amount of waste contaminated with plutonium at Hanford in exchange for other protections. Those would include extending a ban on importing some radioactive wastes and setting strict deadlines on when the waste would have to leave Hanford.

The proposal to the judge is consistent with the state's policy of pushing for "enforceable deadlines to make sure the cleanup problem isn't allowed to get worse," said Sheryl Hutchison, spokeswoman for the Washington State Department of Ecology.

The state filed suit in 2003 to keep the Department of Energy from sending plutonium-contaminated waste to Hanford and later expanded the suit to cover other types of radioactive waste. It believes the site already has enough contamination and waste disposal problems to solve after more than 40 years of producing plutonium for the nation's nuclear weapons program.

In a victory for Washington, McDonald already has ruled the state has authority to bar shipments of waste contaminated with plutonium if it is also mixed with hazardous chemicals.

But at a hearing last month to consider extending a temporary ban on DOE importing other types of waste, McDonald asked the state if it would be willing to accept

Proposal

Hastings to fight for Hanford cleanup funds. **B6.**

4 MAY 05

Bechtel Hanford officials say construction continues even as workers laid off

By Jeff St. John

Herald staff writer

Bechtel National's Hanford vitrification plant project, despite a slowed building schedule and recent layoffs of about 1,000 employees, still is very much under way.

That's what Tri-City community leaders heard Tuesday on a tour of the 65-acre construction site that eventually will become the world's largest radioactive waste treatment plant.

Exactly when it might be finished, and how much more than \$5.8 billion it may eventually cost, have been thrown somewhat into question in the past six months. A reassessment of earthquake risk has forced Bechtel to recalculate design standards for two buildings that eventually will treat some of the most radioactive of the waste left from 40 years of plutonium production at Hanford.

But officials with Bechtel and the Department of Energy assured visitors Tuesday that delays and layoffs haven't halted work at the plant, which is expected

to turn thousands of gallons of waste into a stable glass form for permanent disposal.

Instead, the project has pulled back on some construction work at its High-Level Waste Vitrification Facility and Pretreatment Facility, the two buildings undergoing design review to make sure they meet the new seismic standards, said Roy Schepens, manager of DOE's Office of River Protection.

That's forced Bechtel to lay off construction workers, even while construction continues full-bore on the project's Low-Activity Waste Vitrification Facility, the Analytical Laboratory and more than 20 other smaller buildings, said Jim Henschel, project manager for Bechtel National.

Since February, Bechtel has announced plans to reduce its project work force by almost 1,000, including about 650 construction workers and about 350 non-manual workers, leaving about 800 union construction workers and about 2,050 nonmanual workers. Project design is about 70 percent complete, and construction is about 35 percent complete.

"We won't be able to get as much done as we planned" in the next year, Henschel said of the current schedule, though he also said Bechtel doesn't anticipate any more layoffs this year.

What all these changes will do to the

long-term costs and employment trends at the project will be made clearer in two to four weeks, when DOE and the Army Corps of Engineers finish reviewing Bechtel's most recent estimate at completion report, Schepens said.

"We're working through that as we speak," he said. DOE faces a legal deadline of 2011 to finish the plant, and the Corps projected last spring that the project was likely to cost closer to \$6.5 billion if finished by the legal deadline.

At the same time, DOE has proposed the project's budget drop from \$690 million this year to \$626 million in fiscal year 2006.

Schepens said he's asked for the "appropriate amount of money" for 2006, but that 2007 will likely need more, when construction on the two high-level waste buildings will resume "hot and heavy."

"We're all excited about being part of history here," Schepens said, standing on the top floor of the Low-Activity Waste Vitrification Facility as workers lowered a steel beam to be the first of many to hold up the building's roof. "This plant is the cornerstone of Hanford cleanup."

■ Reporter Jeff St. John can be reached at 582-1543 or via e-mail at jstjohn@tricityherald.com.

17 MAY 05

Technology by PNNL gets praise from Fortune

By John Trumbo

Herald staff writer

What does a holographic body scanner for the garment industry have in common with putting biocompatible coating on medical devices?

Aside from the fact that both technologies were developed at Richland's Pacific Northwest National Laboratory, the two processes have been recognized by Fortune Magazine as ones for investors to watch.

The companies putting the innovations to commercial use are among Fortune's top 25 "upstarts who are changing the game."

Intellifit, a Horsham, Penn.-based company, is licensed to use the lab's holographic imaging in retail clothing stores. Instead of customers using fitting rooms, a scanner can pinpoint a good fit with 200,000 data points during a 10-second body scan.

The results are so impressive that Intellifit rated No. 1 on Fortune's ones-to-watch list of what editors call the 2005 breakout companies rating.

13 MAY 05

Panel agrees to restore Hanford budget

House Armed Services Subcommittee starts process to restore \$122 million

By Annette Cary

Herald staff writer

The House Armed Services Subcommittee agreed Thursday to restore \$122 million to the Hanford budget for fiscal year 2006, the first of many steps needed to increase the proposed budget.

However, that still would leave the budget \$145 million below the current year's budget of nearly \$2.1 billion. The Department of Energy has proposed a \$267 million cut to the Hanford budget in the next year.

All 14 U.S. congressional representatives from Oregon and Washington have

joined together to ask that most of that money, \$239 million, be restored to the budget.

Thursday's effort to get the amount DOE proposed increased by \$122 million was led by Rep. Rick Larsen, D-Wash., who serves on the subcommittee.

The subcommittee's recommendation must go to the full committee and then to the House floor while a similar process is followed in the Senate. In addition, appropriations committees also will be determining how much money should be spent and do not have to follow the blueprints developed by authorization bills, such as the one marked up Thursday.

The Armed Services Subcommittee proposal would restore funding at the vitrification plant to \$690 million, according to Heart of America Northwest.

That's the amount Northwest lawmakers have called for, after DOE has said

that level of funding is needed to complete construction by 2011. The \$5.8 billion plant would turn millions of gallons of radioactive waste, some of it stored in underground tanks since World War II, into stable glass logs for disposal.

Recent difficulties at the construction project, including a new earthquake study that shows design standards need to be increased, are expected to increase the cost of the plant and extend the schedule.

The additional money proposed by the subcommittee also includes about \$45 million for tank waste projects. DOE had proposed an \$89.4 million reduction in spending for managing the underground tanks, and the Northwest Congressional delegation had asked that \$70 million be restored.

Waste is being retrieved from older tanks and DOE is investigating alternate processes for treating waste that will not be

handled at the vitrification plant as currently planned.

The remaining \$13 million proposed by the subcommittee would apparently be used for work in central Hanford, although the committee's intent is unclear, according to Heart of America.

The committee language refers to cleanup work along the Columbia River corridor, but the line item listed covers the start of removal of massive processing plants and work to dig up burial grounds in central Hanford.

The Northwest Congressional delegation called for \$40 million to be restored to the budget for cleanup work along the river and \$65 million to be restored for work in central Hanford.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

First 6 of about 2,200 claims to be considered

By Annette Cary

Herald staff writer

SPOKANE — A jury will begin considering Monday the first six of about 2,200 claims of people who believe their health was harmed by living downwind of the Hanford nuclear reservation.

"They want you to decide on sympathy, not science," defense attorneys told the jury.

But the plaintiff attorneys in closing arguments compared the defense to tobacco companies who long denied that smoking

could lead to lung cancer.

"You can't spread radiation all over Eastern Washington and then say there is no effect," said plaintiff attorney Richard Eymann. "You can't say no one was ever hurt — it was nothing."

During World War II and the start of the Cold War, radioactive iodine was released into the air above Hanford as it produced plutonium for the nation's nuclear weapons program. The radioactive iodine drifted downwind and settled out on orchards, vegetable gardens and pastures where dairy cows grazed.

Those most at risk of harm were small children with vulnerable thyroids who drank a lot of

contaminated milk.

Radioactive iodine concentrates in the thyroid and may cause disease years later.

After 14 years of delays and appeals in a court case brought by downwinders, the first six plaintiffs went to trial this month. Judge William Fremming Nielsen is hoping that by deciding the claims of a few bellwether plaintiffs, attorneys will have enough information to settle more of the claims.

Nearly two days of closing arguments in the complicated and contentious case concluded Friday, and Nielsen sent the 12-member jury home to start fresh with deliberations next week.

It must decide if the thyroid disease caused by each of the six plaintiffs more likely than not was caused by Hanford and then award any damages, including damages for pain and suffering.

Medical damages have already been determined, ranging from \$21,133 to \$522,056 for individual plaintiffs, should the jury find radioactive iodine caused the illnesses.

One of the cases is shaky enough that Nielsen said sending it to the jury was a close call. Kathryn Janelle Goldbloom lived in Richland and Kennewick as a child and received an estimated dose of 15 rads, according to information from the Hanford

Environmental Dose Reconstruction project.

She believes that as a young woman, she developed an underactive thyroid because of an autoimmune response to the radioactive iodine.

A doctor called by the plaintiff would only say that the exposure could be a cause of her illness, but stopped short of saying that it likely caused her illness.

The defense pointed out that Goldbloom had taken thyroid medication most of her life, but a blood test failed to turn up antibodies that would show she has autoimmune thyroid disease. Her

See **Case**, Page B2

14 MAY 05

DOE gets OK to ship wastes to Hanford

By Annette Cary

Herald staff writer

The Department of Energy may ship some plutonium-contaminated waste to Hanford, U.S. District Judge Alan McDonald ruled Friday in Yakima.

However, state officials were pleased to hear the judge is continuing the prohibition on shipping some other types of radioactive waste to the Hanford nuclear reservation. He extended a ban for 90 days on shipments of low-level radioactive waste, including waste mixed with hazardous chemicals.

McDonald also continued a ban on plutonium-contaminated waste mixed with hazardous chemicals as issues related to Initiative 297 are settled.

Long before voters approved the Hanford waste initiative, the state had filed suit to keep DOE from sending plutonium-contaminated and low-level radioactive waste to the site, fearful that it would become a waste dump for the nation.

The initiative, which passed in November, is intended to bar DOE from sending more waste to Hanford until waste already there is cleaned up. But whether it violates the U.S. Constitution is being considered in a separate lawsuit.

Hanford is massively contaminated from more than 40 years of production of plutonium for the nation's nuclear weapons program.

Friday's ruling opens the way for DOE to send most, but not all, of the plutonium-contaminated waste left at Battelle's Columbus, Ohio, site to Hanford.

"While the United States continues to review this lengthy opinion, we're encouraged the court has agreed the department can move forward safely in the processing of transuranic (plutonium-contaminated) waste in the interest of its final disposal," said Colleen French, a DOE spokeswoman in Richland.

The judge agreed to let DOE ship 34 of 37 cubic meters of plutonium-contaminated waste from Ohio to Hanford.

18 MAY 05

Jobs lagging over Hanford layoffs

By Jeff St. John
Herald staff writer

Hanford-related layoffs put the brakes on the Tri-Cities' job growth rate in April, slowing the remarkable employment gains of the past six months.

Nonfarm jobs stood at 85,900 in the Tri-Cities in April, up 1.7 percent from the same month last year, according to data released Tuesday by the state Employment Security Department.

That's a far cry from the 4.6 percent growth rate recorded in March, which marked a peak in high growth rates that have persisted since October 2004.

Driving down the growth was the layoff of about 700 workers at Bechtel National's Hanford vitrification plant project last month, said Dean Schau, state labor economist for the Tri-Cities region.

Along with about 300 more people Bechtel plans to lay off by June, Fluor Hanford issued

Hanford layoffs slow job growth



SOURCE: Employment Security Department

	APRIL '04	MARCH '05	APRIL '05	% change over year
Farm	10,700	6,900	9,400	-12%
Nonfarm	84,500	86,100	85,900	+1.7%
Total	95,200	93,000	95,300	+0.1%

Herald graphic

layoff notices to about 150 workers last month and Energy Northwest plans to lay off about 110 workers by July, he said.

Those layoffs actually reduced total nonfarm employment by 200 jobs from March to April, offsetting job gains in construc-

tion, warehousing and educational and health services, Schau said.

In an economy driven by Hanford-related employment, big layoffs aren't good news, he said.

Pointing to the most recent accurate payroll data, Schau noted that Hanford-related workers took home almost a third of the Tri-Cities' total nonfarm wages in the third quarter

See **Jobs**, Page B5

20 MAY 05
*2 thyroid cancer victims
awarded more than
\$500,000 in lawsuit*

**By The Associated Press
and the Herald staff**

SPOKANE — A federal jury awarded more than \$500,000 Thursday to two thyroid cancer victims who blamed their disease on radiation from the government's Hanford nuclear installation, which made plutonium for bombs for four decades.

The jury deadlocked over whether another plaintiff's thyroid cancer was caused by Hanford radiation, and it ruled against three

others with thyroid-related autoimmune diseases.

The verdicts came in a 14-year-old lawsuit against corporations that made plutonium for the federal government and was claimed as a victory by both sides.

"It is still a historic day," said plaintiffs' attorney Richard Eymann, because a jury for the first time found that Hanford emissions caused thyroid cancer.

"They went in saying we could not prove any of this, and we picked up two and had a hung jury on a third," Eymann said. "The Department of Energy should take a hard look at this."

The six people who went to trial

were the so-called "bellwethers" among nearly 2,300 Hanford downwinders who have sued major contractors who ran the federal nuclear reservation for the government after it started making plutonium in 1944. The jury verdicts on their cases are intended to help attorneys reach settlement on remaining cases.

Kevin Van Wart, whose Chicago law firm represented General Electric Co., E.I. DuPont de Nemours Co. and UNC Nuclear Inc., said the six "were their best, hand-picked cases," and the plaintiffs won only two. The judge dismissed the cases of the bellwethers picked by the

See **Jury**, Page A2

18 MAY 05

Hanford likely to boost budget

House committee set to put more than \$200 million back into 2006 at meeting today

By Annette Cary

Herald staff writer

The House Appropriations Committee is expected to add more than \$200 million back into the Hanford budget for fiscal year 2006 when it meets today.

The Subcommittee on Energy and Water Development added the money back into the budget last week but has not discussed the specific amount it approved or how the increase would be spent.

The committee is not expected to make any major changes to the subcommittee's markup, said John Scofield, spokesman for the committee.

He credited the proposed increase in Hanford spending to U.S. Rep. Doc Hastings, R-Wash.

"He's done a very good job of explaining why it was unwise to follow the administration's cuts to the program," Scofield said of Hastings.

The Department of Energy had proposed a Hanford budget cut of \$267 million from the present budget of about \$2.1 billion. Depending on the items included as cleanup work in the budget, the cut is closer to \$290 million, say some Hanford supporters.

Last May, Hastings brought the influential chairman of the subcommittee, U.S. Rep. David Hobson, R-Ohio, to tour Hanford and see the scope of the work being done to clean up the nuclear reservation.

After the tour, Hobson said the nation needs to support cleanup of Hanford, which was left extensively contaminated by more than 40 years of production of plutonium for the nation's nuclear weapons program.

"This generation has an obligation to do that," he said last year. "We need to be good stewards of the land."

By seeing the work going on at Hanford, he gained confidence that spending so much money there was appropriate, he said.

This spring, Hastings led an effort to get all 14 representatives from Washington and Oregon to sign onto a request to the subcommittee to add \$239 million back into the Hanford budget proposal.

"The level of funding requested by DOE for next year is not sufficient to maintain cleanup progress at the Hanford site," the letter said. "We believe the proposed reductions go too far and will unnecessarily and unjustifiably delay cleanup progress."

The House Armed Services Subcommittee last week restored \$122 million to the budget, but getting appropriation committees to approve additional money for Hanford is more important.

The Hanford budget still must go to the House floor while a similar process is followed in the Senate.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

Budgets

Lawmakers crafting energy bill.

A10.

1,000 Fluor workers face layoff

^{19 MAY 05}
Company to give volunteers help if notice given in May; rest to leave in September

By Annette Cary

Herald staff writer

Fluor Hanford plans to lay off up to 1,000 of its 3,886 workers in late September, chief executive Ron Gallagher

announced in a message to employees Wednesday afternoon.

"The pace of cleanup has reached a point where significant changes to the work force are necessary to reflect the work scope that remains for the balance of our contract," Gallagher told employees. Fluor's

Hanford

House committee passes bigger budget. **B1.**

contract is set to expire in September 2006.

Although the employee message did not discuss the Hanford budget, the contractor likely will get less money for cleanup projects under the budget proposed for fiscal year 2006.

Gallagher warned employees in early March that both a near-term layoff and more layoffs over the balance of Fluor's contract would be needed. A month ago,

layoff notices were given to 148 workers.

The Fluor layoffs are in addition to 700 construction workers who lost their jobs with Bechtel National at its vitrification plant project this spring. Also, 300 non-construction workers at Bechtel National will lose their jobs by June.

Fluor is the primary contractor for cleanup of the Hanford nuclear reservation, where plutonium was produced for the nation's nuclear weapons program. It

manages the site and does some of the cleanup work, including work in the central plateau.

The Fluor layoffs could include workers for Fluor and for its contractors Day & Zimmermann Protection Technology Hanford, Duratek Federal Services of Hanford and Numatec Hanford Corp.

Fluor is asking for volunteers for

See **Fluor**, Page A2

17 MAY 05
Hanford area could have other uses once cleaned, say advisers for Richland

By Annette Cary

Herald staff writer

Industry has no interest in using the portion of the Hanford nuclear reservation just north of Richland once it's cleaned up, a survey by consultants for the city of Richland has concluded.

The Department of Energy's land-use plan proposes cleaning up the 300 Area to a standard acceptable for industrial use.

But a preliminary assessment by a committee formed by the city of Richland has found that the river-front property might be considered for a mix of uses, including a bike trail along the Columbia River, a business research park, homes, a golf course and a park with a boat launch.

Those uses would require a more thorough cleanup than now proposed.

"Changing the industrial land use designation for the 300 Area at this point may not be technically feasible and would have significant cost impacts," Keith Klein, manager of the Department of Energy's Richland Operations Office for Hanford, has

told the city in a letter.

In addition, DOE has not made a decision to transfer the land from the federal government in the foreseeable future, he wrote.

DOE, EPA and the Washington State Department of Ecology plan a daylong workshop Thursday to talk about a vision for the 300 Area when cleanup is complete. It's expected to gather public opinion about the future use of the area, but not address specific cleanup levels.

The meeting is from 8 a.m. to 4:30 p.m. at the Consolidated Information

See **Industry**, Page A2



Construction workers recently tore down a metal fabrication building in the 300 Area of Hanford. A survey by consultants for the city of Richland found no companies that are interested in using the land once it's cleaned up.

Herald file

Briefs

Crews drill FFTF core, destroying reactor

Workers drilled through the core of Hanford's Fast Flux Test Facility Thursday to create an opening to remove the last of the liquid sodium from the reactor.

The drilling, which took three minutes, physically destroyed the research reactor.

However, even ardent supporters of the reactor said any hope of a restart was destroyed April 29 when work began to ream away hardened weld material to allow the drill to be inserted. That allowed metal filings to drop into the reactor vessel.

Supporters of the research reactor wanted it restarted to produce isotopes for medical use and for research to develop the next generation of nuclear power reactors, among other uses. Republican and Democratic administrations concluded there was no economically viable use for the 400 megawatt reactor, despite its technical capabilities unmatched elsewhere in the nation.

20 MAY 05
*Hastings includes Hanford
visitor center, museum funds
in appropriations measure*

By Annette Cary

Herald staff writer

The U.S. House approved \$2.25 million for development of the Hanford National Monument Heritage and Visitor Center in Richland during a Thursday night vote.

It also approved \$250,000 to continue a study to save Hanford's historic B Reactor as a museum.

Both budget items were added to the Fiscal Year 2006 Interior Appropriations bill by Rep. Doc Hastings, R-Wash. In addition, he added \$1



Hastings

million to preserve B Reactor to another appropriations bill the House is expected to consider next week that includes Department of Energy funds.

Money for the projects also must be approved by the Senate.

The money approved for the visitor center would bring the amount from the Fish and Wildlife Service to \$3 million — the maximum the agency can spend on a visitor center project. Last year, Congress provided \$750,000 for the Hanford Reach Visitor Center.

The 61,000-square-foot center is expected to cost about \$32 million, and money for the project is being pieced together.

The push by Hastings for the money and the House action Thursday "made my week," said Ron Hicks, executive director of

See **House**, Page A2

Cleanup Alternatives Evaluated for the U Plant Area Waste Sites (200-UW-1 Operable Unit)



NOTICE!

Public Comment Period *May 16 - June 30, 2005*

The U.S. Department of Energy, Washington State Department of Ecology, and the U.S. Environmental Protection Agency (Tri-Party Agreement agencies) would like your feedback on the 200-UW-1 Operable Unit (OU) Proposed Plan. The Proposed Plan presents the results of the cleanup alternative evaluations and identifies the preferred cleanup alternatives for 31 waste sites in the U Plant Area. These sites are contaminated or potentially contaminated from past U Plant-related operations. The Plan also describes the closure strategy for the 216-U-12 Crib, a Resource Conservation and Recovery Act treatment, storage and/or disposal (TSD) unit.

These 31 sites are primarily contaminated with cesium-137, technetium-99, uranium, and/or nitrate—constituents that pose a potential risk to human health and the environment. These sites include structures (e.g., cribs), debris (e.g., timbers) and soils that range from small (surface area of contamination 30 ft² and 3 ft deep) to very large (surface area of contamination 50,000 ft² and 200 ft deep).

The four cleanup alternatives evaluated include: 1) No Action, 2) Maintain Existing Soil Cover, Institutional Controls, and Monitored Natural Attenuation, 3) Remove, Treat, and Dispose and 4) Engineered Barrier. Remove, Treat and Dispose was identified as the preferred alternative for 15 sites. Maintain Existing Soil Cover, Institutional Controls, and Monitored Natural Attenuation was identified as the preferred alternative for 9 sites. Engineered Barrier was the preferred alternative for 5 sites and No Action was recommended as the preferred alternative for 2 sites.

Submit comments
in writing or
electronically to:

Mr. John Price
Washington State Department of Ecology
3100 Port of Benton Blvd.
Richland, WA 99354-1670
Fax: (509) 372-7971
Jpri461@ecy.wa.gov

Public Meeting
June 2, 2005
Richland Public Library
6:30 p.m.



Tri-Party Agreement

U.S. Department of Energy
U.S. Environmental Protection Agency
Washington State Department of Ecology

For additional information or a copy of the Proposed Plan call the
Hanford Cleanup Line: 1-800-321-2008

The Proposed Plan for 200-UW-1 Operable Unit is available at:
<http://www.hanford.gov/public/calendar/>

under the Public Comment Period section

20 MAY 05
Supreme Court asked to interpret key parts of law

By Annette Cary

Herald staff writer

OLYMPIA — The Washington State Department of Ecology believes the Hanford waste initiative did not give the state new authority, only that it requires it to use its existing authority to the fullest, Andrew Fitz, a state assistant attorney general, told the State Supreme Court on Thursday.

But Kenneth Amaditz, a U.S. Department of Justice attorney, said that interpretation is inconsistent with the wording of the

initiative, which he said would greatly expand the state's authority over waste at the Hanford nuclear reservation and other government sites in Washington.

Both sides presented arguments to the nine members of the State Supreme Court on how Initiative 297 should be interpreted.

Voters in every county of the state but Benton and Franklin passed the initiative in November to stop the Department of Energy from sending more waste to Hanford until waste already

there from the past production of plutonium for nuclear weapons is cleaned up.

A federal court is to decide the main issue in the case, whether the initiative violates the U.S. Constitution. But first U.S. District Judge Alan McDonald has asked the state court to interpret some key parts of the initiative, since it is a state law.

Several times during the hearing, the justices questioned whether interpreting the new state law would make a significant difference in how the constitutionality of the initiative is decided.

The state wants authority at

Hanford only over hazardous wastes that have already contaminated the environment or are likely to, Fitz said. If there is contamination at a facility, the state could prohibit more waste from being sent there, he said.

"There is no hint of expanding state authority," he said.

Attorneys supporting the state's position argued voters understood that from voter pamphlets and other materials.

"The voters' intent was not to grab new spheres of material to regulate," Fitz said.

But attorneys opposed to the initiative said that, as it is written, it would expand state authority to

materials not now considered waste or not considered to be under state authority.

Under federal law, the U.S. government regulates nuclear materials, but gives some authority to the states on nuclear waste if it includes hazardous chemicals, or is "mixed."

For example, the initiative would appear to regulate radioactive materials kept in acid at Pacific Northwest National Laboratory to be used in known amounts to calibrate instruments used to measure radioactivity, Amaditz said.

19 MAY 05
*Vote key step toward getting
back much of \$267 million
cut proposed by Bush*

By Annette Cary

Herald staff writer

The House Appropriations Committee restored a little more than \$200 million to the Hanford budget for fiscal year 2006 on Wednesday.

The Bush administration has proposed cutting the budget by \$267 million to \$290 million from this year's level, depending on which items are included as part of the budget. The committee vote was a crucial step toward getting much of that cut restored.

The House still must approve the Hanford budget and could vote on it as early as next week. The Senate has yet to begin work on the Hanford budget, but the Senate often follows the House lead on Hanford spending.

The budget as passed by the committee should be around \$2 billion.

"It looks pretty good for Hanford," said Sam Volpentest, executive vice president

“
**It looks pretty good for
Hanford. ... You've got to give
credit to Doc on this.**

Sam Volpentest,
executive vice president, TRIDEC

”
of the Tri-City Industrial Development Council.

The money would provide full funding for the vitrification plant, more money for cleanup projects across the nuclear reservation, more money for the Volpentest HAMMER training center and \$1 million for preservation of the historic B Reactor.

In addition, \$10 million was added to the \$8 million requested by the Bush administration to plan and design new laboratory space for Pacific Northwest National Laboratory. The additional money will be used for construction.

"You've got to give credit to Doc on this," Volpentest said.

Rep. Doc Hastings, R-Wash., laid the

ground work last year for the restored funding when he brought the influential chairman of the Energy and water Appropriations Subcommittee, Rep. David Hobson, to Hanford. Hobson wrote the bill that funds Hanford cleanup.

"It's important that we continue the cleanup at the Hanford site," Hobson said in a prepared statement. "Finding an additional \$200 million for this project wasn't easy, but, once again, Doc Hastings made the case and we got it done."

Hobson has been particularly concerned that work continues to protect the Columbia River from waste now held in underground tanks, Volpentest said.

Hobson said during the full committee hearing Wednesday that there was less money available this year, but the subcommittee had done its best to find some money for individual projects.

"The administration's budget reductions simply weren't acceptable and would have put the cleanup successes and momentum achieved over the past several years at risk," Hastings said in a prepared statement.

Hanford is contaminated with radioactive and chemical waste from more than

40 years of production of plutonium for the nation's nuclear weapons program.

Hastings also led an effort to get all 14 representatives in the Northwest, both Republicans and Democrats, to request that Hobson's subcommittee restore proposed Hanford budget cuts. The lawmakers did not get the full \$239 million they requested, but did receive full funding for many of the projects.

The revised budget bill would include \$690 million, an increase of \$64.1 million, for construction of the \$5.8 billion vitrification plant. That's the amount DOE has said is needed each year to finish construction in 2011. The plant will be used to turn some of Hanford's worst radioactive waste, now stored in underground tanks, into a stable glass form.

The Northwest delegation told the subcommittee the full funding amount is critical to ensure the project moves forward without additional delays. Construction at the plant has slowed this year because of a new study that showed the plant as designed might not withstand a severe earthquake.

See **Hanford**, Page B2

24 MAY 05

Hanford may temporarily store spent nuclear fuel

Report on bill considered today says existing facilities may need to provide storage before Yucca Mountain opens

By Annette Cary

Herald staff writer

A committee report on an appropriations bill to be considered by the U.S. House today suggests Hanford be considered as one site where spent nuclear fuel from commercial power plants might be stored temporarily.

Additional legislation likely would be required to allow the Department of Energy to establish a temporary storage site for commercial spent nuclear fuel.

Plans call for sending fuel from commercial nuclear reactors to Yucca Mountain in Nevada for permanent disposal deep underground. But the House Appropriations Committee report on the Energy and Water Appropriations Bill questions whether that repository will be approved and opened even by the projected delayed opening date of 2012.

The report urges that DOE "move aggressively" to take title to commercial spent fuel and consolidate it for interim storage at existing DOE facilities. Now the fuel is being stored at 129 private and government sites across the country.

25 MAY 05
*House legislation still needs
to be approved by Senate,
would provide PNNL money*

By Annette Cary

Herald staff writer

The U.S. House passed a bill Tuesday night that would restore \$200 million of cuts to the 2006 Hanford budget and also provide money for Pacific Northwest National Laboratory's new campus and to preserve Hanford's historic B Reactor.

Despite an amendment co-sponsored by U.S. Rep. Jay Inslee, D-Wash., the bill also includes money for the initial steps to consider temporary storage of spent nuclear fuel from

commercial reactors at a Department of Energy site, possibly Hanford. The amendment to block temporary storage and also recycling of spent nuclear fuel failed 312-110.

The Senate still must consider and approve a budget for the Department of Energy.

"It's time to rethink our approach to spent fuel," said U.S. Rep. David Hobson, R-Ohio, who presented the energy and water appropriations bill to the House.

The appropriations committee report on the bill called for DOE to prepare a plan for recycling fuel in 2007 and to take action in 2006 to begin accepting spent commercial fuel from nuclear utilities and placing it in centralized interim storage at one or more DOE sites.

The nation's spent commercial fuel is supposed to go to a repository being developed in

Yucca Mountain, Nev., but its opening has been delayed until at least 2012. It also has too little space and either will need to be expanded or supplemented with a second repository elsewhere in the nation, the report said.

Hanford's high-level radioactive waste also is planned to be sent to Yucca Mountain.

Recycling the commercial fuel would reduce the waste that would have to be sent to Yucca Mountain by 60 percent, according to supporters of the plan.

After fuel is processed, it retains 97 percent of its energy, Hobson said. New technology and preprocessing methods can reduce some of the historical drawbacks of recycling it, producing less high-level radioactive waste and

See **Hanford**, Page A2

23 MAY 05

PNNL plans microbiology studies

More than 16 institutions to participate in examining the roles of algae, bacteria

By John Trumbo

Herald staff writer

The Pacific Northwest National Laboratory plans to invest \$2 million a year for the next three to five years to unlock mysteries of how blue-green algae turns sunlight into fodder for the planet and what role bacteria have in corroding metals.

More than two dozen researchers from 16 institutions will participate in the studies, which will be done at the lab's William R. Wiley Environmental Molecular Sciences laboratory in Richland.

PNNL chief scientists John Zachara and Jim Fredrickson will lead the team trying to learn how subsurface metal-reducing bacteria interact at the microbial level to affect electron transfer. Solving the enigma may help researchers understand

microorganisms' role in influencing soil and water chemistry. The results could lead to developing new technologies for ground water remediation and other environmental applications.

The research into the biology of proteins in blue-green algae will be led by Himadri Pakrasi, a Washington University in St. Louis biology professor, and PNNL's David Koppenaal.

They will dive deep into the mystery of how the microorganisms interact with photosynthesis in the world's oceans, hoping to discover how the one-cell organisms can fix oxygen and nitrogen alternately during a 24-hour cycle while simultaneously growing and dividing into new cells every 10 to 14 hours.

Answering the question may help scientists understand more fully how microbial systems fit into the large environmental schemes, Pakrasi said in a news release issued from Washington University.

Raymond Orbach, director of the

Department of Energy's Office of Science, said in a statement released Thursday that EMSL has the right combination of research, analytical and computational tools and a large group of resident scientists and visiting scientists who together can crack these kinds of fundamental mysteries involving microbiology and biogeochemistry.

"We are bringing together international expertise to advance an area of science in ways that haven't been possible before and that are innovative," said Allison Campbell, EMSL director.

The money for the research is coming from two sources, Campbell said. Part of it is being paid for by the lab itself from laboratory-directed research and development dollars. The remainder is provided by the Department of Energy from funds dedicated to make EMSL available to users from around the world.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com.

27 May 05
*Richland small business
will get \$13.7 million to
decontaminate F Reactor*

By Annette Cary

Herald staff writer

Federal Engineers and Constructors, a Richland small business, has won a \$13.7 million subcontract to clean up the remaining contaminated waste around Hanford's F Reactor along the Columbia River.

The work will be done for Bechtel Hanford, which holds the Department of Energy contract to clean up old reactor sites along the Columbia River, among other work.

Federal Engineers and Constructors, or FE&C, has won more than \$31 million in work over the last four years in bids made to Bechtel Hanford. That work has included cleanup of some burial grounds in the 300 Area just north of Richland, roofing D Reactor and cleaning up burial grounds and some remaining sewers and pipelines near the B and C reactors.

"We're pleased to team up again with FE&C on cleanup at Hanford," said Rick Donahoe, manager of Bechtel's Remedial Action Project, in a prepared statement. "Their past work has been great, and they have an excellent safety record."

Five companies bid on the project.

F Reactor is one of nine reactors built along the Columbia River to produce plutonium for the nation's nuclear weapons

program. Also included at F Area were support facilities and animal research laboratories.

F Reactor, which began operating during World War II, shut down in 1965 and was cocooned in 2003, a process that includes tearing down much of a reactor and then sealing up its radioactive core and perimeter for safe storage. The research laboratories were closed in the 1970s and demolished in the late 1990s.

Operations at F Area generated tons of radioactive and hazardous chemical waste, which were disposed of in trenches and covered with soil.

The subcontract calls for cleaning up 23 waste sites and burial grounds in F Area, three miles of potentially contaminated water treatment and sewer

pipelines, 437,000 tons of contaminated materials, reactor hardware, construction debris and waste from the animal research laboratories.

FE&C will dig up, sort, package, weigh and transport the waste to a container transfer area, where another subcontractor will take it to a landfill in central Hanford.

"Bechtel has been instrumental in helping our company get started and grow, and we appreciate their willingness to work with small businesses, such as ours, to help them become successful," said Dick French, president of FE&C, in a prepared statement.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.

45 JUN 05

Fluor Hanford wins business award for volunteer efforts

The Association of Washington Business has given a 2004 Community Service Award to Fluor Hanford in recognition of the company's volunteer work remodeling the facilities of the YMCA of the Greater Tri-Cities and the Boys and Girls Club of Benton and Franklin counties.

The award recognized volunteer efforts by Fluor, as well as other area businesses that volunteered their time to the remodeling projects, AWB President Don Brunell said in a news release. Fluor was one of 19 businesses to win the award.

— By the Herald staff

1 JUN 05

Fluor stops cleanup protest

*Washington Closure
plans to resume work
on Columbia next week*

By Annette Cary

Herald staff writer

Hanford appears finally to have a new contractor for cleanup of the river corridor after Fluor Corp. announced Tuesday that it has withdrawn its protest to the \$1.9 billion contract award.

The status of the contract to clean up the Hanford nuclear reservation along the Columbia River has been in limbo since 2003.

Most recently, Washington Closure was awarded a seven-year contract to clean up the 210 square miles of the Hanford nuclear reservation along the Columbia River in March. But the transition of the work to Washington Closure was halted in early April after losing bidder Fluor questioned whether the contract had been properly awarded.

The Department of Energy told Hanford employees late Tuesday afternoon that Washington Closure, a limited liability corporation led by Washington Group International, will resume work toward the transition of the contract. That's expected to happen Monday.

"We've been standing by since April, and we're ready to resume exactly where we left off," said Jack Herrmann, a spokesman for Washington Group International.

See **Cleanup**, Page A2

Site expected to be last on reservation used to dispose of radioactive waste

By Annette Cary

Herald staff writer

2 JUN 05

Work has begun on what's expected to be Hanford's second and last large landfill to dispose of radioactive waste from cleanup of the nuclear reservation.

"I think it's the last tool we'll need on site" for the types of radioactive waste now allowed to be buried at Hanford, said Moses Jaraysi, director of regulatory strategic planning for Department of Energy contractor CH2M Hill Hanford Group.

The Integrated Disposal Facility, costing \$28.1 million, is planned to meet two Hanford cleanup goals.

It will help DOE keep its promise to stop disposing of low-level radioactive waste, such as contaminated equipment, directly in the soil at Hanford instead of in lined landfills.

The landfill also will be needed to hold the least radioactive waste now held in 177 huge underground tanks at Hanford, left from the past production of plutonium for the nation's nuclear weapons program.

The Department of Energy plans to turn tank waste into a more stable glass form at the \$5.8 billion vitrification plant under construction at central Hanford.

The most radioactive waste will be turned into glass logs to be sent to a national repository for disposal, likely at Yucca Mountain, Nev. But much of the low-activity waste mixed with hazardous chemicals from the tanks is planned to be buried at Hanford in the new landfill.

DOE also is testing an alternate tech-



Herald/Paul T. Erickson

Doug Strasser of Permit Surveying Inc. holds a mark as work continues on the Integrated Disposal Facility at Hanford. The 55-foot-deep basin will hold various types of radioactive waste including glassified logs from the vitrification plant.

nology to turn some of the low-activity radioactive waste into blocks of glass up to 24 feet long. The first test blocks of radioactive glass could be made beginning at the end of the year and become the first glassified waste to be sent to the new landfill.

The state considers the project important enough that it has allowed some work to be done at the site, such as digging the hole and installing monitoring wells, before a final permit for the project is issued. The state is accepting public comment now on a proposed permit, but the preliminary start on the project will allow the contractor to take advantage of good weather.

The permit would allow a landfill that's about as long as five football fields, 765 feet wide and 42 feet deep. It would hold

about 200,000 cubic yards of waste.

Plans allow for it to be expanded in two more sections to grow from a construction size of about 26 acres to about 60 acres, but that would require DOE to go back to the state for approval.

Half of the first portion is reserved for glassified waste from the vitrification plant and bulk vitrification test plant. DOE will use the other half for low-level radioactive waste that has not been contaminated with chemicals.

Whether the site would ever accept low-level radioactive waste from elsewhere in the nation depends on the outcome of two lawsuits in federal court on whether the state has the authority to bar that waste from Hanford.

See **Landfill**, Page B2

29 May 05

Rules for ill Hanford workers criticized

GAP says proposed rules less than Congress ordered

By Annette Cary
Herald staff writer

The U.S. Department of Labor is proposing less help for ill Hanford workers in new rules than Congress ordered, according to a nonprofit watchdog group.

"Because they didn't like how Congress wrote the law, they rewrote it as they saw fit," said Richard Miller, senior policy analyst for the Government Accountability Project, or GAP.

The proposed rules for the program would increase the standard of proof for radiation-related cancers, exclude many workers from impairment benefits and require workers to document on-the-job

exposures, said GAP.

The program provides up to \$250,000 for physical impairment and wage loss to workers who suffered occupational illnesses from exposures to toxic substances at the Hanford nuclear reservation, which produced plutonium for the nation's nuclear weapons program.

It also offers up to \$175,000 for certain family members if the worker has died.

In 2004, Congress ordered the troubled portion of a worker compensation program for Department of Energy nuclear weapon sites transferred from the Department of Energy to the Department of Labor.

The Department of Labor already operated a successful part of the program, Part B, that offered \$150,000 lump sum payments and medical care to Han-

ford workers who had cancer caused by exposure to radiation or a rare lung disease caused by exposure to beryllium.

The portion of the program transferred to Department of Labor late last year, Part E, offers additional payments similar to state worker compensation programs to employees harmed by a wide range of toxic substances, including radiation, asbestos and heavy metals.

The proposed rules for Part E released Thursday would offer workers or their survivors compensation for cancers caused by radiation only if there is at least a 50 percent chance that radiation caused the cancer.

That's a violation of the language of the law, which says only that a toxic substance must be a "significant factor which aggravated, contributed to or caused

the illness," GAP said.

Labor Secretary Elaine Chao referred questions about the standard for radiation-related cancers to other Department of Labor officials in a teleconference with reporters Thursday.

Those officials would talk only on the condition of anonymity and then on the subject of cancer standards would only refer reporters to the rules.

In the recently completed federal court trial of six people who believe their health was damaged by radioactive emissions released from the Hanford nuclear reservation, attorneys were required to show that the emissions were more than 50 percent likely to have caused their cancer or other illnesses. The jury awarded damages to two plaintiffs.

The \$150,000 payment under Part B of the program for workers

requires the same eligibility standard for radiological cancers.

But GAP believes it's an unreasonably high standard for a worker compensation program that requires workers to give up their right to sue for damages. For other toxic substances under Part E, the government must find only that they were a significant factor, which GAP estimates might be a 20 percent to 50 percent chance, in contributing to the disease.

GAP also believes the proposed rules leave a loophole clearly unintended by Congress that would mean some workers would not be paid for impairments caused by working at Hanford.

The rules call for impairment to be determined by American Medical Association guidelines,

See **Rules**, Page B2

Briefs

10 JUN 05

Senate committee OKs Reach center funding

The Senate Appropriations Committee on Thursday approved \$2.25 million for the Hanford Reach National Monument Heritage and Visitor Center.

The money was requested by U.S. Sen. Patty Murray, D-Wash. The legislation next must be approved by the full Senate. In May, the U.S. House approved spending the same amount of money in response to a request by Rep. Doc Hastings, R-Wash.

The visitor center — also called the Reach — will have exhibits about Ice Age floods, human history, the ecology of the basin, the river's importance to agriculture.

10 JUN 05

'State of the Hanford Site' meeting set

The annual "State of the Hanford Site" public meeting for the Tri-Cities is planned for 6:30 p.m. Wednesday.

The meeting is a chance for the public to ask questions of top management at the nuclear reservation and its government regulators. Hanford leaders and regulators will discuss what's new at Hanford, budget priorities and cleanup goals.

The meeting will be at the Red Lion Hanford House, 802 George Washington Way, Richland.

DOE to resume tours of Hanford cleanup projects, historical sites

By **Annette Cary**

Herald staff writer

The Department of Energy again is offering the tours of the Hanford nuclear reservation that became a summer tradition in the Tri-Cities before Sept. 11, 2001.

Because of security concerns after the terrorist attacks, no tours were offered in 2002 and '03.

This year's tours will build on the 2004 tour, with a more complete look at cleanup projects in addition to a tour of the reservation's historical sites.

Over more than 40 years, the 586-square-mile nuclear reservation produced more than half of the plutonium made in the United States, including the plutonium for the first atomic explosion and plutonium used in the bomb

dropped on Nagasaki, Japan. It also produced about two-thirds of the nuclear waste in the DOE complex.

One of the highlights of the four-hour tour will be a look inside B Reactor. Efforts are under way to preserve the reactor as a museum, but now opportunities for the public to tour the reactor are uncommon.

It was the world's first full-scale production reactor, built as the nation raced to develop an atomic bomb during World War II.

Tour buses also will pass the original Hanford town site, where people were forced to leave homes, businesses and nearby farms, to make way for the secret government project.

Much of the tour will focus on work to clean up the Hanford nuclear reservation. The

tour bus will pass close to the \$5.8 billion vitrification plant, which is being built to turn some of Hanford's worst waste into a stable glass form for permanent disposal.

The tours are scheduled for 7:30 a.m., 9:30 a.m. and 12:30 p.m. June 24 and 25. They will begin and end at the Volpentest HAMMER Training and Education Center, 2890 Horn Rapids Road, Richland.

The 250 seats on the tour are expected to fill quickly. Visitors may register at www.hanford.gov/information/sitetours/registration/. Participants must be U.S. citizens, at least 16 and show valid photo identification the day of the tour. No cameras will be allowed.

■ Reporter **Annette Cary** can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

3 JUN 25
*Samuel Bodman says he will
do his best to uphold Tri-Party
Agreement during Hanford visit*

By Annette Cary

Herald staff writer

Energy Secretary Samuel Bodman pledged to do his best to uphold the Tri-Party Agreement, the legally binding document that regulates cleanup at the Hanford nuclear reservation, during his first visit to the site Thursday.

"We agreed to it. We're going to honor it," he said.

He spent 11 hours in the Tri-Cities on an exhaustive tour of Hanford and Pacific Northwest National Laboratory. That's more time than any of his predecessors spent there, pointed out Rep. Doc Hastings, R-Wash., who accompanied him on the tour.

The energy secretary made the visit just four months after taking office, another sign of his interest in cleaning up the legacy of nuclear waste from World War II and the Cold War. Hanford is contaminated from more than 40 years production of plutonium for the nation's nuclear weapons program.

The visit also was a chance for a fresh start between the Department of Energy and Washington, despite two ongoing lawsuits in federal court over whether the state has the authority to bar nuclear waste from being sent to Hanford.

Both the state and DOE want the same thing: compliance with the Tri-Party Agreement, said Gov. Christine Gregoire after she and Jay Manning, the director of the state Department of Ecology, met with Bodman.

But they remain at odds on how to achieve that.

Bodman emphasized that cost is not a

measure of cleanup progress. DOE proposed cutting the Hanford budget for next year by \$267 million and Bodman said that reduced budget of about \$1.8 billion would still allow Tri-Party Agreement cleanup deadlines to be met.

That budget would "doom" cleanup to Tri-Party Agreement standards, Gregoire said. She praised Hastings' work to get the House to approve a \$200 million increase, as the fight for increased funding now moves to the Senate.

"We agreed to have our staffs work together," Bodman said. "We will see if we can reach some common ground."

It's the same cooperative approach he'd like to work toward with the state on other Hanford matters, ranging from governance of the site to importing and exporting waste from the site, he said.

See **Effort**, Page A2

7 JUN 05
Contractor says cuts will happen if DOE decreases Hanford budget in 2006

By Annette Cary

Herald staff writer

CH2M Hill Hanford Group would cut up to 350 jobs if the Department of Energy's proposed budget cuts for Hanford are adopted, the Hanford contractor told DOE on Monday.

However, that's a worst-case scenario for the contractor's 1,400 employees, CH2M's staff was told Monday.

"We have already seen positive signs coming from Congress and we remain hopeful that our work scope reduction for 2006 will be less than initially thought," Ed Aromi, CH2M Hill Hanford Group president, said in a memo to employees. "However, until the final budget is determined, we are required to plan to the worst case."

Two other contractors have already

announced layoffs of up to 2,000 Hanford employees this spring and during September.

DOE proposed a \$267 million budget cut for Hanford in fiscal year 2006 from the almost \$2.1 billion being spent at the nuclear reservation this year. About \$90 million of the cut would be for work at Hanford's tank farms, which CH2M Hill manages and operates.

Rep. Doc Hastings, R-Wash., succeeded in getting about \$200 million of that overall Hanford budget cut restored

in the appropriations bill just approved by the U.S. House. However, the U.S. Senate has yet to consider Hanford's budget.

The House budget for Hanford would restore much, but not all, of the tank farm budget. It would replace \$67 million of the \$90 million cut for work to retrieve radioactive and hazardous chemical wastes from Hanford's oldest underground tanks and to close some of those tanks.

See **CH2M Hill**, Page B5

^{2 JUN 05} Energy Secretary Samuel Bodman to make first stop at Hanford

By Annette Cary

Herald staff writer

New Energy Secretary Samuel Bodman makes his first visit to the Hanford nuclear reservation today.

"He's very interested in seeing first-hand the tremendous progress being made at Hanford," said Mike Waldron, a Department of Energy spokesman in Washington, D.C.

Bodman plans a packed day with a meeting with Gov. Christine Gregoire, a



Bodman

meeting with DOE employees, a tour of Pacific Northwest National Laboratory and a tour of much of the 586-square-mile Hanford nuclear reservation.

For more than 40 years Hanford produced plutonium for the nation's nuclear weapons program. But now DOE is

spending as much as \$2.1 billion a year to clean up the site.

Gregoire wrote to Bodman this spring, proposing a meeting for some "fresh, productive dialogue" to foster a stable cleanup program at Hanford. She was elected in November, and Bodman was appointed in December, giving the state and DOE new leadership on Hanford cleanup issues.

Among the state's concerns is DOE's proposal to cut at least \$267 million from

Hanford's cleanup budget in fiscal year 2006. The U.S. House has passed a budget that restores about \$200 million of that cut, but the Senate has yet to consider Hanford's budget.

Gregoire has been concerned that budget cuts could leave DOE unable to meet its obligations to clean up Hanford under the legally binding Tri-Party Agreement.

Hanford workers have completed several projects that have dramatically

reduced the risk to the environment at Hanford over the past 18 months. DOE officials have said that's one of the reasons the proposed budget was reduced.

Bodman plans to see the leak-prone K East Basin, where Hanford workers have finished removing 2,300 tons of radioactive irradiated fuel. He'll also tour the Plutonium Finishing Plant where workers last year finished stabilizing and

See **Bodman**, Page A2

15 JUN 05

Hanford tours fill up; next tours set in fall

All seats on June tours of the Hanford nuclear reservation had been reserved by Tuesday afternoon, contractor Fluor Hanford announced Tuesday. The signup for early fall tours will be announced later this summer. More information may be posted at www.hanford.gov/information/sitetours under the "public road tour" section.

— By the Herald staff

17/18 JUN 05

Review sought of Hanford's workers' comp program

Employees have myriad complaints about handling of compensation claims

By Annette Cary

Herald staff writer

The Department of Energy's Hanford managers have called for an independent review of the program that handles workers' compensation claims for

the nuclear reservation.

Workers attending the annual Hanford State of the Site meeting Wednesday complained that they were having to hire attorneys to attempt to get some medical claims paid and other claims were languishing for more than a year before being paid.

Keith Klein, manager of the DOE Richland Operations Office, and Roy Schepens, manager of the DOE Office of River Protection, sent a memo to all Han-

ford employees Friday afternoon saying they had asked for John Shaw's help to resolve the issue. Shaw is DOE's assistant secretary for environment, safety and health.

"This is a complicated situation with a number of parties and issues involved," Klein and Schepens told employees.

The two managers want an independent review of whether the contractor that handles workers' compensation claims, Contract Claims Services Inc., of

Texas, is processing claims as required by state law and in a reasonable period of time, they said.

They also want the review to look into whether employees are being treated professionally and with courtesy and whether employees are receiving adequate information about how workers' compensation regulations are applied.

The review team should include participants from the Washington State

See **Review**, Page A2

17 JUN 05

Rising Hanford costs may increase pressure to stop construction

*Ecology chief says
slowing project would
be a 'great mistake'*

By Annette Cary

Herald staff writer

When the Department of Energy releases new cost and schedule estimates for the \$5.8 billion vitrification plant at Hanford, there will be pressure to stop construction, said Jay Manning, the new Washington state director of Ecology.

"Abandoning it or slowing down significantly would be a great mistake," he said. "The governor and I will push hard to not let that happen."

Manning, who was appointed Ecology director three months



Manning

ago, spent Wednesday and Thursday in the Tri-Cities to tour Hanford, speak at the annual Hanford State of the Site meeting, address the Hanford

Advisory Board and meet with the Tri-City Herald editorial board.

Taxpayers already have spent \$3.3 billion on design and construction at the vitrification plant, which is planned to turn some of Hanford's worst waste into a stable glass form for permanent disposal. The waste is left from more than 40 years of producing plutonium for the nation's nuclear weapons program.

See **Hanford**, Page A2

16 JUN 05
*Watchdog group discovers contamination from Hanford
may be more than earlier DOE information indicated*

By Annette Cary
Herald staff writer

More radioactive contamination may have spread off the Hanford nuclear reservation than Department of Energy data indicate, according to the Government Accountability Project, a watchdog group.

GAP teamed up with Boston Chemical Data Corp. to check for radioactive contamination in sources ranging from fish in the Columbia River to dust in the attics of Richland homes. A report on the findings was released Wednesday.

Tests showed plutonium and other radiological material in fish and clams taken from the Columbia River. A dust sample from one house had a radioactive reading

six times higher than samples taken from attics in other parts of the country, according to GAP.

"In the wake of this report, it is essential that Congress provide the funds for a Natural Resources Injury Assessment, independent of the Department of Energy, to examine contamination around the Hanford site," said Tom Carpenter, GAP nuclear oversight campaign director. "We need to find out what this data means for public health concerns immediately."

DOE will study the report, and any documentation available, said Dana Ward, an environmental scientist for DOE in Richland. "But it is fair to say at first glance that we are skeptical."

Pacific Northwest National Laboratory conducts an environmental surveillance program for DOE, and the Washington State Department of Health provides oversight.

"In general, we feel (the DOE) program is good," said Debra McBaugh, manager of environmental radiation for the state health department.

Its reviews have found similar results to DOE's monitoring program, she said.

The state knows about contaminants GAP found, she said, although it does not track house dust, which GAP believes may have been contaminated with past airborne radiation. She cautioned that levels of naturally occurring radiation may vary and GAP's data on dust did not appear to be based on significant amounts of data.

Off-site contamination the state does check for is not at levels above

regulatory limits, she said.

However, the state is interested in looking at GAP's data and seeing if there could be something it has missed, McBaugh said.

The study found high uranium readings 20 miles upstream of Hanford in the Columbia River, according to GAP. Although that uranium could come from natural sources or upstream contamination, it could have been carried by wind from Hanford or carried by aquatic organisms up the river, according to GAP.

Both uranium mines in the Spokane area and a British Columbia smelter that has released copious amounts of mercury are upstream, said Ted Poston, who manages the environmental surveillance program for DOE at the national lab.

See **Spread**, Page B2

15 JUN 02

Senate would add to Hanford budget

*\$34 million to be returned under new proposal;
House voted to restore \$200 million to 2006*

**By Annette Cary
and Les Blumenthal**

Herald staff writers

A Senate appropriations subcommittee added \$34 million back into the Hanford fiscal year 2006 budget Tuesday, but that still would leave the proposed budget more than \$230 million below this year's spending.

"We had to work hard to get what we did," said Sen. Patty Murray, D-Wash., a member of the Senate energy and water appropriations subcommittee.

It's unlikely legal cleanup deadlines for the Hanford nuclear reservation can be met at the level of the Senate budget, she said.

In February the president proposed cutting the Hanford budget of nearly \$2.1 billion for 2005 by \$267 million in fiscal year 2006.

But because security spending would be increased, the actual cut to cleanup dollars would be closer to \$297 million.

The U.S. House took up the proposed budget this spring and restored about \$200 million of the reduced funding under the leadership of Rep. Doc Hastings, R-Wash.

The Senate subcommittee budget that would restore less money still must be approved by the full committee, then go

“
**We had to work hard
to get what we did.**

Sen. Patty Murray, D-Wash.

”
before the Senate for a vote. If the Senate's Hanford budget remains the same, a conference committee then will have to reconcile the difference between the \$34 million added back under the current Senate budget and the \$200 million the House voted to restore.

In the meantime, Hanford contractors are preparing for layoffs under what's certain to be a reduced budget when the fiscal year starts Oct. 1.

CH2M Hill Hanford Group is

prepared to cut 350 jobs if no money is restored to the Hanford budget.

Fluor Hanford, while not saying layoffs are tied to budget reductions, has announced that up to 1,000 jobs could be cut in September.

And Bechtel National will finish cutting nearly 1,000 jobs this month because of concerns about earthquake standards at the \$5.8 billion vitrification plant under construction and other difficulties.

The House was able to restore more cleanup money for Hanford than the Senate because it agreed to cut money from science and water projects also included in the bill, Murray said.

See **Hanford**, Page A2

Medical claims main concern

16544 05
By Annette Cary

Herald staff writer

The contractor that administers Hanford claims for workers' compensation has caused Bob Immele more grief than his incurable lung illness, he said at Hanford's annual State of the Site meeting Wednesday night in Richland.

Worker after worker stood up to complain to the Department of Energy about Contract Claims Services Inc.

"You guys got a problem there," said Steve Lewis, who was exposed to chemical vapors from Hanford's underground tanks of radioactive waste.

Too often workers are left with no resort but to hire attorneys to fight claim denials by CCSI, they said.

The state of Washington has twice issued orders to pay medical claims made by Thomas Peterson, who has the same illness as Immele, chronic beryllium disease, said Peterson's wife, Janet. The illness is caused by an allergylike reaction to the metal beryllium,

which is used in the nuclear industry.

But CCSI continued to refuse to cover her husband's claims for medical expenses incurred before a correct diagnosis of the rare disease had been made, Janet Peterson said.

"It's CCSI's mode to deny claims," she said. "They're making this adversarial. This is nothing but harassment of sick or injured workers."

DOE was caught unprepared for the complaints and had no one at the meeting who worked directly with the contractor, and no representative of the contractor was there to defend its decisions.

The annual meeting is a chance for workers and the community to hear an update on work at Hanford, where \$2 billion is being spent each year on cleaning up contamination from the past production of plutonium for the nation's nuclear weapons program.

It's also a chance for workers and the public to ask questions of DOE officials and leaders of the site's regulators, the U.S. Environmental Protection Agency and the Washington State Department of Ecology.

"I've heard things that make me want to ask

tough questions," said Keith Klein, manager of DOE's Richland Operations Office for Hanford. "Believe me, you've gotten my attention."

Klein said he had heard few complaints about CCSI before the meeting, and studies indicated the contractor acted responsibly and within the law. But he will be talking to John Shaw, DOE's assistant secretary for environment, safety and health, to see if an independent look at the program can be done, he said.

DOE's intent is not to burden sick workers with bureaucracy, said Doug Shoop, assistant manager for safety and engineering for the Richland Operations Office.

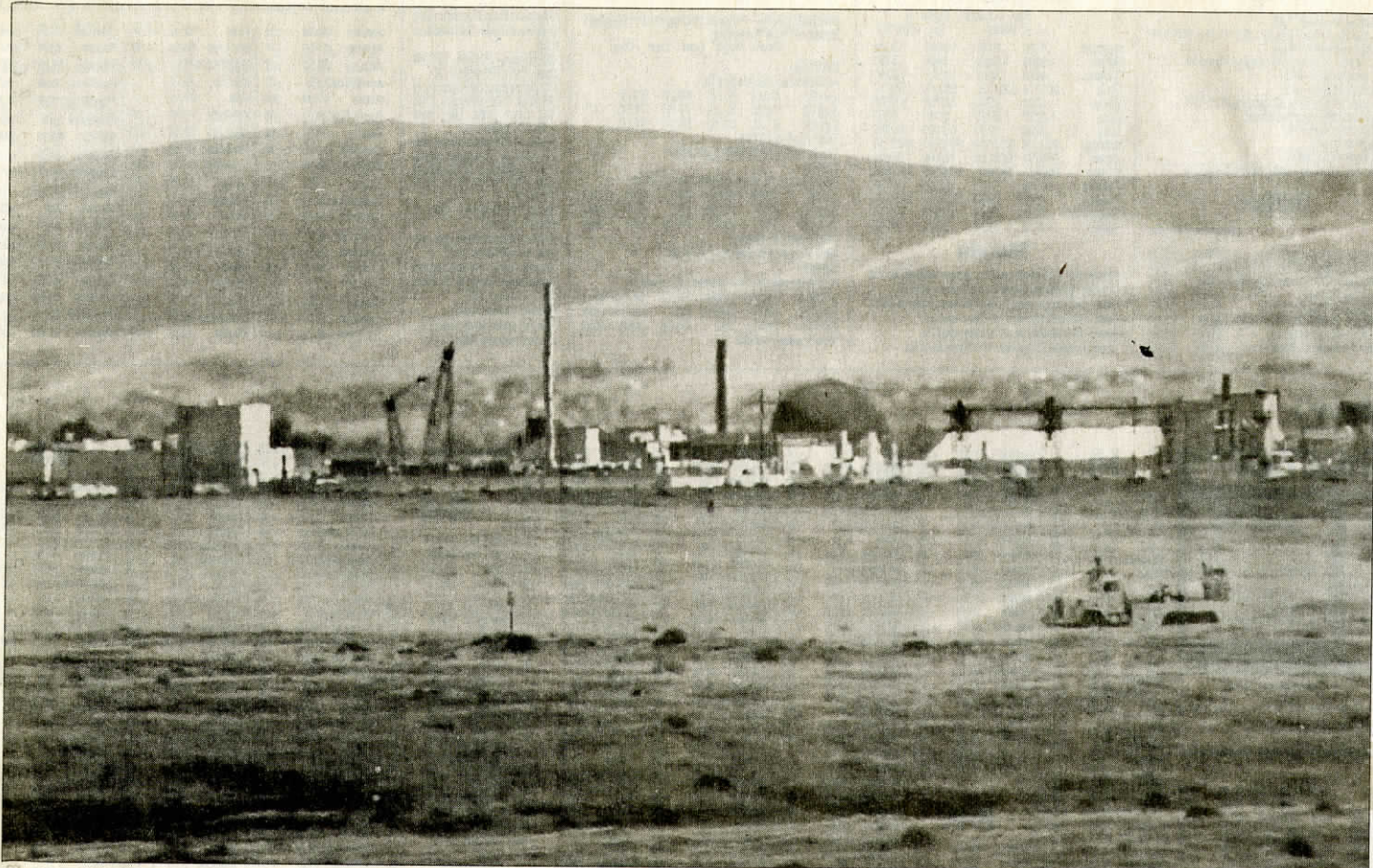
"I apologize for all the difficulty you as sick workers have gone through," he said.

CCSI is a state problem as well, because the state Department of Labor and Industry agreed to turn the worker compensation program over to DOE, said Gerald Pollet of Heart of America Northwest, a Hanford watchdog group.

The state can investigate, he said.

600-acre fire extinguished at Hanford

18 JUNE 05



Firefighters extinguish hot spots Friday after stopping a 600-acre fire north of the 300 Area on the Hanford Nuclear Reservation. The fire was started at 1 p.m. by a simulated explosive set off by the Hanford Patrol at its training center. The fire was fully contained

by 4 p.m. and no buildings or radioactive waste sites were threatened, officials said. Firefighters from Benton, Franklin and Walla Walla counties assisted the Hanford Fire Department in fighting the fire.

Herald/Richard Dickin

20 JUN 05
*Planning nearly complete,
work on Hanford Reach
center to begin in fall*

By Evan Caldwell
Herald staff writer

It won't look like much at first — a fence, construction trailers and one huge pile of dirt.

But when the work starts this fall at Columbia Point South in Richland, it will mark a tangible beginning for the Hanford Reach National Monument Heritage and Visitor Center.

Fund raising for the \$48 million interpretive center is near the halfway point, and designers are 99 percent done with planning so the facility can come to life.

But before construction can begin, about 100,000 square yards of dirt need to be trucked to the 50-acre site — about 10,000 truckloads.

"What the public will see is a fence, construction trailers and trucks," said Ron Hicks, interim executive director of the

center, which is being referred to by the nickname The Reach.

With the expected grand opening of The Reach fewer than three years away, \$23 million has been raised. And Hicks said The Reach board expects to be able to cover nearly all of the costs before the scheduled opening in March 2008.



Hicks

The legislation next must be approved by the full Senate.

In May, the U.S. House approved spending the same amount of money in response to a request from Rep. Doc Hastings, R-Wash.

Hicks said Sen. Murray and Rep. Hastings already had helped secure \$1.7 million from the 2005 budget.

Burt Vaughan, president of the Richland Public Facilities District, said he thinks The Reach is the largest undertaking by any group in Eastern Washington in the past four years.

The facilities district was created three years ago under a recently passed state law to oversee land acquisition, creation and fund raising for the center. The law allows the district to collect a portion of the state sales tax and use it for the facility.

While plans for the facility began modestly, the vision grew as more partners signed on after President Clinton established the Hanford Reach National Monument. The idea is that the interpretive center will showcase the monument that spans undisturbed portions of the Hanford Nuclear Reservation and the free-flowing stretch of the Columbia River that runs through it.

To build the center, the city of Richland, the facilities district, Friends of the Hanford Reach National Monument, Environmental Science and Technology Foundation (CREHST museum), U.S. Fish and Wildlife Service and the Tri-Cities Visitor & Convention Bureau formed a partnership. Other groups also have assisted and momentum for the project has grown.

The Reach will feature indoor and outdoor exhibits, outdoor trails, art, office space for the Fish and Wildlife Service and Convention Bureau, rental space for large events, a



29 JUNE 25

DOE to stop construction as 3 studies are launched to evaluate problems at site

By Annette Cary

Herald staff writer

The Department of Energy plans to stop construction on key parts of Hanford's vitrification plant until design work is done as part of a plan by Energy Secretary Samuel Bodman to address problems at the plant.

That announcement came Tuesday as

three studies were being launched, one at the request of Congress, to figure out what's gone wrong at the plant and how to get the project back on track.

Bodman also is pulling together a senior-level management team to oversee work at the vitrification plant.

After a new seismic study showed parts of the plant might not be able to withstand a severe earthquake, DOE said the cost of the project would increase substantially. Construction already has slowed at the two buildings at the plant that would handle high-level radioactive waste, and Bechtel National, the con-

tractor at the project, has announced layoffs of nearly 1,000 workers.

The plant, which has had a price tag of \$5.8 billion, is supposed to be ready by a legal deadline of 2011 to turn some of Hanford's worst radioactive waste into a stable glass form for permanent disposal. Waste is left from the past production of plutonium for the nation's nuclear weapons program.

The U.S. House appropriations subcommittee has asked the Government Accountability Office for a review of the

See **Plant**, Page A2

21 JUN 03
Research finds older Hanford workers exposed to small amounts of radiation have higher risk of dying from cancer

By Annette Cary

Herald staff writer

A health study of Hanford workers has found that older workers exposed to low levels of radiation had an increased

chance of dying from cancer, particularly lung cancer.

However, increased deaths from cancer were not seen in workers under 55 who were exposed to comparable amounts of radiation.

“We think it raises some interesting questions,” said Steven Wing, associate professor of epidemiology at the University of North Carolina at Chapel Hill. He and David Richardson, assistant professor of epidemiology, wrote the article on the study’s findings, which was published in the June 17 issue of *Occupational and Environmental Medicine*.

Studies of survivors of the atomic bombs dropped on Japan in World War II suggest that the risk of developing cancer would be too small to detect based on the low levels of radiation Hanford workers receive, Wing said.

“We did find it, but only in older workers,” he said. “Because the predictions

See **Radiation**, Page A2

HAB says standards not met with small businesses that have won Hanford contracts

By Annette Cary

Herald staff writer

The Hanford Advisory Board is recommending that the Department of Energy

give more attention to the safety records of small companies bidding on environmental cleanup work at Hanford.

"Recent contract awards seem to suggest that the appropriate standards, which the board and the public would expect to be utilized in evaluation, may not have been met," wrote HAB Chairman Todd Martin in a letter sent to DOE's Office of River Protection and

Richland Operations Office.

The advice comes after DOE awarded a small-business contract to a team headed by a division of Safety and Ecology Corp. of Knoxville, Tenn. The company dripped radioactive waste down a state highway and remains barred from bidding on work for contractor Bechtel Jacobs at Oak Ridge, Tenn., more than a year later.

And this month, SEC received notice

of an unrelated fine for violating whistleblower protection laws on another project, according to DOE.

HAB also is concerned about safety oversight of small businesses that may be doing work for other Hanford contractors rather than directly for DOE. Requests for bids on the work may not be

See **Safety**, Page B5

28 JUN 05

Bechtel postpones construction layoffs

About 350 workers were to be laid off last Friday

By Annette Cary

Herald staff writer

Bechtel National has postponed expected layoffs of employees who are not doing construction work for 30 days.

About 350 workers who were supporting construction of the Hanford nuclear reservation's vitrification plant were to be laid off last Friday.

However, those who have not left already may volunteer to remain on the job for 30 more days, said spokesman John Britton.

Britton estimated 200 of the workers have already transferred

to other jobs or resigned since Bechtel National gave them 60 days notice that their jobs would end. Also, some workers who relocated to Eastern Washington have company benefits that allow them to return to their hometowns and may not want to delay the move.

The remaining layoffs have been delayed while Bechtel National makes sure it has "the appropriate resources for its revised work scope," Britton said.

Construction of the vitrification plant has slowed and about 650 construction workers have been laid off since a new study

showed critical parts of the plant might not have an adequate design standard to withstand a severe earthquake. Engineers are reviewing the plant's design.

The vitrification plant is intended to turn some of Hanford's worst radioactive wastes from the past production of plutonium into a stable glass form for permanent disposal.

The extra time before layoffs for nonconstruction workers are completed will help make sure Bechtel National has the resources needed to address earthquake issues and give the contractor more time to consider budget issues.

The Department of Energy has proposed a budget that would cut

annual spending for the vitrification plant from \$690 million to \$626 million in fiscal year 2006, which begins in October. The U.S. House has passed a Hanford budget that would restore the cut, but the U.S. Senate is not expected to restore funding, leaving the difference to be resolved by a conference committee.

New seismic standards and other challenges at the vitrification plant are expected to significantly increase the cost of the plant and extend its construction schedule.

Roy Schepens, manager of DOE's Office of River Protection, said Monday that he could not say when the new cost and schedule estimate will be avail-

able. "We're trying to take a real disciplined approach," he said.

No major reconstruction at the plant appears to be necessary because of the new earthquake information, he said. Construction is about 35 percent complete, but the unbuilt upper levels would be most vulnerable to earthquake damage.

More hangers for pipes and more support for equipment are expected to be needed, Schepens said. Workers also are considering whether some additional welds or other weld reinforcements may be needed in tanks already installed at the plant, he said.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

29 JUN 05

Hanford workers start petition to get a review

By the Herald staff

Hanford workers sick from exposure to toxic chemicals announced at a news conference Tuesday that they are circulating a petition to gain wider support for state-administered workers' compensation claims at the Department of Energy.

Since 1999, workers' compensation claims have been handled by a third party, Contract Claims Services Inc.

The petition, which was started by the watchdog group Heart of America Northwest, asks Gov. Christine Gregoire to eliminate a special exemption for the Hanford Nuclear Reservation from state workers' compensation programs.

It also asks the governor to conduct a state-led investigation of the program and to hire an independent toxicologist and industrial hygienist at the Hanford site.

Hanford DOE spokeswoman Colleen French said the agency will thoroughly review CCSI practices.

But Heart of America Northwest said that is not a fair solution and would rather see the state conduct the investigation.

The U.S. Public Health Service reviewed CCSI in February 2004. It found the contractor compliant with state regulations.

The petition can be read and signed at www.protecthanfordworkers.org.

29 JUNE 05

Program to pay injured Hanford employees working, officials say

Department of Labor has approved payments of \$29.8 million since fall

By Mary Hopkin

Herald staff writer

U.S. Department of Labor representatives said the agency already has made significant progress in compensating injured Hanford workers.

Since the Department of Labor took over the troubled portion of a workers' compensation program for the Department of Energy nuclear weapon sites last fall, it has approved payments

of \$29.8 million to Hanford workers.

"Most of those payments have been to the survivors of deceased workers," said John Vance, chief of the department's Washington, D.C.-based branch of outreach and technical assistance, during a Tuesday town hall meeting at the Red Lion Hanford House in Richland to discuss changes in the program.

The program provides up to \$250,000 for physical impairment and wage loss to workers who suffered occupational illnesses from exposures to toxic substances or radiation at the Hanford nuclear

See **Hanford**, Page A2

Senate adds money for Hanford funding

The U.S. Senate has passed a Hanford budget for fiscal year 2006 that would replace \$34 million of the funding cut for the nuclear reservation's tank farms, but not other funding cuts in the administration's proposed budget.

The administration's budget proposal slashed \$267 million from the present Hanford budget of close to \$2.1 billion.

The House passed a version of the budget replacing about \$200 million of the cut.

A conference committee will work out the differences between the House and Senate bills. U.S. Sen. Patty Murray, D-Wash., is a member of the committee.

2 JUL 05
*U.S. officials hope to learn
from mistakes at nuclear
waste treatment plant*

By The Associated Press

YAKIMA — Federal officials are closely monitoring the investigation into a leak at a nuclear waste treatment plant in Britain — a plant managed by the same company that was initially hired to design, build and operate a similar plant at Hanford.

Officials with the U.S. Department of Energy, which manages the Hanford site, do not believe the leak will have any effect on the design of Hanford's waste treatment plant.

However, they continue to monitor Britain's investigation into how the leak occurred — and went undiscovered for months — to learn from any mistakes that may have been made there, said John Eschenberg, project manager for the Energy Department's Office of River Protection.

"The bottom line for me is that there's no real corollary between that plant's design and our plant's design," Eschenberg said this week. "But we're not going to blow it off and say their plant is so different from ours. That would be foolish."

The leak at the Sellafield nuclear site in Britain — an estimated 22,000 gallons of liquid nuclear waste — was discovered April 19. An investigation by the British firm that manages the site, British Nuclear Group, determined the leak had gone undetected for three months.

28 JUN 05
*Council an effort by
CH2M Hill Hanford
Group and GAP*

By Annette Cary
Herald staff writer

An unusual partnership between a Hanford contractor and one of its critics, the Government Accountability Project, has led to an independent council to resolve employee concerns at the Hanford tank farms.

Tank farm workers have attributed health problems to exposure to chemical vapors that vent into the air from Hanford's older tanks of radioactive and hazardous chemical waste.

The new Hanford Concerns Council, which began operating

Monday, will consider complex employee concerns about workplace safety, health and environmental protection at the tank farms.

CH2M Hill Hanford Group, the Department of Energy contractor for the tank farms, has agreed to implement any consensus recommendations of the council as long as it does not violate legal or contractual obligations.

"This agreement is the bedrock upon which the process rests," according to a memo sent to all CH2M Hill employees Monday by the contractor, the whistleblower-protection-group GAP and DOE.

The council will be led by Jonathan Brock, a professor at the University of Washington's

Daniel J. Evans School of Public Affairs. The council also will include three representatives of CH2M Hill, three advocates for worker concerns and three neutral members.

"I have great confidence this will be a new and effective remedy for certain workers at the tank farms," said Tom Carpenter, director of GAP's Nuclear Oversight Program.

GAP criticized CH2M Hill last year for not better protecting workers from exposure to chemical vapors and not understanding what chemicals are in the vapors.

On the job

Bechtel
National
postpones
layoffs. **B1.**

A series of government investigations that followed found that too little was known to be sure workers had not been harmed. CH2M Hill has taken steps to protect workers, such as requiring supplied-air ventilators to be worn near many older tanks.

Despite CH2M Hill's best efforts, there remained employees who believe their concerns were not being heard or that they were not being listened to with respect, said Ed Aromi, president of CH2M Hill.

GAP and CH2M Hill came up with the idea for the council together based on the success of a previous program and together approached DOE for its support.

The new council will operate

See **Concerns**, Page A2

2 JUN 85

DOE plans to return plutonium to S.C. site

By **Annette Cary**

Herald staff writer

The Department of Energy is preparing to send 12 drums of plutonium 238 that arrived at Hanford nearly 40 years ago back to the DOE site that produced it.

In 1966, the Savannah River Site in South Carolina sent the plutonium to Hanford for critical mass experiments. But researchers could not gather enough of the isotope for the experiments and the drums were never opened.

In 1980, the drums were buried along with drums of Hanford waste in central Hanford with plans that eventually they would be retrieved.

The Hanford Nuclear Reservation produced plutonium 239 for the nation's nuclear weapons program for

more than 40 years. But this material contains a mixture of plutonium 239 and a different type of plutonium that Hanford workers have far less experience in handling.

Plutonium 238 is used in the nation's space program because it generates heat that can be turned into electricity on journeys into deep space. DOE recently announced plans to resume producing the isotope in Idaho.

As contractor Fluor Hanford continues to dig up waste in Hanford burial grounds to meet a schedule of legal deadlines, it appears the contractor will reach the plutonium 238 drums next summer, said Matt McCormick, DOE's assistant manager for the central plateau at the Hanford

See **Plutonium**, Page B2

Hanford fire expands to 5,000 acres 7 JUL 0

The fire that began spreading across the Hanford Reach National Monument on Tuesday afternoon burned about 5,000 acres.

No cause had been determined Wednesday, but an investigation continued, said Ron Crouse, information and education specialist for the monument.

By Wednesday evening, firefighters had mopped up hot spots and declared the fire contained. Two crews continued to "baby-sit" the area overnight to ensure it stayed that way, said Craig Hughes, a project leader.

The fire started near the Vernita bridge and spread to the northeast across mature shrub-steppe habitat. The old growth sage brush there may take 50 to 100 years to regrow, Crouse said.

The fire was damaging to wildlife habitat, but because it left a mosaic of unburned patches within the burn area, some habitat remains, he said.

17 JUL 05 Hanford rail

By Annette Cary

Herald staff writer

The Hanford rail lines that once carried coal to the nuclear reservation's steam plants have a new mission.

In June, the rail line was used



Blackford

for what's believed to be the first time to carry radioactive-contaminated waste off the nuclear reservation for processing.

CH2M Hill
Hanford

Group, a Department of Energy contractor, estimates that single shipment saved \$41,000 and it has plans for more.

See **Rail**, Page B2

Blaze ^{6 JUL 05}

scorches Hanford Reach

3,000 acres burn; cause unknown Tuesday night

By Genoa Sibold-Cohn

Herald staff writer

A fire ripped through 3,000 acres of the Hanford Reach National Monument on Tuesday, scorching mature vegetation and threatening wildlife north of the Vernita bridge.

The blaze also closed Highway 24 for more than five hours as highway officials sought to guard drivers from smoke and fire.

Four members of a youth conservation corps spotted the monument fire off Highway 24 in the Saddle Mountain National Wildlife Refuge and reported the blaze to the Fish and Wildlife Service about 2 p.m., said Mike Ritter, a deputy project leader for the monument. The cause of the fire was unknown Tuesday night.

More than 90 firefighters from Fish and Wildlife, Hanford and Benton, Franklin and Grant counties responded. An air tanker from Pendleton also assisted by dropping fire retardant on the land.

See **Blaze**, Page A2

8 JULY 05

PNNL statisticians earn award for software

Team created program to improve airline safety

By Chris Mulick
Herald staff writer

A team of Pacific Northwest National Laboratory statisticians who helped develop a computer software program that aims to improve airline safety have won a 2005 R&D 100 Award.

award were the program's co-developers, which included the NASA Ames Research Center, Battelle and several other companies.

"It was definitely a team effort," said Tom Ferryman, a PNNL statistician who worked on the program for seven years. As many as 20 PNNL statisticians worked on the project at one time or another.

Called the Morning Report, the program collects already available data from thousands

of flights each day and uses statistical methods developed at PNNL to identify ones that were abnormal.

A given flight could be deemed abnormal because of a mechanical irregularity, the flight path chosen by the pilot, the amount of turbulence it encountered or any number of other variables.

The program highlights irregularities for airlines to consider.

"It discovers topics to bring

to the attention of safety officers," Ferryman said.

The first version was completed last summer, though two major U.S. airlines have been using it for several years, he said. It now will be marketed to other airlines while NASA directs efforts to develop a model for air traffic controllers.

Ferryman believes the concepts could be used to develop similar programs to enhance security along international borders and on the Internet and

improve detection of medical problems.

He said the award, given out by R&D Magazine to honor scientific innovations, offers recognition that could spur such plans into development.

"It's nice to get that recognition from peers," Ferryman said. "Hopefully, this award will allow things to happen."

■ Reporter Chris Mulick can be reached at the Herald Olympia bureau at 360-753-0862 or via e-mail at cmulick@tri-city-herald.com.

6 JUL 05

Congressional letter asks for review of Hanford project

By Annette Cary

Herald staff writer

New estimates indicate the cost to build and test Hanford's vitrification plant could approach \$10 billion, an increase of more than \$4 billion, according to a con-

gressional letter asking for a Government Accountability Office review of the project.

The Department of Energy's most recent official estimate for the project was about \$5.8 billion, and the plant was sup-

posed to be operating by a legal deadline of 2011.

But new estimates show completion may be delayed four years until 2015, according to the letter sent by Rep. David Hobson, chairman of the House appropriation subcommittee on energy and water development, and the ranking minority member, Rep. Peter Visclosky.

"If this information is correct, then the project is approaching a cost that DOE concluded was not affordable in 2000 ...," the letter said.

The congressmen attributed the cost increases to "technical problems, poor design engineering, poor cost estimating and poor contractor performance, among other problems."

Work has slowed on key portions of the vitrification plant since a new seismic study showed the design standard might not be adequate to withstand a worst-case earthquake.

In addition, solving technical challenges on the first-of-its-kind project has

See **Vit plant**, Page A2

19 JUL 05

Jury selection begins in Hanford pipefitters trial

Jury selection has begun in a case filed by 11 Hanford pipefitters who believe they were fired for raising safety concerns in 1997 or supporting the workers who raised concerns.

The trial in Benton County Superior Court is expected to last about six weeks. On Monday, 100 jurors filled out questionnaires.

In 1997, a pipefitting crew balked at participating in a hydraulic pressure test with a pipe valve that they feared was unsafe. They also raised concerns about adequacy of X-rays of pipe welds and a trench safety classification.

The pipefitters and some supporters later were laid off.

Fluor Federal Services said the layoffs were because of job fluctuations common to construction work at Hanford and no retaliation was involved.

The suit against Fluor Federal Services was filed in 1999. A 2001 ruling on whether the case should go to an arbitrator was heard by the state Court of Appeals and the 9th U.S. Circuit Court of Appeals before the U.S. Supreme Court declined to hear it in 2003.

The pipefitters are asking for compensation for lost wages and emotional distress.

Senators question rules governing ill Hanford workers

By Annette Cary

Herald staff writer

Washington's U.S. senators are urging the Department of Labor to reconsider its rules for compensating ill Hanford workers that the senators say don't meet the intent of Congress or are unfair to workers.

Sens. Patty Murray and Maria Cantwell joined 17 other senators Friday in sending a letter to Labor Secretary Elaine Chao.

The Department of Labor released interim rules in late May for a portion of a compensation program for nuclear workers. It offers up to \$250,000 for physical impairment and wage loss to workers or former workers who have suffered occupational illnesses from exposure to toxic substances such as radiation, asbestos and heavy metals.

The worker compensation program had languished at the Department of Energy before Congress transferred it last year to the Department of Labor.

The senators criticized the interim rules for requiring that radiation be shown to have at least a 50 percent chance of causing cancer, rather than only showing it was a significant factor in an illness.

They also criticized the interim rules for only offering impairment benefits for illnesses and conditions rated in the *American Medical Association Guides to the Evaluation of Permanent Impairment*. Congress directed the Department of Labor to cover any impairment,

the senators said.

Other criticism included lack of independent physician panel reviews for disputes over whether an illness was caused by exposure to toxic substances or whether wages were lost because of the illness.

"The DOL rule does not afford claimants the right to such appeals and improperly ignores congressional intent," the senators wrote.

In addition, there is no process for administrative appeals for denial of med-

ical benefits, which senators said would force appeals into the federal courts.

The Department of Labor expects to consider public comment on the interim rule before issuing a final rule. However, to speed payment of claims, it is using the interim rules in the meantime.

For information on filing a claim, call the Hanford Resource Center in Richland at 946-3333 or 888-654-0014.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.

22 Jul 05

Vit plant oversight team gets chief

James Owendoff served 18 months as acting assistant secretary for environmental management for DOE

By Annette Cary

Herald staff writer

James Owendoff, a former acting assistant secretary for environmental management at the Department of Energy, has been named to head an oversight team for Hanford's vitrification plant.

DOE announced June 28 that Energy Secretary Samuel Bodman had decided to name a senior level management team to oversee the troubled vitrification plant construction project.

Work on the vitrification plant, one of the largest construction projects in the world, has slowed since a new earthquake study showed the design of key facilities might be inadequate to withstand a severe earthquake.

That and other difficulties at the plant have led congressional leaders to say the cost of the plant now estimated at \$5.8 billion could approach \$10 billion.

The oversight team is expected to have six members, but only Owendoff has been named so far, said Michael Wal-

dron, spokesman for DOE headquarters in Washington, D.C.

"He has considerable expertise in project management and oversight," Waldron said.

The team will report to the assistant secretary of environmental management. Its role will be oversight rather than decision making, Waldron said.

Last week, Charles Anderson, principal deputy assistant secretary for environmental management, notified Hanford's DOE Office of River Protection that he would be signing off in writing on any work authorization or technical direction on parts of the plant that could be affected by new seismic design standards.

The plant is being built to turn some of Hanford's worst waste left from the production of weapons plutonium into a stable glass form for disposal.

Owendoff is best known at Hanford for the 18 months he served as acting assistant secretary for environmental management, a job that includes oversight of Hanford, through 1998 and part of 1999.

In 2003, he moved from the environmental management science and technology organization at DOE to the Office of Civilian Radioactive Waste to become associate director of integration.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

Commitment to board to remove sludge from K East Basin by July 31 not met

By Annette Cary

Herald staff writer

The Department of Energy has missed the July 31 date it had committed to for moving radioactive sludge out of the leak-prone K East Basin at Hanford.

Transfer of the sludge has yet to begin, and DOE contractor Fluor Hanford still is working to get the sludge corralled inside underwater containers.

Sunday was not a legal deadline, but a commitment made to the Defense Nuclear Facilities Safety Board, which Congress created to independently oversee Hanford and other DOE cleanup sites. The legal deadline for the work under the Tri-Party Agreement is Jan. 31.

DOE told the safety board Friday that nearly 80 percent of the sludge in the K East Basin has been collected in the underwater containers. That's up from about 60 percent three months ago.

Fluor Hanford is making "slow, steady progress," said Geoff Tyree, spokesman for the contractor. The project to contain the sludge was to be completed seven months ago under commitments to the safety board and four months ago under Tri-Party Agreement deadlines.

Those were new deadlines after a failed start to the project in 2003.

DOE's plan is to pipe 42 cubic meters of sludge from containers in the K East Basin to containers installed in the K West Basin so work can begin to empty the water from K East.

The K East and West basins were built in the 1950s to hold fuel irradiated in Hanford reactors until it was processed to remove plutonium used in the nation's nuclear weapons program. When processing at Hanford stopped, 4.65 million pounds of highly radioactive fuel were left stranded in the basins for more than a decade.

28 JUL 05

DOE finds funds to close 70 unused Hanford wells

Department of Ecology, EPA concerned about ground water contamination

By Annette Cary

Herald staff writer

Under pressure from regulators, the Department of Energy has come up with money to decommission 70 unused wells in the 2006 fiscal year to prevent radioactive contamination from spreading to ground water.

That still will leave DOE far short of its earlier goal to decommission 520 wells by the end of 2006.

However, an in-depth study of the thousands of Hanford wells drilled as early as the 1940s shows fewer than thought may pose a threat to ground water, said Briant Charboneau, who manages DOE's ground water remediation program.

In January, DOE's Inspector General's Office criticized Hanford officials for not decommissioning wells more aggressively, and blamed the delays on lack of a comprehensive decommissioning plan. Soil at Hanford is heavily contaminated with radioactive and hazardous chemical materials from more than four decades of production of plutonium for the nation's nuclear weapons program.

Well decommissioning is being funded as a priority through 2006, Paul Golan, then DOE's acting assistant secretary for environmental management, replied in a letter to the Inspector General's Office.

But that was when Hanford's budget request had been made, but before DOE's proposed budget had been released. When the proposed 2006 DOE budget came out, all money had been eliminated for well decommissioning at Hanford.

In June, the Washington State Department of Ecology and the U.S. Environmental Protection Agency, which regulate Hanford, asked that DOE prepare a draft plan by the beginning of August with yearly targets and schedules for decommissioning wells.

"Although some progress has been made on decommissioning wells, EPA and Ecology believe having a decommissioning plan in place will help ensure this critical work is accomplished," the regulators wrote in a letter to DOE's Hanford managers.

Well decommissioning is a concern because every time budgets get tight, work to close the wells seems to fall off DOE's project list, said Jane Hedges, cleanup section manager for the state Department of Ecology.

They just needed the understanding that it was very important to us so any money that became available would go toward well decommissioning, she said.

Early wells used to monitor for contaminants sometimes were built with casings that had smaller diameters than the holes they were placed inside. That created potential pathways for contaminants to easily migrate downward to the ground water.

DOE now plans to use about \$1 million that will not be spent in the current 2005 fiscal year to decommission wells in fiscal year 2006.

DOE contractor Fluor Hanford expects to have about 255 wells total decommissioned by the end of September, which is the end of the 2005 fiscal year. The 70

See **DOE**, Page B2

Hanford tours planned in fall

By the Herald staff

Bus tours of the Hanford nuclear reservation are planned Oct. 13-15.

The only other public tours of the site this year were in June, and all seats were reserved within 24 hours of the announcement of the tours.

This time the tours will be offered to the first people who sign up when registration opens on the Internet at noon Sept. 14.

The October tours will include a walking tour of the

B Reactor, the world's first production reactor.

The bus tour also will include the 300 Area just north of Richland where fuel was manufactured to be irradiated in Hanford reactors to produce plutonium for the nation's nuclear weapons program.

Participants will see the production reactors along the Columbia River and central Hanford, where the irradiated fuel was processed to recover plutonium.

The original Hanford town site also is on the tour.

Tours begin and end at the Volpentest HAMMER training center at 2890 Horn Rapids Road, Richland. Tours begin each day at 7:30 a.m., 9:30 a.m. and 12:30 p.m., and last four hours.

Participants must be U.S. citizens, at least 16, and show photo identification on the day of the tour. Registration forms will be posted at www.hanford.gov/information/sitetours/registration/.

2 AUG 00

DOE unlikely to meet Hanford cleanup goal

By Annette Cary

Herald staff writer

The Department of Energy has little chance of meeting its commitment to save \$50 billion on cleanup of the Hanford nuclear reservation and other sites under its accelerated cleanup plan, according to a Government Accountability Office report requested by Congress.

DOE announced the accelerated cleanup program in 2002, saying it

Hanford

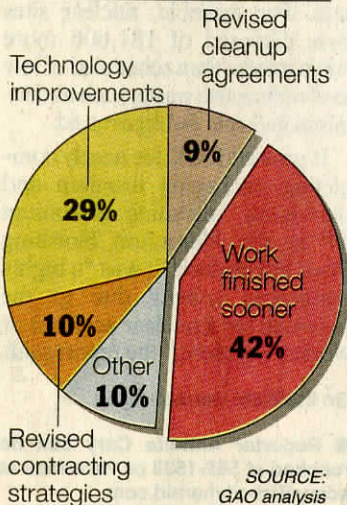
Deadline missed for cleanup of K East Basin. **B1.**

would reduce costs by \$50 billion, shorten the cleanup schedule by 35 years and reduce risks to health and the environment. The largest cost savings

is to occur at Hanford, where plutonium was produced for the nation's nuclear weapons program for more than 40 years.

Progress has been made nationwide in the initial years of accelerated cleanup, and several projects are

DOE's plan for \$50 billion cleanup savings



SOURCE:
GAO analysis

Herald/Sherry Emery

ahead of schedule, the GAO said.

But three of the most challenging and costly cleanup projects have fallen

See **Hanford**, Page A2

Workers blowing up casings in 70 unused Hanford wells

Wells allow contaminants to seep deeper into ground

By Annette Cary

Herald staff writer

A Hanford worker tapped out a steady rhythm on the horn of a pickup Wednesday in central Hanford.

It was the all-clear warning that one of the final rounds of explosives set off at the nuclear reservation since the start of this year was about to be detonated.

Hanford workers last week finished blowing up 3 miles of underground casings in 70 unused wells.

For some of the blasts, workers on the project could feel a slight vibration of the ground. But many were like Wednesday's explosions.

Click. Phhhht. And it was over.

Anyone not anticipating the blast

would have missed it.

But the blast was strong enough to send explosives placed every 3 inches on a 20-foot stringer burning through three layers of steel casing and then shooting 30 inches into the surrounding soil.

The Department of Energy and contractor Fluor Hanford are working to decommission more than 1,000 wells drilled since the 1940s. They've been used to check for radioactive or chemical contamination, but they've also proved to be a pathway for contaminants to flow deeper into the soil and reach ground water.

Particularly in older wells, with casings that were smaller in diameter than the holes they were fitted into, the contaminants tend to move down their outer sides.

"It's not a theoretical risk," said

See **Hanford**, Page B2

29 JUL 05

Hanford insurance for retirees reduced

By Annette Cary

Herald staff writer

The Hanford Employee Welfare Trust is reducing life insurance benefits for about 1,800 Hanford retirees after concluding the benefit was better than most private companies or other Department of Energy contractors offered.

The change will save the federal government about \$2 million per year when it takes full effect in September 2006.

Retirees whose benefits are administered by the trust, or HEWT, have been notified by the change in a letter.

"I just thought, 'This can't be,'" said Syd Hoke of Richland, a retired executive secretary for former Hanford contractor United Nuclear Co. The life insurance benefit for both her and her husband, James, a retired Hanford manager for former contractor Rockwell, are being reduced.

Making financial plans based on retirement benefits is difficult when at any time "Zap! They're not there," she said.

HEWT has been reviewing its life insurance benefit for retirees for more than a year, comparing it with private industry and other DOE contractors, said Dom Sansotta, chairman of HEWT.

"We are probably in the top 1 percent in the country as far as level of benefit and the fact the retiree pays very little, if anything," he said.

Among about 20 DOE contractors, Hanford retiree life insurance benefits ranked first or second, he said. Only about a quarter of private industry surveyed offered life insurance benefits for retirees and then often only until age 65, he said.

Even after reductions in benefits, Hanford life insurance benefits will remain among the best in the DOE complex and HEWT will still pay the majority of the costs, Sansotta said.

"We're trying to essentially provide a good benefit to retirees at a reasonable cost," he said.

HEWT's premium for life insurance is increasing from \$1.51 a month per \$1,000 of coverage to \$1.98 per \$1,000 coverage, Sansotta said. That increase comes despite an industry trend toward declining term life insurance rates.

Without changes to benefits, annual costs would have increased by \$6.95 million, according to the letter sent to retirees.

"In these times of reduced budgets, it is especially important for contractors to manage their operating budgets in order to accomplish our mission, which is to clean up the site," the letter said.

Now retirees 65 and older receive life insurance coverage equal to half of the salary at which they retired. Under the new plan, they could receive no more than \$20,000 beginning in September and that would drop to \$15,000 in September 2006.

Retirees under age 65 now receive life insurance coverage equal to two times their former salary at a cost to them of 8 cents per month for \$1,000 of insurance coverage.

Under the reduced benefits, they will receive \$15,000 at no cost. If they wish to purchase increased coverage,

See **Benefit**, Page B2

Research finds older Hanford workers exposed to small amounts of radiation have higher risk of dying from cancer

By Annette Cary

Herald staff writer

A health study of Hanford workers has found that older workers exposed to low levels of radiation had an increased

chance of dying from cancer, particularly lung cancer.

However, increased deaths from cancer were not seen in workers under 55 who were exposed to comparable amounts of radiation.

"We think it raises some interesting questions," said Steven Wing, associate professor of epidemiology at the University of North Carolina at Chapel Hill. He and David Richardson, assistant professor of epidemiology, wrote the article on the study's findings, which was published in the June 17 issue of *Occupational and Environmental Medicine*.

Studies of survivors of the atomic bombs dropped on Japan in World War II suggest that the risk of developing cancer would be too small to detect based on the low levels of radiation Hanford workers receive, Wing said.

"We did find it, but only in older workers," he said. "Because the predictions

See **Radiation**, Page A2

PAGE 25

LIGO to offer glimpse of Perseid meteor shower

The Laser Interferometer Gravitational Wave Observatory and the Tri-City Astronomy Club will offer a viewing of the Perseid meteor shower Aug. 12 at the Hanford Observatory.

The event will begin with astronomy displays and telescope demonstrations at 8:30 p.m. Tri-City Herald astronomy columnist Roy Gephart will give an auditorium presentation called, "Perseid Meteors and Sky Photography," at 10 p.m. Meteor viewing will begin at 11 p.m.

The event also will feature a sky photography contest, open to all.

For contest rules, visit www.ligo-wa.caltech.edu/perseids_0805/perseids_0805.html

For directions to the site, visit www.ligo-wa.caltech.edu/. Click on driving directions.

7 Aug 03
*Research council wants
to give DOE time to develop
new cleaning technologies*

By Annette Cary

Herald staff writer

Tanks holding radioactive waste at the Department of Energy's Savannah River, S.C., nuclear site should not all be sealed immediately after they are emptied to the limits of current technology, according to a report by the National Research Council of the National Academies.

The same committee is expected to issue a follow-up report early next year to look at managing similar radioactive tank wastes at the Hanford nuclear reservation.

Hanford has 177 tanks filled with some of Hanford's worst waste. They hold a 53 million-gallon mix of radioactive and hazardous chemical wastes left from removing plutonium from irradiated fuel rods to supply the nation's nuclear weapons program.

At issue is what to do with difficult-to-remove waste at the bottom of the tanks, and how much should be removed before the tanks are closed.

Filling the tanks with grout, which DOE is considering, would be practically irreversible.

The research council recommended postponing closure of Savannah River tanks with difficult-to-remove residuals for five to 10 years to give DOE more time to develop new technologies for cleaning out the tanks.

Tanks should be evaluated one-by-one to see if delaying closure could allow the remaining waste or "heels" in the tank to be removed more effectively, safely or at a lower cost, the report said.

That's similar to the approach that some nuclear waste staff at the Washington State Department of Ecology have been recommending at Hanford. They've been reluctant to agree to move toward filling Hanford tanks with grout if technology tried so far cannot remove at least 99 percent of tank wastes, said Sheryl Hutchison, spokeswoman for the department.

At Savannah River, waiting to close some tanks could be done without delaying final closure of the tank farms, the committee said. In fact, if new technologies become available, they may speed up tank cleanup and closure, possibly leaving less waste behind, the report said.

The report recommended DOE research better mechanical or chemical

L&I to take over for DOE

By Annette Cary

Herald staff writer

The Washington State Department of Labor and Industries will take over leadership on an independent review of the handling of worker compensation claims at the Hanford nuclear reservation.

The Department of Energy announced the change in the review Tuesday to employees at the Hanford site.

"Based on feedback regarding the objectivity of a review led by DOE, and in order to ensure the results and recommendations are fully credible to you, we recognize the need to build an additional layer of independence into the process," said a memo sent to workers.

It was signed by Keith Klein, manager of DOE's Richland Operations Office; Roy Schepens, manager of DOE's Office of River Protection; and Jean Vanek, program manager for the Washington State Department of Labor and Industries.

At the annual State of the Site meeting in Richland in June, workers complained that they were having to hire attorneys to attempt to get some medical claims paid and other claims were languishing for more than a year before being paid.

DOE responded by starting a review of whether the contractor that handles workers' compensation claims, Contract Claims Services Inc. of Texas, is processing claims as required by state law, processing them promptly and treating employees with courtesy.

Past reviews of the contractor have shown the company to be complying with state regulations and its DOE contract.

DOE has moved well down the path of conducting the review, "receiving excellent help and support from the Hanford Atomic Metal Trades Council," the memo said.

The state and DOE will meet the week of Aug. 22 for DOE to turn over information obtained so far and to finalize a review plan and schedule. The state also is working to hire an independent contractor to participate in the review.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com

60 years after the secret

9 AUG 05

Hanford's mysterious project — a 10,000-pound plutonium bomb — was dropped on Nagasaki, Japan, on Aug. 9, 1945, to end World War II



Battered statues of Buddha sit on a hill above a razed valley in Nagasaki, Japan, on Sept. 24, 1945.

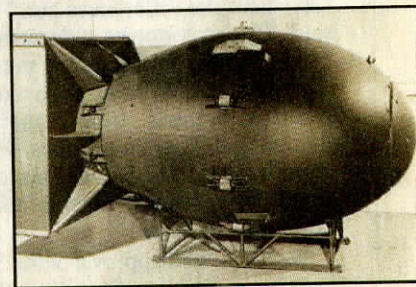
By Annette Cary
Herald staff writer

Sixty years ago today, a B-29 bomber took off from the Pacific island of Tinian toward Japan, armed with a 10,000-pound bomb holding Hanford plutonium at its heart.

By the end of the day, 40,000 residents of Nagasaki would be dead, and within five days Japan would surrender, ending a horrific war that had claimed more than 40 million lives.

In the streets of Richland, horns honked, church bells rang and sirens blared.

World War II was over, and the



The bomb used on Nagasaki was nicknamed Fat Man.

On Page A7

- ▶ V-J Day celebration.
- ▶ Nagasaki marks anniversary.

mysterious Hanford project had played a major role. Sons, husbands and sweethearts — at least those who had survived the battle-

fields of Europe and the Pacific — would be coming home.

There would be no bloody land invasion of Japan to end the war.

See **Nagasaki**, Page A6

10 AUG 05

Hanford Reach fire burns 400 acres

An agricultural burn that got out of control Tuesday afternoon burned about 400 acres on the Hanford Reach National Monument near Wahluke, officials said. Firefighters got the blaze 40 percent contained by Tuesday evening, but it was expected to grow, said Greg Hughes, project leader for the U.S. Fish and Wildlife Service. He said they planned to fight it through the night.

"This is what we predicted early in the season," Hughes said, referring to the dry conditions.

The fire started on private land during an agricultural burn and spread to monument land, mostly sagebrush and "high quality wildlife habitat," he said.

10 AUG 05
*Fine, consent order result
of safety episodes while
digging at burial grounds*

By Annette Cary

Herald staff writer

Bechtel Hanford has agreed to pay the U.S. government \$125,000 in an agreement to resolve safety incidents that occurred as workers dug up old burial grounds at the Hanford nuclear reservation.

Before 2004, much of the work to clean up the ground along the Columbia River required removing soil tainted by contaminated liquids. But when workers began digging up burial sites, they found all sorts of radioactively contaminated material not listed on historical records.

The agreement stems from two incidents in which workers unexpectedly unearthed items contaminated with plutonium, one of them an old safe with a bottle holding plutonium-laced liquid.

Bechtel Hanford voluntarily reported the problems to the Department of Energy's Office of Price-Anderson Enforcement, which ensures nuclear safety requirements are followed.

11 AUG 05

Sagebrush blazing on Hanford Reach

By Anna King

Herald staff writer

Firefighters are struggling to control a 2,500-acre blaze raging on the Wahluke Slope in the Hanford Reach National Monument.

The fire, which was 60 percent to 80 percent contained as of Wednesday evening, continues to roast sagebrush, Russian olive trees and animal habitat but no structures in the uninhabited wilderness about 10 miles north of the Ringold Hatchery and five miles south of Highway 24.

Mike Ritter, U.S. Fish and Wildlife Service deputy project leader at the Reach, said it started about 4 p.m. Tuesday after a farmer lost control of his agricultural field burn.

Ritter said if the fire isn't contained it could burn upward into additional mature shrub-steppe habitat farther into the Wahluke Slope.

"It's roaring right now; the wind is picking up," Ritter said



Herald/Sherry Emery

Wednesday afternoon. "We are extremely concerned, it could jump a line at anytime."

The fire is on a U.S. Bureau of Reclamation irrigation pond

See **Blazing**, Page A2

Nagasaki: 'Then and now

“
The first thing I said was, 'Thank God. The damned thing worked.' From day one, the whole thing was so damn complicated. So many things could go wrong.

Watson Warriner,
 system division
 engineer in charge
 of construction of
 B Plant

”



“
I was in awe that we had made such a terrible weapon. I felt sorry for the Japanese, but I was hoping there was not going to be any more killing.

Lawrence Denton,
 issued welding gases
 for construction of
 the reactors and
 processing plants

”

Herald file

Hanford's B Reactor produced the plutonium used in the bomb dropped on Nagasaki on Aug. 9, 1945.

Nagasaki: Many workers, veterans believe bomb was necessary evil to end war

Continued from A1

Watson Warriner remembers his wife, who had been listening to the radio, telling him she thought she knew what he had been working on at Hanford. A huge bomb had been dropped on Japan that had wiped a city out, she said.

"The first thing I said was, 'Thank God. The damned thing worked,'" Warriner remembered. "From day one, the whole thing was so damn complicated. So many things could go wrong."



Warriner

Hanford workers had been in a race to create the plutonium needed to cause an atomic explosion. The United States also was making a bomb armed with uranium 238, which was used in the first atomic bomb dropped on Hiroshima, Japan, three days before the plutonium bomb was dropped on Nagasaki.

But fissionable uranium is rare and difficult to separate from nonfissionable isotopes of uranium. It would be more practical to bombard the uranium 238 with neutrons to produce manmade plutonium.

But could it be done? When Hanford was picked as the site of a huge weapons project, cyclotrons had produced only enough plutonium to form the head of a pin. The technology to separate plutonium from other isotopes had been done on only a microscopic scale.

Construction on the B Reactor to make plutonium at the production scale began in August 1943. Thirteen months later, the reactor began producing plutonium, and by the summer of 1945, enough had been produced for three bombs, including the one used over Nagasaki.

Richland had changed from a tiny farm village to the third-largest city in Washington to house the workers on the largest construction project of World War II.

Workers remember secrecy

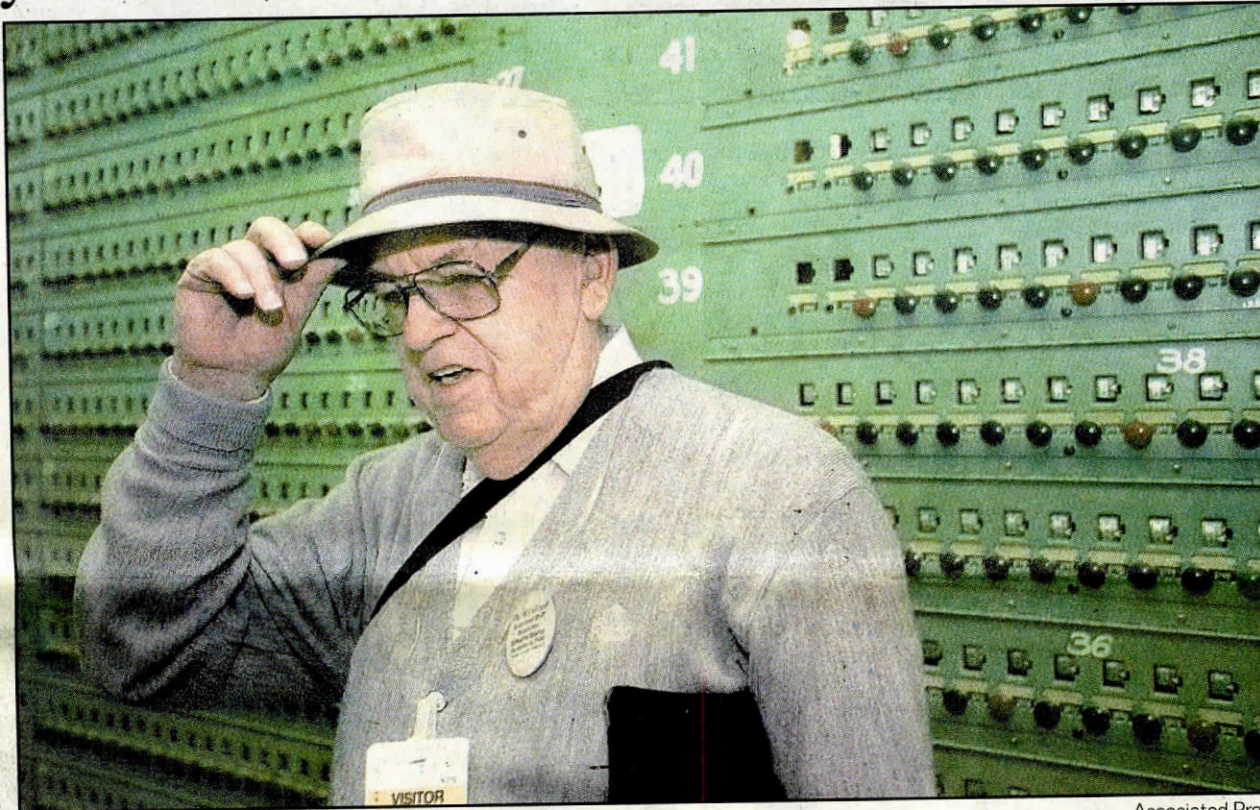
Some 150,000 workers would take part in the effort, with the peak work force reaching about 50,000 in 1944. Over 30 months, workers built 554 buildings, 386 miles of road, 158 miles of railroad, three massive plutonium extraction plants and the world's first three production-scale nuclear reactors.

"On my first trip to B Reactor, both sides of the road as far as you could see were filled with construction equipment," said Dee McCullough, an instrument supervisor at Hanford during the war. "Both sides had piles of piping and material."

Conditions were so primitive that many workers stayed only a day or two.

"God, it was practically a wilderness," said Warriner, now 88 and living in Wilmington, Del., back where his career started. He came to Hanford in 1944 as a system division engineer in charge of construction of B Plant, which would separate plutonium from irradiated uranium.

He got off the train in Pasco at 12:30 a.m. and walked down the platform with tumbleweeds rolling up behind him and past him. "What are



Associated Press

Dee McCullough, who was one of the original workers at the B Reactor when it opened in 1944, tours the reactor in June 2000, along with other members of the B Reactor Museum Association.

those?" asked a friend who had traveled out on the same train.

A normal work week was 10 hours a day, six days a week.

But there was a sense of urgency, as the United States raced to develop an atomic bomb before Germany.

"When you would get in a jam, you would work seven days a week," Warriner said.

The worst for many workers were the winds that roared across the desert, picking up sand that had little to hold it to the ground. Workers called them the termination winds because so many workers would line up for what would be their final paychecks the day after a bad storm.

Lawrence Denton, at 18 and used to the West from living in northern Idaho, adjusted better than most. He lived in tents, Quonset huts and barracks as a worker in charge of issuing welding



Denton

gases for construction of the reactors and processing plants starting in September 1943.

While the rest of the nation was on wartime rations, the food was plentiful and good, he said.

But "the winds bothered everyone," he said. "I would watch outdoor movies with safety goggles on."

The project was top secret. Facilities were spread over an area half the size of Rhode Island and workers were not allowed to move from one work area to another. Only a couple dozen top scientists and engineers were told what was being made.

Warriner remembers witnesses watching as he signed an oath that he would not talk about what he saw at Hanford under punishment of death.

But he suspected that Hanford was working toward an atomic explosion, he said. He'd previously worked on a project to build a heavy water plant because Nazis were known to be working toward a heavy water design to moderate the neutron reaction in a reactor, he said. Ultimately, B reactor used carbon blocks to slow down neutrons in the reactor so they would not

bounce off the Uranium 238 atoms without producing plutonium.

"This is no chemical plant," Roger Rohrbacher, 85, of Kennewick, remembers thinking. He had worked in the Metallurgical Laboratory at the University of Chicago where the chemistry was developed to separate plutonium from the irradiated fuel rods before he was assigned to Hanford to work in the instrument department.



Rohrbacher

Every once in a while, some information would slip out. He remembers someone directing that a "neutron monitor" be moved under the reactor. In addition, he wore a device to detect radiation and was required to give regular blood and urine samples.

Denton, of Kennewick, hadn't a clue until he heard news reports.

"I was in awe that we had made such a terrible weapon," Denton said. "I felt sorry for the Japanese, but I was hoping there was not going to be any more killing."

Nagasaki not the first choice

It was partly by chance that the bomb with Hanford plutonium was dropped on Nagasaki. It was the second target picked that day.

Kokura, with one of Japan's largest munitions plants, was the assigned target on Aug. 9, 1945. But the skies were cloudy and filled with billowing smoke from a bombing raid on a nearby city. Bock's Car, the B-29 that carried the Fat Man plutonium bomb, made three bombing runs at 30,000 feet over Kokura but could not see through the haze.

Running short of fuel, the Bock's Car crew decided to head to Nagasaki, where the Japanese had the massive Mitsubishi shipyards, a steel works and two arms factories, including one that made some of the torpedoes used on Pearl Harbor.

Sumiteru Taniguchi, then 16, was riding his bicycle through the streets of Nagasaki at 11:02 a.m. that morning.

He was catapulted, bicycle and all, a dozen feet and slapped against the road by a blast the color of rainbows. "The ground seemed to quake, and I clung to it for dear life," he said in a Herald interview on the 50th anniversary of the bombing. When he raised his head, "bodies of children who had been playing at the roadside were scattered around me like clumps of garbage," he said.

He would spend three years and seven months in the hospital. About 40,000 people died immediately and 35,000 more Japanese were dead within months. The Japanese government now attributes 237,062 deaths through the years to the bomb dropped over Nagasaki.

But there also were those who lived because the bomb was dropped.

Millard Hileman, an American prisoner of war being held at Kokura, heard the motors of a B-29 approaching three times on Aug. 9. In 1942, he'd escaped from the Bataan death march and been hidden by Filipino villagers before surrendering to the Japanese for fear that those who helped him would be tortured and killed. He'd been a prisoner of war at Kokura for a year when he heard the drone of Bock's Car overhead.

The Japanese were prepared to kill prisoners of war if there was a land invasion, which the United States planned for late summer.

Instead, Japan surrendered Aug. 14. Hileman would return to the United States to settle in Prosser, raise a family and late in life write *1051—An American POW's Remarkable Journey Through World War II*.

Veterans believe bomb saved lives

Over the last decade, there's been renewed debate over whether the United States was right to use nuclear weapons and cause such unfathomable suffering and death to civilians in Hiroshima and Nagasaki.

But many in the Greatest Generation, either those who were veterans or helped build the bomb at Hanford, believe it was a necessary evil to end the war.

"We were real relieved that what we did all this time was beneficial," said

McCullough, of Richland. "It killed a lot of Japanese at the time, but it saved a lot of Americans and other Japanese."

Rohrbacher's brother was in Europe in the 101st Airborne. Without the atomic bombs, Rohrbacher believes his brother would have been headed to Japan where casualties would have been heavy.

Michele Gerber, Hanford historian and president of the B Reactor Museum Association, agrees with the veterans.

She discounts the argument that a bomb should have been dropped first in the ocean or a sparsely populated area of Japan as a demonstration. Who would be there to see it, she asked. And with the poor communications in Japan during World War II, would people believe reports of a demonstration bomb?

"We didn't have a lot of bomb material to spare," she said. "We had to be sure not to make some statement and then not follow through."

Others have argued that Japan was close to defeat in 1945 and its people were starving.

"But that does not mean they wanted to give up," Gerber said. An imperialistic code had been imposed on the Japanese people, and military leaders had vowed to fight to the death of every man, woman and child.

"I think they wouldn't give up" without the atomic bomb, Gerber said.

Some workers did have the devastation the bomb would wreak on their minds as they raced to produce plutonium.

Gerber remembers Bill McCue, a young scientist on the Hanford project, telling her before his death in 2001 that he and his roommate were taken to a secret location during World War II and told what was being built at Hanford.

He and his roommate talked all night, asking "Should we be doing this? Isn't this God's work?"

They concluded, "If God didn't want us to do it, it will fail," Gerber said.

"Someone helped us out in this," Warriner said, a belief he holds to even though he does not participate in organized religion.

The B-29 was developed just in time for the atomic bombs. The weather was clear enough to drop the bombs in an age long before weather satellites. And every part of such a complicated and fledgling technology worked to develop the bombs, he said.

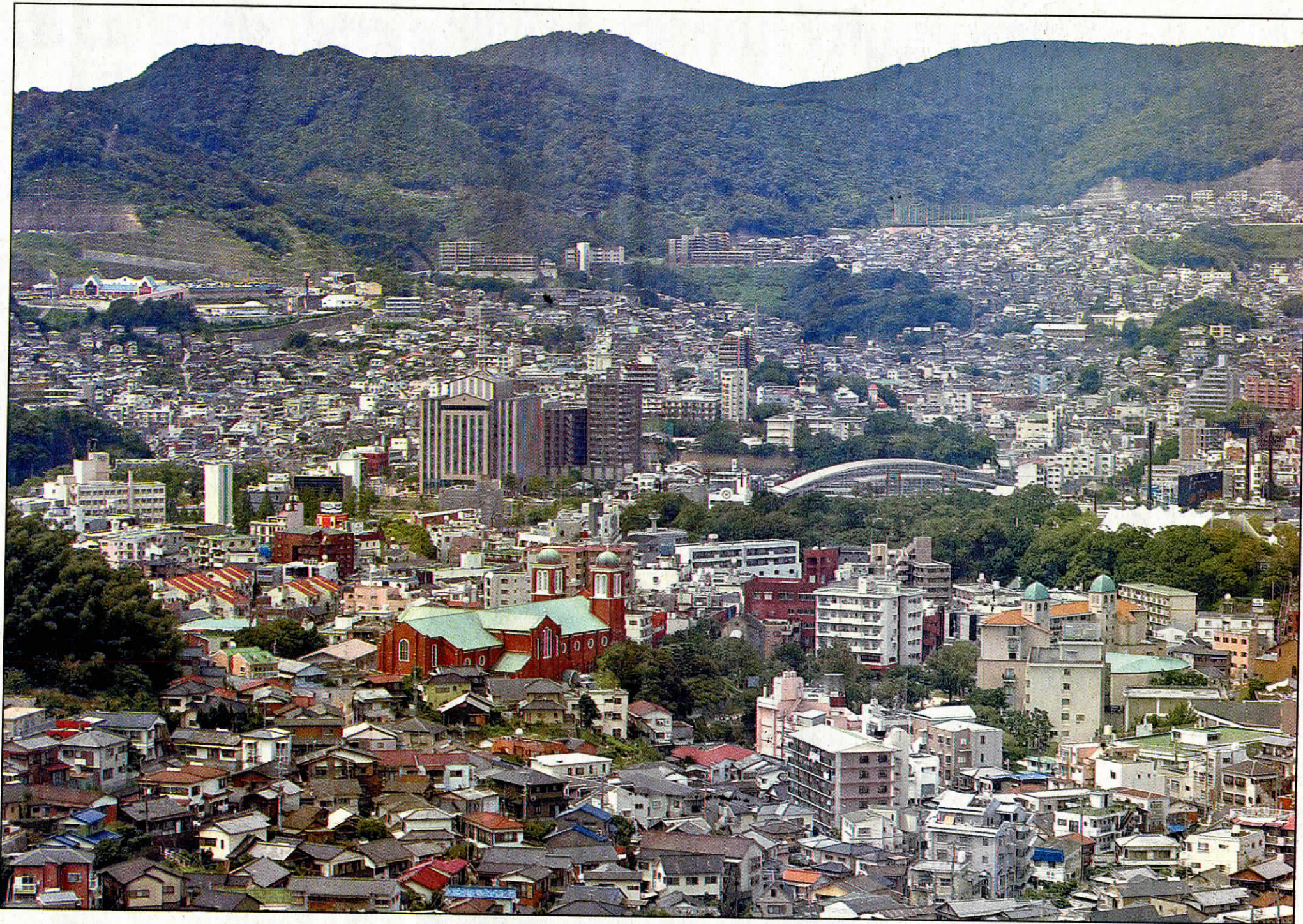
"The U.S. had its back against the wall," he said. The Nazis had killed an estimated 5 million to 6 million Jews, and the "Japanese were the biggest butchers in Asia," Warriner said. He remembers accounts of Japanese soldiers walking through hospitals, sticking bayonets into patients, adults and babies alike.

The veterans of World War II do have regrets, Gerber said.

They regret that Pearl Harbor was bombed. That an entire generation all over the world was plunged into war. That families endured the horrible anxiety that they would never see their loved ones again.

"But they don't regret the ending," she said. "The bomb made it possible for peace and to spend 60 years as friends and trading partners (with Japan)."

Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.



The brick-colored Urakami Cathedral **at center left** with twin towers, stands Monday in the area of the hypocenter of the bombing in Nagasaki, Japan, that blasted and flattened the city Aug. 9,

1945. The exact location of the hypocenter is 1,640 feet above the ground, the left edge of the green belt, current Nagasaki Peace Park, which lies horizontally **at right** above the cathedral towers.

Associated Press photos

A city marks 60 years of rebuilding

6,000 gather for moment of silence in park near center of blast

By Eric Talmadge
The Associated Press

NAGASAKI, Japan — A siren wailed and a bronze bell rang out early today as Nagasaki marked the moment 60 years ago when an American plane dropped a plutonium bomb, killing tens of thousands and sealing Japan's defeat in World War II.

About 6,000 people, including hundreds of aging bomb survivors, crowded into Nagasaki's Peace Memorial Park, just a few hundred yards from the center of the blast, for a solemn remembrance and moment of silence.

When the silence ended, Nagasaki Mayor Iccho Itoh had some angry words for the leaders of the nuclear powers, and especially the United States.

"To the citizens of the United States of America: We understand your anger and anxiety over the memories of the horror of the 9/11 terrorist attacks," he said. "Yet, is your security enhanced by your government's policies of maintaining 10,000 nuclear weapons?"

Itoh also urged Japan to get out from under the U.S. "nuclear umbrella." About 50,000 U.S. troops are deployed throughout Japan

under a post-World War II mutual security pact.

Today's remembrances began just after sunrise. Hundreds of Catholics joined in a special Mass at Urakami Cathedral, which at the time of the bombing was the largest in Asia with 12,000 parishioners — 8,500 of whom are believed to have been killed.

When the cloudy sky lit up in a sudden flash at 11:02 a.m. in 1945, two priests were hearing confessions inside the cathedral and 30 faithful were inside. Everyone in the church died, and the statues around them turned black because of the intense heat.

Nagasaki's devastation has been overshadowed by Hiroshima, where some 55,000 people swarmed into that city's Peace Memorial Park to mark the 60th anniversary of the attack last week.

The people here, however, have not forgotten. "Together with some 260,000 A-bomb survivors ... I swear in the presence of the souls of the victims of the atomic bombing to continue to tirelessly demand that Nagasaki be the last A-bomb site," said Fumie Sakamoto, who represented the survivors at today's memorial.

Sakamoto was a junior high school student when Nagasaki was bombed.

The remains of thousands of the dead have never been found. Japanese estimates of the death toll itself range from 60,000 to 80,000. Nagasaki officials use 74,000 as the death figure.

Throughout the worst-hit parts of town, thousands of colorful paper cranes, which are believed to ease the pain of the dead, were draped over stone monuments dedicated to the victims.

A steady stream of tourists also flowed into Nagasaki's A-bomb museum, where horrific reminders of the attack cover the walls; a broken clock with its twisted hands stopped at the instant of the blast, photos of the dead or the burned.

In sharp contrast with the museum at the controversial Yasukuni war shrine in Tokyo, which has been widely criticized as one-sided in favor of Japan's wartime leadership, the Nagasaki museum is careful to place the attack firmly in its historical context.

Other than the many small monuments around town, few signs of the devastation remain.

A scenic port city with a population of about 420,000, Nagasaki is today a popular tourist destination known for its Chinatown, one of the largest in Japan, and its vaguely European flair.



Japanese Prime Minister Junichiro Koizumi places a wreath during the ceremony today to mark the 60th anniversary of the atomic bomb attack on Nagasaki.

Group to celebrate V-J Day

Open-mike night planned at Richland restaurant

By the Herald staff

The United States would not turn the Gettysburg battlefield into farmland. It wouldn't melt the Liberty Bell down to make manhole covers.

"We have a historic resource of the same significance," said Michele Gerber, president of the B Reactor Museum Association, on the 60th anniversary of the atomic bombings of Japan.

"It has the same ability to teach us and inspire us, the same ability to spark debate," she said. "We have it right here in the Tri-Cities, and we dare not destroy it."

The association is dedicated to preserving B Reactor, the world's first production-scale nuclear reactor, as a museum. Built and operating within 13 months, it produced the plutonium for the first atomic explosion over the New Mexico desert and then the plutonium for the bomb dropped on Nagasaki, ending World War II.

The museum association plans an open-mike night at Atomic Ale Brewpub & Eatery, 1015 Lee Blvd., Richland, from 5 to 8 p.m. Sunday, the 60th anniversary of the surrender of Japan and the end of World War II. Those who helped win World War II will be invited to share their memories and thoughts.

The event, which U.S. Rep. Doc Hastings is expected to attend, is only open to association members. However, new members may join at the door for \$20, or \$10 for retirees and students.

World's first atomic bombs

Sixty years ago, the U.S. dropped the first atomic bombs on Japan:

Hiroshima, Aug. 6, 1945

Uranium bomb dubbed "Little Boy" detonates 1,890 ft. above the city at 8:15 a.m.

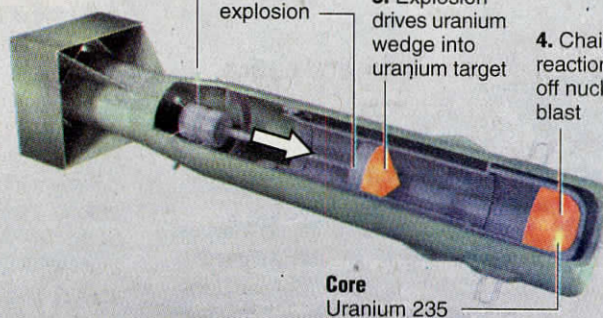
Explosion by gun-barrel method:

1. Pressure sensors activate detonation device ...

2. ... triggering a conventional explosion

3. Explosion drives uranium wedge into uranium target

4. Chain reaction sets off nuclear blast



Core Uranium 235

Nagasaki, Aug. 9, 1945

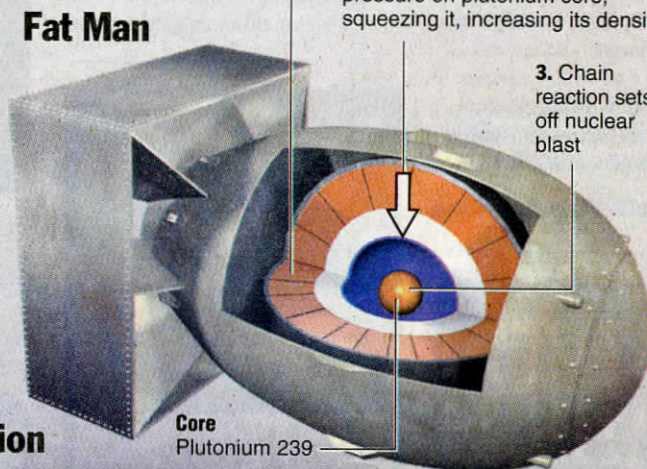
Plutonium bomb dubbed "Fat Man" detonates 1,800 ft. above the city at 11:02 a.m.

Explosion by implosion:

1. Numerous detonators located on conventional explosives fire simultaneously ...

2. ... creating powerful inward pressure on plutonium core, squeezing it, increasing its density

3. Chain reaction sets off nuclear blast



Core Plutonium 239

Hiroshima

Deaths: 90,000 immediately, 145,000 within months

Flat terrain caused more widespread damage



Worst affected area: Within a 1.6 mi. radius

Nagasaki

Deaths: 40,000 immediately, 75,000 within months

Hilly geography limited damage to Urakami Valley and part of downtown



Worst affected area: Within a 1.25 mi. radius

11 AUG 02
Decision expected in a couple of months on which projects receive environmental restoration money

By Jeff St. John

Herald staff writer

State officials toured sections of Amon Creek and the site of the Hanford Reach Interpretive Center in Richland on Wednesday to see if putting money into the two locations will fit in with guidelines for spending about \$1.3 million in state environmental restoration funds.

Whether the two sites, or others under consideration for the money given to the state by the Bonneville Power Administration in a 2003 settlement, will get their funding could be decided in the next two months.

"I'm really impressed with the quality of projects throughout Benton County and the surrounding areas," said Jim Luce, board chairman of the Energy Facility Site Evaluation Council, or EFSEC, which is in charge of the money.

Luce toured portions of Amon Creek on Wednesday morning, where Scott Woodward, president of Tapteal Greenway, said the conservation group hopes to buy land to preserve habitat.

"There are a couple of pieces of property that could go under the bulldozer at any moment," Woodward said. "We'd like to make (them) a public trust."

Later, Luce visited the Columbia Point South site of the \$48 million Hanford Reach National Monument and Heritage Visitor Center. The center is seeking about \$2.5 million to help cover what project manager Ron Hicks said was about \$5 million in environmental restoration work needed there.

"In my mind, there's not a single project that would get more leverage for the dollars, from an environmental standpoint," Hicks said — both in terms of restoring natural habitat and educating people about conservation.

Luce said both projects could fit EFSEC's mandate for spending the money BPA gave the state in a settlement between Energy Northwest,

See **Funding**, Page B2

17 AUG 05 Fish, Wildlife to improve Hanford Reach roads

Fish and Wildlife Service officials say they began improving 16 miles of public roads on the Wahluke Unit in the Hanford Reach National Monument this week.

Road work will begin on the Ringold River Road from the Ringold/Messburg Fish Hatcheries upriver to the locked gate near Parking Area 8.

This section should be completed by Sept. 15, when work will shift to the White Bluffs Road from Highway 24 south to the locked gate at the scenic overlook. The White Bluffs section should be done by Oct. 5.

Officials said delays should be anticipated at the work sites from 7 a.m. to 5 p.m. For more information, call Fish and Wildlife at 371-1801.

17 AUG 05
Company's proposal would mean workers could avoid direct contact with waste

By Annette Cary

Herald staff writer

The ground shook just south of the Hanford nuclear reservation at 8 a.m. Tuesday as 1,000 horsepower of vibratory hammer pounded a 28-foot-long casing into the ground.

It was the final demonstration without using real waste of a new technology that North Wind of Richland is proposing to dig up Hanford waste quickly, relatively inexpensively and without bringing workers into direct contact with buried radioactive and hazardous chemical waste.

The company, based in Idaho, is proposing driving a casing into the ground, capping the bottom and top, then lifting the casing out with waste encapsulated inside.

"Our approach was to look at what was commercially available and bring it to bear on the (cleanup)," said Mark Riess, vice president of Wash-

ington state operations for North Wind.

Under a \$4.7 million Department of Energy grant, it focused on the problem of digging up vertical pipes used to hold waste in two of Hanford's most notorious burial grounds, 618-10 and 618-11, not far from the Columbia River.

They were used in the 1950s and 1960s to dispose of laboratory waste from research and testing for the production of plutonium for the nation's nuclear weapons program. Some loads hauled from the 300 Area just north of Richland to the burial grounds were so radioactive that truck drivers had to be replaced halfway through their 10-mile drive.

Much of the worst waste was dumped into about five caissons, underground steel chambers connected to the surface by a crooked and slanted pipe.

More of the waste was



Dennis Crass, deputy project manager for the North Wind vertical pipe unit removal project, shows visitors at the project site how rebar is driven down the 28-foot length of pipe via smaller pipes welded on the interior of the larger pipe after it has been pounded into place. Grout then is injected into adjacent pipes which form a plug at the bottom.

deposited in 148 vertical pipes. Five 55-gallon drums were welded end to end and buried for each. Then containers of laboratory waste, ranging from about the size of a juice can to five-gallon buckets, were dropped down the pipes.

It's those vertical pipes North Wind is proposing to encase within the ground and safely remove intact, even if

they've corroded over the last half-century.

Tuesday morning the vibratory hammer suspended from a crane took just four and a half minutes to pound a casing into the ground. It surrounded a mock waste pipe at North Wind's Cold Test Facility on Horn Rapids Road, five miles south of

See **Waste**, Page B7

13 AUG 05

Hanford fire flames out at about 6,000 acres

By Anna King

Herald staff writer

A fire on the Hanford Reach National Monument was just about out Friday after burning about 6,000 acres.

"There is nothing still burning on the edge of the fire," said Jim Shultz, acting fire management officer for the Fish and Wildlife Service on Friday evening after returning from looking at the damage.

"Basically right now there are several hot spots close to the edge of the line. They are putting those out."

The fire burned through about 3,000 to 4,000 acres of prime shrub-steppe habitat. Biologists haven't yet assessed how much habitat rehabilitation will be needed in the area.

The blaze roasted sagebrush, Russian olive trees and animal habitat but damaged no structures in the uninhabited

wilderness, about 10 miles north of the Ringold Hatchery and five miles south of Highway 24.

"We had hot and dry weather and erratic winds that contributed to a significant amount of acres burned," Shultz said.

The fire started about 4 p.m. Tuesday after a farmer lost control of his agricultural field burn.

As of Friday, there were 20

firefighters and one fire engine working in the area. They were expected to be released today. Other fires raging in the Pacific Northwest made fire-fighting crews difficult to secure, Shultz said.

The fire also was difficult to put out for other reasons.

Shultz said the remote area's waterways and soft sand made it difficult and dangerous for

See **Fire**, Page B2

DOE official^{17 AUG 6 05} to take first Hanford tour

By Annette Cary

Herald staff writer

The new deputy secretary of energy will make his first visit since being sworn in this spring to the Hanford nuclear reservation today.

Clay Sell, from Texas, holds the No. 2 position in the Department of Energy, a position comparable to the chief operating officer in private industry.

"Hanford is a significant portion of the (DOE) budget," said Mike Waldron, spokesman for DOE headquarters in Washington, D.C. "He feels it is important to get hands-on perspective."

He'll spend all day at Hanford, accompanied by Rep. Doc Hastings, R-Wash.

Included on his tour will be the B Reactor, which supporters are working to save as a museum. The first production reactor in the world, it made plutonium used in the first nuclear test explosion in the New Mexico desert and plutonium used in the bomb dropped over Nagasaki, Japan, to end World War II.

But most of the day will be spent touring the projects that are part of the massive effort to clean up contamination left from more than 40 years production of plutonium for the nation's nuclear weapons program.

He'll see the leak-prone K Basins, near the Columbia River, where workers have missed a legal deadline by months to capture radioactive sludge in underground containers.

He'll also tour the \$5.8 billion vitrification plant planned to turn some of Hanford's worst radioactive waste into a stable glass form for permanent disposal. Work has slowed at the plant this year because of earthquake design and construction problems that threaten to raise its price by billions and extend its schedule by years.

But he'll also see progress being made in the \$2 billion a year effort to clean up the site, and he plans a ceremony with Hastings to congratulate workers on their successes.

The visit includes a stop at DOE's national laboratory in the Tri-Cities, Pacific Northwest National Laboratory.

Sell, an attorney, replaced Kyle McSlarrow as deputy secretary. Most recently, Sell spent 19 months as special assistant to the president for energy policy and legislative affairs. He's also familiar with DOE issues after serving as staff director for the Senate Energy and Water Appropriations Subcommittee.

17 AUG 05

Tire blowout causes rollover, road closure

A tire blew out on a utility truck that Hanford workers call "the guzzler" Tuesday morning, causing it to roll and close a road at the nuclear reservation for more than four hours.

The truck was being driven to a work site and was not in use on a project when the accident occurred about 10:30 a.m., but it had the potential to be contaminated with radioactive materials from past work.

A survey found no contamination, said Geoff Tyree, spokesman for Department of Energy contractor Fluor Hanford.

The utility truck uses a vacuum system to excavate trenches by sucking up dirt and rocks. The method is less likely to damage water lines than digging.

The driver of the truck, who was just south of the 200 East Area on Route 4 South when the accident occurred, was taken to Kadlec Medical Center in Richland with cuts and bruises. That portion of the road is inside the Wye Barricade and closed to the public.

DOE aiming toward October to name FFTF contractor

17 AUG 05
The Department of Energy is working toward awarding a contract in October to finish shutting down Hanford's Fast Flux Test Facility and possibly tear it down.

The revised contract schedule called for awarding the contract as early as this month if no discussions needed to be held with companies offering proposals for the work. However, DOE has entered discussions, pushing back the possible award of the contract two months.

Three teams are being considered for the work. They include SEC Closure Alliance, led by SEC Federal Services of Safety and Ecology Corp., of Knoxville, Tenn.; FFTF Restoration Co., formed by Federal Engineers & Constructors and Nuvotec, both of Richland; and EPW Closure Services, led by Environmental Chemical Corp., of Burlingame, Calif.

DOE awarded a \$235 million contract to SEC Closure Alliance about a year ago, but the Government Accountability Office concluded DOE failed to adequately account for accelerated schedule proposals and weigh contingency costs equally. DOE issued a revised request for proposals to the three finalists for the contract.

14 Aug 25

Bechtel celebrates 'tremendous run'

Reception tonight to toast run as lead contractor in river corridor cleanup

By Chris Mulick

Herald Olympia bureau

Hundreds are expected to attend an after-work reception at the Three Rivers Convention Center this evening to toast the end of Bechtel Hanford's 11-year run as the lead contractor for cleaning up the nuclear reservation's river corridor.

Bechtel Hanford turns over the job to a

new contractor — Washington Closure — a week from Saturday.

Bechtel will retain a piece of the action as a partner in the limited liability corporation. Washington Closure is led by Washington Group International but Bechtel National and CH2M Hill are partners.

Rank-and-file workers shouldn't notice much of a difference even though there will be changes at the top.

"We've had a tremendous run," said Bechtel Hanford spokeswoman Sue Kuntz.

And reception attendees should expect to hear all about it. The contractor touts a

series of highlights from its 11 years on the job.

■ Four Hanford reactors have been successfully cocooned with work at a fifth due to wrap up this fall.

■ About 60 percent, or 10 million tons, of the river corridor's contaminated soil and debris has been dumped in a huge landfill in central Hanford.

■ Some 156 milestones under the Tri-Party Agreement, the legal pact that governs Hanford cleanup, were met ahead of schedule and the remaining 26 were on time.

And the contractor has been lauded for its safety record, an area in which Presi-

dent Tom Logan said there is still room for improvement, even though the number of safety-related incidents are down 82 percent from before it took over in 1994.

"It's not at zero and if it's not at zero, somebody's still getting hurt," he said.

The new Washington Closure management team already is on the ground working at the site, spokesman Todd Nelson said, one of about 700 workers who are affected by the switch.

"For most people, it's going to be business as usual," he said.

■ Reporter Chris Mulick can be reached at 360-753-0862 or via e-mail at cmulick@tricityherald.com.

25 AUG 05
*Former workers suing
Fluor over situation
involving layoffs*

By Mary Hopkin

Herald staff writer

After seven weeks of testimony, attorneys laid out closing arguments Wednesday in a case in which 11 pipefitters are suing

Fluor Federal Services, claiming the company laid them off for speaking up about safety concerns.

Jack Sheridan, the pipefitters' attorney, painted Fluor as a mega company that cares more about safety reports than safety and said Fluor managers did not follow company protocol when his clients were laid off.

Sheridan asked the jury to

award the plaintiffs \$6.5 million in damages for pain and suffering, plus lost wages and future earnings and retirement benefits.

"We ought to be able to live in a world where people who do the right thing are treated as well as those who keep their heads down," Sheridan said.

But Fluor's attorney, William "Randy" Squires III, said the plaintiffs are narcissistic con-

spiracy theorists who are strictly seeking money.

"They believe the entire operation at Hanford revolves around them," Squires said. "The plaintiffs don't understand contracting structures and don't know anything about construction management or budgeting."

The case was filed six years ago, but has been delayed by appeals that took it all the way to

the U.S. Supreme Court.

In 1997, a crew of seven pipefitters at what is now Fluor Federal Services objected when they were told to install a valve rated for 1,975 pounds per square inch for a test of radioactive waste pipes that needed to withstand 2,235 pounds per square inch.

The crew was laid off, but a

See **Case**, Page B2

Hanford tank waste cleanup excels

Latest tank took 6 weeks to empty, previous took 9 months

By Annette Cary

Herald staff writer

The third of Hanford's underground tanks of radioactive and hazardous chemical waste has been emptied, leaving 174 to go.

But while the second tank took nine months of work to empty, work on tank C-202 began only in June. Six weeks later, it's empty.

"That's the big deal," said Dale Allen, executive vice president of CH2M Hill. "They plowed the lessons they learned back into this tank."

Tank C-202 is one of the smallest tanks at Hanford at 55,000 gallons. But it's one of the oldest, built in 1944 and 1945, and is suspected of leaking waste into the ground in the past.

The Department of Energy is working to empty all of Hanford's 149 tanks built with only a single shell into more protective double-shell tanks until the waste can be treated for permanent disposal. The

waste is left from processing uranium fuel irradiated in Hanford reactors to remove plutonium for the nation's nuclear weapons program during World War II and the Cold War.

All the pumpable liquid has been removed from the single-shell tanks, and work is continuing to remove the sludge and solids that remain.

Each tank holds a different mix of chemicals and different methods have been needed to retrieve the waste from inside the closed, buried tanks.

Tank C-202 is the second tank to be emptied using a vacuum with a hose inserted within the closed tank to suck up a sludge that contains radioactive cesium and strontium. A high-pressure spray of water was used sparingly to break up clumps of waste that couldn't be sucked up otherwise.

The equipment was adapted for Hanford use from the petroleum industry.

To meet the legally binding Tri-Party Agreement, the tank needed to be emptied of all but 30 cubic feet of waste, just 1 per-

cent of its contents, or emptied until current technology could remove no more.

CH2M Hill believes it has gotten the waste to less than 20 cubic feet dispersed throughout the huge tank.

"We're confident we've gone to the limits of technology and met the criteria," said Ryan Dodd, vice president of closure operations for C Farm at CH2M Hill.

That means for the first time since World War II, cameras photographing inside the tank produce pictures that show the world on its bottom.

They also show debris scattered around the tank's floor that workers had to carefully vacuum around. That includes a hose, a roll of tape and pieces of early measuring devices that became too contaminated to remove from the tank.

"We intend to start vacuuming on the next tank by the end of September," Allen said. It will be the third of four similar tanks in the C Tank Farm to be emptied using the vacuum method.

In addition, workers are preparing to remove waste from a larger tank, C-103, which has a 530,000 gallon capacity.

In a new process, it will use liquid waste now held in a double-shell tank to mobilize the sludge so it can be pumped. If clean water were used, that would create new liquid waste that would need to be stored in double-shell tanks.

The double-shell tanks already are expected to run out of space for waste from single-shell tanks before the vitrification plant under construction is ready to turn tank waste into a sturdy glass form for permanent disposal.

More tests will be needed to confirm the contents of the residual waste in tank C-202 and how much waste remains.

But the Washington State Department of Ecology agreed Tuesday that it appears the tank more than meets legal requirements to be considered empty.

"Tank wastes are our very highest priority at Hanford and every tank emptied is a great step forward," said Sheryl Hutchison, spokeswoman for the Department of Ecology.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

19 AUG 05
*Agency often too optimistic
on cost and schedule of big
environmental cleanup work*

By Annette Cary

Herald staff writer

Changing the way the Department of Energy does business may not be pleasant in the short term, but it has to be done, said Clay Sell, DOE's new deputy energy secretary after his first tour of the Hanford nuclear reservation.

DOE has had a history of "over-optimism" when it comes to predicting the cost and schedule of huge environmental cleanup projects, he told the Tri-City Herald editorial board Thursday. He spent Wednesday touring the nuclear reservation and Pacific Northwest National Laboratory in Richland.

"That over-optimism furthers the repu-

tation of the department that we don't know how to predict costs" or manage projects, he said.

But new Energy Secretary Samuel Bodman brings credibility and experience on large projects, Sell said.



Sell

"We're going to change the way we do things," starting with Hanford's \$5.8 billion vitrification plant, he said.

DOE has not come up with a new cost and schedule for the construction of the plant, but Congress is expecting the cost may rise by billions and the schedule expand by years because of construction difficulties and a new seismic study that showed the design standard needs to be increased to protect against a severe earthquake.

The plant is planned to treat some of

Hanford's worst waste, turning it into a stable glass form for permanent disposal. The nuclear reservation has 53 million gallons of the waste left from the past production of plutonium for the nation's nuclear weapons program.

"Failure is not an option," Sell said Wednesday after touring the vitrification plant. Although Congress will be upset about the increased price tag, DOE will have to make it, and the Office of Management and Budget will have to understand that the project is vital, he said.

The waste is held in underground tanks and, in the past, some of the waste has leaked and eventually could threaten the Columbia River. DOE is moving waste from older tanks to newer double-shell tanks to await treatment, but those newer tanks soon will be full and some of the waste will need to be treated before more of the older tanks can be emptied.

"We've got to figure out a way to be

successful," he said. "We'd like to figure out a way to be successful at as little cost as possible."

As costs for the vitrification plant rise, money will have to be shifted to it from other projects, at Hanford and across the DOE complex, he said.

Construction already has slowed on key buildings at the plant, and DOE headquarters asked the DOE Hanford Office of River Protection to come up with a plan for the orderly halt of work that could be affected by the new seismic design standard.

In addition, more management of the construction project is being done from Washington, D.C. That was part of the reason for Sell's visit, a June visit by Bodman and a visit being planned by James Rispoli, who was sworn in last week as assistant secretary of energy for

See **Changes**, Page B2

20 Aug 05
*DOE must develop
plan for consolidating
plutonium, GAO says*

By Chris Mulick

Herald Olympia bureau

The Government Accountability Office believes the Department of Energy's failure to produce a suitable plan for processing and shipping its excess plutonium to its Savannah River site could threaten Hanford cleanup.

"Because it is unable to consolidate its plutonium, DOE faces additional costs in excess of

\$85 million annually to securely store plutonium at its current locations, and its cleanup goals for Hanford are in jeopardy," it said in a July report to Congress released Friday.

To lower costs and improve security, DOE is considering consolidating its nearly 50 metric tons of plutonium no longer needed for weapons production at the South Carolina reservation until it can be stored permanently at Nevada's Yucca Mountain. Most of that plutonium now resides at Hanford, where an accelerated cleanup plan calls for plutonium to be shipped out by

See **Cleanup**, Page B2

CH2M Hill receives national recognition

CH2M Hill Hanford Group received national recognition for workplace safety and health at the Voluntary Protection Program Participants' Association's 21st Annual National Conference in Dallas.

DOE gave Conni Thacker, CH2M Hill's Voluntary Protection Program coordinator, and Liz Norton, Hanford Atomic Metal Trades Council safety representative, the Outstanding Performance Leadership Award. Both have conducted VPP assessments nationwide.

In addition CH2M Hill's 222-S Laboratory employees were given the award for Outstanding Employee Ownership for worker involvement and participation in the development of a VPP. It was the first time the award had been given by DOE.

Hanford executive 11 SEP 05 to retire in October

Dale Allen, deputy general manager of CH2M Hill Hanford Group, will retire in October.

He has worked at the Hanford nuclear reservation tank farms for nearly eight years and previously worked for three other DOE contractors. He is a retired commander from the Navy and served three tours in Vietnam.

Mark Spears, currently heading the tank farm's nuclear operations technical support organizations, will become the tank farms chief operating officer when Allen retires. He is a retired officer with the Navy Nuclear Program and has previously worked for CH2M Hill at the Rocky Flats nuclear site in Colorado.

26 AUG 05

Simulation prepared crew for orderly evacuation, evaluation of radioactivity

By Mary Hopkin

Herald staff writer

Hanford workers handling a metal drum that leaked some brown absorbent material Wednesday had completed a drill simulating the same scenario the day before, so they knew what to do.

"They did exactly what they were supposed to," said Dale McKenney, Fluor Hanford's vice president for the waste stabilization and disposition project.

McKenney said the incident is one the trench workers were prepared for and trained to handle. The 55-gallon waste drums in the trench contain various radioactive wastes that are being moved.

Doug Greenwell, director of solid waste storage and disposal, said no radioactive material was released during the Wednesday morning incident and none of the 11 workers in the area was contaminated.

"The workers were just beginning the process of tilting it when the bottom gave way," he said. "Once they saw the condition, a radiation technician did a quick scan of the brown material and they had an orderly evacuation."

Technicians monitored the area to make sure there was no radiation in the air, and the three workers who had been handling the drum were evaluated and given nasal smears to make sure they didn't pick up or inhale radiation, Greenwell said.

About half of the drums in that particular trench are corroded to some extent.

A total of 32,000 waste drums are stored in six trenches in the 200 West Area, Fluor Hanford workers are evaluating each to determine what's inside and where it will go next. The drums were placed in the trench from 1970 to 1988 and many contain transuranic wastes, which will be shipped to Carlsbad, N. M., Greenwell said.

Hanford radiation alert turns out to be false alarm

By Chris Mulick and Mary Hopkin

Herald staff writers

An alert was declared at Hanford on Wednesday morning after it appeared material had leaked from a drum containing radioactive waste in a burial trench south of the Plutonium Finishing Plant.

There were no injuries and no radiation was reported released, and 11 people working at the site, including the two closest to the drum who later received

nasal smear tests, came up clean when checked for contamination after the 10:35 a.m. incident.

A "take cover" order that sent some 1,800 workers in the 200 West Area indoors was lifted by 1 p.m., and the emergency alert was terminated a half-hour later.

But a number of questions remained even after the emergency was called off and Hanford's Joint Information Center abruptly closed in the mid-afternoon. A

DOE spokeswoman did not return afternoon phone calls.

Crews were at the site to examine the 55-gallon drums to determine their contents, assess their condition and label them, said Katie Larson, a spokeswoman for the information center.

Officials said the drum in question contained a smaller drum that held small amounts of radioactive material. The outer drum also contained an absorbent-like material designed to fill in the space

between the two drums.

Initially, crews reported part of the underside of the outer drum gave way and the material leaked out when they tipped it.

"What is described as a brown absorbent material escaped from the waste drum," the Hanford Emergency Operations Center reported in an initial e-mail to site employees.

But in a later e-mail, the center

See **Alert.** Page A2

28 AUG 05

Tank farm workers' panel to meet Tuesday

The new Hanford Tank Farm Worker Medical Monitoring Program of the University of Washington has formed a worker advisory committee that will meet in Richland this month.

Membership is open to anyone who has worked at the Hanford tank farms or with tank farm waste. The committee will help the program address the experiences and needs of tank farm workers.

The public is invited to attend the quarterly meetings, starting with one at 6:30 p.m. Tuesday at Richland Public Library.

The program was started to provide independent clinical evaluations to current Hanford employees who have health concerns related to exposure to vapors from Hanford's underground tanks of radioactive and hazardous chemical waste. Dr. Jordan Firestone of the University of Washington is the new director of the program, replacing Dr. Tim Takaro, who is now working in British Columbia.

For more information, call 1-800-419-9691.

ny kids use nd college

animal," Catty said.

Boyd gave Sommer a few dollars, and the two girls set off to buy T-Bone's buyers a lemonade.

When the girls returned, Sommer was calmer.

T-Bone and the rest of the animals bound for slaughter will be taken from the fair-grounds by truck between midnight and 6 a.m. Sunday. Many of the children use the money

Bechtel must revise construction estimates

By Chris Mulick and
Mary Hopkin

Herald staff writers

The Department of Energy has officially delivered its marching orders to Bechtel National in a letter instructing the contractor to revise estimates for building Hanford's \$5.8 billion vitrification plant.

It's been known for months that Bechtel would be asked to develop two scenarios, one in which the project would get \$626 million a year for the fiscal year that begins Oct. 1 and \$690 million a year after that.

Bechtel also is asked in the letter dated earlier this month to develop a second scenario in which more money is dedicated to the project.

In a series of estimates, the contractor is to come up with a construction timeline and a revised cost, which is expected to grow substantially.

Those instructions came in the mail last week in a letter from Roy Schepens, manager of DOE's Office of River Protection. Three of the estimates are due Sept. 30, including projections for the

Analytical Laboratory and the Low Activity Waste Facility.

The other two — for the Pre-treatment Facility and the High Level Waste Facility — are due Dec. 30.

DOE also is asking for separate reviews assessing the technical functionality of plant systems, due Dec. 31, and overall cost and schedule baselines, due Feb. 28.

"The purpose of these reviews is to provide DOE confidence in the project's baseline and restore project credibility," Schepens wrote.

Congress is worried the project's cost may rise by billions and the schedule may expand by years because of construction difficulties and a new seismic study that showed the design standard needs to be increased to protect against a severe earthquake.

In the meantime, the state argues seismic studies shouldn't slow the project when 177 underground tanks holding waste waiting to be processed may not survive an earthquake anyway.

■ Reporter Chris Mulick can be reached at 947-2249 or via e-mail at cmulick@tri-cityherald.com.

Termination is single largest during firm's 5-year Hanford pact

By Annette Cary

Herald staff writer

Fluor Hanford gave layoff notices to about 300 workers Friday, making it the company's largest single layoff during its current five-year contract.

More layoffs are expected, although the Department of

Energy contractor is not ready to say when or how many people will lose their jobs. After Friday's layoffs, 3,769 workers remain at Fluor to help with the cleanup at Hanford, where plutonium was produced for the nation's nuclear weapons program.

As Fluor has finished projects covered in its contract, it needs to change the mix of skills in its work force, the company said.

"We've continuously evaluated the work we have and the people," said spokesman Geoff

Tyree. Fluor's contract expires in a year.

In addition, although the amount of the Hanford budget for the fiscal year that begins Oct. 1 has yet to be set by Congress, it is certain to be lower than the current budget of nearly \$2.1 billion.

The U.S. House and Senate passed differing Hanford budgets that must be reconciled.

Fluor Hanford has finished several high-profile projects in the last 18 months, including sta-

bilizing 20 tons of plutonium material left at the Plutonium Finishing Plant at the end of the Cold War and moving 2,300 tons of spent fuel left in the leak-prone K Basins when Hanford stopped producing plutonium.

It's also finished some smaller projects, including draining liquid sodium from the Fast Flux Test Facility's primary cooling system and disposing of about 900 tons of low-enriched uranium fuel left in Hanford's 300 Area just north of Richland.

Despite the layoffs Friday, which covered a wide range of occupations, Fluor Hanford will be hiring some workers in the coming year for an expanded security program for the Hanford site.

Planned projects include consolidating weapons-grade material that remains at Hanford, improving security systems and increasing the number of security police officers.

See **Layoff**, Page B2

18 SEP 05
*Department of Energy
planning another test at
vitrification plant in October*

By Annette Cary
Herald staff writer

Engineers liked what they saw last week at a test site just off the Hanford nuclear reservation: a 44-ton block of black and green glass.

The Department of Energy and its contractors have struggled this year at Hanford with projects planned to treat radioactive and hazardous chemical waste stored in aging underground tanks. Some of the waste dates from the start of production of plutonium for the nation's nuclear weapons program in World War II.

But the latest test melt to see if a process called bulk vitrification might be used to treat some of the waste appears to have been as smooth as the glass it produced.

"From what we can see, it did exactly what it was supposed to," said P.K. Brockman, CH2M Hill Hanford Group vice president for contract delivery.

CH2M Hill is working with subcontractor AMEC Earth and Environmental to see if up to 25 million gallons of the low-activity radioactive tank waste could be immobilized in huge blocks of glass for permanent disposal, rather than going through the more costly process

that is planned to turn high-level radioactive waste into glass logs at the \$5.8 billion vitrification plant under construction.

Waste would be dried and mixed with silica-rich soil in a 24-foot land-sea shipping container. Electrodes would be used to melt the mixture at 2,400 degrees, leaving a large brick of glass when the mixture cools that would be buried — container, electrodes and all.

But when AMEC tested the process in March, joints separated and molten glass flowed out of the box's steel liner.

Since then the container has been re-engineered. Insulation was removed so that any glass that leaks through the inner wall would quickly cool and harden in a layer of sand before it reached the outer wall. The bottom was stabilized, so there would be less pressure on the joints of the box, and the joints were given a locking configuration to better withstand the pressure of tons of glass.

"This (latest test) had everyone holding their breath while we were doing it," said Billie Mauss, program manager for DOE's Hanford Office of River Protection.

A nonradioactive simulant waste was added and melted in layers over a week this summer. Once full, the box was baked for 20 hours.

Then the outer box was pried away to get a look at how well the glass had been contained. In two places, small puddles of green glass had bubbled out of the inner



Herald/Rajah Bose

Bob Kuespert, Horn Rapids site manager, holds a ladder for J.R. Biggs, AMEC operations manager, as he looks at glass produced in a test melt for a proposed method to treat Hanford's radioactive waste. The test facility is near Hanford.

box, likely because of a minor crack from expansion of the box. But the glass had hardened in the sand well before reaching the outer box.

One more test is planned in October at the Horn Rapids test site and then testing can move to a planned pilot plant at Hanford where the process can be used on real radioactive waste. Construction and purchasing equipment for that plant have

been stopped, while cost overruns on the project are addressed.

But DOE officials continue to see bulk vitrification as a viable technology for treating some tank waste, and the latest bulk vit melt as a successful step toward developing the technology.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tricityherald.com.

15 SEP 05

Costs up for K Basin cleanup, office says

DOE doesn't expect project to be finished by 2009 legal deadline

By Annette Cary

Herald staff writer

Work to clean up Hanford's leak-prone K Basins will cost significantly more than expected, according to an audit by the Department of Energy's Office of Inspector General.

In addition, DOE does not expect the work to be finished by a legal deadline. It's required to have the basins emptied and their concrete walls and floors removed in 2009.

Technical difficulties removing

radioactive sludge from the basins is partly to blame, the audit found. But it also faulted DOE and its contractor Fluor Hanford for not paying adequate attention to sludge removal during planning for the basin cleanup.

"Resources were concentrated primarily on fuel removal with little emphasis on key project actions, such as the development of a risk mitigation plan," the audit said.

Since October 2002, the costs of sludge removal have been 35 percent above planned expenditures and cost overruns continue to increase, the audit said.

DOE's current cost estimate is \$145.9 million, but the actual

cost of sludge removal from October 2002 to June 2005 exceeded the budget by about \$34 million, according to the audit.

In the first nine months of the current fiscal year, costs were almost \$25 million, or 68 percent, greater than anticipated, the audit found.

The two basins were built near the Columbia River in the 1950s to hold fuel irradiated in Hanford reactors until it was processed to remove plutonium for the nation's nuclear weapons program. When processing at Hanford stopped, 4.65 million pounds of highly radioactive fuel were left stranded in the basins for more than a decade.

Fluor removed the last of the fuel in 2004, one of the bright spots in Hanford cleanup and the reduction of risk to the environment.

But left behind at the bottom of the pools was radioactive sludge from corroded fuel and concrete that sloughed off the sides of the basins.

Fluor has struggled to consolidate it into underwater containers.

"We are making progress, but that progress is a lot less than expected," said Paul Pak, project manager for DOE, at a committee meeting of the Hanford Advisory Board on Wednesday.

See **K Basin**, Page B2

bank also exceeded the state average.

Kennewick High's reported graduation rate was only 42.4 percent, but district assistant superintendent Marlis Lindbloom questioned its accuracy, saying it seems awfully low.

For the first time, the Office of the Superintendent of Public Instruction reported an "extended" graduation rate. That includes all students who earn a diploma in a given year, regardless how long it took them to earn it. That bumped the state's graduation rate up to 74 percent, or a total of 61,394 students.

"I think that's valuable information," said Lindbloom. "Not everyone goes through the high school sequence at the same rate."

See **Rate**, Page B2

21 SEP 03

Smoke, flash halts Hanford tank work

*Investigation cuts off
power to look inside*

By Annette Cary

Herald staff writer

Work was stopped Monday night on emptying a Hanford tank of radioactive waste after a camera inside the tank showed a stream of gray smoke and a flash of light.

The smoke appeared to come from the camera, but when the second camera in the tank was turned to get a picture of it, the smoke was gone, said Joy Turner, spokeswoman for Department of Energy contractor CH2M Hill Hanford Group.

Unlike some of the other 176 Hanford tanks, tank S-102 contains very low levels of flammable hydrogen.

Electricity to the tank was cut off and work also stopped on an adjacent tank being emptied, tank S-112. Both were using at least one of the same type of camera.

On Tuesday, CH2M Hill planned to investigate, including pulling up the camera and inspecting it. The problem could be the bulb going out in the camera, but because of the danger of a fire in a radioactive waste tank, the contractor is proceeding with caution.

Hanford has 53 million gallons of mixed radioactive and hazardous chemical waste stored in underground tanks. It started accumulating in World War II from the production of plutonium for the nation's nuclear weapons program.

CH2M Hill is moving waste from old and leak-prone single shell tanks to 28 newer double-shell tanks until the waste can be treated. The low-activity radioactive waste will be buried at Hanford and high-level radioactive waste will go to a national repository, likely in Yucca Mountain, Nev.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

23 SEP 05

6 workers contaminated at tank farm

Official: 'All were 'quickly and successfully decontaminated'

By Annette Cary

Herald staff writer

Six workers at the Hanford tank farms were contaminated with radioactive material late Wednesday afternoon, according to Department of Energy contractor CH2M Hill Hanford Group.

"All six were quickly and successfully decontaminated," said CH2M Hill spokeswoman Joy Turner.

Wednesday, workers were moving equipment from the recently emptied tank C-202 to begin work on tank C-201.

Hanford has 149 leak-prone, single-shell tanks used for holding some of the nuclear reservation's worst waste.

The tanks began to fill with a mix of radioactive and hazardous chemical waste during World War II when Hanford began making plutonium for the nation's nuclear weapons program. CH2M Hill is emptying waste from single-shell tanks to newer double-shell tanks until the 53 million gallons of waste can be treated for permanent disposal.

Among items that needed to be moved to start work on tank C-201 was an air

transfer hose used as part of a system to vacuum waste from the enclosed, underground tanks. The line was believed to be free of contamination and not pressurized.

Workers became concerned when they felt a puff of air come from the line, Turner said. The line was not fully pressurized, but had some pressure in it.

They immediately stopped work and left the C tank farm.

The workers were suited up in radiation protection clothing and supplied air respirators, leaving only some skin on their heads unprotected.

Five of the six workers had contamination on their skin, Turner said. Some of

the contamination was detected on hair and foreheads and there could have been further contamination as they removed their protective clothing, she said.

All entry into the C tank farm, the area where the tanks in the incident are buried, was stopped Wednesday. Thursday, fixative was sprayed around the area to keep any radiation from becoming airborne and CH2M Hill began critiquing the incident.

By the end of the day, the contractor did not know what exactly went wrong, Turner said.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

23 SEP 05

Work stoppped at vit plant

By Annette Cary
Herald staff writer

Work was halted at Hanford's vitrification plant and about 600 construction workers were sent home early Thursday afternoon after the third safety incident this week.

Also at Hanford

Six workers moving equipment at tank farms contaminated with radioactive material. **B1.**

"They were told we were halting work until we have assurance that the work site is safe and workers have the right safety attitude," said John Britton, spokesman for Bechtel National, the Department of Energy contractor building the \$5.8 billion waste treatment plant.

"They may not be coming back to work Monday," he said. Construction workers are not paid for time missed.

Bechtel National officials will meet today with organized labor leaders to try to figure out a remedy for the

problem and ensure that work at the site is safe so work can resume, Britton said.

No one was injured in the incidents, but management is concerned they had the potential to seriously harm or kill workers.

All were caused by human error and workers not following safety procedures, Britton said.

See **Bechtel**, Page A2

27 SEP 03
*Crews fix water pipes that
may carry hazardous waste*

By Annette Cary

Herald staff writer

Leaky water lines at the Hanford nuclear reservation do more harm than waste water.

The water from the aging pipes can carry radioactive contamination and hazardous chemicals in the soil deeper toward the ground water underneath the site that flows toward the Columbia River.

"We're trying to fix them as cheaply as we can for the period they are needed," said Dick Wilde, Fluor Hanford vice president in charge of ground water issues.

No more plutonium is being produced at Hanford for the nation's nuclear weapons program, but some of the lines will continue to be used as long as the \$2 billion a year effort to clean up the nuclear reservation continues.

Rather than replacing lines that may not be needed in a few decades, Department of Energy contractor Fluor Hanford has been working on rehabilitating the pipes with a mortar lining.

Last week workers finished a critical line that crosses areas known to be contaminated to carry water to the Plutonium Finishing Plant and three former processing plants: T Plant, U Plant and the REDOX plant.

DOE and Fluor estimate that lining the pipes costs about a third to a half the cost of replacing them with new pipes. Recent construction costs for lining 12-inch and 20-inch pipelines near U Plant ranged from \$50 to \$75 per linear foot.

It's also safer for workers and quicker, because pipes, including those that lie in or above contaminated soil, don't have to be

excavated. Fluor, working with a subcontractor, lined the last mile of pipeline in about two months.

"If they had to dig up waste sites, it would have been a long time," said Mike Thompson, DOE's acting project director for ground water at Hanford's Richland Operations Office.

Almost 1 million gallons of water a day are taken from the Columbia River and piped to central Hanford, where some ground water has been contaminated with carbon tetrachloride or radioactive uranium

See **Pipes**, Page B2

Fluor Hanford projects recognized for safety

Seven Fluor Hanford projects were recognized for safety by the Department of Energy at the annual meeting of the Voluntary Protection Program Participants' Association.

The Fast Flux Test Facility, the Plutonium Finishing Plant and the Volpentest HAMMER training center received stars of excellence for maintaining injury rates 75 percent lower than industry standards. The Central Plateau Remediation Project, Closure Services and Infrastructure, and Protection Technology Hanford received superior stars for injury rates 50 percent lower than industry standards. The Waste Stabilization and Disposition Project received merit status.

Fluor Hanford's overall injury rate has dropped lower than at any time in the contractor's nine-year history at the Hanford nuclear reservation.

Hanford history topic of lecture at library

The Richland Public Library will present, "Lessons Learned from Hanford History," a lecture by Tri-City authors Michele Gerber and Roy Gephart. The lecture will be from 7 to 8 p.m. Thursday in the gallery room, 955 Northgate Drive.

Gerber and Gephart each have written a book about the Hanford site's history. For more information, call 942-7457.

LIGO offers walk, talk about 'Spacequakes'

A LIGO public tour will be from 1:30 to 4 p.m. Oct. 8. After the walking tour of LIGO, a discussion about LIGO's quest to detect and study the "spacequakes" will be held. Directions and information are available at www.ligo-wa.caltech.edu/ or by calling 372-8181. Admission is free.

— By the Herald staff

26 Sep 05

Vit plant employees return to work today

*Workers will spend the day
in safety meetings, training*

By Annette Cary

Herald staff writer

Construction crews will report to work at Hanford's vitrification plant today, but not for a normal work day.

Bechtel National, the Department of Energy contractor on the project at Hanford, has put construction on hold for a day of safety meetings and training sessions Monday to refocus attention on safety. Workers also will spend some time cleaning and organizing work areas.

Late Thursday afternoon workers were sent home early after the third near-miss safety incident that week and told that work might not resume today, the next work day.

See **Plant**, Page B2

CH2M Hill official honored by managers

27 SEP
05

Ed Aromi, president of CH2M Hill Hanford Group, has been named a "Silver Night of Management" by the Hanford Chapter of the National Management Association.

The Hanford chapter has presented 11 of the awards in its 27 years to executives who inspired other managers and adhered to the organization's code of ethics. Aromi has held Hanford management positions since 1996.

— By the Herald staff

CH2M Hill Hanford lays off 170 employees

By Annette Cary

Herald staff writer

CH2M Hill Hanford Group laid off 170 workers Monday as the Hanford nuclear reservation started a new fiscal year with an anticipated reduced budget.

The layoffs Monday were in addition to 59 workers who left CH2M Hill in September after volunteering for layoffs in August.

That leaves about 1,170 employees working on CH2M Hill's contract with the Department of Energy to operate Hanford's tank farms and perform related work, such as building a new landfill for treated waste. The tank farms include 53 million gallons of radioactive

waste in underground tanks. The waste is left from more than 40 years of production of plutonium for the nation's nuclear weapons program.

"We are taking a look at the jobs that need to get done on site and our contract," said CH2M Hill spokeswoman Joy Turner. Layoffs crossed a broad selection of job categories, she said.

CH2M Hill announced in June that up to 350 jobs might have to be eliminated if a proposed budget cut of \$90 million for Hanford tank farms was adopted for fiscal year 2006, which began Saturday. Then it instituted a hiring freeze and some subcontracts ended.

The U.S. House and Senate have yet to reconcile different budgets passed by

each for Hanford for fiscal year 2006. A continuing resolution signed by the president instructs agencies facing budget cuts to operate in the meantime at the lowest funding level approved for 2006 by the House or Senate.

The House budget cut \$23 million for tank farm work at Hanford, and the Senate budget cut \$56 million.

Workers who lost their jobs will get a week's pay for every year worked up to 20 years. They also can continue to receive insurance benefits for a year if they pay the employee portion of costs.

"We are very mindful of the emotional toll work force restructuring takes on those who go and those who stay," said Ed Aromi, chief executive at CH2M Hill.

The company is working with Work-Source Columbia Basin to help laid off employees.

In addition, CH2M Hill recruiters will be in Richland this week to talk to workers about company openings elsewhere, including in the New Orleans area after Hurricane Katrina.

Last month another Hanford contractor, Fluor Hanford, gave layoff notices to about 300 workers. Earlier, Bechtel National, which is building the \$5.8 billion vitrification plant to treat tank waste, laid off about 1,000 workers.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

10 OCT 05 Vit plant officials plan safety meeting

All employees to meet after another near-miss safety incident Thursday

By Annette Cary
Herald staff writer

A week that started with a day devoted to safety at Hanford's vitrification plant construction project came to a disappointing end with another near-miss safety incident Thursday.

The next work week will start Monday morning with an all-employee meeting with Mike Lewis, Bechtel National construction manager, said John Britton, spokesman for Bechtel.

About 600 construction workers are assigned to build the \$5.8 billion plant that will turn radioactive waste from the production of plutonium into a stable glass form.

Workers were sent home early Sept. 22 after three near-miss safety incidents at the project that week. Work is typically done at the remote site in 10-hour shifts Mondays through Thursdays.

Bechtel National and organized labor officials met through the weekend to discuss what was causing the safety problems and how to make the site safer. On Monday, workers returned to the job site but the day was spent mostly on safety meetings and

training sessions.

But three days later, an electrician cut into a live electrical cord, Britton said. The worker was not shocked, but the incident was reported to the Department of Energy.

"Obviously, we still have work to do to keep (problems) from occurring," he said. "There's a breakdown in the system or we would not have near misses."

Bechtel National is considering further action to ensure the safety of the construction site, but has not made a decision yet, Britton said.

Last week's incidents included a propane line being cut while a worker was down in a hole

without verifying the line was empty, a conveyor belt to a hopper used to make cement starting while a worker was collecting gravel from it — and a metal pole being driven into the ground and hitting a buried electrical line.

No one was hurt in any of the incidents, but Bechtel is concerned that each had the potential to seriously harm workers because safety procedures were not followed.

"We're trying to determine just what is causing this," said Mike Keizer, president of the Central Washington Building Trades Council.

Bechtel had several near-miss

safety incidents in 2004 and DOE cut its fee by \$300,000.

But this year its safety record had improved. Construction employees had seven months without a lost-time injury and subcontractors on the project reached nearly two months without a lost-time injury.

Safety is a top priority for both Bechtel and organized labor on the project, Keizer said. In 26 years, he's yet to see a contractor with management that works as closely with organized labor to ensure safety, he said.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

30 SEP 05

Fluor to appeal \$4.76 million jury verdict in pipefitters case

By Annette Cary

Herald staff writer

Fluor Federal Services is appealing a \$4.76 million jury verdict in favor of 11 former Hanford pipefitters earlier this month, attorneys notified Benton County Superior Court on Thursday.

The jury agreed with plaintiffs that the workers had lost their jobs working for the Hanford Nuclear Reservation contractor because they complained of safety problems or supported those who did.

"The verdict was what they cared about," said Jack Sheridan, attorney for the pipefitters. Pipefitters can wait for the appeal to be concluded, which could take a year to 2½ years, he said. The case was filed more than six years ago.

Sheridan plans to ask the court

to award attorney fees of \$750,000 to Sheridan's Seattle firm and the Government Accountability Project, a whistleblower organization that previously represented the pipefitters.

Washington state law allows attorney fees to be awarded when wages were wrongly withheld. The law also gives the judge discretion to use a multiplier to increase the attorney fees.

The case stemmed from a 1997 incident in which seven pipefitters objected to installing a valve rated for less pressure than would be used in a test of radioactive waste pipes. They were laid off, but later a settlement was reached to rehire the workers.

Fluor laid off seven other workers to make room for their return, including four people who had supported the original

whistleblowers. Then five of the original whistleblowers were laid off less than a year later.

In addition the suit included a pipefitter who carpooled with one of the original whistleblowers and a worker who gave testimony in legal filings potentially damaging to Fluor.

Fluor argued in the case that pipefitters can no longer depend on lifetime employment on the site and that many pipefitters have been laid off because of lack of work since 1997.

Fluor Federal has a good safety record and has always worked to minimize risk to workers, attorney Randy Squires told the jury.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

3 OCT 05

Apollo claimed Parsons backed out of partnership after getting trade secrets

By Annette Cary

Herald staff writer

Apollo Inc. and Parsons Infrastructure and Technology Group have settled out of court over a Hanford subcontract worth up to \$22.7 million for custom metal fabrication.

Apollo had accused Parsons of breaking an agreement to partner with the Kennewick business to submit a bid for the work after obtaining Apollo's proprietary information.

Apollo asked for \$16.4 million in damages, alleging breach of contract and misappropriation of trade secrets, according to trial briefs filed in federal District Court before the case settled.

"The parties, including Apollo, are pleased that the matter was resolved in mediation," said attorney John Spencer Stewart of Portland, representing Apollo. The parties agreed to keep terms of the settlement confidential, he said.

In 2004, Hanford contractors Fluor Hanford and CH2M Hill Hanford Group awarded a subcontract to Parsons, a subsidiary of an international corporation, to make metal equipment, such as pumps and sampling systems, needed for work to clean up contamination at the Hanford nuclear reservation. Hanford produced plutonium for the nation's nuclear weapons program for more than 40 years.

Apollo told the court it had been approached by Parsons in June 2003 after both learned the bid award would favor a contractor that teamed with a small business.

Within a week, the two companies met to discuss an agreement to compete for the work as a team. Apollo has maintained that Parsons officials specifically said they had reached an agreement on June 16.

During the next two weeks, while the companies worked on a joint proposal, Parsons repeatedly referred to the company's "exclusive teaming agreement" in discussions with Apollo and in company documents, Apollo told the court. During those two weeks, Apollo gave Parsons information needed for the bid proposal, including pricing and other sensitive information, and a draft proposal nearly was completed, Apollo said in court documents.

However, unknown to Apollo, Parsons was at the same time conducting an internal review and editing an agreement to team up together, Apollo said.

At the end of the two weeks, Parsons questioned Apollo's safety record and said it would not be submitting a bid with Apollo, according to court documents.

It was too late for Apollo to find another company with which to team and it scrambled to pull together its own bid proposal in the 6½ days before it was due, Apollo said.

Apollo said it had told Parsons when it first proposed they work together that certain aspects of its safety record would have to be explained in the bid proposal. However, Apollo had previously explained its safety record and had been awarded work at Hanford based on it, Apollo said it told Parsons.

Radio station trades pink slips for T-shirts

By Chris Mulick

Herald staff writer

A local radio station is commiserating with laid off Hanford workers and anyone else who's ever lost their job by giving away free T-shirts and candy this weekend.

Because this is a family newspaper, we'll paraphrase

the name of OK 95 radio's weekend promotion by calling it an "I got (dung)canned weekend."

But apparently, a Hanford contractor thinks the whole thing is a load of crap.

The radio station got the idea when CH2M Hill announced plans Monday to lay off 170 workers because of

budget cuts to operate Hanford's tank farms. By Wednesday the station — found at 97.9 on the FM dial — was running ads for its promotion, saying workers had been "given the boot."

The promotion began at 5 p.m. Friday and is set to run through midnight Sunday. When callers hear touch tones

dialing over the air, the 95th caller gets a free T-shirt and a can of Almond Rocha candy, which symbolizes having got (dung)canned.

The giveaway will go on over at least some apparent protest. Station owner Jeff Jacobs said he got a phone call from

See **T-shirts**, Page B2

15 OCT 05

Extreme cold, vacuum needed to prove theory

By John Trumbo

Herald staff writer

Scientists at the Pacific Northwest National Laboratory in Richland may have found a way to make umbrellas, rain coats and tents more waterproof, at least theoretically.

Just cover them with a thin layer of platinum and drop the temperature to 20 degrees Kelvin. That's about 423 degrees Fahrenheit below zero. Oh, and do this in a vacuum.

Works like a charm. Water can't stick once the first layer covers the surface. The bond between the platinum molecules and the water is so complete that there's nothing for the second water layer to attach to.

The discovery by Greg Kimmel and lab colleagues Nick Petrik, Bruce Kay and Zdenek Dohnalek actually has no practical application at present but it is a watershed point for researchers who want to understand what is happening when water meets metal at the molecular level.

"It was not the result I expected," said Kimmel, who with the PNNL team has been studying water-metal dynamics for several years.

"Water-surface interactions are ubiquitous in nature, and play an important role in many technological applications such as catalysis and corrosion," Kimmel said in a prepared statement released this week. Details of the team's discovery are being revealed today in an online edition of *Physical Review Letters*.

Kimmel and his team at the W.R. Wiley Environmental Mole-

cular Science Laboratory in Richland set up an experiment with a platinum wafer in a very cold vacuum environment, proving that water molecules freeze onto the metal in such a way as to leave no oxygen-hydrogen architecture for subsequent water to cling to.

It confirmed a theory out of Cambridge University last year suggesting that "dangling OH's" do not exist when platinum and water meet in extremely cold temperatures.

"In other words, the first layer of water is hydrophobic," Kimmel said.

Similar characteristics of water appear when palladium is the metal.

"Since this is fundamental science, it's applications are yet to be known," he said.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com.

SOFT
**Wrong information
may underestimate
radiation exposure**

By Annette Cary

Herald staff writer

Problems with radiation exposure data at Hanford during the Cold War and earlier may be causing some ill workers to be wrongly denied federal compensation, U.S. Sen. Maria Cantwell, D-Wash., announced Tuesday.

She called for a review of information in a case history compiled for the Hanford nuclear reservation that helps the government determine which workers' cancers might have been caused by Hanford radiation exposure.

An audit of the case history found that sometimes inadequate data on worker exposure between

1944 and 1968 may lead government officials to underestimate the workers' exposure, according to Cantwell's office.

Under a U.S. Department of Labor program, workers or their survivors can receive \$150,000 payments if the government determines the workers developed cancer because of exposure to radiation at Hanford or other federal nuclear sites.

At some federal sites or individual projects, workers are eligible for automatic compensation if they worked there for a year in a job with radiation exposure and later developed any of a broad range of cancers. They've been designated part of a "special exposure cohort" because it's not feasible to establish their doses of radiation accurately.

See **Hanford**, Page A2

DOE ^{8 Oct 05} not likely to meet vit plant deadline

Lawmakers mention delay of up to 4 years in opening plant

By Annette Cary

Herald staff writer

The Department of Energy may miss its 2011 legal deadline to begin operating Hanford's vitrification plant to treat high-level radioactive waste, it notified the state of Washington in informal talks Thursday.

Construction has slowed on the plant since a study in late 2004 showed the design of two massive processing buildings at the plant might be inadequate to withstand a severe earthquake.

Congressional leaders have talked of a possible delay of up to four years in the opening of the plant and cost increase from the present \$5.8 billion price tag to up to \$10 billion. Those estimates apparently came from an Army Corps of Engineers review that DOE has

declined to make public, saying it contains proprietary information.

DOE has not confirmed numbers discussed by congressional leaders or released other cost and schedule information. Since other estimates in recent years have proved too low, DOE officials said they do not plan to release new cost and schedule information until they can confirm they are valid.

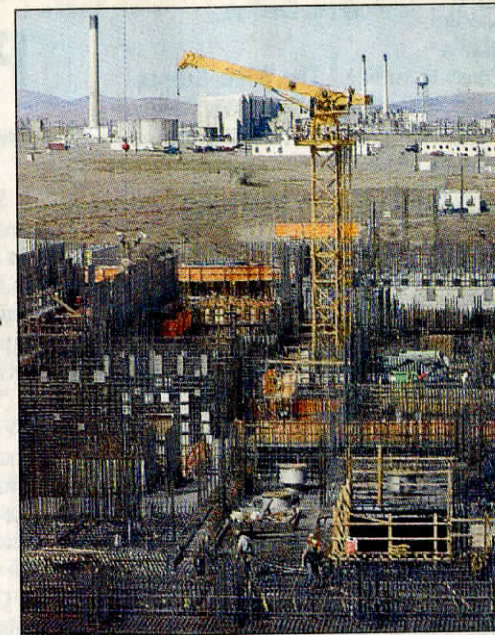
But Energy Secretary Samuel Bodman promised Washington Gov. Christine Gregoire and Congress that they would be informed of developments on the vitrification plant, particularly if it appeared a legal deadline might be missed, said Mike Waldron, a DOE spokesman in Washington, D.C.

DOE could miss the deadline to start full-scale treatment of some of Hanford's worst waste at the vitrification plant and several other deadlines, James Rispoli, assistant secretary of energy for environmental management, told Jay Manning, director of the Washington State

Department of Ecology, Thursday, according to the state.

The delay is due not only to earthquake safety issues, but also technical issues, Waldron said. Resolving technical issues on the one-of-a-kind plant already has consumed contingency built into the budget. Contractor Bechtel National also has struggled to find resources to support nuclear-quality construction and provide materials and equipment because of the lack of nuclear construction in the United States in recent decades.

The plant is planned to turn high-level and other radioactive waste left from the past production of plutonium at Hanford into a sturdy glass for permanent disposal. About 53 million gallons of the waste began accumulating in underground tanks not intended for longterm storage as early as World War II as the nation raced to build an atomic bomb.



Construction has slowed since 2004 on the High-Level Waste Treatment facility at Hanford after a study showed the plant as designed might not withstand a severe earthquake. This week, the Department of Energy told state officials that those delays mean it probably will miss a legal deadline for starting the plant.

Herald file

See **DOE**, Page A2

14 OCT 05

Spokane roofer gets contract at vit plant

Cobra Roofing Services of Spokane has been awarded a Bechtel National subcontract for work at the \$5.8 billion vitrification plant being built to treat radioactive waste at Hanford.

Cobra will furnish and install insulated metal siding, standing seam metal roofing, thermoplastic polyolefin membrane roofing, doors, louvers and accessories to complete the exterior envelope of the Low Activity Waste Facility and the Analytical Laboratory.

It also holds contracts with subcontractor Apollo Inc. for two pre-engineered buildings, the chiller compressor and water treatment buildings.

The additional work awarded by Bechtel brings the value of its contracts at the vitrification plant to close to \$9 billion, according to the company.

The Bechtel National contract will last from November to the end of 2007.

About \$600 million of work on the vitrification plant project has been awarded to small businesses, including \$372 million to Washington and Oregon businesses and \$166 million to Tri-City-area businesses.

5-067-05
3M
3F
*Radioactive waste to stay;
contaminated equipment,
plant to be covered by dirt*

By Annette Cary

Herald staff writer

The Department of Energy and Hanford regulators have agreed on the first major cleanup decision for central Hanford: what to do with the massive, radioactively contaminated U Plant.

In a first for Hanford, the plan calls for leaving radioactive waste permanently in place as the lower levels of the 800-foot-long plant are made into a giant waste receptacle for contaminated equipment from the plant.

What's left of the plant would be covered by a protective earthen cap that would form a huge berm standing 40 feet high along the length of the canyon.

"This is a common-sense approach that is strongly protective of human health and the environment," Keith Klein, manager of the Department of Energy's Richland Operations Office for Hanford, said in a prepared statement.

As cleanup work is under way along the Columbia River corridor of the 580-square-mile Hanford nuclear reservation, planning is under way for the heavily contaminated 75 square miles that would remain at the center of the nuclear reservation.

The core is unlikely to be restored to pristine condition and already is the site of permanent burial grounds for low-level radioactive waste.

Among nearly 1,000 structures built in the central plateau are five processing plants, often called canyons because of their high ceilings and walls as long as the Seattle Space Needle is tall. They were built to chemically separate plutonium from fuel rods irradiated in Hanford reactors for the nation's nuclear weapons program.

U Plant is the least contaminated of the processing plants. It was built during World War II but never was needed. Instead, it was used to train workers and later converted to recover

18 OCT 05
Safety issues improving at Hanford; design, building can continue, officials say

By Annette Cary

Herald staff writer

Safety issues at the \$5.8 billion vitrification plant being built at Hanford are being resolved, and there's no reason not to continue with design and construction of plant buildings that will handle even the most radioactive waste, according to the Defense Nuclear Facilities Safety Board.

The board, which provides independent oversight of the Hanford nuclear reservation and raised concerns about the earthquake design standards of the plant as early as 2002, sent a status report to Energy Secretary Samuel Bodman on Monday.

DOE has responded to safety issues raised by the board, though not always in a timely manner, and has provided technically sound paths forward for their resolution, the letter said.

DOE has slowed construction on the two buildings at the plant that would handle large volumes of high-level radioactive waste. The slowdown came after a new earthquake study in 2004 showed the design of those buildings might not be adequate for a severe earthquake. The slowdown also has allowed time to resolve other technical issues and to move engineering and purchasing further ahead of construction.

No further slowdown of construction is planned, said Erik Olds, a spokesman for DOE in Richland.

The plant is being built to turn the worst of 53 million gallons of radioactive waste held in underground tanks into a stable glass form for disposal. The waste is left from more than 40 years of production of plutonium for the nation's nuclear weapons program.

DOE came up with a more robust working design standard for the two critical buildings at the vitrification plant this year based on an earthquake that could cause more ground movement than previous estimates considered.

"Although the board believes that the

interim criteria provide a reasonably conservative basis for continuing with the plant design, some important uncertainties remain," the letter said.

More measurements need to be taken of the soil and rock properties beneath the vitrification plant, the letter said.

More bore holes will be drilled at the vitrification plant site in a two-year effort to develop a final earthquake design standard, according to the board and DOE.

The board does not believe that significant reconstruction of work already completed at the plant will be required, but it won't know for certain until the additional analysis is completed, the letter said.

Construction on the Low-Activity Waste building, the Analytical Laboratory and ancillary buildings continues at a normal pace, and DOE headquarters officials are approving specific construction activities at the High-Level Waste and Pretreatment buildings that will handle high-level radioactive waste.

The letter also discussed structural engineering, chemical process safety and

fire protection issues.

Progress is being made and most concerns related to those issues have been resolved or are close to resolution, the letter indicated. However, the board remains concerned that contractor Bechtel National appears to be willing to accept some risk with hydrogen in pipes or ancillary vessels if there is no danger of the public or workers being harmed.

DOE will need to demonstrate that the likelihood of a hydrogen detonation or fire is extremely remote and that people would be protected, the letter said. The board urged DOE not to rush its evaluation of the plan and to demand a full understanding of the potential impacts of the design approach.

"DOE also needs to consider the entire spectrum of risk associated with these types of accidents ... before approving a design with any inherent weaknesses," the letter said. "The board believes this will be a difficult undertaking."

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

^{21 OCT 05}
*DOE estimates 6 months
have been added to time
it will take to finish task*

By Annette Cary

Herald staff writer

Cost overruns and delays in retrieving radioactive waste from Hanford's underground tanks early in the project could signal that the Department of Energy may not be able to meet a legal deadline to get all its leak-prone tanks emptied by 2018, according to an audit by the Department of Energy's Office of Inspector General.

The deadline will be missed for retrieving radioactive waste from the first group of Hanford tanks scheduled to be emptied and the cost has more than doubled, the audit found. The waste is left from more than 40 years of plutonium production for the nation's nuclear weapons program.

Although DOE continues to say it's too soon to renegotiate legal deadlines for emptying the 16 tanks in the group called C Tank Farm, the audit found the deadline would be missed by six months.

It's projecting that DOE contractor CH2M Hill Hanford Group will not complete work on the 16 tanks, which have a combined capacity of 6.58 million gallons of radioactive waste, until March 2007. The legal deadline set under the Tri-Party Agreement is the end of September 2006.

19 OCT 05

DOE stalls radioactive shipments to Hanford

*Agency may review decision
on Ohio waste in 5 years*

By Annette Cary

Herald staff writer

The Department of Energy has decided not to send radioactive waste from Ohio to Hanford for now, but could reconsider in five years, officials announced Tuesday.

In July, DOE was a week away from sending the first shipment to Hanford when Pacific Northwest National Laboratory, in Richland, told DOE it had quality control issues with an environmental study used to decide to ship certain types of radioactive waste to Hanford. The lab spent more than \$9.6 million to prepare a voluminous report over several years.

Tank farm deadline could be in jeopardy

By Annette Cary

Herald staff writer

The Department of Energy is continuing to work toward a September 2006 deadline to empty all the tanks in the Hanford C Tank Farm, even as it warned the Washington State Department of Ecology last week that the deadline is in jeopardy.

Contractor CH2M Hill Hanford Group and DOE remain committed to meeting the legal deadline set by the Tri-Party Agreement and for now are not asking that it be renegotiated, said Roy Schepens, manager of the DOE Hanford Office of River Protection, in a letter to the state.

If the deadline is missed, it may not be by much, said Zack Smith, assistant manager of the tank farm projects for the Office of River Protection.

Three of Hanford's 149 aging, leak-prone tanks have been emptied. Their radioactive and hazardous chemical waste has been pumped into newer double-shell tanks to await treatment that will allow it to be buried at Hanford or shipped to a national repository, likely Yucca Mountain, Nevada.

The 53 million gallons of waste are left from more than 40 years production of plutonium at Hanford for the nation's nuclear weapons program.

Two of the tanks emptied so far are among the 16 in the area known as the C Tank Farm that faces a September 2006 deadline. The milestone also calls for a demonstration of four retrieval technologies, which should be completed on time.

19 OCT 05
*Building to be sealed Thursday;
artifacts placed in time capsule*

By Annette Cary

Herald staff writer

Hanford workers will weld shut a piece of national history by the end of the week.

On Thursday, they plan to secure a plate across the door to what remains of H Reactor, the first reactor the nation built to produce plutonium for the Cold War build-up of nuclear weapons. It also was the site of an accident that rained radioactive contamination onto the cars in the reactor's parking lot.

Already gone is the infamous "blue lady"

chalk drawing executed by a bored worker. It's been reduced to rubble and sent to the Hanford landfill.

Other artifacts from the reactor's 1940s construction, its 16 years of plutonium production and about six years of work to put its core into temporary storage will be sealed in a time capsule inside the reactor.

"There is lots of history in these old buildings," said Daryl Schilperoort, a Washington Closure Hanford subcontract technical representative.

It's the fifth of the nine production reactors lining the Columbia River at Hanford to be "cocooned," or put into temporary safe storage, and the last that's expected to be done for several years.

The reactor building has been reduced to

about a fifth of its original size, leaving not much more than the still-radioactive reactor core where uranium fuel was irradiated. Most openings have been sealed shut, many behind steel plates, and a new slanted roof has been built over the top.

When work to cocoon the reactor started, water from a leaky roof stood on top of the 30-by-30 foot reactor core.

Plans call for leaving the core sealed up in storage for up to 75 years, giving time for the radioactivity to partially decay and present less of a hazard to workers.

H Reactor was the nation's and Hanford's fourth reactor and the first to be built after the race to produce plutonium ended with the bomb

See **Reactor**, Page A2

15 OCT 05

Glass proves viable for Hanford waste

By Annette Cary

Herald staff writer

More radioactive waste at Hanford might be turned into a stable glass form after the technology was successfully demonstrated on a mock-up representing two of the nuclear reservation's most notorious burial grounds.

The Department of Energy last year awarded money to test two proposed methods for cleaning up the 618-10 and 618-11 burial grounds.

During the 1950s and 1960s, laboratory waste from the 300 Area just north of Richland was hauled to the burial grounds.

Nuclear processes were tested in the 300 Area before they were used for the production of plutonium in central and north Hanford for the nation's nuclear weapons program.

Now those two burial grounds lie not far from the Fast Flux Test Facility and near the Energy Northwest parking lot.

"Records are sketchy and some are lost," said Leo Thompson, AMEC's

director of technology for GeoMelt Operations.

As a result, exactly what's buried in 618-10 and 618-11 is unknown, but it's believed to include some highly radioactive irradiated nuclear fuel, hazardous chemicals and plutonium, cesium and other radioactive material.

Two companies, AMEC and North Wind, were paid by the DOE to demonstrate technologies that could be used to dig up waste in the burial grounds without bringing workers into direct contact with radioactive and hazardous chemical waste or causing a spontaneous chemical reaction. Both concentrated on solutions for waste dropped into 148 vertical pipes buried in the ground.

Five 55-gallon drums with tops and bottoms removed were welded end to end and buried by earlier Hanford workers to make each vertical pipe. Containers of laboratory waste, ranging from about the size of a juice can to five-gallon buckets, were dropped down the pipes.

North Wind completed a successful

demonstration program in August, inserting a casing around a mock-up of a vertical pipe buried in north Richland. It used grout to seal up the bottom before lifting out the encased pipe with a crane.

AMEC relied on its international experience in vitrifying, or glassifying, radioactive or hazardous waste.

"You end up with radioactive materials immobilized in glass," Thompson said. "Any toxic heavy metals are immobilized." Organic contaminants are destroyed.

To test the technology, AMEC built and buried a pipe in north Richland similar to those at the Hanford burial ground and then filled it with a mix of waste: steel, wood, concrete, soil, chemical simulants and a tracer chemical to imitate the behavior of plutonium.

AMEC installed electrodes in the soil on each side of the pipe. To create a starter path between them, it injected a mixture of water, chemicals and graphite in a half circle in the soil between the electrodes.

See **Glass**, Page B2

Fluor ^{25 OCT 05}

lays off 17; more expected

By Annette Cary

Herald staff writer

Fluor Hanford laid off 17 workers at Hanford's Plutonium Finishing Plant on Monday, saying the action was part of restructuring needed as projects are completed to clean up the Hanford nuclear reservation.

More layoffs are expected in the coming year, but no date or number is being discussed now. Fluor laid off about 300 employees last month as fiscal year 2005 came to a close.

The Monday layoffs included engineers, clerks, managers, accountants and procurement specialists, according to Fluor Hanford. The reduction leaves 3,477 employees working for Fluor Hanford and its major sub-contractors.

Last year, Fluor completed processing 20 tons of plutonium-bearing materials for final disposal and in 2005 finished removing residues with plutonium from processing systems and equipment at the Plutonium Finishing Plant.

Now the Department of Energy contractor is focused on the continued safe storage of 4.5 tons of plutonium at the plant and cleaning up and dismantling one of the plant's buildings, the 232-Z Incinerator.

Hanford budget on hold after meeting canceled

The U.S. Senate and House conference committee that will decide the fiscal year 2006 Hanford budget canceled its meeting Thursday because of issues unrelated to the Hanford nuclear reservation budget. The meeting has not been rescheduled.

Sen. Patty Murray, D-Wash., a member of the conference committee, is concerned the committee will cut the annual budget for Hanford's vitrification plant from its current \$690 million to \$526 million or less, leading to further construction delays and more layoffs.

The plant is being built to turn some of Hanford's worst radioactive waste into a stable glass for disposal.

25 OCT 95

PNNL gets R&D award for aviation software

The Department of Energy's Pacific Northwest National Laboratory has earned a 2005 R&D 100 Award for a computer software product that is being used to improve airline safety.

The "Morning Report: Advanced Proactive Safety and System Monitoring Tool" is a computational tool used to analyze large data sets of aviation information collected by onboard aircraft instruments. Every day, the Morning Report collects gigabytes of the day's flight information and presents data the next morning in tabular or graphical reports.

The reports allow safety inspectors to rapidly pinpoint anomalies, share information with other decision makers and possibly prevent accidents.

R&D Magazine gives the awards annually to honor the world's 100 most important scientific and technical innovations. The PNNL award is shared with co-developers NASA Ames Research Center, Battelle, Flight Safety Consultants, ProWorks Corp. and Safe Flight.

PNNL has now won 67 R&D 100 Awards since the contest's inception in 1969. The lab is operated by Battelle as a Department of Science research facility to work on complex problems in energy, national security, the environment and life sciences. It employs 4,000 people with a \$650 million annual budget.

26 OCT 05
*Officials say hunting plan
will be released next month
to try to control large herd*

By Anna King

Herald staff writer

Bud Hamilton and his family are working long days and even nights this week to seed 1,800 acres of winter wheat on Rattlesnake Mountain to take advantage of soil still moist from a recent rain.

Now he just wants to keep it from being munched.

The Benton County farmer said he hasn't spotted any visiting elk lately.

But he knows they're coming.

Hamilton expects herds when the first green shoots emerge.

Hunters tramping through nearby private and public wilderness areas have sent hundreds of elk scampering for safe haven on the Hanford Reach National Monument — and into cultivated fields like those owned by Hamilton. About 770 cud chewers are due to arrive before winter's end.

And with them comes trouble.

Hamilton and other Benton County farmers dislike the animals' annual sojourn. Increasing numbers of elk have reignited the continuing controversy over how to control the herd. A solution continues to elude those in charge of dealing with the elk, stymieing federal, state, county and tribal officials. And vocal tribal members, farmers and hunters have weighed in.

State and federal officials have promised to release a 30-page elk plan called "The Hunt Opening Package" by mid-November. Greg Hughes, U.S. Fish and Wildlife Service project leader for the Reach, said the plan outlines how a controlled public hunt on the Reach might work.

If approved, a public elk hunt in 2006 would likely be the first legal big game hunt on the Hanford nuclear reservation since World War II.

"We are feverishly working on getting a draft environmental assessment," Hughes said.

19 OCT 05

Hanford layoffs don't hurt job growth

By Jeff St. John

Herald staff writer

The Tri-City economy continued to add jobs in September, despite layoffs at Hanford that continued through the month.

September saw nonfarm jobs grow to 88,100 in the Tri-Cities, a 2 percent increase from the 86,400 jobs recorded in the same month last year, according to data released Tuesday by the state Employment Security Department.

Again, it was job losses in the category of professional and business services — the category including most Hanford jobs — that dragged down what was otherwise strong growth in con-

struction, trade and transportation and the leisure and hospitality sectors, state data indicated.

Compared with the same month last year, the number of such high-wage, high-skill engineering, science and business management jobs fell from 21,300 to about 20,400 in September, a loss of about 900, or 4.2 percent, according to Dean Schau, state labor economist for the Tri-City region.

Measuring the September figures was made more difficult by the failure of many Hanford contractors to send monthly employment reports to the state, Schau said.

But he noted that Fluor Hanford's notification last month

September shows moderate job growth

Jobs	SEPT. '04	AUG. '05	SEPT. '05	% change over year
Nonfarm	86,400	87,800	88,100	+2%
Farm	11,900	10,800	12,200	+2.5%
Total	98,300	98,600	100,300	+2%

SOURCE: Employment Security Department

Herald graphic

that it would lay off about 300 employees, joining about 1,000 people laid off at Bechtel National this year, "is very likely to impact the total job count in the months ahead."

Other job sectors continued to show growth in September when compared with the same month in 2004, state data

showed. Construction jobs grew by about 200 jobs, from 5,700 to 5,900, a 3.5 percent increase. Trade, transportation, warehousing and utility jobs grew by 500, from 14,400 to 14,900, also a 3.5 percent increase. And leisure and hospitality jobs, including hotel, restaurant and tourism-related jobs, grew by

400 jobs, from 5,500 to 5,900, a 7.3 percent increase.

The unemployment rate in Benton and Franklin counties stood at 5.2 percent in September, a drop from the 6 percent rate recorded in August but still higher than the 4.7 percent recorded in September 2004, before the Hanford layoffs began.

September jobless rates in other areas of the state were: Bellingham, 4.4 percent; Bremerton, 4.8; Longview, 6.5; Olympia, 4.6; Seattle-Bellevue-Everett, 4.9; Spokane, 5.1; Tacoma, 5.5; Wenatchee, 4; and Yakima, 5.5.

■ Reporter Jeff St. John can be reached at 582-1543 or via e-mail at jstjohn@tri-cityherald.com.

20 007 05

Lack of details on vit plant issues breeds skepticism, distrust, congressman says

By Annette Cary

Herald staff writer

The Department of Energy needs to release more information as soon as possible about plans for Hanford's \$5.8 billion vitrification plant, said U.S. Rep. Doc Hastings, R-Wash., in a recent speech.

"Sincerity alone won't work forever as a response to requests for facts and information," he said.

The plant faces a cost increase that could be in the billions of dollars, and DOE does not expect to meet a legal deadline to begin operations to treat some of Hanford's worst radioactive waste.

Hastings also discussed criticism of the

accelerated cleanup program, among several other factors putting pressure on the cleanup budget this year and in years to come at Hanford and other DOE cleanup sites, according to a copy of remarks he made Friday in Florida at the Weapons Complex Monitor DOE Waste Management Cleanup Decision-makers' Forum.



Hastings

The vitrification plant is essential to completion of cleanup of Hanford, where plutonium was produced for the nation's nuclear weapons program, he said. Despite technical problems and an earthquake study that showed the design standard needed to be substantially increased after construction was well under way, "no show-stopping flaws have been discovered." DOE officials are com-

mitted to the plant's completion, he pointed out.

But Hastings is concerned about "the potential consequences of DOE waiting until absolute confidence is achieved internally before information gathered in developing the path forward is shared outside the walls of the Forrestal Building," where DOE officials work in Washington, D.C., he said.

To wait months to release details on DOE progress only feeds the rumor mill and breeds skepticism and distrust, he said.

DOE officials are approaching their analysis of cost and schedule of the vitrification plant deliberately and methodically, as they should when taxpayer money is at stake, he said.

But DOE is responsible to the state of Washington, the Tri-Cities and to oversight

See **Hastings**, Page B2

Hanford health project will continue Web site

The Hanford Community Health Project of the U.S. Agency for Toxic Substances and Disease Registry has come to the end of its federal funding but expects to continue to provide information previously prepared.

The agency's Web site, www.hanfordhealth.info, will continue to be available. Requests for hard copies of project materials on the Web site also will be filled. Requests should be sent to Greg Thomas, ATSDR Region 10, 1200 Sixth Ave. — 19th floor, Seattle, WA 98101.

The agency provides health information to those exposed to radioactive emissions downwind or down river from Hanford when the nuclear reservation made plutonium for the nation's nuclear weapons program. Among recent projects were a video on the Hanford Thyroid Disease Study and a video presentation for doctors on the psychological effects of radiation exposure.

28 OCT 05 Planners approve permit for Reach interpretive center

By Elena Olmstead

Herald staff writer

The Hanford Reach interpretive center project has taken an important step forward with Richland Planning Commission approval of the first permit for the \$37 million project.

The permit allows development of the project called The Reach to encroach within 200 feet of the Columbia River

shoreline. However, Ron Hicks, project manager for the Richland Public Facilities District which is spearheading the project, said development within the shoreline zone will be minimal.

Most of the project, including the interpretive center, will be farther inland.

The portion of the project within the 200-foot boundary will include various accesses to the center. By the time the project is completed in early 2008, people

should be able to reach the center by foot, vehicle and boat.

Vehicle access will be possible via an existing road that cuts through the property, entering under the Interstate 182 bridge. The road will be paved and made 24 feet wide.

Hicks said the walking trail will be carved from an existing dirt path. It will be widened to 6 feet, and markers would be placed along it pointing out historic

and natural features.

The project would use existing pathways and roads to minimize the amount of ground disturbed, Hicks said. The site is of cultural significance to many Native Americans and may contain artifacts or human remains.

One provision of the permit issued Wednesday night by the Planning

See **Permit**, Page B2

11-1-05
*Hanford initiative
unconstitutional,
federal lawyers say*

By Annette Cary

Herald staff writer

The Hanford initiative passed by voters nearly a year ago would prevent more radioactive waste from being sent to the Hanford nuclear reservation for at least 20 years, federal attorneys said in court documents filed Monday.

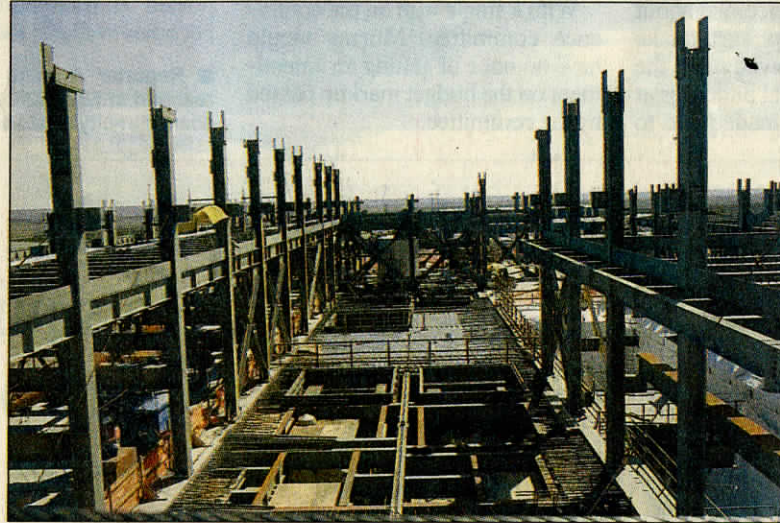
The U.S. Department of Justice filed a motion for summary judgment, asking that Yakima federal Judge Alan McDonald strike down Initiative 297 as unconstitutional.

Voters passed the initiative, now called the Cleanup Priority Act, to prevent radioactive waste from being sent to Hanford until waste already there is cleaned up. Hanford is extensively contaminated with radioactive and hazardous chemical waste from more than 40 years production of plutonium for the nation's nuclear weapons program.

The case has returned to federal court, after McDonald asked the Washington State Supreme Court to answer questions about how the new state law would be interpreted.

The budget for Hanford's vitrification plant could fall to \$526 million or less in fiscal year 2006, said Sen. Patty Murray, D-Wash.

Herald file



Murray claims DOE didn't make strong case for work

By Annette Cary

Herald staff writer

The 2006 budget for Hanford's vitrification plant could take a big hit today that could lead to more layoffs and further delay completion of the plant, Sen. Patty Murray said Wednesday.

No budget number will be available until today, but Murray said the budget could drop from \$690 million for fiscal year 2005 to \$526 million or less for the next fiscal year.

She blamed the Department of Energy for the expected cut, saying it

failed to make a strong case for the Waste Treatment Plant under construction at the nuclear reservation.

"I'm furious that the administration did not step in and answer committee questions," Murray, D-Wash., said during a telephone call.

A conference committee, which includes Murray, has been working to reconcile different Hanford and other energy and water budgets passed by the U.S. House and Senate.

The committee asked DOE what the implications would be if the vitrification plant budget requested by the Bush administration, which already proposed cutting funding from \$690 million to \$626 million for the plant, lost \$100

million or \$200 million more.

DOE prepared a written response, but did not fight for the plant or tell the committee how vital the construction of the plant is to the nation, Murray's staff said.

"DOE should have said, 'You can't do that,'" Murray said. She fears the information it provided was not compelling enough to persuade the committee not to make major budget cuts.

DOE disagreed Wednesday.

"The department has been fully engaged with the Congress and has vigorously advocated both for the project and the need to fully fund the president's

See **Budget**, Page A2

27 OCT 05
*Radioactive material
from K Basin will be
used as teaching tool*

By Annette Cary

Herald staff writer

Hanford workers began treating the first of the radioactive sludge removed from Hanford's K Basins Wednesday to prepare it for permanent disposal.

Work has started on the least-radioactive sludge, with no treatment of the more-contaminated sludge expected soon.

"This is a small portion of the K Basins sludge by volume, but working with the material will teach us a lot about safely treating the balance of it," said Keith Klein, manager of DOE's Hanford Richland Operations Office, in a prepared statement.

It's an important step in reducing the risk to the Columbia River, said James Rispoli, assistant secretary of energy for environmental management, in a prepared statement.

The K East Basin, a million-gallon indoor pool about 400 yards from the river, is known to have leaked radioactive water in the past. When cleanup work began, its water was contaminated with 42 cubic meters of sludge, including about 4 cubic meters of less contaminated sludge in the part of the pool called the North Load Out Pit.

The K East Basin and the K West Basin were built in the 1950s to hold irradiated fuel until it cooled and could be processed to remove plutonium for the nation's nuclear weapons program. When processing at Hanford for the Cold War ended, fuel was stranded in the basin.

DOE looking at 2 contaminated areas at Hanford

Workshops set for Thursday to gather opinion on plans

By Annette Cary

Herald staff writer

The Department of Energy is taking a new look at two areas at Hanford where attempts to reduce radioactive contamination in the ground water may not be adequately protecting the Columbia River.

As part of a five-year review of Hanford decisions made under the Comprehensive Environmental Resource Conservation Liability Act, DOE is considering new study plans for the two areas. They are to be discussed Thursday at workshops in Richland to gather public opinion.

Uranium concentrations in ground water in the 300 Area just north of Rich-

land are greater than expected. In addition, near the N Reactor in north Hanford, radioactive strontium is entering the river in small amounts.

Uranium was made into fuel in the 300 Area during production of plutonium for the nation's nuclear weapons program. A decade ago, uranium levels in the ground water appeared to be declining.

A decision was made then to let nature gradually dissipate the uranium plume, which pollutes about 96 acres of ground water.

However, it appears part of the decrease being measured then was caused by more water diluting the uranium in the ground water. As old ponds used for disposal in the 300 Area were dug up, water was used for dust control.

In the last five or six years, the uranium in the ground water has been decreasing, but not as rapidly as anticipated, said John Morse, a senior technical adviser at

DOE's Hanford Richland Operations Office.

DOE is proposing drilling four bore holes for sampling to collect more data and give a better understanding of the plume. The information would serve as a technical basis for selecting technologies to remedy the problem. The bore holes might eventually be used to test treatment of the ground water.

A proposal and schedule should be prepared by 2007.

For the radioactive strontium 90 that contaminates about one square mile of ground water near N Reactor at concentrations that reach more than 1,000 times the drinking water standard, DOE has been considering using a mineral injected into the ground to bind the isotopes in place and allow their radioactivity to decay.

The current amounts of strontium entering the river are smaller than background strontium already in the river

before it flows past Hanford, Morse said.

DOE has spent more than \$10 million to pump the contaminated water out of the ground, remove as much strontium as possible and then reinject the water into the ground farther from the river.

When DOE started the project as a stop-gap measure, it knew results would be marginal, but had no better solution.

The pump-and-treat system removed about 1.45 curies of an estimated 89 curies total from the strontium in the soil and ground water from September 1995 through December 2003. At the same time, natural radioactive decay reduced radioactivity by 15.2 curies.

DOE is considering using trenches or wells to inject the mineral apatite into the soil to increase the capacity of the soil to bind the strontium 90 in place and keep it from the river. Time would help solve the problem, with half of the radioactivity of strontium 90 decaying every 30 years.

The 300 Area uranium will be discussed from 8 a.m. to noon at the Consolidated Information Center on the Washington State University Tri-Cities campus, 2770 University Drive, Richland.

The workshop on the strontium plume will be from 1 to 4 p.m. at the Washington State Department of Ecology office, 3100 Port of Benton Blvd., Richland.

The Department of Ecology and the U.S. Environmental Protection Agency, regulators on the projects, also will provide information at the meetings.

"We would encourage people to participate because we really need their input to make a good decision on these projects," said Nick Ceto, EPA Hanford program manager.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

Briefs

Nitric acid spill causes PNNL evacuation

A portion of a Pacific Northwest National Laboratory building at Hanford was evacuated Wednesday after about a gallon of concentrated nitric acid spilled on the floor, according to a PNNL report.

A glass container holding the liquid was broken as it was being moved in the Radiochemical Processing Laboratory building in Hanford's 300 Area just north of Richland.

As the room was evacuated, a worker stepped in the nitric acid, splashing it on his pant leg, according to the report. The worker and three other people in the area were evaluated at the site, then went to AdvanceMed Hanford, where they were examined and released.

The spill occurred at about 9:10 a.m. and the room was reopened about 2 p.m.

La Clinica CFO put on paid leave

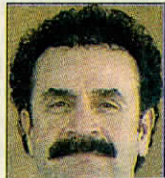
Les Rubin says action taken after he raised financial concerns

By John Trumbo
Herald staff writer

Community Health Center La Clinica, after nearly a year of battling problems involving

based clinic, which provides health care to about 30,000 people.

Rubin told the Herald earlier this week he remains chief financial officer in title only.



He said he was ordered

reason, I would say it was for raising concerns about financial irregularities," Rubin said. He would not elaborate.

His attorney, George Fearing of Kennewick, said Rubin and others "raised questions of financial concerns and as soon as he did he was placed on leave."

Rubin has written a letter to

departure.

And board member Linda Gustafson, a former board treasurer, said an internal investigation was done and the board is satisfied "there are no financial irregularities."

Rubin being put on leave is the latest in a year of problems that have beset the clinic.

Castillon was hired in mid-March to resolve them

long-range plan.

Castillon hoped to do it by year's end, but the board last month extended his stay for up to another six months.

Also this week, a La Clinica medical provider told the Herald that he, three other medical providers and two board members could be forced out because they allegedly tried to organize a labor strike two months ago.

6 NOV 85
*DOE advised that plan to
build bulk vitrification plant
may be cost prohibitive*

By Annette Cary

Herald staff writer

SEATTLE — As costs rise for building a bulk vitrification pilot plant at the Hanford nuclear reservation, the Department of Energy may need to consider at what point it should cut its losses, the Hanford Advisory Board said Friday.

It called on DOE to set criteria for when it should stop spending money on demonstrating bulk vitrification as a waste treatment method and instead expand the main vitrification plant already under construction.

DOE is building a massive plant in central Hanford to turn some of 53 million gallons of radioactive waste held in underground tanks into glass logs for permanent disposal. But it's also looking at an alternative technology to turn some of the

low-activity radioactive waste from the tanks into large blocks of glass, which is intended to lower costs.

The board continues to support exploring ways to provide a less expensive, but equally safe, supplemental treatment to the \$5.8 billion main vitrification plant, called the Waste Treatment Plant, the board said in advice it approved Friday to send to DOE.

But at some point, it may be less expensive to build a second low-activity waste treatment facility at the main vitrification plant rather than proceed with plans for a bulk vitrification plant, the board said.

Part of the concern is that the cost of building a pilot plant to test bulk vitrification on radioactive waste has increased from a preliminary estimate of about \$45 million in 2002 to about \$160 million in this year, with the larger figure also including additional work. The price could increase again because of concerns that proposed safety systems may be inadequate.

The board also wants assurances that

the glass produced by bulk vitrification would immobilize the radioactive waste as well as the glass produced at the main vitrification plant.

The last test run of bulk vitrification helped show that engineering problems in the design of the container for melting the waste into glass blocks had been overcome. The process would mix Hanford soil with radioactive waste inside land-sea shipping containers, then use electrodes to melt the soil and waste into molten glass.

However, the test also raised questions about the quality of the glass that would be produced when the iron in Hanford soil formed chunks of slag at the bottom of the box rather than mixing into a homogeneous glass.

Engineering changes are being considered that could solve that problem as DOE and its contractor on the project prepare for another test run before the end of the year using a simulant for radioactive waste.

In the meantime, construction has stopped. It is partly because of price

increases on the pilot plant being built at Hanford to test the bulk vitrification technology on radioactive waste, rather than simulated waste.

The design on the bulk vitrification pilot plant will be completed before construction resumes, preventing some of the problems of the main vitrification plant, according to DOE. At the main vitrification plant, construction slowed in the last year because of well-publicized troubles that included an inadequate earthquake design standard and some design and purchasing that was being completed barely ahead of construction or delaying construction.

In addition, construction will not resume on the bulk vitrification pilot plant until after new cost and schedule information is completed, likely in June, and then an independent review team assesses it, said Roy Schepens, manager of DOE's Hanford Office of River Protection.

He also pointed out that DOE is

See **Board**, Page B2

^{5 NOV 05}
New Hanford budget to be cut about \$315 million from amount received last year

By Annette Cary

Herald staff writer

A congressional conference committee has decided to cut \$100 million from this year's budget for Hanford's vitrification plant, but would restore about \$50 million for other cleanup work at the nuclear reservation.

Although the Senate and House Energy and Water Conference Committee has not voted on the Hanford budget, an agreement has been reached, said aides of U.S. Rep. Doc Hastings, R-Wash.

"This is the toughest, thinnest budget year I've ever seen," Hastings said in a prepared statement.

The Hanford budget would be considerably lower than in fiscal year 2005, which ended in September.

The budget would cut about \$315 mil-

lion from the nearly \$2.1 billion 2005 budget, with about half of the reduction coming from work at the vitrification plant.

The nuclear reservation is heavily contaminated from the past production of plutonium for the nation's nuclear weapons program.

The \$100 million cut for the vitrification plant would be on top of the \$64 million cut for the plant proposed by the Bush administration in February.

The \$50 million restored to other pro-

grams includes about \$27 million to retrieve radioactive waste from Hanford's oldest underground tanks.

The Bush administration proposed cutting Hanford's total budget by \$267 million when it announced DOE's budget needs last winter.

Hastings convinced the House to restore \$200 million of that cut, including full funding for the vitrification plant, and U.S. Sen. Patty Murray, D-Wash., convinced the Senate to restore \$34 million, all of it for work in the tank farms.

But before a joint conference committee could reconcile the House and Senate versions of the budget, Hurricane Katrina blew through the Gulf and put more pressure on a federal budget already squeezed by the war in Iraq and other programs.

"I'm grateful we did this well considering the pressures to tighten spending and pay for the hurricanes," Hastings said.

Murray's staff was more cautious,

See **Vit plant**, Page A2

2 NOV 05

Waste being cleaned from Hanford tank

Underground tank the sixth to be purged of solid waste

By Annette Cary
Herald staff writer

Hanford workers started removing solid radioactive waste from the sixth of 149 old, underground tanks this week.

Work began on tank C-201, which was first used to hold waste in 1947 from the production of plutonium for the nation's nuclear weapons system.

It is suspected of leaking waste into the ground beneath it in the past. All liquids that could be pumped out were removed after it was classified as an "assumed leaker" in 1982. But remaining were 580 gallons of dry waste that settled to the bottom of the 55,000 gallon tank.

Because the tank has the potential to leak, Department of Energy contractor CH2M Hill Hanford Group is using a vacuum retrieval method that adds little liquid to the tank, said CH2M Hill spokesman Mike Berriochoa.

A vacuum with a hose has been inserted into the closed tank and a high-pressure spray of water will be used sparingly to break up waste that will not dislodge or is too big to pull into the vacuum hose. The equipment was adapted for Hanford use from the petroleum industry.

Waste is being pumped from old single-shell tanks to 28 newer double-shell tanks until the radioactive waste can be processed. The most radioactive of the waste is planned to be turned into a stable glass form and sent to Yucca Mountain, Nev., for disposal.

Three tanks have been emptied of both solid and also liquid waste so far, all near C-201 in the area called the C Tank Farm. The last tank to be emptied of solids was similar to C-201 and required just six weeks of vacuuming.

Pumping on solids in two other tanks, S-112 and S-102, is under way.

The next major legal deadline on removal of remaining waste in the tanks requires all 16 tanks in the C Tank Farm to be emptied by the end of September 2006. It's the first group of tanks scheduled to be emptied.

2 NOV 05
Plant oldest nuclear facility in world still running

By Annette Cary

Herald staff writer

More than 60 years ago as the 7-foot thick walls of Hanford's T Plant were going up, the federal government didn't think the plant had a long future. It installed a surplus shipyard crane circa 1938 to travel the building's 800-foot length.

That crane still is operating and the plant's still being used.

"Today it is the oldest nuclear facility in the world that still performs a nuclear mission," said Michele Gerber, Fluor Hanford

spokeswoman and Hanford historian.

T Plant now treats and packages radioactive waste left from the past production of plutonium for the nation's nuclear weapons program, and the plant could continue to be used for decades.

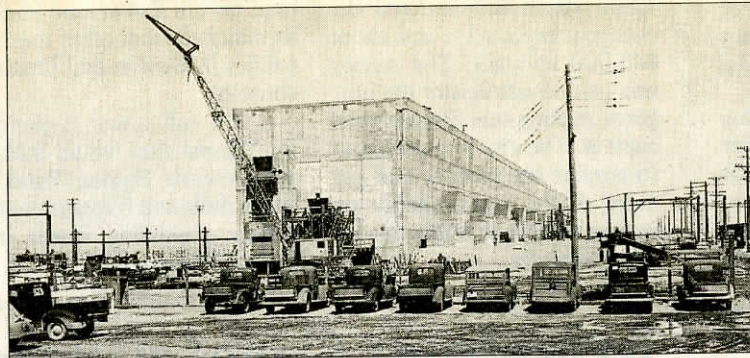
Most recently it began packaging K Basin radioactive sludge, and preliminary design work has begun to use the canyon to package and treat waste too radioactively hot for workers to handle.

"It's had quite a colorful life

span," serving through World War II, the Cold War weapons buildup and the continuing cleanup and decommissioning of the Hanford nuclear reservation, said Bob Wilkinson, T Plant

manager for Department of Energy contractor Fluor Hanford.

It was built in World War II as the nation raced to make the first atomic bomb.



Built in the early 1940's, T Plant continues to be used today for Department of Energy nuclear programs. The plant is the oldest operating nuclear facility in the world still performing a nuclear mission and plans call for its continued use for at least a decade more.

Photo courtesy
U.S. Department of Energy

B Reactor was the first reactor built along the banks of the Columbia River to irradiate fuel to produce plutonium. Then the fuel

See **T Plant**, Page B2

Cantwell, Murray oppose White House vit plant cuts

By Annette Cary

Herald staff writer

The Bush administration's proposal to cut \$100 million from funds to build Hanford's vitrification plant in the coming year is short-sighted and endangers construction of the plant, U.S. Sens. Patty Murray and Maria Cantwell, both D-Wash., said in a joint statement Monday.

Friday, the White House proposed using \$2.3 billion, including \$100 million from the Hanford Waste Treatment Plant construction project, that it considered "unnecessary spending" for hurricane relief in the Gulf.

The plant is being built to turn some of Hanford's worst radioactive waste from the past production of plutonium into a stable glass form for disposal. Now the waste is held in underground tanks.

"There is nothing fiscally responsible about the administration's efforts to rob-Peter-to-pay-Paul attempts at Katrina recovery," the senators said in a prepared statement. "If the president were serious about fiscal responsibility, he would rethink a short-sighted and dangerous tax cut policy."

Cutting money to cleanup programs at Hanford will lead to increased future costs, they said.

On Friday, U.S. Rep. Doc Hastings, R-Wash., denounced the cut, saying in a prepared statement that "it's a total outrage for Hanford cleanup funding to be labeled 'unnecessary.'"

"For the past five years there has been an unprecedented attack on our nation's ability to clean up nuclear waste," the senators said. "Today we know why. The administration has officially labeled these clean up efforts as 'lower-priority federal programs.'"

Although Hanford received record funding of almost \$2.1 billion in fiscal year 2005, in fiscal years 2002 and 2003, Murray had to fight to restore budget cuts proposed by the Bush administration, according to Murray's staff.

The administration also has asked Washington families to accept a lower cleanup standard and has fought cleanup in court, according to Murray's staff.

DOE has repeatedly emphasized during the ongoing budget battle that it is committed to Hanford cleanup. The devastation in the Gulf has caused the administration to make difficult funding decisions, Mike Waldron, a DOE spokesman, said Friday.

But the senators said the Bush administration has dropped the ball on the fiscal year 2006 Hanford budget three times. It proposed an initial cut of \$267 million to the overall Hanford budget, failed to advocate for the money needed when questioned by Congress on the vitrification plant budget and is proposing cutting the plant budget to pay for hurricane relief, they said.

Although Katrina relief is a national priority, so is the responsibility to clean up Hanford and safeguard public health, they said.

The administration proposed cutting the vitrification plant annual budget from \$690 million to \$626 million. For hurricane relief it is proposing cutting an additional \$3 million and requiring the return of \$97 million in unspent money that the Washington congressional delegation said was a planned carryover.

The original plan to build the plant called for \$690 million to be budgeted each of five years, with more of the money spent some years and less others.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at acary@tri-cityherald.com.

1 NOV 85

Hanford initiative unconstitutional, federal lawyers say

By Annette Cary

Herald staff writer

The Hanford initiative passed by voters nearly a year ago would prevent more radioactive waste from being sent to the Hanford nuclear reservation for at least 20 years, federal attorneys said in court documents filed Monday.

The U.S. Department of Justice filed a motion for summary judgment, asking that Yakima federal Judge Alan McDonald strike down Initiative 297 as unconstitutional.

Voters passed the initiative, now called the Cleanup Priority Act, to prevent radioactive waste from being sent to Hanford until waste already there is cleaned up. Hanford is extensively contaminated with radioactive and hazardous chemical waste from more than 40 years production of plutonium for the nation's nuclear weapons program.

The case has returned to federal court, after McDonald asked the Washington State Supreme Court to answer questions about how the new state law would be interpreted.

The initiative places "new and unprecedented restrictions" on radioactive materials at Hanford and other federal facilities, according to federal attorneys' request for summary judgment.

Liquid sodium stored near Fast Flux Test Facility had no radioactive contamination

By Annette Cary

Herald staff writer

An emergency alert was declared at the Hanford nuclear reservation after a chemical explosion released smoke and steam at a building adjacent to the Fast Flux Test Facility at 5:17 p.m. Sunday.

No radioactive material is believed to have been involved, and the 10 workers in the area were not injured, according to the Department of Energy.

The Hanford Fire Department was preparing to make a second entry into the building about 9:30 p.m., but emergency workers found no fire or evidence of a spill in their first entrance.

Workers had been cleaning out liquid sodium stored in a building adjacent to the reactor this month. The research reactor, which is being permanently shut down, was cooled with liquid sodium.

The stored sodium, which was in the form of an alloy with potassium, had not been used in the reactor and had no radioactive contamination, said Julie Erickson, a spokeswoman for the Hanford Site Joint Information Center.

Work had been completed earlier to empty a tank in the building, and Sunday evening workers were cleaning residual sodium out of valves and piping leading to the storage tank. The pipes were filled with argon to prevent the sodium from reacting, Erickson said.

Workers used steam to clean out the pipes and convert the alloy to more stable sodium hydroxide and potassium hydroxide for disposal, she said.

The deactivation of FFTF is being done by DOE contractor Fluor Hanford, which had subcontracted some clean out of the stored sodium to Creative Engineers Inc., which specializes in liquid metals.

The 10 workers at FFTF Sunday night

10 NOV 03
*Subcommittee says
DOE hasn't been
forthcoming enough*

By Annette Cary

Herald staff writer

Congress is requiring the Department of Energy to begin reporting four times a year on Hanford's radioactive waste vitrification plant after criticism the agency has been too tight-lipped.

"The department must be more forthcoming with information on its plans for the Waste Treatment Plant," said Rep. David Hobson, chairman of the Appropriations Subcommittee on Energy and Water Development, on the floor of the U.S. House on Wednesday.

On Tuesday, Energy Secretary Samuel Bodman notified the House Committee on Armed Services to expect the estimated \$5.8 billion cost to build and test the vitrification plant to increase more than 25 percent. The work also will take longer to complete, Bodman said.

29 OCT 05

Proposal slashes vit plant spending

Money would help pay for hurricane relief in the Gulf

By Annette Cary

Herald staff writer

Budget changes proposed by President Bush on Friday would reduce spending for Hanford's vitrification plant by \$100 million in fiscal year 2006 to help pay for hurricane relief in the Gulf.

The proposed reduction for the vitrification plant is part of \$2.3 billion that a White House fact sheet called "unnecessary spending."

If Congress approves the \$100 million cut, construction at the radioactive waste treatment plant could be dramatically reduced, even though DOE talked earlier this week of ramping up construction on critical parts of the plant next summer.

9 Nov 03

Container mistakenly taken from Hanford

By Annette Cary

Herald staff writer

A container of nonradioactive waste was mistakenly removed from the Hanford nuclear reservation.

The incident did not have the potential to contaminate the environment but did present an opportunity to address management issues, said Dave Einan, environmental engineer for the U.S. Environmental Protection Agency. The incident, which occurred in late September, was discussed in the EPA's presentation at the November meeting of the Hanford Advisory Board.

Washington Closure Hanford, the new Department of Energy contractor responsible for cleaning up Hanford's 300 Area, has been investigating if large amounts of waste could be efficiently moved by rail to a large landfill

in central Hanford. The company is working to tear down more than 200 buildings in the area just north of Richland and dig up burial grounds there.

Workers were assigned to pick up an empty waste container from a landfill for hazardous chemical and low-level radioactive waste, the Environmental Restoration Disposal Facility, and take it to Tri-City Railroad Co. in Richland to be tested with railcars. They correctly picked up one of four containers reserved for nonradioactive waste, but took an unlabeled container that was full instead of empty.

When railroad workers saw it was filled with bags of waste, they immediately called Washington Closure Hanford and the waste was picked up. The bags contained asbestos.

Further tests have been delayed until Washington Closure Hanford comes up with new procedures.

Fire-damaged land to get help

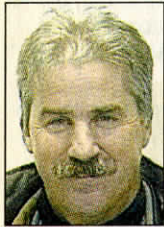
29 OCT 05
U.S. Fish and Wildlife officials hope to give new life to 11,000 acres

By Anna King
Herald staff writer

Greg Hughes walked between the large roasted circles strewn over the landscape like eerie scorched polka dots.

"Every black spot was a sagebrush," he said. "You can see how hot it burned."

The Richland-based U.S. Fish and Wildlife project leader was inspecting Friday a fire-damaged section of the Saddle Mountain Unit of the Hanford Reach National Monument.



Hughes

A July 5 fire left the remote area northeast of the Vernita Bridge looking like a scorched lunar landscape. Officials suspect the 5,000-acre

fire was started by the careless handling of fireworks.

"Our biologists come in here and they are so shocked, because it looks so bad," Hughes said, his voice straining over Friday's icy wind.

Another fire Aug. 9 was caused by an escaped agricultural burn and consumed another 6,000 acres on the nearby Wahluke Unit.

Until the fires, the Saddle Mountain and Wahluke areas were considered some of the Reach's best shrub-steppe habitat, providing food and shelter for insects, rodents, lizards and birds. Now few areas remain for vulnerable species such as sage grouse.

So on Monday, weather permitting, the agency plans to start rehabilitating about 11,000 acres of damaged native grasses and shrubs in those areas.

Officials will spend about \$700,000 and take about three weeks to control weeds by applying herbicides, hand-planting 42,000 native shrubs and hydro-mulching about 500 acres of erosive soils along Highway 24.

Starting next week areas will be closed to the public until the work is finished about Nov. 15.

Plants with funny names like Sandberg's bluegrass, needle-and-thread grass and squirreltail are expected to fill in the barren land.

The project aims to beat down invasive cheatgrass, tumbleweeds and



Herald photos/Rajah Bose

Scorch marks on the ground show where sagebrush plants were burned during July's fire on the Saddle Mountain Unit of the Hanford Reach National Monument. Greg Hughes, project leader for the U.S. Fish and Wildlife, on Friday surveys the area that officials plan to reseed beginning next week.



Herald/Sherry Emery

Russian olive that burn hot and easily can choke out native plants.

"That's the enemy," Hughes said, stooping down to pull out a small green tuft of cheat. "It's ripe for the killing."

Like wheat farmers, these wildlife managers had been waiting for a good rain so they could kill the emerging cheatgrass, then plant native bunch grasses.

Leaving the sandy areas bare would leave the landscape vulnerable to unyielding erosion and slow recovery.

Even some nearby mature sagebrush that escaped burning to the ground never will recover, Hughes said.

"That's dead, that's dead, that's dead," he said rapidly pointing at plants a few strides away from some firetruck tracks in the sand.

Hughes' trained eye can detect the difference between a dead sagebrush and a healthy winter-dormant sagebrush — both brown.

Mature sagebrush can take more than

40 years to grow in the dry Mid-Columbia conditions. And the plants don't resprout after being burned, so the damaged areas will take many years to heal, Hughes explained.

"Someday when I'm dead and gone, wildlife and people will reap the benefits," he said of the replanting efforts.

About 10.5 million acres of shrub-steppe existed before farming and



Alone sagebrush fights to stay alive on the Hanford Reach National Monument.

Hanford starts flushing waste from Tank C-103

Work began this week to empty high-level radioactive waste from the seventh of Hanford's 149 underground tanks.

CH2M Hill Hanford Group began emptying Tank C-103, a 530,000-gallon tank built in 1946. Liquid had been removed earlier, but 71,000 gallons of radioactive sludge remained.

Because the tank is not known to have leaked, a method called modified sluicing, which uses a hydraulic spray, is being used to dissolve the waste so it can be retrieved from within the tank. Other methods, such as vacuuming, are preferred on tanks known to have leaked.

Instead of using water for the sluicing, liquid waste stored in Hanford's newer double-shell tanks is being used in the hydraulic spray, which limits the amount of new waste produced.

Waste from Tank C-103 is being moved to a double-shell tank to wait for treatment and disposal. Three tanks have been emptied of all the waste possible, according to DOE, and work is now under way to empty four tanks. The waste was created by the past production of plutonium for the nation's nuclear weapons program.

8 NOV 85

Employees return to FFTF after explosion

Workers were back at Hanford's Fast Flux Test Facility on Monday after a chemical reaction Sunday produced smoke and steam in a building next to the reactor.

Representatives of the Department of Energy, its contractors, the Hanford Fire Department and other emergency workers met Monday to discuss the incident but didn't reach a conclusion on what had caused the explosion.

An emergency alert was declared after smoke and steam set off fire alarms at 5:17 p.m. Sunday. The alert was canceled early Monday morning after the Hanford Fire Department determined there was no continuing danger of a chemical reaction or fire.

\$100 million cut from vit plant budget

Congressional committee agrees on numbers; senator says layoffs could follow

By Annette Cary

Herald staff writer

A cut of \$100 million to Hanford's vitrification plant in fiscal year 2006 could lead to layoffs, higher costs and missed construction deadlines, U.S. Sen. Patty Murray, D-Wash., said Monday.

A congressional conference committee agreed on the Hanford nuclear reservation budget late Monday. It reduced money for the vitrification plant, but did not adhere to all the cuts proposed by the Bush administration elsewhere at Hanford.

It also included \$2 million to help save Hanford's historic B Reactor as a museum.

The Hanford cleanup budget approved by the committee would cut the nearly \$2.1 billion appropriated in fiscal year 2005 by about \$315 million. The Bush administration had proposed deeper cuts, but Congress decided proposed cuts to the Plutonium Finishing Plant cleanup went too far and proposed spending more for the Columbia River corridor cleanup.

But with technical problems plaguing the vitrification plant being built to turn some of Hanford's worst waste into a stable glass, Congress dropped the appropriation from \$690 million in 2005 to the \$526 million supported by the administration for fiscal year 2006.

Overall cuts actually are more severe than the \$315 million would indicate because the Department of Energy is being required to increase security at the site.

Hanford made plutonium for the nation's nuclear weapons program for more than 40 years, and DOE has not come up with a workable plan to remove all the plutonium and other weapons-grade material from the site.

Heart of America Northwest, a Hanford watchdog group, estimated the cut to cleanup spending is about \$340 million.

Fiscal year 2006 began Oct. 1 with no budget, leaving Hanford to spend and plan staffing according to the budget proposed by the administration last February.

It originally included \$626 million for

the vitrification plant, but that dropped by \$100 million after the Bush administration targeted the vitrification plant budget for hurricane relief in the Gulf.

During the past year, about 1,000 people had been laid off at the vitrification plant, and Murray, who served on the conference committee, fears more layoffs may be coming.

"Officials at DOE claim the administration is 100 percent dedicated to the project," she said in a prepared statement. "Actions speak louder than words."

The vitrification plant was the only DOE project proposed for cuts for hurricane relief, and the administration called it "a lower priority project," Murray pointed out.

See **Budget**, Page B2

9 NOV 05

PNNL may receive \$18 million for construction of new campus

By John Trumbo

Herald staff writer

The Pacific Northwest National Laboratory in Richland is assured of \$18 million in Congress-approved funds for 2006 to help it move out of aging facilities to a new campus by September 2009.

Rep. Doc Hastings, R-Wash., announced Tuesday that the promised money includes \$8 million in President Bush's budget for planning and design, plus \$10 million to begin construction.

Hastings said he expects the House to approve the funding bill today, after which the Senate will vote.

The Department of Energy's Office of Science budget contains \$5 million for the project, with another \$13 million in the National Nuclear Security Administration budget.

About 1,000 workers involved in half of PNNL's research are being moved out of Hanford's 300 Area to allow for cleanup along the Columbia River corridor.

Hastings has been shepherding the lab's move since last year when he helped secure the first \$11 million for planning and design work. He also helped convince the Department of Energy to move back the date for clearing out the 300 Area by two years to late 2009.

Mike Lawrence, deputy laboratory director for campus development, said the transition to a new campus in north Richland will provide space for about 1,000 employees who had been working in about

700,000 square feet of facilities in the 300 Area.

Lawrence said there will be 500,000 square feet of replacement facilities, plus another 65,000 square feet associated with the growth of lab programs.

The replacement facilities cost is estimated at \$340 million, which includes \$210 million for the federal facility, and about \$100 million for private facilities.

Battelle, which operates the lab for the Department of Energy, will need about \$20 million in facilities, Lawrence said.

"We also project the need for another 240,000 square feet of facilities for growth not tied to the 300 Area," Lawrence said. Some of that space will end up being for the Washington State University bioproducts program, he said.

Lawrence said the \$18 million was expected, but not assured.

"After the hurricanes and all the pressures on the federal budget, the fact that our number held the same is a great compliment to our congressman and senators who were able to maintain this," Lawrence said. All of the \$18 million will be assigned to the \$210 million federal facility.

The state Legislature earlier this year authorized \$5 million for the city of Richland to be used to build the needed sewer, water and power to the research park in north Richland.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com.

17 Nov 05 Bechtel laying off 135 employees

*Affected jobs to end Jan. 11;
no severance pay offered*

By Annette Cary
Herald staff writer

Bechtel National planned to give layoff notices to about 135 workers Wednesday and today because of budget cuts.

That's in addition to 30 workers being transferred to other Bechtel projects at Hanford or elsewhere and 65 union construction workers let go last week.

The loss of those 230 jobs, which include some Washington Group employees, will bring Bechtel costs in line

with the \$626 million budget for fiscal year 2006 proposed by the Bush administration earlier in the year. However, the budget that's been approved by a U.S. Senate and House conference committee is \$100 million less, meaning more layoffs are likely if the president signs a \$526 million budget into law.

"We are assessing the impacts of a \$526 million budget and have not made any final decisions," Bechtel workers were told in a memo.

The 135 workers receiving notices this week are all nonmanual workers who support construction of Hanford's vitrification plant, or Waste Treatment Plant,

including construction engineers, clerks and procurement specialists, said Bechtel spokeswoman Carrie Meyer. Many work in offices at the construction site in central Hanford.

Their jobs will end Jan. 11, and no severance pay is being offered.

The layoffs will drop employment on the project to about 2,240 workers, which includes 540 craft construction workers and 1,700 nonmanual workers.

If Bechtel must meet a \$526 million budget, some of the savings are expected to come from cuts in purchasing and subcontracts. In addition, Bechtel is looking at cost savings, such as consolidating

nonmanual workers in fewer buildings.

"We're trying to make the government money go further and continue progress on the plant," Meyer said.

The memo to employees pointed out that "while our budget may be considerably less than we had planned for, by all measures the Waste Treatment Plant is still a huge project that remains a critical priority for the Department of Energy."

This month's job cuts come after about 1,000 employees were laid off at the project earlier in the year to reduce spending in fiscal year 2005 and prepare

See **Bechtel**, Page B5

New Mexico Sen. Domenici says agreement to clean up Hanford costly, inflexible

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The 16-year-old agreement guiding Hanford's cleanup is inflexible, hinders actual cleanup and is driving up costs, the chairman of the U.S. Senate Energy and Natural Resources Committee charged Tuesday.

Sen. Pete Domenici, R-N.M., said state and federal officials need to renegotiate and rewrite the Tri-Party Agreement.

"Maybe we ought to sit down and

think about another agreement," Domenici said during a hearing on the Department of Energy's environmental cleanup program. "I'm hoping people think it is time to start anew."

His comments came a day after Gov. Christine Gregoire said the state was considering suing the federal government and would not "sit idly by" as the Bush administration, DOE and Congress cut funding by as much as \$264 million this year.

Gregoire, in a statement Tuesday, showed no interest in negotiating a new Hanford agreement and insisted the federal government has a responsibility to provide the necessary funding.

"The Tri-Party Agreement is a carefully negotiated, legally enforceable agreement,

and it is unconscionable of the federal government to fail to provide the funding to do the job, try to get out of the agreement or pursue any delaying tactics," she said.

A top DOE official, however, told Domenici a new agreement would make sense.

"Your suggestion is a valid one," testified James Rispoli, DOE assistant secretary for environmental management.

Sen. Maria Cantwell, D-Wash., said the proposal was a non-starter.

"No and no," Cantwell said after the hearing when asked whether she would support rewriting the current pact. "It's just another gimmick."

See **Rewrite**, Page B2

15 NOV 05

An additional \$100 million could be cut under Bush's hurricane relief proposal

By Annette Cary
Herald staff writer

Washington Gov. Christine Gregoire is considering suing the federal government as Congress prepares to study deeper spending cuts for Hanford's vitrification plant.

"In all the years since 1989, I have never

been more discouraged about the federal government's commitment to Hanford cleanup than today," Gregoire said Monday at a Seattle news conference.

The vitrification plant, or Waste Treatment Plant, needs \$690 million each year under DOE's original funding proposal. But the budget approved by a congressional conference committee cut it to \$526 million for fiscal year 2006, including \$100 million cut after Congress criticized technical and management troubles at the plant.

In addition, another Bush administra-



Gregoire

tion proposal could take back an additional \$100 million saved in the project's earlier years and intended to be spent in 2006. The rescission is part of a \$2.3 billion proposal by the Bush administration to help pay for hurricane relief in the Gulf. That plan still must win congressional support.

The state is considering options

ranging from enforcing penalties in the Tri-Party Agreement to a lawsuit to require a timely start to waste processing, said Gregoire and Attorney General Rob McKenna.

"Washington state will not sit idly by while the United States government breaks its promises to the people of our state and puts our health and resources at risk," Gregoire said.

The vitrification plant has been the key to Hanford cleanup since the Tri-Party Agreement was signed in 1989 to regulate work at the nuclear reservation, she said.

"With the treatment plant, we have cleanup," said Jay Manning, director of the state Department of Ecology. "Without it, we don't."

The vitrification plant is legally required to begin turning 53 million gallons of radioactive and chemical waste held in underground tanks into stable glass logs in 2011. The waste is left over from production of plutonium at Hanford for the nation's nuclear weapons program during World War II and the Cold War.

See **Cuts**, Page A2

12 NOV 05

Battelle Memorial Institute is now No. 1 employer in Tri-Cities

By John Trumbo

Herald staff writer

Historically, the Tri-City economy fluctuates with the vagaries of Hanford contracts. It's an assumed fact of life in the Mid-Columbia that the best jobs and wages are with government contractors on the federal nuclear reservation.

But recent rounds of layoffs at Fluor Hanford and Bechtel National have cleared the way for

a different major employer.

Battelle Memorial Institute, which has operated the Pacific Northwest National Laboratory in Richland for 40 years, is the new No. 1 employer in the Tri-Cities, according to figures collected by the Tri-City Industrial Development Council.

The freshest numbers show 4,200 people draw a paycheck from Battelle's Richland operation. That was 500 more than Fluor Hanford and 800 ahead of Bechtel National in TRIDEC's October numbers.

The region's next largest

See **PNNL**, Page A2

22 NOV 05

Police dogs to stay in kennels at Hanford

Fluor's decision to stop allowing dogs to live with handlers stems from lawsuit

By Annette Cary
Herald staff writer

Police dogs at Hanford will no longer return to their handlers' homes after each day's work.

Temporary kennels have been set up in central Hanford after nine handlers sued Department of Energy contractor Fluor Hanford for back wages and overtime for their work housing, caring for and training dogs at their homes.

Fluor settled the suit for \$131,000 this fall, admitting no fault. But the settlement left Fluor and Hanford Guard Union Local 21 to negotiate terms for caring for the dogs after Nov. 1.

Fluor chose to end the practice of sending the dogs home each night with handlers.

"We were forced to make a business decision that still was protective of the dogs," said Geoff Tyree, spokesman for Fluor Hanford, which provides patrol services at the Hanford nuclear reservation.

The handlers have been told to drop off the dogs at temporary kennels as they finish their first scheduled shift at Hanford this week from Monday through Thanksgiving Day. The dogs have lived in their handlers' homes for as long as eight years.

"We've adamantly opposed this," said Darryl Sybouts, business agent for Local 21.

Sending dogs to outdoor kennels after many have become used to sleeping inside their handlers' homes seems harsh, he said.

The dogs won a temporary reprieve when workers questioned the adequacy of the temporary kennels Fluor planned to use.

Fluor responded by requesting an evaluation by Richland veterinarian Ethan Nelson, who proposed changes.

Each dog will have a fenced-in dog house with a heating pad and a temperature-controlled water dish near the Hanford patrol operations center in

See **Dogs**, Page A2

... 24 Nov 1985 05

Jurors rule woman's illness not caused by Hanford emissions

By Annette Cary

Herald staff writer

A U.S. District Court jury decided that a dying woman's thyroid cancer was not caused by radiation that drifted off the Hanford nuclear reservation when she was a child.

Some of the jurors were crying as they left the Spokane courtroom after the verdict was announced Wednesday morning, said Richard Eymann, one of several attorneys representing about 2,000 plaintiffs who believe radiation from the nuclear site decades ago harmed their health.

"The jury was able to separate emotion from science," said

attorney Kevin Van Wart of Chicago, who is defending early Hanford contractors in the suit. Costs are being covered by the federal government.

At the end of closing arguments, Eymann of Spokane, had asked the jury for a verdict of \$20 million to \$30 million for Shannon Rhodes, 64, of Coeur d'Alene.

While the trial was for just one plaintiff, its goal was to give attorneys an idea of the potential value of cases to help reach a settlement agreement.

Rhodes' case was among six "bellwether" cases heard by a jury in the spring. The jury deadlocked on Rhodes' case, awarded damages to two other cancer patients and rejected claims that Hanford caused three cases of

See **Cancer**, Page A2

23 NOV 05

Bush signs measure cutting Hanford budget

President Bush has signed the Energy and Water Development Appropriations Act for 2006, which sets the Hanford budget for the fiscal year that began Oct. 1.

The budget cuts fiscal year 2005 spending of close to \$2.1 billion by about \$315 million.

The project that took the biggest hit is construction of the Waste Treatment Plant, or vitrification plant, at Hanford. It's being built to treat some of the worst waste left from the past production of plutonium for the nation's nuclear weapons program.

Funding for the vitrification plant dropped \$164 million from the \$690 million in the 2005 budget. In a message to workers Tuesday, Jim Henshel, Bechtel National project director for the plant, said management is assessing the reduced budget and expects to announce a plan in the next two weeks.

The Department of Energy contractor announced layoffs and transfers of 230 workers already this month, but that would drop employment to meet only the \$626 million budget that had been anticipated earlier in the year. Another \$100 million was cut from the budget before it was signed.

28 NOV 05

Hanford cleanup meeting scheduled for Dec. 7

The Department of Energy plans a workshop Dec. 7 to hear from the public on Hanford cleanup. The meeting is part of a review every five years of cleanup strategies at Hanford under the Comprehensive Environmental Response, Compensation and Liability Act.

The workshop will cover standards to assess protectiveness of cleanup efforts at Hanford. The workshop is 10 a.m. to 4:30 p.m. in Room 142, Federal Building, 825 Jadwin Ave., Richland.

LIGO tour planned Dec. 10 at Hanford

The next public tour of the Laser Interferometer Gravitational-Wave Observatory at Hanford (known as LIGO) is 1:30-4 p.m. Dec. 10.

LIGO is working to detect gravitational waves from space for the first time.

A discussion of the quest to detect and study "spacequakes," colliding black holes and other violent events in space will precede the walking tour.

Admission is free. For directions or more information, visit

Group questions DOE bonuses at Hanford

Largest bonus was \$51,000 over 3 years for manager of Office of River Protection

By The Associated Press

YAKIMA — The U.S. Department of Energy paid nearly \$400,000 in bonuses in the past three years to employees overseeing construction of a massive plant to treat nuclear waste at the Hanford nuclear reservation — a project mired in cost overruns and delays.

The Energy Department slowed construction on the plant, long considered the cornerstone of cleanup at the nation's most contaminated nuclear site, earlier this year amid seismic concerns and a rapidly ballooning price tag: \$5.8 billion and growing.

Critics contend many of the problems could have been avoided and that the federal government mismanaged the project so badly its future is imperiled.

Awarding large bonuses on such a troubled project only reinforces that point, said Tom Carpenter, director of the nuclear oversight campaign for the Government Accountability Project, a Hanford watchdog group.

The Associated Press discovered the bonuses in Energy Department documents obtained through a public records request.

"I'm sure there's very good and fine people out there doing their darnedest, but overall, it doesn't seem to fit, does it? You don't reward failure with money," Carpenter said.

The largest amount of bonus money — \$51,000 over three years — went to Roy Schepens, who took over as manager of Hanford's Office of River Protection in 2001. He oversees both the construction of the treatment plant and the separate project to empty underground nuclear waste tanks. His annual salary before bonuses is \$162,053.

Schepens' deputy, Shirley Olinger, received \$19,000 in bonuses since assuming her post in 2002. Her salary is \$147,100 annually.

For employees assigned solely to the waste treatment plant, the Energy Department awarded roughly \$154,000 in bonuses, including \$25,790 to project manager John Eschenberg. Eschenberg's annual salary is \$136,174.

The Energy Department routinely awards bonuses from its annual funding appropriated by Congress.

Bonus awards are based on performance reviews and individual accomplishments, said Mike Waldron, Energy Department spokesman.

"These employees' individual contributions amount to significant achievements," Waldron said, noting recent advancements in upgrading underground

“
I'm sure there's very good and fine people out there doing their darnedest, but overall, it doesn't seem to fit, does it? You don't reward failure with money.

Tom Carpenter, director of the nuclear oversight campaign for the Government Accountability Project

”
tanks and waste retrieval. “The progress we've made, and the accomplishments we've recognized, are well worth the investment.”

But under Schepens and his subordinates, the waste treatment plant has fallen further behind schedule and its cost has increased so much that the Energy Department won't even release an estimate, despite multiple Freedom of Information requests.

The Army Corps of Engineers estimated the cost could reach as high as \$10 billion, far above the roughly \$4 billion estimate when the contract was awarded in 2000, according to a report leaked to The Seattle Times.

Schepens declined to comment through a department spokesman.

The federal government created Hanford in the 1940s as part of the top-secret Manhattan Project to build the atomic bomb. The site produced the plutonium for the Fat Man bomb that was dropped on Nagasaki, Japan, effectively ending World War II, and continued to produce plutonium for the nation's nuclear weapons arsenal through the Cold War.

Cleanup costs are expected to total \$50 billion to \$60 billion. The most dangerous waste is 53 million gallons of toxic and radioactive brew stewing in the 177 underground tanks, some of which have leaked, threatening the groundwater and the Columbia River less than 10 miles away.

The waste treatment plant eventually will turn much of that waste into glasslike logs for permanent disposal.

But the Energy Department has pushed back the deadline to have the plant operating three times, from 1999 to 2011. Department officials have warned of a fourth delay.

In 2002, the Defense Nuclear Facilities Safety Board raised concerns that the department failed to adequately investigate the impact a severe earthquake might have on the plant. The department had gathered seismic data from the entire 586-square-mile Hanford reservation, but it did not conduct a seismic investigation of the plant site itself.

In 2004, a new report found that the force of the ground movements at the

plant site during a massive earthquake would be 38 percent greater than previously estimated.

That report forced a review of the plant's design and, coupled with skyrocketing costs, prompted the department to slow construction on large portions of the plant earlier this fall.

The plant is being designed as it's being built — a method that has proven costly. The Energy Department estimated the cost of the plant at \$4.3 billion when the construction contract was awarded in 2000. The price tag currently stands at \$5.8 billion, but the department recently notified Congress that the cost would rise at least another 25 percent.

Recent budget cuts show Congress may be losing confidence in the project, Carpenter said.

Congress cut the 2006 budget by \$100 million, and other cuts for the project have been proposed. Washington Gov. Christine Gregoire has threatened to sue the federal government if Congress cuts funding even further.

“That is a very dangerous sign for the residents here in Washington state and the Pacific Northwest,” Carpenter said. “This project is treated as an expensive curiosity in the desert, when in fact it is the most expensive remediation project in the world. Build it or not, the problem of nuclear waste at Hanford will remain.”

2 Dec. 05
*Facility was the first fuel
fabrication building built
for Manhattan Project*

By Annette Cary

Herald staff writer

Within a month, all that should be left of the 75,000-square-foot 314 Metal Extrusion Building at Hanford is a patch of dirt at the corner of Alaska and Ginko streets.

Thursday, the giant shears on the end of an excavator arm pulled the crane rail that hung in the three-story building to the ground. The metal framework, all

that's left of the building, is close to being folded to the ground like a row of dominos.

Building 314 is the second large building in Hanford's 300 Area just north of Richland to come down and the first of the area's large buildings to be demolished by the Department of Energy's new river corridor contractor Washington Closure Hanford.

In the past year, about 17 of the more than 200 buildings in the 300 Area have been torn down. All of them should be down in the next seven years.

During World War II and the Cold War, the 300 Area was used to fabricate

See **Torn down**, Page B7

6 DEC 05

Small business picked for Hanford cleanup program

Washington Closure Hanford has picked TerranearPMC, a small business, to participate in a Department of Energy mentor-protege program for Hanford nuclear reservation cleanup.

Washington Closure Hanford will help TerranearPMC develop technical and management skills to do larger and more complex environmental remediation and decontamination and decommissioning projects.

TerranearPMC has worked with Washington Group International at other DOE sites, including in New Mexico and South Carolina. It has offices in Dallas, Texas, and several other cities across the nation. It plans to open a Richland office.

For more information, go to www.pmctechnologies.com.

6 DEC 21
*Layoffs planned to
meet reduced budget
for building vit plant*

By Annette Cary

Herald staff writer

Bechtel National plans to lay off 515 employees to meet the reduced budget Congress approved for building Hanford's radioactive waste vitrification plant.

In addition, the Department of Energy contractor plans a temporary halt to construction on the two largest facilities at the plant, the Pretreatment and High Level Waste buildings.

The layoffs are in addition to about 1,200 job cuts over the past year at the massive construction project. That will drop

employment to about 1,725 manual and nonmanual workers.

At the project's peak, up to 3,800 people were employed.

"These are very difficult times and we are making painful decisions," Jim Henschel, Bechtel National project manager, said in a message sent to employees Monday. "I want you to know that these actions in no way reflect on your commitment, craftsmanship or excellence."

The memo said 240 construction workers and 275 nonmanual employees will be laid off.

Individual nonmanual employees will be told this week if they are losing their jobs and will continue working until early February. All will have at least 60 days notice.

See **Bechtel**, Page A2

9 DEC 05

Audit faults Hanford lab planning efforts

By Annette Cary

Herald staff writer

Hanford officials have not made arrangements for radiological calibration services needed to protect workers as plans proceed to tear down the building where the work is done now, according to an audit.

The Department of Energy is tearing down all of the approximately 230 buildings in the 300 Area just north of Richland as part of the cleanup of Hanford nuclear reservation land along the Columbia River. Many of the buildings are contaminated, and DOE wants to take all of them down to get to plumes of uranium in the

gets vit plant report

*Blacked-out copy not
enough, critics claim*

By Annette Cary

Herald staff writer

The state and its U.S. congressional delegation finally received a long-secret report Tuesday in which the U.S. Army Corps of Engineers analyzed rising costs and schedule delays at Hanford's vitrification plant for the Department of Energy.

It was sent to them with a cover letter that said DOE considered it "a predecisional internal government report and thus not subject to public disclosure," but that DOE had decided to black out portions and release it anyway.

The congressional delegation and Jay Manning, director of the Washington State Department of Ecology, had been asking for months for copies of the report, which was completed in May.

"The redacted report we got today doesn't cut it," said Sen. Maria Cantwell, D-Wash., in a prepared statement. DOE should

PNNL to outline need for facilities that will replace buildings in the 300 Area

By John Trumbo

Herald staff writer

More than 100 contractors, developers and architects are expected to hear details today of two construction projects that will add 240,000 square feet of space for Pacific Northwest National Laboratory.

The two facilities are the first of four buildings planned in the next four years to replace the Richland-based lab's facilities in the 300 Area of Hanford.

Both buildings are being paid for by private investors, then leased to PNNL, said lab spokesman Greg Koller. They do not involve government or taxpayer money.

Prospective bidders on the computational sciences facility and the biological science facility will be asking questions today before submitting statements of qualifications by Dec. 27.

The computational sciences facility will house information analytics capabilities, computer laboratories and electronic and instrumentation labs. There also will be offices and conference and symposium areas.

The biological sciences building will have biological laboratories, nuclear magnetic resonance laboratories, laboratory support space, offices and conference rooms.

Koller said a review of the statements of qualifications will reduce the list of potential bidders to no more than five, who will then submit proposals.

Selection of the final contractor and architect firms will be in April, assuming the Department of Energy signs off on the projects. Battelle has operated the lab for DOE for 40 years.

Koller said DOE will review the projects to ensure they are necessary, that cost estimates are accurate and that they can be completed on time.

If construction begins next year, the buildings should be finished in 2008.

PNNL has until the end of 2009 to leave the 300 Area, which includes 560,000 square feet of space in 18 buildings. Some of the area are contaminated with chemical and radioactive materials left over from the production of plutonium during the Cold War era after World War II.

The computational sciences and biological sciences buildings will be built on a new campus north of the 300 Area.

Also planned for construction are a 325,000 square-foot physical sciences building, which is expected to cost \$210 million, and a life sciences facility expansion.

The physical sciences building will house radiological, materials science and chemistry and is to be just north of the PNNL campus on the north side of Horn Rapids Road. About 44 percent of its cost will come from the DOE's Office of Science, with 25 percent from the National Nuclear Security Administration and 31 percent from the Department of Homeland Security.

The expansion of the life sciences facility will be paid for by Battelle. It will house analytical chemistry and live animal study capabilities.

PNNL is receiving \$11.6 million from Congress to help develop conceptual designs for 300 Area replacement facilities.

About \$20 million in federal money has been allocated to help with the transition to the new campus, and the Washington Legislature this year provided \$5 million to Richland to bring needed water, sewer and power to the north end of the city for the proposed facilities.

PNNL

PNNL links computer system to network in Great Britain. **B8.**

PNNL links network to British computers

Link between databases lets scientists collaborate efforts on difficult research problems

By John Trumbo

Herald staff writer

When the big questions are so complex that they won't fit on the largest chalkboard and can even overload a super computer, whom are you going to call?

Researchers at the Pacific Northwest National Laboratory in Richland just reach out and touch their friends in the United Kingdom.

A new link to computers and databases in Britain makes it possible for the PNNL scientists to submit their research problems to Britain's Biological Simulation Grid Consortium.

The BioSimGrid, as it is called, uses the Web to simultaneously tap the research efforts and stored databases of a half-dozen super computers. The grid provides an analysis tool consisting of large data sets that can be accessed to understand complex molecular biology.

Tjerk Straatsma, a laboratory fellow in computational biology and bio-informatics, said the grid allows him and other PNNL scientists to present problems via the grid using data files stored a half-world away to find answers.

"It is access to the raw data that we want. We are shipping the analysis to where the data is," Straatsma said.

For example, Straatsma was doing research on the membranes of proteins, and collaborating with a professor at Oxford University when he learned about the BioSimGrid, a joint effort involving six research sites in Great Britain.

Once Straatsma realized the power of the BioSimGrid, he asked its inventors to install the computer software at PNNL in Richland. "This opens up a very easy way of collaborating with others anywhere in the world," he said.

Having connection to the grid positions PNNL to contribute to breakthroughs in research on environment, energy, security and basic life questions, Doug Ray, chief research officer at the Richland lab, said in a prepared statement.

Not only does the grid technology allow access to huge data sets, it also can accept and manipulate disparate files, so the data sets don't have to be the same formats.

The Richland lab is the first institution outside the United Kingdom to team with BioSimGrid.

"There is an immediate scientific need for the grid," Straatsma said in a prepared statement. "It will enable molecular scientists to collaborate in a far more sophisticated way than we've been able to ever before. The ramifications of sharing terascale (massive data files) are huge," he said.

■ Reporter John Trumbo can be reached at 582-1529 or via e-mail at jtrumbo@tri-cityherald.com.

8 DEC 05

Murray resets focus on future for vit project

Senator believes more funding could be in store for fiscal 2007

By Annette Cary

Herald staff writer

After four months of wrangling with the Department of Energy for money for Hanford's vitrification plant in fiscal year 2006, U.S.

Sen. Patty Murray has moved on to fighting for money for fiscal 2007.

She met Wednesday with contractor and DOE officials on the project in Richland, just two days after Bechtel National announced 515 people would lose their jobs because funding

has dropped to \$526 million for 2006.

But she offered some encouragement for 2007.

DOE has a stronger commitment to the project now than it did during the 2006 budget process, she believes, based on her conversations with Energy Secretary Samuel Bodman.

"At this point, I take him at his word," she said.

DOE also remains committed to finishing the plant, she said.

She's seeking at least \$690 million for 2007, she said. More would help complete it sooner, and less would add to long-term costs, she said.

DOE started building the massive plant with a plan to allocate \$690 million for construction for each of five years, including 2006 and 2007. It is legally required to begin operating in 2011 to turn

Progress

Senator pleased with progress on Hanford Reach monument. **B3.**

See **Murray**, Page A2

17 DEC 05

Fluor Hanford may face fine from DOE

*Safety problems have persisted
at plant for nearly 10 years*

By Annette Cary

Herald staff writer

The Department of Energy is proposing to fine Fluor Hanford \$206,250 for safety problems, chiefly at Hanford's Plutonium Finishing Plant, that have recurred over nearly a decade.

DOE found that Fluor has not fixed safety issues dating to 1996 to prevent a criticality, or an unplanned and runaway nuclear chain reaction, at the PFP.

Although the fine covers some recent problems at the PFP and a single incident at the K Basins, more than half of the proposed penalty is based on Fluor's ineffectiveness in ending the longstanding criticality issues.

"Over the past year this office has made it clear to the contractor community that recurring poor performance ... will be treated as a very serious problem, and that escalated enforcement action will be taken in such cases," according to a letter sent to Fluor Hanford on Friday from Stephen Sohinki, director of DOE's Office of Price-Anderson Enforcement.

Beginning in 1949, the Plutonium Finishing Plant turned plutonium produced by Hanford's

14 DEC. 05
DOE report recommends better training in nuclear quality issues

By Annette Cary

Herald staff writer

Quality problems in the construction of Hanford's vitrification plant can be traced to weaknesses in the nuclear safety culture on the project, according to a Department of Energy analysis.

Contractor Bechtel National has not had a consistent "culture that placed equal value on reliable production and operational safety," the new report said.

Developing better training for workers who may not be familiar with nuclear quality issues and who are constantly changing as different skills are needed could produce the most improvement, the report said.

It also said Bechtel needed to improve procedures, make sure workers follow them and foster "questioning attitudes" among workers.

Over the past year, a series of work control or quality issues surfaced at the construction project, leading to the DOE assessment, said John Eschenberg, project manager for DOE's Hanford Office of River Protection.

That included Bechtel's discovery last summer that part of the structural steel design for the project's analytical laboratory, one of the plant's four major facilities, did not meet standards of the Universal Building Code. Correcting the design was expected to put construction about three months behind schedule.

To get to the root of quality problems, the report studied a dozen incidents from 2004 and 2005. They included installation of the wrong size piping, purchasing material from unqualified suppliers and welding done on a stainless steel tank using carbon steel weld material. Most of the errors were discovered and reported by Bechtel.

"The government does not expect Bechtel to be perfect, but we do demand excellence," Eschenberg said.

The quality and safety culture problems were not pervasive, but occurred in isolated pockets, said Jim Betts, Bechtel National project manager.

At the peak of construction, nearly 4,000 workers were assigned to design and build the \$5.8 billion plant for treating some of Hanford's worst radioactive waste from the production of plutonium for the nation's nuclear weapons program. The work force

See **Study**, Page A2

21 DEC 05
*Deadline to vacate from
Hanford's 300 Area
extended until end of 2010*

By Annette Cary

Herald staff writer

Pacific Northwest National Laboratory has been given an extra 15 months to move out of Hanford buildings just north of Richland and into office and lab space yet to be built.

Under a timeline adjusted by Clay Sell, Department of Energy deputy secretary, PNNL's deadline to be out of Hanford's 300 Area has been extended from Sept. 30, 2009, to the end of 2010, U.S.

Rep. Doc Hastings, R-Wash., announced Tuesday.

"The additional 15 months will ensure adequate time for facility construction and moves," said PNNL Director Len Peters in a prepared statement.

About 1,000 PNNL workers depend on space in 18 buildings in the 300 Area. Those buildings have about half the experimental laboratory space used by PNNL scientists and engineers.

They're among about 200 buildings in the 300 Area, all of which DOE would like removed by the end of 2012 under an aggressive cleanup schedule for Hanford's Columbia River Corridor.

"We will be looking at what their extension does to us, and it will take a little while

to work out the schedule," said Todd Nelson, spokesman for Washington Closure Hanford, DOE's new river corridor contractor.

Washington Closure will continue working toward the 2012 goal, he said.

"We have every expectation that Washington Closure will be able to work around any potential delays," said Colleen French, spokeswoman for DOE.

PNNL is unlikely to need until the end of 2010 to vacate all of its buildings in the 300 Area, she pointed out.

"It's important to strike a balance between getting new labs built and keeping river corridor closure on course — the sooner both are done, the better for all," Hastings said in a prepared statement.

Although DOE has set an accelerated goal of finishing cleanup of contaminated areas closest to the river in 2012, the legal deadline is 2015.

Most of the buildings in the 300 Area date from the 1950s when it was used to manufacture the uranium fuel pieces needed for Hanford reactors to produce plutonium for the nation's nuclear weapons program. The area also was used for research, as it is now.

DOE plans to tear down all the buildings there in part to get to a plume of uranium in the ground water beneath the 300 Area and contaminated soil and underground utilities.

See **Move**, Page B2

21 DEC 05
*As Reach landowner,
agency says access not
consistent with plan*

By Anna King

Herald staff writer

It appears there will be no public or tribal elk hunting on the Hanford Reach National Monument because the Department of Energy says it would be inconsistent with the area's management plan.

The period for taking comments on a controversial U.S. Fish and Wildlife Service plan to manage the Reach's rapidly growing elk herd ended Sunday.

And the comment with the most weight came late last week, when the Department of Energy called for no hunting on the Arid Lands Ecology Reserve. Instead, the agency said elk should be controlled either by a government culling program or trapping and relocating.

What DOE says goes, said Mike Ritter, Fish and Wildlife Service deputy project leader for the Reach. "They are the landowner. We just manage it under permit," he said. "They have the final say."

If the plan had been approved, about 42,000 acres of the 77,000-acre ALE would have been opened for special-permit public hunts.

The herd that uses the Reach as a winter and spring range has grown to almost 800 animals and has caused increasing problems on lands surrounding the monument.

The proposed management plan called for the herd to be reduced to about 350 animals largely by public hunting. The plan did not mention Native American hunting, but Fish & Wildlife managers were negotiating that with the tribes.

Ritter said Fish and Wildlife received about 60 comments on the plan, with comments for and against hunting equally matched.

See **Elk**, Page A2

20 DEC 03

House of Representatives rejected \$100 million budgeted for vit plant as part of relief funding

By **Annette Cary**

Herald staff writer

The U.S. House of Representatives rejected a White House proposal to use \$100 million already budgeted for Hanford's vitrification plant for a package of hurricane

relief money Monday morning.

"Finally, we got some good news," Washington Gov. Christine Gregoire said in a telephone interview, after a year in which construction at the plant was hit by setback after setback.

But the congressional action

still leaves funding at the plant short, she pointed out. She continues to consider the possibility of suing the federal government to force a timely start of plant operations.

The Department of Energy had developed a construction schedule based on \$690 million for each of five years for the plant, which is central to Hanford cleanup.

However, the Bush administration proposed cutting that to \$626 million for fiscal year 2006. Worried about troubles at the plant, Congress reduced that to \$526 million when the final version of the bill passed in November.

To meet that budget, about 1,725 workers have been laid off over the past year or notified they will be laid off by early February.

On top of those cuts, the White

House proposed that \$100 million unspent at the vitrification plant be returned to the federal treasury as part of \$2.3 billion in budget rescissions proposed in late October for Gulf hurricane relief.

The House approved \$29 billion in disaster assistance as part of the Defense Appropriations Bill early Monday morning. That included a portion of the \$2.3 billion rescission package, but no money from

the vitrification plant budget.

The Senate was expected to pass the same hurricane relief package.

"I'm pleased this is now ended," said U.S. Rep. Doc Hastings in a prepared statement. "The administration should have never proposed this vit plant cut to Congress."

See **Package**, Page A2

22 D 21 05
*CH2M Hill president
changing his duties
to be representative*

By Annette Cary

Herald staff writer

Ed Aromi, the president of the Hanford contractor in charge of the nuclear reservation's tank farms, has taken another job within the CH2M Hill corporation.

Mark Spears will replace him as president of CH2M Hill Hanford Group.

Aromi will take a new job as senior vice president for strategic business development, serving as CH2M Hill's corporate representative and working to expand the corporation's nuclear activities related to the Hanford nuclear reservation.

Aromi will continue to be based in the Tri-Cities, where he holds several community leadership positions, including immediate past chairman of the Tri-Cities Visitor and Convention Bureau and vice chairman of commerce and industry for the Tri-City Industrial Development Council.