



# Early tests of lasers show promise at Hanford's LIGO

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

By John Stang  
Herald staff writer

Humankind's search for deep space gravity waves depends on finding the perfect laser beam. Initial tests are under way on a network of huge laser beams set up in southern Hanford. When up and running, these will be really big lasers — about the diameter of a flashlight. Shooting about 2½ miles, and back — over and over and over again.

Despite their sizes, the lasers are extremely finicky. A smidgen of loose water vapor can really mess them up. The Laser Interferometer Gravitational-wave Observatory at Hanford, or LIGO, is about four months into testing and tweaking laser beams until 2002. Then, the LIGO expects to start searching for gravity waves in outer space to analyze. "I'm anxious to get going right now," said Fred Raab, a Cal Tech physicist and LIGO project director.

Once the LIGO becomes fully functional in 2002, Raab said he still expects to tinker with the laser network, noting the observatory is venturing into the outer frontiers of physics. He said he hopes the LIGO's first two or three years will produce one year's worth of solid scientific information from deep space.

The LIGO should be able to probe thousands of light years away — theoretically to the edge of the supposedly expanding universe. It will try to catch and actually look at something that can be seen so far only as mathematical theory — gravity waves.

In 1916, Albert Einstein theorized that gravity waves exist as ripples in space and time. Other scientists back up Einstein, on paper.

But no one actually has observed a gravity wave. Raab and his colleagues hope to be among the first to do so — if not actually be the first.

Their search will take place in the LIGO complex — a joint venture by Cal Tech and the Massachusetts Institute of Technology. It looks like a gigantic "V" from the air, with each 2½-mile leg at a 90-degree angle from the other.



Herald/Sharón Steinmann

Larry Russert replaces irrigation line equipment Monday in his flowering alfalfa field on East Perkins Road near Haney Road in Finley. Monday's sunny weather should continue today with temperatures nearing 80. For a complete forecast, see **Page A14**.

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See **Lasers**, Page A2

# Battelle Inventor of the Year honor goes to PNNL analytical biochemist

By the Herald staff

Richard D. Smith, an analytical biochemist at Pacific Northwest National Laboratory, has been named Battelle Inventor of the Year. Battelle, which operates the lab for the Department of Energy, established the award to recognize those who significantly expand Battelle's intellectual property portfolio. Smith is an internationally recognized expert in mass spectrometry and separation techniques. His research has led to advancements in instrumentation for the medical and environmental analysis fields, as well as biological research. In the medical field, Smith's work has produced benefits in the areas of drug testing, analysis of drugs and medical diagnostics. His most successful invention has been the combination of capillary electrophoresis with mass spectrometry. It allows the analysis of chemicals and biological samples at previously nonmeasurable levels. His recent achievements include methods and instruments for the rapid purification of samples analyzed using mass spectrometry. Mass spectrometers retrofitted with the electrodynamic ion funnel he

invented routinely increase their sensitivity 40 to 80 times.

Usually, only a small fraction of the ions that are created for analysis ever are transmitted through the mass spectrometer and detected. But the electrodynamic ion funnel uses a series of conductive ring electrodes of increasingly smaller internal diameter to which radio frequency and direct current voltages are applied. This combination causes ions to be confined and more effectively focused and transmitted.

During his career, Smith has been issued 14 patents and received six R&D 100 Awards for technology advancements, the most ever received by a Battelle staff member. His work on capillary electrophoresis with mass spectrometry was named one of the top 40 technologies of all time by R&D magazine.

He also has won a Federal Laboratory Consortium award for technology transfer and has received nine Key Contributor awards from Battelle for commercialization of technologies.

Smith began work at the Richland lab in 1976 and currently works at its Environmental Molecular Sciences Laboratory.

# Radiation exposure raises multiple myeloma risk

## Findings of study on workers at 4 DOE sites published today

By The Associated Press and the Herald staff

Increased exposure to ionizing radiation raises the risk of multiple myeloma, a rare but often fatal cancer of the bone marrow, according to a study of workers at four U.S. Department of Energy sites, including Hanford.

The study was released to Hanford workers two years ago, but findings now are being reported in the April issue of *Annals of Epidemiology* published today. The study, conducted by researchers at the University of North Carolina in Chapel Hill, analyzed radiation exposures and compared them with health records.

Researchers combed through the records of 115,000 workers at DOE sites as early as 1945. It found 98 deaths due to multiple myeloma, including 34 from Hanford.

The study looked at workers at Hanford, Oak Ridge National Laboratory in Tennessee, Savannah River in South Carolina and Los Alamos in New Mexico.

"Workers exposed to ionizing radiation at older ages appeared to be more sensitive than younger workers," said Steve Wing, associate professor of the University of North Carolina School of Public Health and one of the study's authors. "However, that does not mean that it is safe for young workers to be exposed to radiation."

Because the exposure levels studied were nearly all below what government regulations currently

allow, the findings could affect federal occupational exposure standards, he said.

The study "comes at a time when the U.S. Department of Energy is expressing greater concern for workers' health and the history of radiation exposures in the nuclear weapons complex," Wing said.

"Multiple myeloma has long been known to be associated with low-level radiation exposures and the risks have been fairly well quantified and they are fairly small," said Ron Kathren, an emeritus faculty member at Washington State University at Tri-Cities and member of the Columbia Chapter of the Health Physics Society.

A spokeswoman for DOE in Washington, D.C., said the findings were released to DOE workers in January 1998. At the time, DOE said such studies underscore the department's commitment to get a good grasp on health effects at its facilities, said the spokeswoman, who did not want her name used.

DOE officials also said then that the association of multiple myeloma with radiation doses at older ages is consistent with findings from other epidemiological studies of cancer among workers.

The current annual exposure limit for radiation workers is 5 rem, a measurement that considers both the amount of radiation and the biological effect of the type of radiation. The average exposure from background radiation is between a tenth and a third of a rem per year, the university said.

Older workers with cumulative radiation doses of 5 rem or more were nearly 3.5 times more likely to die of multiple myeloma than workers at the same plants whose cumulative exposures were under 1 rem, the study found.

It also found male workers and those hired before

for the exemption so Ganes could continue to manufacture a limited quantity and help solve a shortage that threatened a crisis for the nation's 3,500 animal shelters.

The Humane Society of Benton and Franklin Counties stopped performing euthanasia in December. The exceptions are animals that are injured and can't be saved, very old and sick animals, or animals that are unadoptable, said Dan Blasdel, chief executive.

"We just don't do that many, so it's not really an issue with us," Blasdel said.

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# Sick nuclear workers to be compensated

By The Washington Post and the Herald staff

WASHINGTON — The Clinton administration, vowing to "right the wrongs of the past," will unveil plans today to compensate thousands of ailing workers at Hanford and elsewhere who were exposed to radiation while helping to build the nation's nuclear arsenal.

It is the first major acknowledgment of responsibility for decades of potentially unsafe working conditions in dozens of nuclear bomb factories around the country.

The unprecedented national compensation plan offers payments of \$100,000 to workers with certain cancers — or their survivors — or a package of benefits, including medical costs and lost wages.

Thousands of other workers would receive help in applying for compensation under liber-

alized policies that reverse decades of government antagonism to workers' medical claims, according to a draft of the plan obtained by The Washington Post. In addition, workers would receive the benefit of the doubt when plant medical records are missing or flawed, the draft states.

"The government is done fighting workers, and now we're going to help them," said Energy Secretary Bill Richardson, confirming details of the plan crafted by the White House National Economic Council. "We're reversing the decades-old practice of opposing worker claims and moving forward to do the right thing."



The plan would cost the federal government an estimated \$400 million over the first five years, said officials familiar with the plan. After that, the cost is expected to decline as cases are settled.

"No amount of compensation will bring my dad back," said Jim Williamson of Kennewick, whose father, Jack, died about six months ago. "But this may be able to help some other people who are sick — who are going through what we went through."

After working for 26 years at Hanford, his father was diagnosed with a bone marrow disease called myelodysplasia that also has been found in the survivors of Hiroshima. His father, who also had prostate cancer and asbestosis, was 69 when he died.

"I don't think he wanted to believe his job was responsible for killing him," Williamson

told DOE officials at a hearing in February to consider whether Hanford and other workers should be compensated for health problems.

The Richland hearing, one of a series held around the country, lasted five hours as 550 people packed the federal building to tell heartbreaking stories of lives devastated by leukemia, lymphoma and cancers of the breast, lung and other organs.

"Wow," said Eustolio Salinas Jr., 44, of Richland when he heard about the government's proposal Tuesday night. Five years ago, Salinas, a nuclear chemical operator at Hanford, was diagnosed with leukemia, one of the cancers that has been linked to exposure to radiation. He is continuing chemotherapy treatment.

At the hearing, he talked about his problems getting disability payments when he was too ill

to work and his worries about how he would pay for a bone marrow transplant if he needs one.

The administration's proposal could ease that worry for Salinas, who said he was more interested in medical coverage than money.

"I've often thought about a man who spoke that night who said he did not want to be the richest guy in the graveyard," Salinas said.

At the hearing, his voice wavering, he said, "I'd like to be around when I retire with my boys and, hopefully, my grandchildren."

He also was shaken by the stories older men told that night of entering retirement in debt for medical treatments.

"That is one of my worries," he said Tuesday. "Where would I be if tomorrow they

See **Compensated**, Page A2

## Burden of proof now on government

By Annette Cary  
Herald staff writer

The federal government is recommending compensation for an estimated 3,000 workers at Hanford and other nuclear sites who contracted cancers linked to radiation exposure and other diseases caused by toxic chemicals.

"What is key here is the burden of proof is on the government, not the worker," said Energy Secretary Bill Richardson, who unveiled the plan Wednesday in Washington, D.C.

In the past, the government has fought claims brought by workers who believed their illnesses were caused by working around some of the most dangerous materials known. It denied that working at nuclear sites made employees ill, except in unusual cases.

"The president and I apologize to the people who were suffering diseases and for the failure of the government to help them," Richardson said. "It is time to bring justice to the workers who deserve it, who were forgotten."

The Clinton administration is asking Congress to approve spending \$120 million annually over the first three years of the program, which



would cover worker benefits and administration costs. After the backlog of cases is reduced in that first three-year period, the program would cost about \$80 million for each of the next two or three years.

The proposal includes two programs that would cover Hanford workers: immediate help getting state worker compensation and a more comprehensive program for radiation-related cancers and chronic beryllium disease caused by exposure to the exotic metal.

Workers with radiation-related cancers would be offered full medical coverage, reimbursement for 80 percent of lost wages and job retraining, in a program requiring congressional approval. Workers could alternately request \$100,000, if the benefits package would total less than that.

Workers who had cancer in the past would be limited to medical reimbursement for one year,

the same benefit offered to federal workers, said David Michaels, DOE assistant secretary for environment, safety and health.

"We didn't feel we could offer more than federal employees," he said.

For workers who have died of cancer, the benefit would be paid to survivors.

"It could be \$100,000 or it could be \$100 million, and it doesn't help my sadness at losing my dad," said Jim Williamson of Kennewick. His father, Jack, died about six months ago at the age of 69 of bone marrow cancer. The elder Williamson had worked at Hanford for 26 years.

However, Jim Williamson empathizes with other families who are watching a loved one fight cancer.

"This may help them with what they are going through and make them more comfortable," he said. "It's a beginning."

Williamson was among about 550 people who came to a hearing in Richland in February to discuss health problems caused by working at Hanford. Workers and their families described

See **Compensation**, Page A2

# Hanford project leaps in price

By John Stang  
Herald staff writer

The potential price tag to convert Hanford's radioactive tank wastes into glass could reach almost \$13 billion — almost doubling the previous estimate.

"We seriously underestimated the costs," said Mike Lawrence, general manager of BNFL Inc.'s Hanford project. BNFL is trying to get a federal contract to build the glassification plants.

The price must drop significantly for the federal government to even consider approving a contract with BNFL, said Dick French, manager of the Department of Energy's Office of River protection.

Tuesday, French described the glassification project as "jeopardized" but deliberately stopped short of saying this new revelation will kill the project.

Until recently, BNFL and the Office of River Protection used a preliminary estimate of \$6.9 billion in 1997 dollars for the project.

But last week, BNFL briefed federal officials on its tentative revised figures of about \$13 billion.

"It came as an utter surprise," French said. "It puzzles us. BNFL does this kind of work in England. This is entirely unacceptable."

The increase does not include a possible extra addition of up to \$1.5 billion that could be added if BNFL is ordered to modify its plans to take care of trace amounts of polychlorinated biphenyls, or PCBs, in some of the tank wastes, Lawrence said Tuesday.

What this means to Hanford's waste glassification project is unclear.

"We're not really sure what the exact ramifications are," said Dan Silver, deputy director of Washington's Department of Ecology. The state ecology department is the lead agency for enforcing the glassification project's legal timetable. The state's bottom line is that the schedule be kept — not how it is met, Silver said.

13 APR. 00

# BNFL looks to cut costs

Backup proposal aims to reduce price tag on Hanford project

By John Stang  
Herald staff writer

A top official for BNFL Inc. said Wednesday that the company is struggling to shave a potential \$13 billion price tag for turning Hanford's radioactive tank wastes into glass.

The statement by Mike Lawrence, manager of BNFL's Hanford project, came a day after the company shocked state and federal officials by saying the estimated cost for the so-called vitrification plants had almost doubled.

Several weeks ago, BNFL was still using a \$6.9 billion estimate. The new estimate includes \$6.4 billion in "hard costs" for the actual work, with financing costs pushing it to about \$13 billion.

Lawrence said the company is trying to come up with a Plan B by April 24, when it is contractually required to submit a proposal to build the plants to the Department of Energy.

That back-up proposal would include different financial conditions, which Lawrence said could reduce the inflated price to \$9 billion to \$10 billion.

"We're going to emphasize the alternative (proposal)," he said.

Lawrence said the alternative will likely have BNFL trying to pay its financing debts much earlier, which would reduce interest costs.

Such a move, though, would require Congress to appropriate more money earlier than planned to make those early interest payments. It also would require changes in BNFL's contract.

15 APR. 00

## BNFL Inc. names interim top official

Maurice Bullock, a vice president at BNFL Inc., has been appointed interim general manager of the company's Hanford project in the wake of Mike Lawrence's resignation Thursday.

Bullock will fill Lawrence's post, which becomes officially vacant May 5, until a new general manager is named, said a BNFL Inc. press release.

Lawrence resigned because of frustration over BNFL limiting his role and authority putting together BNFL's design and financing package to build and operate plants to convert Hanford's radioactive tank wastes into glass.

His resignation came shortly after BNFL revised the project's cost estimate from \$6.9 billion to possibly up to \$13 billion. BNFL formally submits its proposal to the Department of Energy on April 24.

Bullock led BNFL's Hanford project from 1993 to 1999, when Lawrence became general manager. In late 1999, BNFL limited Lawrence's role while putting Bullock in charge of design and financing work.

## Fluor Hanford to buy misplaced beryllium

Fluor Hanford plans to buy back a container of beryllium that showed up in a Pasco salvage yard.

Beryllium, a metal used in various past Hanford operations, can be carcinogenic if its dust and flakes are inhaled.

Hanford experts checked the roughly one-gallon container Friday at the Last Chance Wrecking and Salvage Co. and confirmed it held beryllium, said Janelle Stark of the salvage business.

The buy-back price is still being figured out, and Fluor offered to pay any potential medical costs that may surface because of the container, Stark said. The container was still at the salvage yard Friday.

Last Chance bought a load of stainless steel at a Hanford surplus materials auction in February, wanting to sell it as scrap. Last Chance workers found the container marked beryllium among the stainless steel.

Fluor officials were unavailable for comment Friday.

15 APR. 00

# DOE helpline opens for workers

By the Herald staff

The Department of Energy has opened a toll-free worker's compensation helpline at 877-447-9756 for people who believe their health has been harmed by exposure to radiation or chemicals at Hanford and other nuclear reservations.

Friday, no one was answering the line but callers could leave a message. The line should be fully staffed starting May 1, when DOE opens its new workers' compensation office.

Secretary of Energy Bill Richardson announced Wednesday that the Clinton administration is asking Congress for money to compensate current and former workers who have cancers that may have been caused by radiation or who have lung diseases from breathing in particles of the metal beryllium.

He also said contractors are being told not to fight state workers' compensation claims that independent doctors judge have merit.

More information for workers, former workers and their families is available at DOE's benefits Web site at [www.eh.doe.gov/benefits](http://www.eh.doe.gov/benefits) on the Internet.

It includes possible compensation scenarios, such as what benefits the survivors of a deceased Hanford worker might receive.

The Web site also includes two reports by the National Economic Council that led to the Clinton administration's decision to recommend compensating nuclear workers.

One is a report evaluating the link between workplace exposures at nuclear sites and illness and the other is a review of worker compensation options.

Help also is available at the following numbers:

- A medical screening program for former Hanford production workers can be reached at 946-4432.
- A medical screening program for former Hanford workers in building construction trades can be reached at 543-2090.
- Workers who are concerned about lung problems connected to exposure to beryllium may call the Hanford Beryllium Awareness Group at 376-6005.



Lawrence

14 APR. 00

# BNFL Hanford project manager resigns

## Lack of direct control frustrates Lawrence

By John Stang  
Herald staff writer

A frustrated Mike Lawrence resigned Thursday as general manager of BNFL Inc.'s Hanford project because he did not have direct control over key portions of the troubled program.

His resignation is effective May 5, according to a letter to BNFL Inc.'s Virginia-based President Paul Miskimin.

The resignation comes several days after BNFL told the Department of Energy its estimated cost of Hanford's tank waste glassification project will likely climb from a 1998 estimate of \$6.9 billion to nearly \$13 billion.

That news — which surfaced earlier this week — stunned everyone involved in trying to build plants to convert Hanford radioactive tank wastes into glass.

Lawrence has been with BNFL Inc. — the American subsidiary of British Nuclear Fuels Ltd. — since 1997. He took over the Hanford project April 15, 1999 — several months after the original \$6.9 billion estimate was made.

The Herald obtained copies of his resignation letter and an e-mail message to BNFL employees — both dated Thursday — that cited frustrations with BNFL limiting his role on the project.

In November, BNFL Inc. changed the roles of Lawrence and Maurice Bullock, a vice president on

the work. Bullock assumed full authority for design and financial work, while Lawrence dealt with Hanford's numerous constituencies.

Bullock, primarily an engineering and technical expert, led BNFL's Hanford project from 1993 to 1999 through initial design phases to obtain its 1998 contract to design the glassification project.

"I cannot in good conscience continue to be a figurehead and mouthpiece for a project for which I do

See Resigns, Page A2

# Farming Hanford could bring big bucks

By the Herald staff

While the inventory of state farmland shrinks, it's possible that someday Hanford will blossom with fruit trees and row crops.

A report published in February by the Pacific Northwest National Laboratory in Richland says large-scale farms there with high-value crops could generate more than \$1 billion a year.

"External, formidable pressures will necessitate increasing investments in irrigation infrastructure in many areas of the world," said researchers from Washington State University, who compiled the report for PNNL and the Department of Energy.

And, they said, "the Hanford site has all the components that favor successful irrigated farming."

Hungry people could force large-scale farm investments in the Northwest by 2050, when site cleanup is supposed to be done. World population is expected to double to 12 billion people by then, "straining already stressed worldwide agricultural resources," according to the report.

With its proximity to one of the continent's largest rivers, good roads, power supply and processing plants, Hanford is deemed one of two "most likely areas for expanded irrigation in the Pacific Northwest."

The PNNL report looked at the results of farming 125,000 acres of the 586-square-mile site, a parcel equal

to about a quarter of the irrigated lands in the Yakima Basin.

If the land were split equally among potatoes, apples and wine grapes, sales in today's dollars would be about \$430 million, an estimate that doubled once researchers accounted for associated work such as processing.

Despite potential benefits, farming Hanford isn't a given.

For one thing, the environmentally sensitive Hanford Reach of the Columbia River is fiercely protected from development. And there's significant plant and animal habitat on other parts of the site.

Also, farmers would have to be careful about not using contaminated ground water from nuclear production or pushing underground radioactive plumes toward the river. That means top-flight irrigation equipment and close monitoring would be high priorities.

Also, the study noted, obtaining water rights — the subject of much consternation already — will be a "major issue."

The study did not directly tackle the potential public relations problems from farming what today is one of the most contaminated plots in the country.

But it did grant that, "Constraints to agricultural development of the Hanford site are political and social, not economic or technical."

# FFTF budget proposal on hold in Congress

By Annette Cary

Herald staff writer

A total of 39 workers have been transferred from the Fast Flux Test Facility at Hanford to meet its latest proposed budget, but even that budget has stalled in Congress.

The Department of Energy has requested \$9 million be shifted from other federal projects to maintain the Hanford reactor in the current budget year, which began Oct. 1, and to pay for an environmental study of the reactor's future. DOE initially requested too little money to maintain the reactor, and an earlier request for an additional \$11.7 million was not granted.

Four congressional committees have approved the additional \$9 million in the last four weeks, but the request remains stalled in the office of Sen. Jeff Bingaman, D-N.M.

Bingaman, ranking minority member of the Energy and Natural Resources Committee, requested more information about an environmental study on the reactor. DOE is

considering restarting the reactor for nonweapons uses, including producing isotopes for medicine, industry and the National Aeronautics and Space Administration.

The additional \$9 million requested includes \$3.4 million for the study, which also includes a long-term nuclear energy research plan, a nonproliferation study and a cost analysis.

"The increasing demand for nuclear science and technology research and medical isotope production; and the limited and declining nuclear research infrastructure in the United States, are of considerable national concern," wrote Michael Telson, DOE's chief financial officer in his request to the Energy and Natural Resources Committee.

Supporters of restarting the reactor say its design makes it ideal for producing isotopes for new treatments of cancer and heart disease — isotopes researchers say aren't available in sufficient quality and quantity.

However, opponents of restarting

the reactor don't want Hanford to deviate from its current cleanup mission by restarting the reactor.

The reactor was deactivated as surplus in 1993 after 10 years as a test site for nuclear fuel and components, but sodium has not been drained from its cooling system, so it could be restarted.

Keeping the reactor in minimally safe condition requires a staff of at least 197. Monday, the staff numbered 213, down from 254 at the start of the 2000 budget year.

In the past few weeks, 15 employees were transferred temporarily to other Hanford jobs because of the budget shortfall. The staff already had been cut 9 percent.

The current budget includes just \$28 million for the reactor for fiscal year 2000, which is more than half over. However, a study completed about three months ago said at least \$34.4 million is needed to keep the reactor in a safe condition with minimum surveillance and maintenance.

Among projects that won't be completed, even with the additional

money requested by DOE, are modifications of the fuel handling system that will be needed whether the reactor is shut down permanently or restarted.

FFTF officials hope to move the 39 workers now assigned to other Hanford projects back to the reactor when more money becomes available. The proposed 2001 budget includes \$44 million from DOE's nuclear energy money.

The earlier attempt to shift \$11.7 million into the reactor's 2000 budget failed because it included some defense money. The Senate Armed Services Committee objected to that proposal because the reactor is being considered only for nondefense uses.

Sen. Slade Gorton, R-Wash., has said he will try to make up the difference between that proposal and the current \$9 million proposal by asking that \$2.7 million be included for FFTF in the supplemental appropriations bill.

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

# Fluor Hanford invests in Tri-Cities

By Melissa O'Neil

Herald staff writer

The Tri-Cities will more aggressively lure conventions, meetings and tournaments to the region using a \$50,000 contribution from Fluor Hanford.

Fluor announced its sponsorship Monday of the Tri-Cities Visitor & Convention Bureau's convention sales and marketing program.

While the bureau has existing partnerships with Battelle and Bechtel Hanford to manage the heritage tourism and river shoreline enhancement programs, the Fluor relationship is unique with its focus on marketing and its ability to track job creation. The bureau's day-to-day operations are paid by the Tri-City hotel and

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METRO/NORTHWEST

# BNFL backup plan key to next step, say state, DOE

By John Stang

Herald staff writer

OLYMPIA — The backup plan that BNFL Inc. is supposed to produce likely will be the key to how the state and Department of Energy deal with Hanford's troubled waste glassification project.

It probably will determine if BNFL stays on the project after its cost estimate unexpectedly skyrocketed. BNFL's primary and backup plans are scheduled to go to DOE on Monday. And those likely will influence how the state and DOE resolve other differences.

On Tuesday in Olympia, Gov. Gary Locke, state Attorney General Christine Gregoire and Deputy Energy Secretary T.J. Glauthier discussed:

■ The recent disclosure that BNFL's cost estimate has risen from \$6.9 billion to \$13 billion

to build and operate plants to glassify part of Hanford's tank wastes. That revelation stunned and angered DOE and the state. Glauthier said the \$13 billion estimate is unacceptable. Locke and Gregoire worry the increased price could scuttle glassification's legal timetable.

■ The state's desire to get the legal authority to stop importation of DOE's outside radioactive wastes to store at Hanford — if the glassification project falls behind schedule.

Glauthier, Gregoire and Locke spokesman Jeff Weathersby voiced optimism that these issues could be resolved within six weeks without delaying the glassification project. "We're all committed. We still want those deadlines in place," Gregoire said.

On Monday, BNFL expects to submit its \$13 billion primary design and financing

package to DOE. BNFL also plans to submit a backup plan that will look at somehow paying off its huge financing costs earlier, which likely would require DOE to change how it pays BNFL. A preliminary estimate is that this backup proposal could trim the price tag to \$10 billion.

The state and DOE need to see the primary and backup plans before they can decide how to negotiate solutions to their problems, Gregoire, Glauthier and Weathersby said. "We need to have that proposal to know what the next step will be," Glauthier said. DOE is working on its own backup plans if it dumps BNFL.

The Tri-Party Agreement — which governs glassification's schedule — calls for DOE to sign a contract by Aug. 24, to begin construction in 2001, to begin glassification in 2007

and to finish glassifying the most radioactive 10 percent of the tank wastes by 2018.

Locke and Gregoire want to hold to the legal timetable. "(DOE has) got to show Washington state that the vitrification plant will be built," Gregoire said.

Glauthier said BNFL's proposals on Monday must deal with DOE's requirements to glassify sufficient wastes on schedule with affordable costs — with DOE not beginning to repay BNFL until it produces the first glass.

BNFL has hinted that it needs DOE payments before then to pay off its investors earlier and cut interest costs. Glauthier said he has heard about that plan and said DOE will study it.

"But what we've heard so far is that it is not responsive (to DOE's requirements)," Glauthier said.

Gregoire said: "My confidence in (BNFL) is shot." But she added the state holds its legal hammers solely over DOE, and it is DOE's decision on whether to keep or reject BNFL. She wants to avoid filing lawsuits against DOE to enforce the Tri-Party Agreement or to gain stopping authority over importing waste — saying cleanup stalls while lawsuits are fought.

All this occurs as BNFL's parent corporation — British Nuclear Fuels Ltd. — faces numerous budgeting, safety and quality-control problems in Great Britain.

On Tuesday, British Nuclear Fuels announced a massive overhaul in managers, in safety and quality-control programs and even in the board of directors to fix those problems.

Reporter John Stang can be reached at 582-1517 or via e-mail at jstang@tricityherald.com

# Estimated costs up for nuclear cleanup

By The Associated Press

WASHINGTON — Cleaning up environmental damage from the nation's nuclear weapons program will cost between \$168 billion and \$212 billion, or up to 44 percent more than the Energy Department estimated two years ago, a new agency report says.

There are 113 sites nationwide. Seventeen will take as much as a decade longer to clean up, while the department hopes to finish work at five sites more quickly than earlier forecast, according to the report. Energy Department officials say their estimates changed because they now have a better idea how contaminated the sites are and what it will take to clean them up.

The current and former nuclear weapons sites include Hanford, Savannah River in South Carolina, Rocky Flats near Denver and the Idaho National Engineering and Environmental Laboratory. DOE is responsible for cleaning up 1.7 trillion gallons of contaminated ground water, 100 million gallons of highly radioactive liquid, 2,000 tons of spent nuclear fuel and 18 metric tons of weapons-grade plutonium. The increased cost estimates are no surprise, said David Adelman, a lawyer for the Natural Resources Defense Council.

"The DOE has had to admit some failures ... and be a little more realistic about the complexity of the problem," said Adelman, who monitors nuclear cleanup for the environmental group.

The cleanup schedules also do not include the long-term monitoring and security needed after cleanup is finished, Adelman said.

New estimates for some of the major sites include:

- \$55.6 billion to clean up Hanford, up from a 1998 estimate of \$54.8 billion. The estimated end of the cleanup in 2046 was unchanged.

- \$36.8 billion to clean up Savannah River, up from \$29.7 billion in 1998. The cleanup deadline of 2038 was unchanged.

- \$21.4 billion to clean up the Idaho laboratory, up \$5.1 billion, or 31 percent, from 1998. Cost estimates for handling highly radioactive waste there shot up by \$75 million to follow recommendations in a Army Corps of Engineers report. The deadline of 2050 remained unchanged.

- \$7.7 billion to clean up Rocky Flats, where the plutonium triggers for nuclear weapons were made until 1989. The latest estimate is up from \$7.3 billion in 1998, while the department hopes to finish the cleanup by 2006 instead of 2010.

- \$1.9 billion to clean up contamination at Los Alamos National Laboratory in New Mexico, up from \$1.1 billion in 1998. Plans now call for the cleanup to be finished in 2015 instead of 2017.

## METRO/NORTHWEST

# DOE findings on tritium concentration inconclusive

By John Stang  
Herald staff writer

Hanford is looking at space and time as it studies a subterranean glob of highly concentrated radioactive tritium near the Columbia River.

So far, the high concentration of tritium that's apparently leaking from a burial site remains an enigma.

The Department of Energy sent a report to the state Tuesday on efforts to figure out if the underground mess started

manger. The Web address is [www.bhinc.com/vadose](http://www.bhinc.com/vadose)

Burial site 618-11 is just outside the northwest corner of Energy Northwest's complex. Hanford workers buried highly radioactive wastes at the site from 1962 to 1967, before Energy Northwest's commercial reactor complex was conceived.

The burial site also is inside a roughly 100-square-mile tritium plume spreading east like a fan from the 200 East Area to the Columbia

the risk of cancer increases for someone who regularly drinks the water.

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Those questions should be answered by the follow-up round of sampling, Thompson said. DOE's study also associated a report with

tritium concentrations in 1979 — from several hundred thousand picocuries up to 1.5 million picocuries. Thompson said those of the System's gy North-

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centrations d 1981 — ed at 582-rald.com

## K Basins system coming together

By John Stang  
Herald staff writer

Part of the system to pull spent nuclear fuel out of a Hanford storage pool is expected to be installed next week at the K West Basin.

This will be the latest step in preparing to move spent fuel from the K Basins in November.

Hanford has 2,300 tons of spent nuclear fuel in two leak-prone indoor pools — the K East and K West Basins — near the Columbia River. Hanford officials plan to move the fuel from the basins to a huge underground vault in central Hanford.

The legal timetable calls for fuel removal to begin in November and to be completed by 2005. Hanford planners are trying to move that up to 2004.

To remove the fuel from the basins, the fuel canisters and loose chunks of fuel will be washed inside the pools and then put in baskets while still underwater. The baskets are stacked on top of each other in a huge transportation canister called a "multicanister overpack" or "MCO."

The MCO will be put inside a cask that is then fit snugly within another cask called an "immersion pail." All of this is done underwater in a "load-out

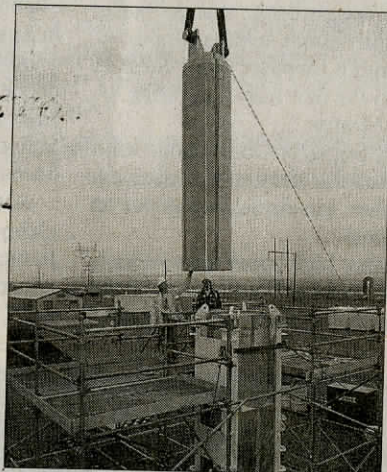


Photo courtesy of Fluor Hanford  
Fluor Federal Services workers practice moving a 20-ton cask in and out of a mock immersion pail outside of the K Basins.

pit" connected to the main pool by a deep-water channel.

Fluor Hanford and Fluor Federal Services expect to install the immersion pail in the K East Basin's load-out pit next week.

When the fuel is actually removed from the K East Basin's load-out pit, the immersion pail will rise partly out of the water. Then a crane will pull the cask out of the immersion pail and put

it in a special truck. All this is done to keep the MCO from being exposed to radioactive pool water.

The truck will take the MCO to another processing site and then to the underground vault.

Fluor Federal Services workers have been practicing with a mock-up immersion pail — working out procedures they expect to use when they move radioactive fuel. When this is done for real, a K Basins crane is expected to move the cask at the rate of 1 foot per minute, with the entire procedure taking several hours.

The cask holding the MCO weighs 20 tons with no fuel, and about 30 tons with the fuel inside. The clearance between the cask and the immersion pail is measured in hundredths of an inch, said Leonard Rodgers, Fluor Federal's lead engineer.

"It's a very tight fit. It takes a lot of skill (to move the cask)," said Joni Weamer, Fluor Hanford's cask load-out project manager.

Fluor plans to start practice moving dummy fuel inside the K West Basin in June.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com)

## DOE determined to keep Hanford project on track

By John Stang  
Herald staff writer

The Department of Energy is determined to keep Hanford's waste glassification project on track, Deputy Energy Secretary T.J. Glauthier said Thursday.

"We're not going to go back and do a lengthy replanning," he said on the last day of three-day visit to Olympia and the Tri-Cities.

DOE is working on backup plans in case it finds BNFL Inc.'s proposals unacceptable — especially in the wake of the price tag possibly doubling to \$13 billion.

But DOE has not given up on BNFL as it waits for the company to submit its glassification proposal, Glauthier said.

"I don't want to abandon that possibility (of using BNFL). ... Their credibility is damaged. But their credibility is not totally gone. ... We want to give them a chance to convince us," he said.

On Monday, BNFL is scheduled to submit its design and financing package for building and operating plants to convert 10 percent of Hanford's most radioactive tank wastes into glass.

The schedule calls for DOE to decide by June 24 whether to approve the plan, and if so, to sign a contract by Aug. 24. Construction is supposed to begin in 2001, and glassification is supposed to run from 2007 to 2018.

See **Project**, Page A2

21 Apr 00

# Congress OKs extra cash for FFTF

By John Stang  
Herald staff writer

Congress approved an extra \$9 million for Hanford's Fast Flux Test Facility on Thursday, enabling it to operate safely and complete an environmental impact study on time.

The allocation came after Washington's U.S. Sens. Patty Murray and Slade Gorton persuaded U.S. Sen. Jeff Bingaman, D-N.M., to drop his opposition to the extra money on Wednesday.

Bingaman, ranking minority member of the Senate's Energy and Natural Resources Committee, wanted more information on the reactor's environmental impact study and stalled the requested allocation in his committee.

That committee then approved the allocation — the fifth of the needed five Congressional commit-

tees to do so. The dormant FFTF had \$36.3 million to operate in fiscal 2000, which began in October.

It needed an extra \$5.6 million to ensure it operates in a minimally safe condition and another \$3.4 million for the environmental impact study to be completed this year.

The future of the dormant experimental reactor is in doubt.

The Department of Energy is conducting an environmental impact study to determine if the FFTF should be revived to produce medical isotopes, plutonium 238 for the space program and to do other research — or if it should be permanently shut down.

Thursday, Deputy Energy Secretary T.J. Glauthier said the extra money means the environmental impact study should be done on time, with Energy Secretary Bill

Richardson deciding the FFTF's fate by the end of this year.

DOE's original fiscal 2000 FFTF appropriation request to Congress was too small to keep the reactor in minimally safe condition and conduct the study.

To save money, the reactor had to transfer workers to elsewhere on Hanford, trimming its staff from 254 to 213.

Keeping the reactor in a minimally safe condition requires 197 people.

"In retrospect, it would've been a good thing for us to ask for a larger amount (in the original fiscal 2000 budget request to Congress,)" Glauthier said.

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23 Apr 00

# Legislators stunned by vit plant budget

By Chris Mulick  
Herald staff writer

Don't be confused if Tri-City legislators look a bit red in the face as they return to Olympia on Monday for more budget talks.

It won't be because they've spent too much time under the Mid-Columbia sun. It will be a look of embarrassment — mixed with a good dose of pure anger.

When they left the Capitol earlier this month, the Tri-City delegation had just convinced the governor and 138 other legislators to approve a tax break that aimed to cut \$1 billion from the cost of a key Hanford cleanup project.

Without the crucial legislation, they feared, congressional approval of a \$6.9 billion project to turn 10 percent of Hanford's radioactive tank waste to glass logs would be in jeopardy.

But just after Mid-Columbia lawmakers won cooperation from the rest of the Legislature, BNFL Inc., the contractor hoping to build and operate the glassification facilities, made a jarring revelation: The project's price tag had almost doubled to about \$13 billion.

And that doesn't include an extra \$1.5 billion that could be added if it is determined BNFL must process trace amounts of other dangerous chemicals recently discovered in some tank wastes.

Suddenly, the sizable tax break the Tri-City legislators struggled to deliver didn't look like the deal-maker it was supposed to be.

"It's embarrassing," said Sen. Pat Hale, R-Kennewick. "I don't even understand a number that big."

The whole fiasco not only threatens congressional approval of the glassification project, it also could threaten the credibility of the Hanford lobby for the rest of its cleanup mission.

Some say it should.

"They've done it again," said Sen. Pat Thibaudeau, a Seattle Democrat fed up with rising costs of Hanford projects. "I'm appalled at their inability to come up with an accurate cost."

24 Apr 00

# PNNL scientist to discuss methods of fighting dangerous pathogens

By the Herald staff

Whether biological pathogens are planted by terrorists or the result of careless food handling, most aren't detected until someone falls ill.

That's a problem scientists are working to solve at Pacific Northwest National Laboratory by developing technologies to identify pathogens sooner.

"Only a few methods are available to detect disease-causing organisms before they affect people. These methods are costly and too slow for routine use to prevent disease," said Barbara Seiders, who manages the chemical and biological defense program for the lab.

Seiders will discuss research related to defeating biological threats to human health at the next installment in the Community Science and Technology Seminar Series. "From Scientists to Super Heroes — Battling Biological Terror" will be at 7 p.m. Wednesday in the theater on the Pasco campus of Columbia Basin College.

Research at the national laboratory in Richland is directed at developing methods of detection not



“  
We're surrounded by dastardly pathogens. Fortunately, we're also surrounded by scientific superheroes dedicated to the battle to find and destroy them.  
”

Barbara Seiders,  
manager of chemical and biological defense, PNNL

dependent on having to take a sample to a laboratory, a fundamental improvement in the ability to detect disease-causing organisms.

"This approach provides radically new opportunities to develop responses to disease threats to the public health," Seiders said. "We're surrounded by dastardly pathogens. Fortunately, we're also surrounded by scientific superheroes dedicated to the battle to find and destroy them."

Among the topics she'll discuss are:

- Tracking terrorists with biological weapons by finding bacterial fingerprints.
- Protecting the nation's blood

supply by developing means to screen the blood for deadly pathogens.

■ Building the detectors necessary to protect troops from the use of biological weapons.

■ Making sure food supplies remain safe by tracking disease in the agricultural and livestock industry and in food processing plants.

■ Monitoring ordinary heating systems in buildings to protect against biological threats such as Legionnaires' disease.

■ Monitoring water supplies used in long-term travel in space.

23 Apr 00

# Effect on Tri-City taxpayers unclear

By Chris Mulick  
Herald staff writer

No one knows exactly what impact skyrocketing tank waste glassification project costs will have on Tri-City taxpayers.

House Bill 3068, which passed the Legislature and was signed by the governor earlier this year, allows local governments to collect personal property tax on the project for 2003, 2004 and 2005. Under projections prepared by Benton County Auditor Barbara Wagner, a \$6.9 billion project would have produced as much as \$49 million in taxes over three years.

About \$10 million of that would have been shared by Benton County, the county road fund, the Port of Benton and the Mid-Columbia Library District to pay for increased demand for services the project will stimulate. Officials expect new workers to place increased demand on schools, road and police services, among others.

Much of what's left would be used to temporarily lower property tax bills for homeowners inside those districts and the Richland School District. Richland homeowners, living in most of those districts, could see property tax

cuts of somewhere between 15 percent and 20 percent.

Kennewick homeowners, by comparison, would see cuts closer to 3 percent. Property tax bills for everyone would return to previous levels in 2006.

But if the cost of the project doubles, so could the amount of temporary tax revenues and tax breaks. That amount can't be determined, however, until BNFL produces a new financing strategy.

On the other hand, project delays could thwart the whole deal. Each year the project is delayed would eliminate one year of taxation. If it is delayed by three years or more, the tax exemption will have expired before there is anything to tax.

Max Benitz Jr., Benton County Commission chairman, said local governments likely would consider going back to the Legislature to ask for an extension under that scenario.

Any tax exemption would primarily benefit the county and its taxpayers. Cities still are hoping the next Legislature will divert at least some of the state sales tax the project will generate to help pay for their needs.

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# Meeting set Thursday on glassification plan

By John Stang  
Herald staff writer

The public soon will be asked whether Benton County should set up a citizens committee to negotiate payments to mitigate the effects of Hanford's proposed waste glassification project.

The county has scheduled a public meeting at 7 p.m. Thursday at the Benton County Public Utility District Building at 2721 W. 10th Ave., Kennewick.

The meeting, required as part of the state's dangerous waste permit process, is suppose to gauge public interest in such a committee.

BNFL Inc. submitted a dangerous waste permit application Friday to the state Department of Ecology to operate a radioactive waste glassification plant in central Hanford.

The timetable calls for construction to begin in 2001, and the plant to start operating in 2007.

Under state law, local governments can require a waste treatment plant's owner to take actions to offset adverse effects from the project.

The citizens committee would identify the effects and negotiate the

offsetting measures. The results would be written into a facility's dangerous waste permit, said Ben Floyd, a economic development official with Benton County.

Potential issues could include effects on property values and taxes, road maintenance and effects on the environment.

Thursday's session will include a briefing on the permit, an overview by BNFL on its plans and questions and comments from the public.

Commissioners will have 45 days to decide whether to set up such a committee, and another 30 days to appoint people to it.

Floyd acknowledged the Department of Energy could choose not to hire BNFL, which is dealing with a cost estimate that recently soared to \$15.2 billion, a figure DOE says is too high.

If BNFL isn't the contractor, the state and county will have to look at how fast a replacement firm will be selected and adjust plans for creating the committee, he said.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com)

# FFTF draft report delayed until August

By Annette Cary  
Herald staff writer

Supporters of Hanford's Fast Flux Test Facility won't get a look at the report determining the reactor's future this month after all.

Although the draft environmental report originally was scheduled to be released in May, the schedule has been pushed back to August, with a final decision to be published by Jan. 16.

However, top Department of Energy officials remain optimistic a decision on the reactor will be made under the Clinton administration.

That's what Energy Secretary Bill Richardson wants, said William Magwood IV, head of the Department of Energy's Office of Nuclear Energy, Science and Technology, in a telephone interview Tuesday.

"We're going to try to make it happen as soon as possible," Magwood said.

DOE is considering whether the reactor should be permanently shut down or restarted for nonmilitary uses, such as making isotopes for new cancer treatments and space missions.

# Bechtel group donates vehicles to La Clinica

By the Herald staff

Staff members from Community Health Center La Clinica drove two cars and a van off the Budget Car Sales lot Friday, thanks to the fundraising efforts of the Bechtel Women's Group and the cooperation of the Pasco car dealer.

"What struck us is something as simple as transportation means the difference between getting medical care and not getting medical care," said Sue Kuntz, of the Bechtel Women's Group.

The vehicles will be used to bring patients who don't have transportation to the Pasco clinic, some from as far away as Basin City and Mesa. La Clinica provides medical, dental and social services to many low-income families in the Mid-Columbia. The fees depend on each patient's ability to pay.

The donated vehicles also will be used to help patients who are referred to specialists or who need a ride home from the clinic, said Guillermo Castaneda, director of La Clinica.

The clinic has three vehicles now, but they were donated more than a decade ago and no longer are reliable.

The clinic served 20,000 clients a year, about half of them children.

The Bechtel Women's Group, made up of spouses and employees of Bechtel Hanford and Bechtel National, holds an annual auction to benefit children. This year the group raised about \$40,000.

About \$36,000 was used to buy the cars at a discounted price given by Budget Car Sales in Pasco. The rest was donated to stock the Family Fishing Pond in Kennewick and to the Tri-Cities Chaplaincy for a counseling program for children with seriously ill family members.

# Report gives N.M. pause over Hanford's transuranic wastes

By John Stang  
Herald staff writer

The requirements to ship radioactive transuranic wastes to a New Mexico storage site are stricter than they need be, according to a draft National Research Council report.

It's a tentative conclusion some believe could make Hanford's transuranic waste program safer and cheaper.

But it is also a conclusion that host state New Mexico wants to think over.

The National Research Council is an independent agency that advises the federal government on scientific matters. It is still working on a final report about shipping wastes to the Waste Isolation Pilot Plant in southern New Mexico.

The WIPP is a huge, half-mile-deep man-made cavern in near Carlsbad, N.M., where the Department of Energy's transuranic wastes — most essentially radioactive junk — are to be permanently stored.

"Transuranic" refers to radioactive elements such as plutonium that have higher

atomic weights than uranium. These substances are more radioactive and take much longer to decay than low-level radioactive wastes.

Hanford hopes to begin shipping its transuranic wastes to WIPP in late May or early June, said Mark French, DOE's transuranic waste program manager at Hanford.

Only Rocky Flats now ships these wastes to WIPP. Hanford is in line to be the second of several DOE sites to do so after a moratorium on shipments recently was lifted.

Hanford expects to send one truck a month to WIPP, increasing the rate later.

Hanford has to dig up 55-gallon barrels of buried wastes, check if the corrosion-prone drums are solid, repack wastes that had been in weakened barrels, check the drums' contents and double-check all the paperwork. Then, up to 14 barrels are put inside a 10-foot-tall stainless steel cylinder dubbed a "TRUPACT." A flatbed truck then would take one to three TRUPACTs to WIPP.

Hanford's transuranic waste program's budget has stayed steady at about \$5.5 million a year.

New Mexico's government is looking over a final review of Hanford's operation to decide whether it will issue a permit to ship wastes to WIPP.

The National Resource Council's draft report, released Friday, concluded that:

■ Some of DOE's and the WIPP permit's requirements are stricter than federal laws and regulations call for.

That increases the costs, the number of truckloads going to WIPP and the danger of workers being exposed to radiation, the draft report said. A rule of thumb is that the more times people handle a container of radioactive materials, the risk of exposure increases.

■ A satellite system to track trucks going to WIPP is outdated.

■ WIPP needs a better system to keep tabs on all the emergency response agencies, capabilities and training along all the truck routes from DOE sites to WIPP.

French and DOE WIPP spokesman Dennis Hurtt agreed with the council's tentative conclusions. Nathan Wade, a New Mexico Environmental Department spokesman, said his state generally agrees with the council in theory, but added that New Mexico needs to study the details before taking any firm position.

French said it now costs about \$5,000 to \$7,000 per barrel to prepare Hanford's waste to ship to WIPP under the current New Mexico permit.

Over 30 to 35 years, Hanford might send in excess of 100,000 55-gallon barrels to WIPP.

French said the research council's recommendations could trim that cost to \$3,000 to \$5,000 a barrel while decreasing the number of times that Hanford's workers have to handle the wastes.

Modifying Hanford's permit to store transuranic wastes in New Mexico could take four months to a year, Wade said.

Meanwhile, Hanford would ship under the stricter requirements in effect now, he said.

New Mexico worries about how well DOE monitors all the emergency response capabilities along all the WIPP routes, Wade said. That worry is compounded by DOE wanting to drastically trim the money it provides to New Mexico to monitor wastes coming into the state, he added.

Lt. Steve Kalmbach of the Washington State Patrol and Ken Niles of Oregon's Department of Energy — who coordinate the transuranic waste transportation efforts in their states — said the emergency response programs and training in the two states are up to snuff.

These include fire departments, emergency responder and police agencies along the interstate highways leading from Hanford through Richland, Umatilla and Pendleton to Ontario on the Oregon-Idaho border.

DOE has been cooperative with Washington and Oregon, Kalmbach said.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).



# Sunday Tri-City Herald

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7 MAY 00

## Solving a gravitational mystery



Researcher Mike Bantel, 33, from the University of California at Irvine reassembles equipment for a gravity experiment in a missile bunker near Rattlesnake Ridge. Bantel and Riley Newman are searching for a more accurate value for the Gravitational Constant.

# The hunt for Big G

Story by  
**John  
Stang**

Photos by  
**Bob  
Brawdy**

The missile bunker is buried in Rattlesnake Ridge's shadow. Inside, the only trace of the Hanford bunker's Cold War days is a big nuclear disaster status board, straight out of *Dr. Strangelove*. In a check-off box on the board marked "Evacuated Area," someone has scrawled "nowhere to hide."

But today, the two-story chamber holds a 10-foot-tall cylinder topped with a nest of gauges, tubes and electrical wires. Every 20 minutes, two aluminum rings silently and gracefully glide a quarter of the way around the cylinder's bottom. Computers constantly crunch data coming from the cylinder.

All this is to tackle a 314-year-old math problem.

To tweak a 202-year-old number out two digits farther to the right of a decimal point.

To fine-tune one of Isaac Newton's best-known discoveries — the law of gravity.

To find "Big G."

Big G — more formally known as the

Deep under Hanford,  
researchers seek end to  
0.00000000006673

"Gravitational Constant" or "G" — is part of a formula every high school science student learns — the law of universal gravitation.

Multiply two masses together and divide that number by the square of the distance between the two masses, and you have the gravitational attraction between the masses.

But to get the figure for gravitational force, you must multiply the whole thing by Big G, a complicated, very esoteric number. A simplified version is 0.00000000006673 — with a margin of error thrown in — that physicists are still trying to understand.

And right now, that margin of error appears much larger than what scientists

thought just six years ago.

Maybe a dozen groups of scientists worldwide are trying get a better grasp on what the number really is. One group — actually two people — is hunting for Big G beneath western Hanford's sagebrush.

Riley Newman and Mike Bantel from the University of California at Irvine spent five years designing and building the experimental equipment now inside the old Nike Ajax missile bunker that guarded Hanford's plutonium production facilities during the Cold War.

In mid-April, they started their first test run in the isolated bunker far from background "noises" that could jostle their measurements. In a few months, they hope to help stretch humankind's grasp of Big G by another digit to the right. Later, they hope to tackle the next digit beyond.

Why?

See **Big G**, Page A9

9 MAY 00

# Energy Department ends BNFL contract

By John Stang  
Herald staff writer

The Department of Energy on Monday fired BNFL Inc.'s team from its job of building and operating plants to turn Hanford's highly radioactive tank wastes into glass.

"BNFL's proposal was outrageously expensive and inadequate in many ways. ... We will start competition for a new contract right away, select a new contractor by the end of this year and conduct business so we should be able to meet our long-term schedules for

operating a waste treatment plant," said Energy Secretary Bill Richardson.

DOE terminated BNFL's contract because of the project's skyrocketing costs and qualms about its management, said Deputy Energy Secretary T. J. Glauthier.

BNFL's cost estimate leaped from \$6.9 billion to \$15.2 billion in the past month. That stunned and angered almost every Hanford-related constituency, including DOE.

However, Glauthier said BNFL's partly done designs for the plants appear sound, and the project likely will use BNFL's designs.

Under its contract, DOE will reimburse BNFL for its expenses so far from money set aside over the past four years. Glauthier estimated that will run from \$200 million to \$300 million.

DOE still aims to begin processing wastes by the 2007 legal deadline.

"We are going to use every tool we can to hold them to that date," said Washington Gov. Gary Locke.

Locke, Attorney General Christine Greigore, U.S. Rep. Doc Hastings, and U.S. Sens. Slade Gorton and Patty Murray praised

Richardson's decision, saying it sends a strong signal to Congress and the public.

"DOE gains credibility in sending a clear message to Congress that it will not let contractor costs spiral out of control," Murray said.

Gerald Pollet, director of Heart of America Northwest, said the firing was long overdue. "It should have been done two years ago," said Pollet, the leading critic of the BNFL privatization contract.

Another longtime critic, U.S. Rep. Tom Biley, R-Va., and chairman of the House's

Commerce Committee, said seeking a new contractor is a weak recovery attempt. "DOE still does not appear to have any credible backup plan in place," he said.

BNFL put on its best face in a short press release.

"While disappointed that (DOE) has decided to recompetete the entirety of the contract, we are pleased that (DOE has) determined that the design and technical solution is sound," the statement said.

See **Contract**, Page A2

Wednesday, May 10, 2000

## Briefly

Compiled by the Herald staff

### Kennewick toddler's death ruled natural

A Kennewick toddler's death on Saturday was apparently from natural causes, according to an autopsy Tuesday.

Deputy Coroner Larry Duncan said medical officials could find no other reason why Aleeya Phillips-Bartholomay, 18 months, stopped breathing. The final ruling will be made after blood tests are completed, Duncan said.

Initially, Kennewick police reported the girl was suffering from bronchitis, but her mother, Monica Bartholomay, said Tuesday that her daughter just had a fever.

### Hanford evaporator sets milestone

Hanford recently completed evaporating about 700,000 gallons of water from the site's radioactive tank wastes.

Central Hanford's 242-A Evaporator reduces the volume of liquid wastes by evaporating the water. The water is then condensed and returned to the ground as a purified liquid.

Hanford workers sent 1.3 million gallons of liquid wastes through the evaporator to remove the 700,000 gallons of water by May 2. The effort was scheduled to take 19 days, but was completed in 12 days, according to Fluor Hanford.

The work reduced the volume of liquid radioactive wastes in Hanford's underground tanks to about 53 million gallons.

# DOE plans to continue with vit plant schedule

By John Stang  
Herald staff writer

The Department of Energy expects to stick to its construction schedule for a glassification plant to treat Hanford's radioactive tank wastes, even though it isn't sure who's going to do the work, Dick French, manager of DOE's Office of River Protection, said Tuesday.

French's comments came a day after DOE terminated BNFL Inc.'s contract for the project because of runaway cost estimates for the plant.

For the past two years, BNFL has led a four-company team to design, build and operate plants to turn 10 percent of Hanford's most radioactive tank wastes into glass by 2018.

The legal schedule calls for a long-term contract to be signed in August, construction to start in July 2001 and glassification to start in 2007.

But BNFL's cost estimate for the job jumped from \$6.9 billion to \$15.2 billion in the past several months. That price increase plus DOE's qualms about BNFL's managerial abilities led DOE to fire the company.

The nature of BNFL's contract — under which BNFL would pay all upfront costs and not be repaid by DOE until the first glass is produced

seven years from now — was largely to blame for rising costs, according to the company.

Because BNFL was to take high, unreimbursed risks until 2007, its financing costs were very high, more than doubling the initial estimates for the work, officials said.

But French said BNFL's skyrocketing costs were due at least partly to its lagging design work and partly to its parent corporation's managerial and financial troubles in England.

French said BNFL added excessive contingency costs because its board of directors was skittish about the corporation's problems.

And design work was not far enough along to provide the sort of solid calculations that could show how to trim those excesses, he said.

DOE plans to keep BNFL's partner, Bechtel, to continue the design work through Dec. 15. Bechtel already filled this role on BNFL's team for two years.

As DOE and BNFL negotiate an end to the contract, a major question will be how BNFL and the other team partners — GTS Duratek and Scientific Applications International Corp. — will fit within Bechtel's design efforts.

Money will be another major issue for nego-

tiators. Under BNFL's contract, DOE is to reimburse the company for work already completed, which could run as high as \$200 million to \$300 million.

Right now, BNFL and Bechtel have completed 13 percent of the design work, far behind expectations, French said. Various original estimates called for 30 percent to be done by this spring or summer.

In July, DOE plans to issue a request for proposals to finish the design and to build the plants — signing up a new lead contractor in December. French expects several bidders for the design work, with a replacement picked around October.

That replacement company can submit its own design or continue with BNFL and Bechtel's design, French said. DOE will lean toward expanding BNFL-Bechtel's design because of the July 2001 construction start date, French said. He added: "We have high confidence this design will work."

As construction finishes up, DOE plans to seek bids for a company to operate the plants, which could be a third player altogether.

French said several companies are interested

in the design and construction contract because the new agreement will no longer require private financing — or the accompanying interest costs.

However, DOE might see if some private money could still be invested in parts of the glassification project, he said.

The changing contract scheme will also drastically alter the congressional appropriations picture.

Without the high financing charges, DOE could trim as much as \$200 million a year from its estimated annual allocations of \$600 million to \$700 million for the project, French said.

However, the money set aside to eventually pay BNFL never counted against Hanford's regular annual cleanup budget.

With a pay-as-you-go approach replacing the set-aside approach, glassification's annual allocation will be added to Hanford's regular budget, significantly increasing the amount of money DOE will seek from Congress. Congress has resisted such increases in the past.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

## State gives awards to Richland and Hanford

The Washington State Department of Ecology has presented a special recognition award to Richland's environmental education program for outstanding achievement in waste prevention, reduction and recycling.

The state also recognized the Department of Energy's Hanford site for its environmental efforts, including a 63 percent waste diversion rate and recycling 2.6 million pounds in 1999.

The awards program last year gave about 70 presentations to more than 3,000 students, 21 presentations to civic groups and workshops that reached 400 people. The program includes grant-funded programs, public workshops and organizing the Tri-Cities Earth Day celebration.

# Locke, DOE chief agree on Hanford cleanup

By John Stang  
Herald staff writer

A federal judge will enforce Hanford's radioactive waste glassification timetable, Gov. Gary Locke and Energy Secretary Bill Richardson agreed Wednesday.

Locke, Richardson and state Attorney General Christine Gregoire met in Seattle to hammer out how to keep the troubled project on track to start converting tank wastes into glass by 2007.

They chose to add to a current consent decree governing Hanford's tank farms and to negotiate a new decree after a new glassification contractor is picked.

A consent decree is a legal agreement. It will allow the state to take a case of a missed deadline directly to a federal judge for a ruling without having to file a lawsuit and go through discovery sessions and pre-trial hearing before going to trial.

DOE and the state currently have a year-old consent decree in place to govern pumping wastes out of Hanford's 149 single-shell tanks into 28 safer double-shell tanks.

Pieces of this new agreement will be tacked on to the current consent decree. Later, a new consent decree will be negotiated.

"This agreement will ensure the work will continue on schedule, no matter who serves as governor of Washington or president of the United States," Locke said.

Richardson said: "I remain committed to cleaning up the tank waste at Hanford."

Locke said he worries about DOE likely missing some legal cleanup deadlines in the near future because it fired BNFL Inc. on Monday as the lead contractor of a four-company team to build and operate the glassification plants through 2018.

See **Cleanup**, Page A2

## Richland session set on nuclear shipments

A question-and-answer session on shipping Hanford's transuranic wastes to New Mexico is set for 7 p.m. Tuesday at the Federal Building in Richland.

Hanford officials expect to begin trucking the wastes to the Waste Isolation Pilot Plant in New Mexico in the next few weeks.

The WIPP is a manmade, half-mile-deep cavern where transuranic wastes from all Department of Energy sites will be stored.

Officials from WIPP, the Washington Department of Ecology, the Washington State Patrol and Mid-Columbia emergency services will be there to answer questions.

# Battelle donates \$50,000 to children's theater project

By the Herald staff

The Academy of Children's Theatre announced a \$50,000 donation from Battelle.

It marks the largest contribution made toward the academy's \$1.5 million capital campaign drive.

The money raised will be used to build a new complex for the children's theater.

The project includes a 460-seat auditorium with adjacent lobby and ticket booth, classrooms, a conference room, gallery and office space, a shop and a rehearsal studio.

"Battelle has always been a strong advocate of education, science, mathematics, as well as fine arts,"

**"We're very excited about this campaign and the generous donations we've received so far."**

Kathy Kelly,  
Academy of Children's Theatre

said Greg Koller, manager of media relations for Battelle. "ACT is an important and wonderful part of this community."

More than \$97,000 has been raised so far through private donations, a state grant and corporate

contributions, said Kathy Kelly, campaign coordinator.

Organizers also have applied for several other grants, including the Paul Allen Foundation and Bill Gates Foundation.

"We're very excited about this campaign and the generous donations we've received so far," Kelly said. "ACT is very proud of what it's doing for the kids and the community."

Academy officials expect to break ground on the 12,000-square-foot facility by September 2001. The proposed center will be built at Columbia Point on land donated by the city of Richland.

Acting as honorary co-chair-

women for ACT's capital fund-raising campaign are Washington state Sens. Pat Hale, R-Kennewick, and Valoria Loveland, D-Pasco.

The Academy of Children's Theatre started on a shoestring budget of \$500 in 1995 and has never operated in the red, officials said.

It presents four productions a year, as well as its annual Trail of the Western Ghosts fund-raiser in October and its Garden Tour in June.

Training classes include drama, set design, auditioning techniques, radio, script writing, makeup, music and costuming, as well as mentoring children in lighting and sound, stage managing, assistant directing and teamwork skills.

# DOE reports criticality safety in check at PFP

By John Stang  
Herald staff writer

Hanford's Plutonium Finishing Plant is in good shape to prevent nuclear criticalities from happening, although some improvements are needed, a Department of Energy report has concluded.

DOE had checked criticality safety at five nationwide sites, including the PFP, after such an accident took place at Tokaimura, Japan, on Sept. 30, and eventually killed two workers.

Released Thursday, the report said no hazards are imminent that could lead to a criticality accident at the PFP and at specific buildings at Rocky Flats, Savannah River, Oak Ridge and Los Alamos.

However, the PFP and the 15 other Hanford sites — ranging from the K Basins to old 300 Area labs — that handle fissile materials do not resemble the Tokaimura uranium-processing plant where poorly trained workers added too much highly enriched uranium too fast to a chemical mixture.

That caused a "criticality," an uncontrolled nuclear reaction that shoots off bursts of potentially fatal radiation for short periods of times. These bursts occur when radioactive materials in certain masses and shapes come close together when other conditions are right. Criticality safety creates "barriers" to prevent those conditions from happening.

Actually, the Richland site that most closely resembles Tokaimura is Siemens Power Corp.'s uranium fuel fabrication plant. But Siemens' processes

are different because the company deals with low-enriched uranium, where the percentage of uranium 235 is significantly less than in highly enriched uranium. DOE's study looked at how the five sites analyze potential criticality situations, how they deal with that potential on a day-by-day basis and how they engineer criticality-related changes. In 1997, DOE and Fluor Hanford's team stopped moving the PFP's plutonium for two years after several incidents showed criticality-prevention procedures were not followed.

"We've seen a good deal of improvement. ... Today, they're better off than they were three years ago," said Jerry McKamy, a DOE nuclear criticality specialist involved in the study.

The five sites' most common problems include failing to do some safety evaluations and having some training and procedural deficiencies. However, McKamy said the DOE sites' problems were small compared to those found at Tokaimura.

The PFP needs to improve finding and keeping safety criticality engineers and in getting those engineers to work more closely with operators, said McKamy. These engineers can find higher pay outside of the DOE complex. Tom Nirider, DOE's criticality safety program manager at Hanford, said Hanford's 45 to 50 criticality safety experts could use eight to 10 more.

Twenty-one of the United States' 22 criticality accidents involved radioactive liquids, DOE officials said. That's because liquids are harder to control

than solids. The PFP deals with plutonium mixed with solids and liquids. Two criticality accidents, both involving liquids, have occurred at Hanford. In 1951, a plutonium solution went critical in a lab chamber beneath a long-gone farmhouse near the old White Bluffs town site. No one was exposed. In 1962, an overflowing plutonium solution was sucked into a wrong tank at the PFP, causing a burst of radiation that exposed four workers.

McKamy said two people have died from U.S. criticality accidents — both in the 1960s.

Siemens has never had a criticality accident. But two incidents that increased the risk of a criticality have occurred in the past two years, according to Nuclear Regulatory Commission reports. In each case, one of Siemens' anti-criticality "barriers" failed, but other barriers remained in place.

In 1998, about 100 feet of ductwork — with uranium-laced powder inside — were removed during a plant modification. But those ducts were improperly stacked for five days before Siemens discovered the error. In 1999, Siemens used the wrong method to calculate the amount of uranium 235 residues among wastes stored in stacked 55-gallon barrels.

Siemens spokesman Wayne Baker said, "When we do find instances of a (criticality) barrier not being maintained, we take it very seriously, and report it to the NRC, and investigate it ourselves."

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12 MAY 00

# Fluor, Battelle join forces in site cleanup

By John Stang  
Herald staff writer

Fluor Hanford and Battelle plan to consolidate and better coordinate their efforts to use the best technologies in Fluor's cleanup projects.

The two corporations recently signed an agreement to formalize a gradually evolving relationship on technological matters.

The idea is to find, develop and coordinate ways to improve the science and technologies that Fluor uses

at Hanford, said Walt Apley, associate director for Pacific Northwest National Laboratory's environmental technology division. PNNL and Fluor want to work as closely as PNNL and Bechtel Hanford mesh on ground water projects, Apley said.

The new agreement is to better coordinate off-site searches for new technologies. Also, the new relationship is to help improve cost estimating, scheduling and coordination of scientific and technological aspects

of Fluor's projects. And the relationship is supposed to help figure out what a cleanup site should look like after the work is done, Apley said.

"This (new) partnership provides a strong structure aimed at problem solving. It's a merger linking (PNNL's) science and technology efforts and laboratory expertise with Fluor's internationally recognized strengths in commercial project management," PNNL Director Lura Powell said in a press release.

PNNL and Fluor have built up this relationship at the Plutonium Finishing Plant as they work on ways to neutralize scrap plutonium.

Apley said the relationship will likely address projects dealing with transuranic and mixed wastes in central Hanford, plus the cleanup of the contaminated 324 and 327 lab buildings in southern Hanford.

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# Waste shipments should start in June, official says

By John Stang  
Herald staff writer

Hanford's first shipment of transuranic wastes to a New Mexico storage site will likely head out in mid-June, the official in charge of the effort said Tuesday.

The schedule depends on New Mexico approving a permit for Hanford to ship the radioactive wastes to the Waste Isolation Pilot Plant, said Mark French, the Department of Energy's transuranic wastes program manager.

That shipment, whenever it occurs, will be the first radioactive waste to be permanently removed from Hanford.

"Everyone I know is very excited about getting the first shipment on its way," French said at a public briefing Tuesday in Richland on Hanford sending wastes to WIPP.

Transuranic wastes include contaminated clothes, tools, paint cans, buckets, wires, and sliced-up equipment — all stored in 55-gallon barrels in west central Hanford.

The "transuranic" radioactive substances in these items have a higher atomic weight than

uranium — such as plutonium — which means the radioactivity takes longer to decay than low-level radioactive wastes.

DOE's master plan is to truck these wastes to WIPP, which is a huge manmade half-mile-deep cavern near Carlsbad, N.M.

The WIPP is expected to eventually hold 1.2 million cubic feet of wastes from 10 DOE sites, collecting the barrels over 30 to 35 years.

Right now, the site is receiving two to three shipments a week from Rocky Flats. Eventually, it will receive 17 shipments a week from

the 10 former weapons production facilities around the nation.

Hanford is expected to ship 80,000 barrels in about 2,500 truckloads to WIPP through 2032.

Hanford will start with sending about one truck a month carrying up to 42 barrels to WIPP, French said.

The route from Hanford to WIPP will be completely on interstate highways going from Richland to Umatilla to Ontario on the Oregon-Idaho border and beyond.

DOE is supposed to give the states along the route 14 days advance notice of the first

truckload. After that, DOE is to provide an updated shipping schedule each week.

The states voiced concerns about trucking in bad weather conditions along the route, said Ken Niles, who coordinates WIPP transportation matters for Oregon.

Consequently, DOE and 10 Western states agreed the trucks won't move under certain weather conditions that limit visibility, cause icy or slick roads, or create high winds, Niles said.

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# Hanford Reach protection could be extended

Babbitt likely to recommend protection cover nearly entire nuclear reservation

By Chris Mulick  
Herald staff writer

Federal protection for the Hanford Reach likely will be extended to include much more than just the river corridor.

Interior Secretary Bruce Babbitt, in the Tri-Cities this week to tour the 51-mile free-flowing stretch of the Columbia River, indicated Wednesday that he is leaning toward recommending within 30 days that federal protection extend to cover virtually the entire nuclear reservation.

## It's Your Call:

Should most of Hanford be protected as a national monument? **Page A3.**

produce a management strategy.

"We don't expect you to forgive the Clinton

administration and Bruce Babbitt," Babbitt said. "We're saying, 'Here's a project. We need some help.'"

Local government officials in the Tri-Cities and Sen. Slade Gorton, R-Wash., had been pushing a plan for federal-state-county management of the Reach. But Babbitt said it's too late for any sort of legislative solution, and members of the state's congressional delegation should put their differences aside.

Babbitt told the Tri-City Herald editorial board he

will recommend Clinton issue an executive order establishing boundaries to identify the protected area while protecting existing property rights. The declaration also will be consistent with priorities to protect historical, scientific and ecological values of the Reach, the stretch of the Columbia River extending north from Richland to Priest Rapids Dam.

He'll then seek to develop a management plan

See **Reach**, Page A2

# Odor keeps Hanford workers indoors

By John Stang  
Herald staff writer

A sulfury smell and a wavering warning siren kept about 2,500 workers indoors Wednesday morning in central Hanford's 200 East Area.

The "take cover" alarm was lifted at 11:50 a.m. — allowing workers to return outdoors.

Investigators could not find the source of the smell Wednesday, which was reported at several spots in the 200 East Area's southern half.

They also found no evidence any radioactive or hazardous materials had been released, said Gerry Griffin, Fluor Hanford's director for emergency preparedness.

Five people — who reported itchy eyes and skin or mildly irritated lungs — were checked at the Hanford Environmental Health Foundation, and all were released back to work Wednesday.

The incident began early Wednesday morning as night shift workers began to drive home. Some people leaving a mobile-homelike office building in the 200 East Area's southwest corner and some people driving along the 200 East Area's south edge reported a sulfurlike smell.

Some called the Hanford Patrol. The patrol and Hanford Fire Department sounded the "take cover" alarm at 7:59 a.m.

A "take cover" alarm means everyone is to stay indoors with the doors and windows shut, plus ventilation shut down.

Firefighters and industrial hygienists could not pin down the smell's origin because the reports of smells came from several spots without showing any pattern, Griffin said.

18 MAY 00

# Republicans aim to block Hanford Reach monument

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Republicans sought to block creation of a Hanford Reach national monument Wednesday by slipping a last-minute provision into a House spending bill.

Although the provision doesn't single out the 51-mile free-flowing stretch of the Columbia that flows through the Hanford nuclear reservation, it would prohibit the use of money in the Interior appropriations bill for the "design, planning or management" of a national monument created since 1999 under the 1906 Antiquities Act.

The action came only hours after Interior Secretary Bruce Babbitt toured the Reach and strongly suggested the administration is considering it for national monument status.

The provision would bar the creation of new monuments, such as the Hanford Reach and leave in limbo recently created ones such as the 335,000-acre Giant Sequoia National Monument in California.

The House Interior appropriations subcommittee approved the \$14.6 billion bill on a straight party-line vote. There was little debate on the provision, known as a rider, as Democrats said they expected to fight it when the full House Appropriations Committee meets to consider the bill as early as next week.

The administration immediately threatened a veto. "This provision is irresponsible and, I reiterate, the president will be forced to oppose it," said Washington Rep. Norm Dicks, the ranking Democrat on the subcommittee.

Dicks said the inclusion of the national monument rider, along with another designed to derail the so-called Interior Columbia Basin Ecosystem Management Project, "jeopardize this bill's chance of passage in the full House and its chance of being signed by the president."

# PNNL balloons aid ozone tests

By Annette Cary

Herald staff writer

Oversized helium-filled balloons have floated into the morning skies over Richland this week with \$400 worth of instruments dangling below.

The white balloons, launched by researchers at Pacific Northwest National Laboratory, rise far past commercial aircraft to a height of about 13 miles, relaying information to Earth below on ozone concentrations in the atmosphere.

"There's been a lot of research of man-made carbon dioxide on potential climate change," said PNNL senior scientist Jerome Fast. However, less is known about trace gases such as ozone in the atmosphere and how they may reflect or affect potential global warming.

In the past, much of the information about ozone in the atmosphere was collected by research airplanes. But because that was expensive, information is sketchy.

"This is relatively cheaper, so we can make a lot more measurements," Fast said.

Data collected this spring at Richland and by similar projects in Colorado, Saskatchewan and Manitoba should help researchers better understand changes taking place in ozone production as well as the dynamics of atmospheric chemistry. Scientists specifically hope to learn more about how man-made and natural ozone mix together in the atmosphere.

Most ozone is produced naturally in the stratosphere, the layer of atmosphere about 7.5 to 30 miles above Earth. That ozone shields Earth from harmful ultraviolet radiation from the sun.

But ozone produced at Earth's surface when sunlight hits car emissions can be harmful. At higher concentrations, it's

Research less expensive than other methods

See **Balloons**, Page A2



Herald/Sharón Steinmann

Jerome Fast, a senior research scientist, prepares to launch a helium-filled balloon Thursday at Pacific Northwest National Laboratory in Richland. The balloon carries an instrument called an ozonesonde to measure ozone in the troposphere and stratosphere. Scientist Joel Torcolini, left, holds the instrument box and Jerry Allwine, right, a senior research engineer, holds the contraption's parachute.

19 MAY 00

# House OKs \$1.5 billion for Hanford

By John Stang

Herald staff writer

The U.S. House has authorized spending about \$1.5 billion on Hanford's cleanup projects in fiscal 2001, which begins Oct. 1.

Members voted 353 to 63 Thursday to approve the defense authorization bill, which includes \$5.9 billion in nationwide environmental cleanup money for the Department of Energy.

An authorization bill sets the upper spending limit for the actual appropriations bill that later will go through the House.

The Senate has yet to approve its defense authorization bill, and both chambers will have to reach a compromise if there are any conflicts over how much to spend on cleanup.

The House's bill authorizes DOE's entire cleanup budget request made

in February, said the office of U.S. Rep. Doc Hastings, R-Wash.

DOE is requesting \$1.2 billion for Hanford's cleanup in 2001, which is \$50 million over this year's budget.

Thursday's authorization includes \$382 million for CH2M Hill Hanford Group's tank farm operations, \$128 million to Bechtel Hanford Inc.'s environmental restoration operations, \$191 million to the K Basins project and \$158 million to cleaning out the Plutonium Finishing Plant, Hastings' staff said.

The bill also authorized a separate \$370 million for Hanford's tank waste glassification project in fiscal 2001. This money has been kept separate from DOE's and Hanford's regular cleanup funds.

Dick French, manager of DOE's Office of River Protection, credited Hastings with keeping the glassifica-

tion money in the bill, despite recent controversy created by skyrocketing cost estimates.

Earlier this month, DOE fired BNFL, its contractor for the glassification project, because of the runaway costs.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

# Counties seeking Reach strategy

By Mike Lee

Herald staff writer

Still flustered by the near-certain creation of a national monument at Hanford, county officials met Friday in Pasco to plot their opposition.

That could lead to a legal challenge of an expected presidential order designating the Hanford Reach and surrounding lands as a monument.

"We're certainly not consenting to it," said Sue Miller, Franklin County commission chairwoman.

On Tuesday, Interior Department Secretary Bruce Babbitt toured the 51-mile stretch of river above Richland by boat and crossed the Arid Lands Ecology Reserve by bus. Before leaving, he made it clear that protecting the unique natural features of the area was a priority for the Clinton administration.

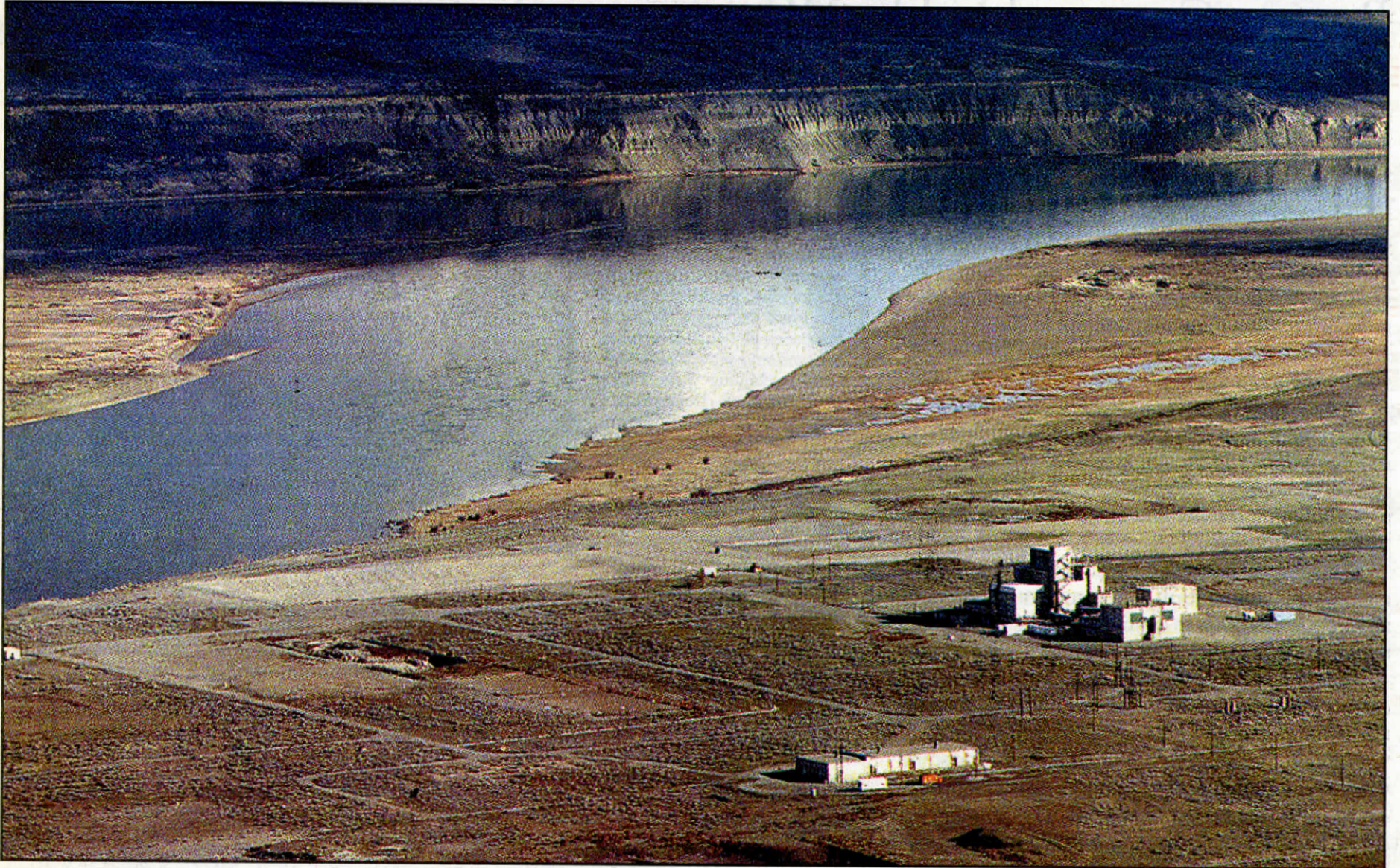
Babbitt's stance was applauded by Washington environmental groups.

"This is a shining moment to protect this national treasure," said Bill Arthur at the Sierra Club in Seattle. He urged politicians to stop fighting federal agency efforts to create a long-term protection plan for the best fall chinook spawning ground in the Columbia Basin.

"It's time to save this amazing natural resource," he said Friday. "Who will really benefit from holding off on this deal? Not salmon. Not children. And not communities."

Babbitt said a recommendation to the president could be made by the end of June, giving county commissioners a few weeks to research ways to forestall a federal mandate.

"Anything is being considered," Miller said after her closed-door meeting with the lead commissioners from Benton and Grant counties. "We're trying to assess our position ... to just strategize and look into all kinds of alternatives."



Herald file

Controversy over who should manage the Hanford Reach continues. Making it a national monument is one possible solution.

## Reaching a Monumental decision

As a child, I always treasured my family's trips to Kennewick from our home in Bothell. My grandfather had settled in the area in 1916, and my family spent our summer vacations in the city where my father grew up. I remember watching the hydros and swimming in the river with my six brothers and sisters.

Later, after my sophomore year at Washington State University, I spent a summer working at Sacagawea State Park, at the confluence of the Columbia and Snake rivers. I came to understand the high value people in the Tri-Cities place on their stewardship of the environment.

Of course, the rivers aren't just beautiful; they are powerful economic engines.

One of them, along with Hanford workers from the Tri-Cities, helped America end World War II and win the Cold War. Whether it's power generation or agriculture, the Tri-Cities and the entire state of Washington would not enjoy the same prosperity and quality of life without this river system. No one wants to

undo the progress we have made.

But our activities in the region have come at a huge cost. We confront extremely complex problems, such as cleaning up Hanford and keeping our wild salmon populations from becoming extinct. At the same time, we struggle to keep our regional economy vibrant and healthy.

For seven years I have worked to find a legislative solution to protect the Hanford Reach. Time and again — just when a compromise seemed possible — something would happen to scuttle the deal. It is not my purpose to assign blame, but it is important to know this has been a very long process.

After the last round of negotiations fell apart last winter, I became convinced we were deadlocked. I made a very difficult decision when I asked Interior Secretary Bruce Babbitt to visit the Hanford Reach and explore administrative options for its protection. In the past, I had told Babbitt not to go that route. I wanted time to work with folks on the ground to develop a regional solution that would consider the concerns of those involved.

We cannot wait any longer. Some have challenged my sense of urgency as misplaced, arguing that we have a lot of time to figure this out. We don't.

The Hanford Reach spans only 51 of the Columbia River's 1,200 miles, yet it is the

site where 80 percent of the entire Columbia Basin's wild fall chinook spawn. One of our state's greatest challenges is to recover native salmon runs. Protecting the region's healthiest spawning ground for chinook salmon is vital. We are asking a great deal of individuals and local communities in these efforts. The federal government also must do its part, or our salmon recovery efforts will fail.

Others suggested the Clinton administration is taking unprecedented action in declaring national monuments in its waning days. The first president to use the Antiquities Act was Teddy Roosevelt, who throughout his term set aside land for 18 national monuments, including 922,000 acres for Olympic National Park here in Washington.

Now it's time to extend protection to the Hanford Reach, so generations of Americans can enjoy its natural beauty, understand the American Indian history of the land and learn about the area's historical significance and the sacrifices the people of the Tri-Cities have made in order to keep America free.

That is the heritage I'm proud of.

There is no place for partisan politics in protecting the Reach. If you have floated the Reach, you have seen the scars left on it by human activity.

Sloughing along the White Bluffs is nar-

rowing the river channel and dumping fish-killing silt into spawning grounds. Progress to reverse this trend cannot be delayed. This is not about politics — it is about doing the right thing.

And doing the right thing means keeping your promises. The people of the Tri-Cities have been given too many broken promises; I do not intend to be another link in that chain.

In Congress, a fundamental part of my efforts to protect the Reach has been local involvement in the management of the river.

While the opportunity for legislation has passed, I will continue to work with local leaders to ensure that their voices are heard in developing any future management plan. Not everyone will get what they want, but if you will work with me, I will do my best to keep the dialogue door open.

As an elected leader, I am often charged with making difficult, sometimes unpopular decisions. Exploring the national monument designation may not be popular with everyone, but I believe time will show protecting the Reach is the right thing to do.

I hope the people of the region will work with me to ensure this belief becomes a reality.

■ U.S. Sen. Patty Murray is a Democrat representing Washington state.



**Patty Murray**  
U.S. Senator

# Bechtel to take over glassification project in June

By John Stang

Herald staff writer

Bechtel is expected to replace BNFL Inc. as leader of Hanford's waste glassification project design efforts in early June.

The switchover's target is June 8, but the date is not set in concrete, said Dick French, manager of the Department of Energy's Office of River Protection.

The switch cannot take place until Bechtel — currently BNFL's chief partner — is ready to assume a short-term contract to continue the design work until December or January, which is when a new contractor is supposed to take over the design work, French told the Hanford Advisory Board's tanks committee Thursday in Richland.

Once BNFL's contract as the project's leader ends, it and DOE then will begin negotiating what the federal government should

pay BNFL for its design work done so far. Some estimates speculate that amount might reach \$200 million to \$300 million. French said the talks could last up to two years.

BNFL's mission had been to lead the team to design, build and operate plants to start converting Hanford's radioactive tank wastes into glass in 2007. DOE's plan had been for BNFL pay the upfront costs and take most of the upfront risks in return for a significant profit when the glass is actually produced. The main reason cited for BNFL's termination is that the project's predicted price zoomed from \$6.9 billion to \$15.2 billion over the past few months.

French said BNFL's technical designs are solid. But he said BNFL's package submitted on April 24 did not provide enough management information, put in excessive contingency costs and factors, and shifted too much financial risk back to DOE.

"The risk shifted back to us, so the concept of privatization is undermined," French said.

Under the privatization approach, there are basic construction and operating costs — or hard costs — plus high financing costs which always more than doubled the overall prices.

French traced the hard cost increases — at least as DOE followed them — as they started at \$3.3 billion in August 1998, which was the basis for the initial \$6.9 billion overall figure. The hard costs grew to \$3.9 billion in May 1999, to \$4 billion in October 1999, to starting to climb in February 2000 to reach \$5.4 billion on April 17 and \$6.4 billion on April 24. The \$6.4 billion in hard costs is the base for the \$15.2 billion overall estimate.

French speculated outside factors — such as BNFL's parent corporation's managerial problems in England — started February's sudden increase in contingency figures coupled with attempts to shift more risks to DOE.

BNFL's corporate parent, British Nuclear Fuels Ltd., recently drastically overhauled its leadership as it tackled its overseas problems. This led French to speculate that made the new corporate management skittish about assuming major risks.

BNFL spokesman Geoff Harvey said British Nuclear Fuels' problems increased BNFL's caution regarding risks but added that BNFL wanted the Hanford contract. He said a major reason for the late cost increases was the actual prices of equipment and materials being greater than predicted.

DOE wants Bechtel to keep designing the project as DOE prepares to send out requests for proposals by Sept. 1 for a company to finish the design work and to build the plants. A state-DOE agreement calls for this to be done by Jan. 15, 2001, but French wants a new company ready by Dec. 15. The request for proposals will call for glassification to begin

in 2007, but French said DOE might be flexible if a bidder produces a better plan.

Later, bids will be sought for a company to actually operate the plants — with that contract likely merged with the tank farms operation contract currently held by CH2M Hill Hanford Group.

Any new contract won't use full-fledged privatization but may require the company to assume some financial risks, French said.

HAB committee members voiced concerns about the glassification plants' operating company not necessarily being the one that designs and builds the facilities. "What happens when you get down to operating (the plants), and there's a glitch in the designs?" asked HAB member Betty Tabbutt of the Washington League of Women Voters.

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## Hanford whistleblower to testify in D.C.

A Hanford whistleblower is to testify Tuesday on whistleblower protection policies before the U.S. House's Commerce Committee in Washington, D.C.

Randall Walli, a Tri-City pipefitter; Joe Gutierrez, a quality control expert at Los Alamos; and Tom Carpenter, an attorney for the Government Accountability Project, are to testify.

Walli is one of nine Hanford pipefitters suing Fluor Hanford and Fluor Federal Services, charging they were retaliated against after raising safety concerns.

## CH2M Hill announces grant

By the Herald staff

Efforts to promote an information technology industry in the Tri-Cities got an extra boost Tuesday from CH2M Hill Hanford Group, which announced a \$50,000 grant to support the economic development program at the Pacific Northwest National Laboratory.

Half the grant money will be used to assist information technology companies. The lab will support businesses through its technical assistance program, which has worked with 350 companies since 1995.

Staffers provide up to 40 hours of technical assistance to client

companies each year. Assistance takes the form of database and network development.

The remaining \$25,000 will support PNNL's entrepreneurial program, which helps laboratory employees and area residents start new businesses using technologies developed at the lab or elsewhere. The program has created more than 30 new companies since it began in 1995.

CH2M Hill Hanford Group is the prime contractor for the Department of Energy's Office of River Protection. It is responsible for managing 53 million gallons of highly radioactive and hazardous waste stored in underground tanks.

## DynCorp pledges \$1 million to technology

### Workforce Training Center at CBC to receive money

By Wendy Culverwell

Herald staff writer

The federal contractor that oversees Hanford's site services has committed \$1 million to foster an information technology-based economy in the Mid-Columbia.

DynCorp Tri-Cities Services has pledged the money to transform the Workforce Training Center at Columbia Basin College into an incubator for the concept.

The investment, to be formally announced this morning at CBC, signals DynCorp's long-term commitment to the region, said Robert S. Frix, president and general manager of Tri-City operations.

"We believe there's a great deal of potential here," he said.

The \$1 million pledge demonstrates DynCorp wants to stay in the Tri-Cities, he added, regardless of the future of its contract to manage Hanford firefighters, roads, utilities and other landlord functions for Fluor Hanford, the main contractor for Hanford cleanup.

"If we're successful at building an (information technology) industry, DynCorp is part of the industry," said Michael Dallas, senior vice president.

Company officials indicated DynCorp could commit more money if its contract is extended beyond next year. However, they stressed the commitment to create an information technology industry in the Tri-Cities is separate from company activities at Hanford. DynCorp's parent company operates a \$1 billion-a-year business with more than 16,000 employees.

Information technology is one of its chief services.

The first \$250,000 will be given to the CBC Foundation to update computer systems and networking systems at the Workforce Training Center.

The other \$750,000 will be seed money to support efforts to foster information-based business development. A director is to be hired in July to oversee the project and pursue additional money.

The Workforce Training Center on the northern edge of the CBC campus will be renamed the Columbia Basin Advanced Technology Center or CBAT, said CBC President Lee Thornton.

The Tri-City approach is being modeled on the one that led to the creation of a technology

21 MAY 00

# Hanford Environmental Restoration Project

Your comments are requested on...

## Proposed Plan to Clean Up Hanford's 100 Area Burial Grounds

The public is invited to comment on a proposed plan to clean up burial grounds located in the 100 Area of the Hanford Site near the Columbia River.

- Waste disposed in the burial grounds was generated from Hanford's reactor operations.
- The preferred cleanup alternative is remove, treat as appropriate, and dispose of the waste in a licensed disposal facility on site.
- Public input will be considered in finalizing the plan.
- **Public comment period will be held from May 22 through June 20, 2000.** If you would like a meeting in your area, please contact Dennis Faulk.

To request copies of the document, or to submit comments either written or electronically, please contact:

**Dennis Faulk**  
 U.S. Environmental Protection Agency  
 712 Swift Boulevard, Suite 5  
 Richland, WA 99352  
 (509) 376-8631  
 Faulk.Dennis@EPA.Gov

Or call Hanford Cleanup toll-free: 1-800-321-2008

The Proposed Plan for the 100 Area Burial Grounds Interim Remedial Action (DOE/RL-99-59) is available for review at:

**Richland**  
 U.S. Department of Energy Reading Room  
 Washington State University, Tri-Cities  
 Consolidated Information Center, Room 101L  
 Richland, WA 99352  
 (509) 372-7443  
 Attn: Terri Traub



### Focused on Outcomes

- Restore the Columbia River corridor
- Transition the central plateau
- Put Hanford's assets to work for the future

24 MAY 00

# DOE whistleblowers testify to Congress about reprisal

By John Stang  
Herald staff writer

Whistleblowers working for contractors at Hanford and other Department of Energy sites continue to face reprisals, witnesses told Congress on Tuesday.

The testimony came before the House Commerce Committee's subcommittee on oversight and investigations.

"Reprisals come in the form of poor performance appraisals, terminations, psychiatric evaluations, physical threats, harassment, creation of hostile working environments, transfers, layoffs, security clearance abuses and salary cuts," Tom Carpenter, an attorney for the Government Accountability Project, told committee members.

Randall Walli, a Hanford pipefitter and whistleblower, said, "These companies don't want to really listen to this. They put on window dressing all the time about safety first. ... But it seems like it's window dressing."

Walli is one of nine former Hanford pipefitters who filed a lawsuit last summer against Fluor Hanford and Fluor Federal Services alleging a conspiracy existed to get them laid off in retaliation for raising safety concerns.

Ron Hanson, president of Fluor Hanford, denied the charges. "I can state categorically that retaliation of any kind against any employee of Fluor is neither condoned nor tolerated. ... 'Contractor retaliation' is not part of Fluor's ethic and would, quite frankly, be extremely counterproductive to doing our work."

All Hanford employees — regardless of rank — have the authority to



Associated Press

Randall Walli of West Richland, center, flanked by Tom Carpenter, director of the Government Accountability Project, left, and Joe Gutierrez of Los Alamos, N.M., testifies Tuesday on Capitol Hill in Washington, D.C., before the House Commerce Committee on nuclear whistleblowers.

stop work if a safety question arises without fear of reprisals, Hanson said. That work cannot restart until the safety concern is addressed.

Worker involvement has helped reduce Fluor's injury-related lost work days by 76 percent, reportable injuries by 64 percent and radiological exposures by 32 percent in recent years, he added.

But Walli said he and the other pipefitters tried to resolve their dispute with Fluor Federal Services — a sister company and subcontractor of Fluor Hanford — by taking their case to the Hanford Joint Council for Resolving Employee Concerns.

DOE, its contractors and whistleblower advocates created the council to resolve whistleblower matters without going to court.

"The company (Fluor Federal) we worked for refused in writing to meet with this agency that DOE has set up to handle these issues," Walli said. That prompted the pipefitters to go to the U.S. Department of Labor and later to court, he said.

Walli said retaliation extended to the pipefitters' friends and co-workers. "Most of the people out there at the Hanford area, if they do support us, it's around the back door," Walli said.

"They don't want to be seen talking to us, but yet they want us to listen to their concerns. ... We have had people that were in car pools with us and just because they associated with us, they got laid off," he said.

The appropriate Fluor Federal officials to discuss Walli's remarks were unavailable late Tuesday, said company spokesman Jerry Holloway.

Walli was optimistic about the outcome of Tuesday's hearing. "Some Congressmen said to me ... they're not going to let this (retaliation) go on. ... They seemed genuinely sincere," Walli said in a telephone interview after his testimony.

Carpenter called for an end to DOE's practice of reimbursing contractors for their legal defense against whistleblower lawsuits. He said the policy differs from DOE site to DOE site.

Under DOE's contract with Fluor Hanford, the federal government pays for all defense and settlement costs incurred before a court ruling is made.

Carpenter said that policy allows a contractor to extend litigation to the brink of an official ruling and then settle — without losing any of its own money.

At the same time, a contractor can keep a whistleblower off the job and send an intimidating message to other workers, right up until a settlement is reached, Carpenter complained.

The testimony of all witnesses testifying Tuesday is available at [www.house.gov/commerce](http://www.house.gov/commerce) on the Internet.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).



# CH2M Hill likely to be operator for Hanford waste plant

By John Stang  
Herald staff writer

CH2M Hill Hanford Group is expected to become the stand-in "operator" for Hanford's proposed waste glassification plant as it is designed and built.

But CH2M Hill officials do not want their company to do the actual designing and building.

Instead, the Department of Energy and CH2M Hill reached a tentative verbal agreement last week to make the company the designated operator to take over BNFL Inc.'s role in upcoming design and construction work.

"That hit us by surprise. ... We're trying to catch up," said Fran DeLozier, CH2M Hill Hanford Group president.

That means CH2M Hill will take charge of getting the proper operating permit, review the design work for the plant's future operator and train the people who will run the plants, DeLozier said.

BNFL was supposed to fill that role for the next several years as its partner Bechtel built the plants. But DOE fired BNFL earlier this month — leaving the operator's slot blank.

That firing is expected to become effective in June. CH2M Hill and DOE also plan next month to modify the company's existing contract to reflect the additional responsibilities.

Currently, CH2M Hill manages Hanford's 177 underground tanks that hold 53 million gallons of radioactive wastes. CH2M Hill is also in charge of getting the wastes into the right places at the right times and conditions for the yet-unbuilt plants that will

convert the wastes into glass.

Meanwhile, BNFL was the leader of a four-company team that was supposed to build and operate the plants. Construction is supposed to begin in 2001, and glassification in 2007. But an estimated price tag that skyrocketed from \$6.9 billion to \$15.2 billion led DOE to terminate BNFL.

However, DOE is keeping BNFL's partner Bechtel to continue the design work through the end of 2000. By that time, DOE plans to select a new design-and-construction contractor.

DOE's revised master plan is for the new design-and-construction contractor to begin building the plants in 2001. Meanwhile, CH2M Hill's tank farms contract expires in 2001, but DOE has the option of renewing that contract for up to five years. If that hap-

pens, CH2M Hill would be in charge of the tank farms until 2006.

About that time, DOE's master plan calls for combining the glassification contract with the tank farms contract — putting one company in charge of the tanks and the glassification plants.

CH2M Hill plans to bid for that combined contract, said Mike Rengel, vice president for nuclear programs of CH2M Hill Inc., the Denver-based parent of CH2M Hill Hanford Group.

CH2M Hill does not want to bid for the design-and-construction contract because that would put the tank farms contractor in a tricky position, Rengel said. As tank farms contractor, CH2M Hill has to provide sensitive information to all bidders, which would be competitors if CH2M Hill bids. Rengel

declined to elaborate further, other than saying CH2M Hill has plenty to do until it bids for the operator's contract.

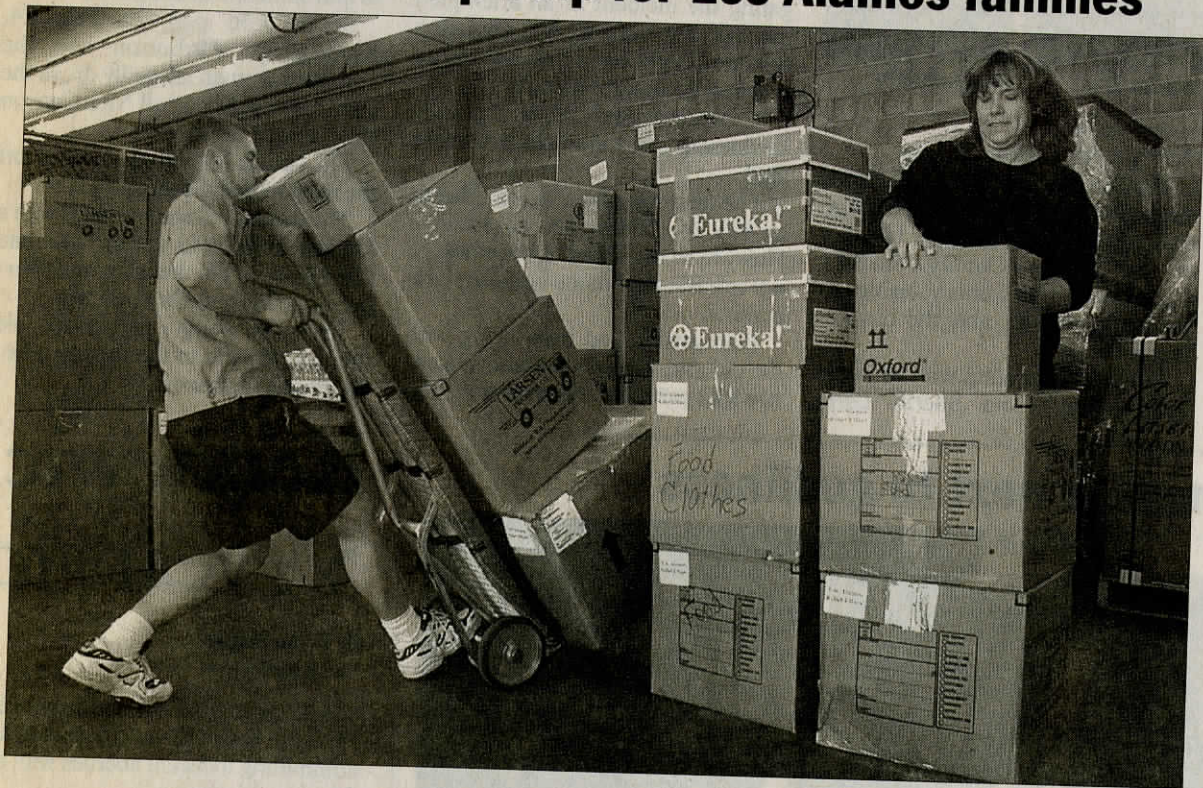
Many Hanford observers worry about one facet of DOE's revised master plan — where the operating contractor could be different from design-and-construction contractor — and be less familiar than it should about the plant it will be running.

DeLozier said being the "designated operator" during the construction ensures at least CH2M Hill will be familiar with the plants' designs.

So far, no other company publicly has voiced an interest in bidding for the operating contract.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

## Battelle boxes up help for Los Alamos families



Dave Grego, left, an employee of Larsen Transfer Co. United Van Lines picks up boxes of clothing and supplies Friday to be shipped for free to Los Alamos, N.M., fire victims. Bev Jennings, right, Team Battelle's relief effort project director, helped organize the collection of the 70 boxes of items from Battelle employees. Los Alamos, where hundreds of homes were lost in a fire earlier this month, is home to nine national laboratories, including one affiliated with Pacific Northwest National Laboratory operated by Battelle in Richland. Cash donations can be mailed to: Los Alamos Relief Effort, c/o Yakima Federal Savings Bank, P.O. Box 1010, Richland, WA 99352. Checks should be made out to "Los Alamos Relief Fund."

Herald/Sharón Steinmann

## Panel says Hanford ground water purification needs improvement

By John Stang  
Herald staff writer

Hanford needs a better handle on the big underground contamination plume surrounding the Plutonium Finishing Plant.

And Hanford needs a better grasp on the effectiveness of its ground water purifying measures.

The recommendations came from an independent scientific panel that reviews how the Department of Energy tackles Hanford's contaminated ground water. The panel of eight experts met last week in Richland.

The 4.4-square-mile carbon tetrachloride plume near the PFP in west-central Hanford is considered one of the site's most troublesome underground contamination spots.

Right now, a plant pumps contaminated water from the ground to remove the carcinogenic chemical and then returns the water to the ground. And other equipment extracts carbon tetrachloride vapors from the soil.

All this is a stop-gap measure because it keeps the plume from expanding but does not shrink it.

Sampling wells check the ground water around the plume, but no test wells monitor in the plume's center because that would intrude on a security zone around the PFP, which holds 4.4 tons of scrap plutonium under heavy guard.

The panel's chairman, Edgar Berkey, vice president of Concurrent Technologies in Pennsylvania, said Hanford

needs to know the chemical and physical make-up of the plume's center to figure out the most efficient way of shrinking the plume.

Mike Thompson, the DOE official in charge of ground water monitoring, agreed the PFP security zone is a barrier to understanding the plume and how to shrink it. He said Hanford plans to install more sampling wells north of the plant — the direction the ground water flows — to get a better picture of the problem.

The panel also recommended DOE find ways to measure the effectiveness of its cleanup efforts.

Hanford also injects chemicals into the ground to change fast-moving dangerous chromium into a more benign, relatively stationary version of the same chemical. And Hanford is considering injecting steam into the ground to force out some chemicals.

Berkey said officials have a good understanding of the effectiveness of their efforts, but more precise data is needed to map out future strategies.

"It's important to demonstrate the effectiveness of the program," said panelist Michael Kavanaugh, a chemical and environmental engineering expert with Malcom Pirnie Inc.

Thompson agreed DOE has some idea of the effectiveness of certain underground chemicals, but it needs better precision in those measurements.

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## Bechtel fined over radioactive incident

By the Herald staff

The Department of Energy has fined Bechtel Hanford Inc. \$82,500 for allowing workers to be exposed to a large radioactive water filter sitting in storage at Hanford's historic B Reactor.

The facility, the world's first full-scale nuclear reactor, is being renovated, and old equipment stored in the plant is being removed.

Last June, workers unwrapped the plastic covering from the filter press while moving the machine, which was used to suck water out of contaminated sediment.

In doing so, the contractor failed to post warning signs, allowing as many as six workers to walk around the 10-foot-high press without proper protective clothing for 13 days. Though airborne radioactivity created a radiological hazard, workers did not receive any measurable doses of radiation.

"(Bechtel) takes responsibility for this incident and understands the significance of the event and agrees with the conclusions from the DOE," the contractor said in a written statement.

This is Bechtel's first fine from DOE. Its last fine for work at Hanford was contractor was a \$9,700 penalty levied by the state Department of Ecology for not properly labeling wastes in a container before disposing of them.

# Monument status advised for Reach

Federal designation to cover about 200,000 acres

By Les Blumenthal  
Herald Washington, D.C., bureau

WASHINGTON — Interior Secretary Bruce Babbitt recommended Wednesday that the Hanford Reach be designated a national monument, preserving about 200,000 acres of undeveloped federal lands along the Columbia River.

The White House is expected to give quick approval.

The designation would include almost half of the Department of Energy's Hanford nuclear reservation, which the Interior Department described as the largest remnant of the "shrub-steppe ecosystem" that once covered much of the Columbia River Basin.

The Hanford Reach is one of four areas Babbitt recommended be established as national monuments under the Antiquities Act of 1906. His decision came little more than two weeks after he floated the 51-mile stretch of river upstream of Richland.

"These are priceless natural landscapes that have somehow remained almost untouched by exploitation, development and urban sprawl," Babbitt said in a statement. "Protection of several of these areas, in one form or another, has been discussed for years, but no action has been taken. We may not have another chance before they are lost ..."

The designation of the Reach has been on a fast track, and Sen. Patty Murray, D-Wash., said she

expected President Clinton to act quickly on the recommendation.

"I have talked to the president about this in the past four or five days, and I expect him to act soon," said Murray, who has been fighting for federal protection of the Reach for more than seven years.

But longtime Republican opponents of the federal designation were livid.

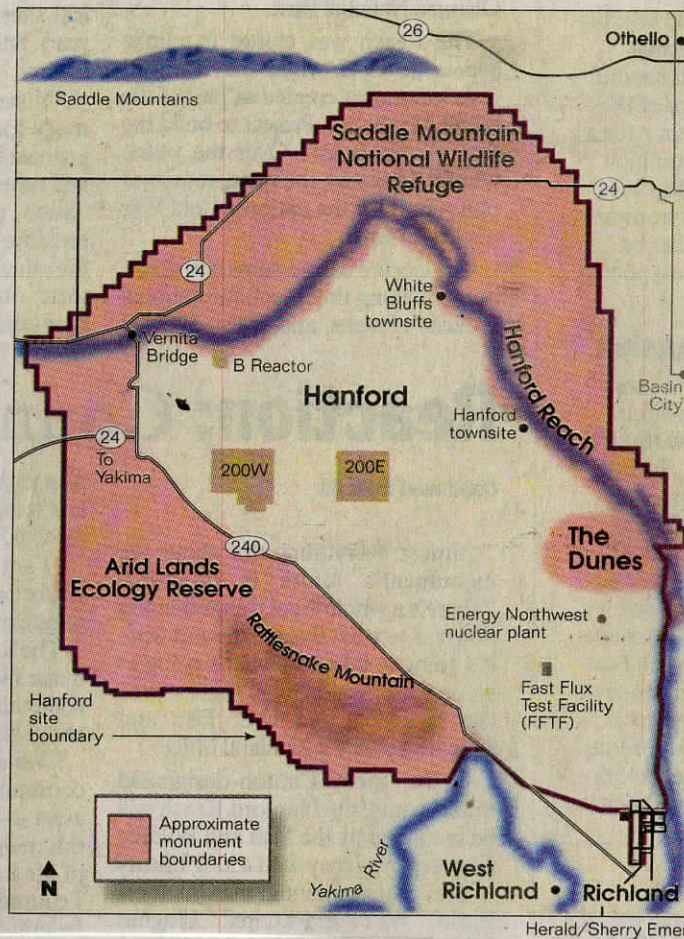
"In one fell swoop, this administration is destroying years of negotiations, shutting out the concerns of local people and blowing any chance of protecting the Reach in a manner that accommodates the needs of all parties," Sen. Slade Gorton of Washington said in a statement.

Praising the announcement from Portugal, where he was meeting with European Union ministers, Clinton said each of the areas recommended by Babbitt represents "an exceptional, irreplaceable piece of America's natural and cultural heritage."

Washington Gov. Gary Locke endorsed Babbitt's recommendation, noting Congress has failed to act to protect the Reach, which he called "a snapshot of an earlier time."

Locke also urged Clinton to give local citizens and governments a role in helping manage the monument. The method of providing local input into management of the Reach has been the key sticking

See Reach, Page A2



## News draws mixed reaction from area officials

By Mike Lee  
Herald staff writer

Left with little choice, Mid-Columbia officials will try to make the best of what promises to be a new national monument at Hanford.

They greeted the news with a mixture of relief, indignation and praise Wednesday after Interior Department Secretary Bruce Babbitt called county commissioners to tell them about his recommendation to the president.

"The counties will step up and be a full participant in the planning," said Adam Fyall, associate planner for Benton County. "We want a seat at the table."

Within a few weeks, 200,000 acres of federal land that create a giant "C" around added to the growing Ecology Reserve, the Saddle Mountain National Wildlife Refuge, the Hanford Reach and a quarter-mile side of the river. The official announcement came Wednesday.

## British Nuclear Fuels' costs up in England, London papers report

By John Stang  
Herald staff writer

The cost to clean up British Nuclear Fuels' flagship complex in England is about \$13 billion more than previously thought, two London newspapers reported Sunday.

The London Sunday Times and the London Daily Telegraph both obtained an internal British Nuclear Fuels' report that said the cleanup costs at the Sellafield nuclear complex in U.S. dollars appear to be \$52 billion, instead of the predicted \$39 billion.

British Nuclear Fuels is corporate parent of Virginia-based BNFL Inc., which recently was fired from a Hanford project to design and build plants to convert radioactive tank wastes into glass.

BNFL lost the Hanford contract mainly because the price tag jumped from \$6.9 billion to \$15.2 billion in a few months. BNFL's role as the Hanford project's lead contractor is expected to end in early June as soon as its partner Bechtel signs a contract to continue design work for the rest of 2000. By then, the Department of Energy hopes to have selected a new design and construction contractor.

British Nuclear Fuels' finances had nothing to do with BNFL's huge cost increases at Hanford, said BNFL spokesman David Campbell. "The situation in the United Kingdom did not impact our pricing and our bid (at Hanford)," Campbell said.

But Dick French, DOE's Office of River Protection manager, suggested recently the parent corporation's managerial problems in England made company leaders skittish about assuming major risks — leading to excessive contingency measures in its Hanford proposal.

Meanwhile, a DOE team led by the agency's chief financial officer, Michael Telson, has finished visiting BNFL's American operations at Hanford, Oak Ridge, Rocky Flats, Idaho Falls and Savannah River — plus Sellafield. The review is to see if British Nuclear Fuels' managerial, safety and quality control problems at Sellafield also exist at U.S. projects.

That team is expected to brief DOE's top leaders next week on their findings, said DOE spokesman Tom Welch.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

## Board sees delays in glassification's future

By John Stang  
Herald staff writer

LA GRANDE, Ore. — Can Hanford still begin glassifying its radioactive tank wastes by 2007?

Though the Department of Energy wants to keep to that deadline, the Hanford Advisory Board raised numerous questions Thursday about keeping the work on track as the agency sorts out problems created by the firing of its lead project contractor.

DOE recently dismissed BNFL Inc. from work to design, build and operate the glassification plants because cost estimates rose from \$6.9 billion to \$15.2 billion.

DOE wants to sign a short-term contract with BNFL partner Bechtel to continue design work until a new design-and-construction contractor is hired by Jan. 15. DOE wants to send out a request for proposals by Sept. 1.

"Acquisitions usually take a year. We're pushing this into a six-month period," said DOE's Kay Fick.

DOE has scheduled a meeting at 3 p.m. Wednesday at the Federal Building in Richland to get opinions from the public and potential

bidders on how the new contract should be approached. The following week, DOE will meet one on one with interested contractors in Washington, D.C. Bidders can take over BNFL's and Bechtel's designs, which DOE likes. Or a bidder can submit its own glassification plan.

Todd Martin, chairman of the HAB's tank waste committee, believes an open and fair competition for the new contract will inevitably delay the 2007 glassification start date. That's because DOE could be studying BNFL's 15 percent-complete design or a brand-new design. Also, he believes the quick bidding process — possibly slanted in Bechtel's favor — could lead to a losing bidder filing a protest. Washington, D.C.'s, traditionally slow decision-making and the upcoming presidential election could add more delays, he said.

And, with DOE's funding setback plan being ditched along with BNFL, Martin wondered where the federal government will find the extra money to keep the multibillion-dollar project going.

Other questions raised Thursday included:  
■ Do Bechtel and CH2M Hill Hanford Group have unfair advantages over other potential con-

tractors, and how will that be addressed?

Bechtel has two years invested in existing designs, while any new contractor will have only a few months to study the existing design or come up with a new one, Martin noted. He wondered if another company would risk entering the expensive bidding process against Bechtel.

Meanwhile, current tank farms contractor CH2M Hill is to assume BNFL's role during design and construction work. Martin speculated that could lead to an advantage similar to Bechtel's when the operating contract goes to bid.

DOE is pondering those questions, Fick said.  
■ Will time be lost if a new contractor checks BNFL's and Bechtel's designs and timetables?

This matter has a precedent at Hanford. When Fluor Hanford's team took over the site from Westinghouse in 1996, it reviewed its predecessor's approaches to cleaning out the Plutonium Finishing Plant and the K Basins, and Fluor's team did not like what it found. That led to extending the K Basins cleanup timetable by four years and delayed the PFP's work two years.

■ Should BNFL stay in a subordinate technical

role if DOE uses its designs?

Some HAB members wondered if a lot of technical expertise will be lost if BNFL is totally removed from Hanford. Alan Dobson, BNFL's operations and safety manager, said the company wants to stay with the project in a technical role if its designs are kept.

■ How much should the project cost?

DOE originally declared the hard construction and operating costs should not exceed \$3.6 billion. BNFL calculated the hard costs would be \$6.4 billion, with the high financing costs bumping the total to \$15.2 billion. DOE recalculated the hard costs, keeping mum on its conclusions because of the upcoming bidding — although DOE has hinted the new estimate is still close to \$3.6 billion. Martin believes the actual hard costs will be somewhere in the middle — possibly \$5 billion.

■ What will happen to the \$491 million set aside so far to pay for the project?

A yet-unnegotiated amount will be used to pay BNFL for its design work so far. Congress has not decided yet what to do with the rest.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

Friday, June 2, 2000

## Hanford has chamber in N.M.

By the Herald staff

Hanford now has its own formally christened subterranean chamber in New Mexico to hold all of the site's transuranic wastes.

Washington officials attended a dedication ceremony Friday at the Waste Isolation Pilot Plant near Carlsbad, N.M., to formally name one chamber the "Washington Room."

The WIPP is a half-mile-deep manmade cavern designed to permanently store all the transuranic wastes from all the Department of Energy's sites. Transuranic wastes include contaminated clothes, equipment and assorted material that contain radioactive substances with atomic weights higher than uranium

— such as plutonium.

In two to three weeks, Hanford is expected to send its first truckload of 55-gallon barrels of the wastes to WIPP. Overall, Hanford is expected to ship about 80,000 barrels in about 2,500 truckloads through 2032. Those barrels will go to the Washington Room.

Attending the ceremony were U.S. Rep. Doc Hastings, R-Wash.; state Reps. Shirley Hankins, R-Richland, and Jerome Delvin, R-Richland; Lt. Steve Kalmbach, the Washington State Patrol officer in charge of transportation safety matters; and Benton County Sheriff Larry Taylor.

DOE's Hanford Manager Keith Klein also attended. Klein was WIPP's interim manager before he was transferred to Hanford.

# Cleanup of plutonium-laced building slow going

By John Stang

Herald staff writer

The fire spouted out of the ruptured pipe gasket like a blowtorch, spewing flames into the four-story-tall metal jungle of pipes and valves.

The blaze burned through the clear plastic panels separating workers on three levels of catwalks from the systems of radioactive pipes that prepared plutonium nitrate liquids to be sent to Hanford's Plutonium Finishing Plant during the Cold War.

With the plastic barrier breached, plutonium particles wafted into the 233-S Building's ventilation system. Two to 6.6 pounds of plutonium-laced dust and residue scattered around the building — permanently lost to Hanford's production efforts.

The 1963 fire, one of the worst accidents in Hanford's history, took 90 minutes to put out.

The likely culprit was the wrong chemical that was added to the system the previous day.

It took six months to decontaminate the building enough that work could resume inside.

Today, Hanford workers face another three years of labor to neutralize and tear down the highly contaminated building, which is about the size of two two-story houses stacked on top of each other.

The decontamination and demolition of Building 233-S is a high-priority Hanford project costing about \$5.5 million a year, but also an extremely low-profile one.

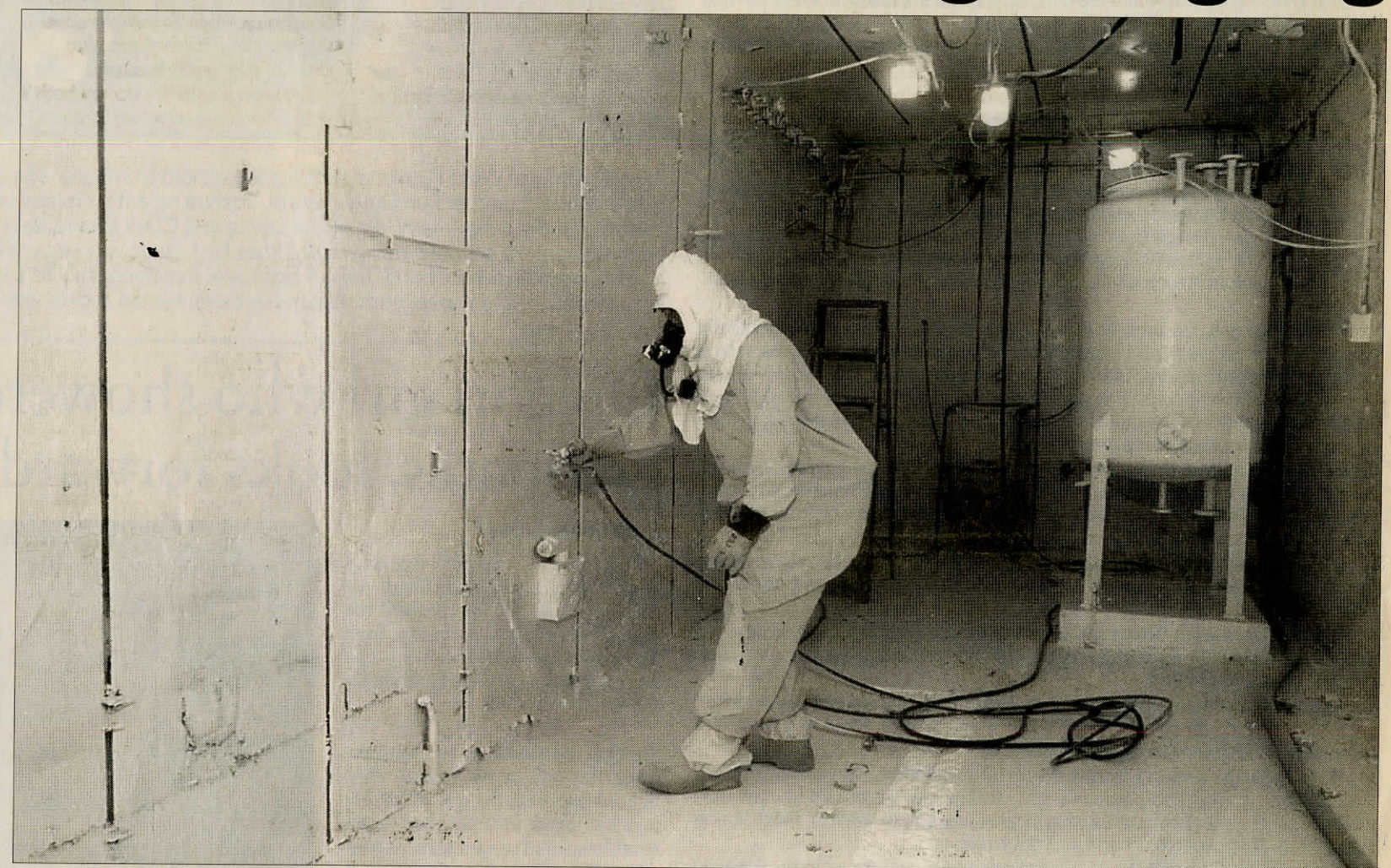
The concrete Building 233-S at central Hanford is composed of a four-story central chamber with extra rooms tacked on at various times.

The different parts of 233-S sink into the ground at different rates.

And almost five decades of hot and cold weather have cracked the facility's concrete, especially at the joints between the rooms and chambers.

It's a precarious situation, considering the old building contains a few pounds of plutonium-laced dust scattered about.

Built in 1953 and decommissioned in 1967, the 233-S Building is dwarfed by the neighboring REDOX



A Bechtel Hanford worker sprays a paintlike coating on the contaminated walls of the 233-S Building, sealing in radioactive particles. Photo courtesy of Bechtel Hanford Inc.

plant, which extracted plutonium from irradiated reactor fuel rods.

The 233-S Building was connected to REDOX by a collection of 25-foot-long pipes that transported plutonium-laced solutions from REDOX for final processing before shipping to the PFP to be made into plutonium "buttons" for atomic bombs.

Since the late 1980s, Hanford employees have worked on and off to spray a paintlike coating over the contaminated walls and floors, and otherwise decontaminate most of the rooms outside the main four-story chamber.

One problem is the first cleanup workers painted over the plastic panels separating the catwalks from

the rest of the main chamber — eliminating everyone's ability to see into the chamber. One of the jobs in the late 1990s was to scrape off enough of the coating so people could see inside the chamber.

The cluster of contaminated pipes connecting 233-S to the REDOX plant have been removed.

The project's 40 workers, most of them Bechtel Hanford employees, are beginning to clean out the main chamber. The task is expected to last until 2003.

"The No. 1 thing is safety. So we proceed very slowly and deliberately when we're doing our work," said Allan Chaloupka, Bechtel's manager for this project.

That means each worker entering the main chamber has to wear two layers of protective clothing, three layers of gloves and an air respirator.

Heat and other stresses of functioning in those clothes limit work in the main chamber to two to 2½ hours at a time.

By this fall, Chaloupka hopes his people will have removed most of the plastic panels on the catwalks, replacing them with steel cables to prevent workers from falling in.

Then they will use extended tools to start cleaning out and tearing apart the main chamber.

The jungle of pipes will be hard to deal with — especially when workers start cutting it into pieces.

Special measures must be taken to ensure no dangerous liquids or gases are inside them before the cutting begins.

By 2003, Hanford plans to have completely destroyed this building.

The slightly radioactive rubble is to be buried in a huge central Hanford landfill.

The highly radioactive debris, plus anything contaminated with plutonium, is supposed to be stored in a central Hanford building to eventually be shipped to a manmade underground storage site in New Mexico.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

# K Basin cleanup deadlines change

By John Stang  
Herald staff writer

A Hanford proposal to accelerate work to clean up the K Basins by one year is now a legal obligation.

The completion date has been moved from 2005 to 2004 in the Tri-Party Agreement, the legal pact that governs site cleanup. The basins are two indoor leak-prone water-filled pools near the Columbia River that hold 2,300 tons of corroded spent nuclear fuel.

The Department of Energy and the two leading Hanford regulatory agencies — the Environmental Protection Agency and the Washington Department of Ecology — recently changed the K Basin deadlines in the pact, they announced Tuesday.

The change recovers one of the four years by which the project had slipped earlier.

Hanford's master plan is to move the fuel to a huge underground vault

in central Hanford and remove almost 72 cubic yards of radioactive sludge from the two basins.

In 1996, the estimated cost was \$814 million, with a scheduled completion date of 2001. Numerous troubles extended the completion date to 2005 and boosted estimated costs to \$1.6 billion.

As one of the site's top cleanup priorities, the K Basins' increased costs and extended timetable threatened to divert money and attention from other Hanford work.

All that caused Fluor Hanford experts to try to find ways to trim the costs and timetable.

The revised deadlines include:

- Beginning to remove the K West Basin's fuel November as originally planned. But the scheduled completion date is now December 2002, instead of April 2003.

- Delaying the start of removing the K East Basin's fuel from December 2001 to January 2005. Completion is

delayed from December 2003 to July 2004.

- Already beginning preliminary work to remove radioactive sludges — most of which are in the K East Basin — from the two pools. That means all sludge is expected to be removed by August 2004 — a year ahead of schedule. This is the biggest factor in trimming a year from the overall timetable.

- Setting up T Plant, a closed World War II processing complex, to store and modify the sludge for possible shipment to permanent underground storage in New Mexico. The original, more expensive plan was to modify the sludges chemically and put them into Hanford's underground waste tanks. T Plant is supposed to be ready for the sludges by December 2002.

These changes have Fluor tackling fuel removal one basin at a time instead of doing much of the fuel removal from both basins simultane-

ously. This is expected to keep K Basins' work force steady at slightly more than 70 — instead of conducting expensive training to increase the work force to 160, then starting layoffs a year later.

These changes also call for the sludges to be removed at the same time as the fuel — instead of waiting for all the fuel work to be done. That cuts a year off the schedule.

"One-and-a-half years ago, we identified a number of areas where we had concerns," said Doug Sherwood, EPA's Hanford site manager. "These changes reflect a solid change for the better in the areas we identified. ... This should help save money on the project."

Hanford officials believe the biggest savings will come from not having to appropriate money for fuel and sludge removal in fiscal 2005.

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9 JUN 00

# Fewer deaths found among women workers at nuclear sites

By Annette Cary  
Herald staff writer

A health study of women who worked at Hanford and 11 other Department of Energy nuclear sites found far fewer deaths than expected, including fewer deaths from cancers that could be linked to radiation.

However, it did find more cancers among women with the highest levels of exposure.

Other findings were more difficult to explain — such as an increased incidence of deaths from mental disorders.

The four-year study, done for the National Institute for Occupational Safety and Health, looked at 67,976 women who had worked before 1980 at DOE sites where nuclear work was done.

Until now, very little was known about mortality rates among women workers at nuclear plants, said Mike Talbot, a spokesman for DOE in Richland. DOE paid for the study.

The study "also reiterates the need for Congress to act on legislation to help sick workers and their survivors get the assistance they have long deserved," Talbot said.

The study was completed this month as Congress is considering a Clinton administration proposal to compensate an estimated 3,000 nuclear workers who may have fallen ill or died because of exposure to radiation or chemicals at Hanford and other DOE sites.

Researchers expected 18,106 deaths among the women from the start of operations at nuclear sites through 1993 based on overall U.S. death rates. They found only 13,671 deaths. At each site, including Hanford, the number of deaths was either similar to or lower than expected.

However, researchers wrote, that could be explained by the "healthy worker effect." When fewer deaths are observed for workers in an industry compared with the total U.S. population, it's often attributed to the fact that the severely ill and chronically disabled are unlikely to be employed.

When researchers further analyzed 21,440 women monitored for external radiation at Hanford and nine of the other sites, they found an increase in deaths from leukemia among those believed to have had the highest exposure to radiation.

9 JUNE 00

# Reach to be named monument today

## Announcement expected during Gore's visit

By Annette Cary and Les Blumenthal  
Herald staff writers

The Hanford Reach will become a national monument today when Vice President Al Gore makes a campaign swing through the Tri-Cities, Republicans opposed to the federal designation said Thursday.

Democrats would not confirm the announcement, but Washington's Republican congressional delegation leaked the information after being notified Thursday by Interior Secretary Bruce Babbitt of the Clinton administration's plan. Members were told Gore would make the announcement today in the Tri-Cities, and Clinton would sign the proclamation today also.

### More news online

Go to Tri-City Herald Online for breaking news on the Hanford Reach and Vice President Al Gore's visit today to the Mid-Columbia. At [www.tri-cityherald.com/hanfordreach/](http://www.tri-cityherald.com/hanfordreach/) are stories, photos, polls, forums and more on the fate of the Reach.

The Hanford Reach National Monument would provide federal protection for what is often called the last free-flowing stretch of the Columbia River in the United States and preserve about 200,000 acres of undeveloped federal lands near its shores.

See **Reach**, Page A2



Herald file

Vice President Al Gore is expected to name the Hanford Reach a national monument today.

## Designation likely to cause uncertainty

By Mike Lee  
Herald staff writer

When the Hanford Reach joins the register of national monuments, its future likely will be clouded by bureaucratic uncertainty over how to proceed.

The U.S. Fish and Wildlife Service, the agency most likely to manage the undeveloped stretch of the Columbia River adjoining 200,000 acres, is a relative novice administrator. That charge traditionally has gone to National Park Service and more recently to a redirected Bureau of Land Management.

"There is not much guidance out there," said Greg Hughes,

See **Uncertainty**, Page A2

# DOE picks up glassification pieces after BNFL fired

By John Stang

Herald staff writer

The details of BNFL's relinquishing of control of Hanford's waste glassification project remained unresolved Friday, with no date set to continue talks on the matter.

The Department of Energy hoped to complete termination of BNFL Inc.'s contract on Thursday.

That action has to be negotiated among three companies and two DOE offices, but no agreement materialized by Friday, when negotiators from DOE's Washington, D.C., headquarters flew back to the capital with no indication of when they would return.

DOE fired BNFL as its lead contractor to design, build and operate plants to convert Hanford's radioactive tank wastes into glass because BNFL's \$15.2 billion cost estimate was far above the \$6.9 billion estimate pro-

vided a few months earlier.

With a legal deadline to begin glassification by 2007, DOE wants to keep design work going until a new contractor is selected late this year.

BNFL won't be formally terminated until an interim replacement is signed. Consequently, DOE's Office of River Protection and DOE's Washington, D.C., headquarters have to finish negotiating:

■ BNFL's termination. That includes scheduling follow-up talks on how much DOE will pay BNFL for design work already completed.

■ Bechtel, BNFL's partner, taking over the design work through January 2000. This contract is needed to preserve the project's momentum. These talks also will determine Bechtel's pay.

■ CH2M Hill Hanford Group taking over "operator" responsibilities for design and construction work for several years. CH2M Hill

would handle permits, review design work from an operating company's viewpoint and train plant operators. This would expand CH2M Hill's responsibilities, so the extra scope and pay must be negotiated.

Meanwhile, the search for BNFL's long-term successor continues next week with a series of one-on-one meetings in Washington, D.C., between DOE and companies interested in the new design-and-construction contract that will go into effect in January 2001.

About a half-dozen corporations have expressed interest, Peter Bengston, a Battelle employee acting as DOE's spokesman on glassification, told the Hanford Advisory Board financial affairs committee Thursday. He declined to name the firms.

Since DOE requires a potential bidder to have experience in managing projects of at least \$500 million, the number of eligible companies is small, said HAB member Harold Heacock.

The nature of the design and construction contract is undecided. DOE is considering either one contract or splitting it into two or four parts.

A four-contractor approach would split design and construction work, with one company handling the preparation of the wastes for glassification, another building the low-level radioactive waste plant, another handling the high-level radioactive waste plant and a fourth handling the rest of the site just east of the 200 East Area.

The timetable to select a new contractor or contractors has DOE passing out a draft request for proposals in July, and distributing the final request in August. Bidders would then submit written proposals in September. A new contractor or contractors would be selected in December or January.

Dick French, manager of DOE's Office of

River Protection, stressed he wants to switch contractors without major delays.

HAB committee members voiced concerns about bidders having a short time to study whether to adopt BNFL designs or draft their own.

They believe that stacks the odds in Bechtel's favor because of its long design relationship with BNFL and what will be its seven months as lead designer.

HAB member Jeff Luke, representing nonunion Hanford workers, speculated Bechtel's inherent advantage could lead to a losing bidder protesting the final contract award and delaying the project.

"Every effort is being made to make sure the playing field will be as level as possible," Bengston said.

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Herald/Bob Brawdy

Vice President Al Gore, left, talks with Gov. Gary Locke and boat tour of the Hanford Reach. Gore announced Friday that the Reach

## Gore proclaims protection for Hanford Reach

By Mike Lee

Herald staff writer

The Hanford Reach is the nation's newest national monument, Vice President Al Gore announced Friday from the shores of the Columbia River.

"Hallelujah," roared Dave Goeke, a recently retired U.S. Fish and Wildlife Service leader in Richland. "Hallelujah."

Rich Steele, still beaming from his short boat tour with Gore an hour earlier, gave a thumbs-up to the vice president during his morning address at the Washington State University at Tri-Cities campus in Richland.

"There's a lot of people who feel just as happy as I am," said Steele, a longtime champion of federal protection of the Hanford Reach. "You can see it in their eyes."

Gore's announcement leaked out a day earlier, but foreknowledge didn't

who gathered to hear the official announcement.

"These lands are among America's treasures, and we owe it to future generations to preserve them," Gore said. "We act today so that years from

now, Americans will still be able to paddle free-flowing waters and hike pristine peaks, enjoying these extraordinary stretches of our natural heritage."

Across the Northwest, Gore generated kudos from environmental groups for taking a big step toward regional salmon recovery.

"We have arrived at the hour of the Hanford Reach's salvation," said Rick Leaumont, one of the Tri-Citians

### Inside:

► Gore hits Spokane for Democratic convention. **Page A3.**

► More photos from Tri-City visit. **Page A8.**

# State's Democrats snub FFTF restart

By Chris Mulick  
Herald staff writer

SPOKANE — U.S. Energy Secretary Bill Richardson on Saturday told critics of Hanford's Fast Flux Test Facility his office will facilitate a series of meetings between stakeholders to help decide the future of the reactor.

The remarks came during a private meeting with Heart of America Northwest leader Gerald Pollet and his supporters at the state Democratic convention. Richardson, who gave the keynote address at the convention Saturday, promised that the chairman of his advisory board would set up the meetings, Pollet said after his 35-minute talk with the secretary.

It isn't known if the public will be allowed to attend the meetings.

That low-lighted a rough day for FFTF supporters, who originally

## It's Your Call:

Did the Democrats make a mistake by not supporting an FFTF restart? **Page A3.**

The Tri-City contingency also was unable to remove a provision from the party platform that opposed restart of the reactor.

Because most of the delegates voted to approve the platform without amendment, there was no opportunity to pull the provision. Many Tri-City delegates voted against the entire platform as a result.

"We're disappointed, obviously," said Kennewick delegate Marianne Price, also an 8th District legislative candidate, shortly after learning FFTF

thought they also would get to meet with Richardson but were later denied, due to a scheduling conflict.

supporters wouldn't get to meet with Richardson.

Pollet said Richardson wants the meetings to be held without the adversarial atmosphere that often is prevalent during public hearings. He hopes the meetings will give the government all it needs to decide to keep the reactor shut down.

"The secretary assured us that 'no' is on the table," Pollet said. "That is very encouraging. That is not public perception."

That wrapped up two days of Democratic politicking in which the future of the FFTF was a visible sideshow. Motorists coming into town for the convention, any of a series of high school graduations or the Dixie Chicks concert were greeted by anti-FFTF activists holding banners off bridges.

Several dozen protesters staked out

the sidewalks in front of the convention center Friday night. FFTF supporters and opponents jockeyed for space as they held up banners during Richardson's keynote address Saturday.

Though some Tri-City delegates continued to work the issue Saturday, the charge to strip anti-FFTF language from the platform died during committee meetings Friday.

"I'm afraid Jerry (Pollet) was ready for us," said Jim Price, who is married to Marianne Price. "They had their troops in there waiting for us."

Pasco's John Skinner said the platform should serve as a wake-up call and force Washingtonians to realize the value of the reactor.

"We know we have a lot of opposition," Skinner said. "We'll stay passionate about it."

As for the rest of the convention, party faithful elected delegates to the national convention and heard speeches from Democratic candidates for a variety of state and federal offices.

Like other speakers, Richardson devoted his time to talking up other party candidates. He also pumped up the Clinton/Gore administration, not once mentioning nuclear cleanup issues even as one non-Tri-City delegate shouted, "Clean up Hanford."

Gov. Gary Locke also spoke in general terms, saying his administration will be "damn sure" the federal government funds Hanford cleanup projects to which it has already committed.

The state Republican convention is next weekend in Spokane.

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# Monument area could continue to grow

Clinton directive protects 'objects of scientific and historic interest'

By Mike Lee  
Herald staff writer

More of central Hanford likely could be added to the newly formed Hanford Reach National Monument under a directive from President Clinton.

And until that happens, much of 163,000 acres of Hanford's shrub-steppe habitat that is not yet part of the monument should be managed as if it were included in the 195,000 acres already set aside.

Clinton issued the additional order Friday to protect "objects of scientific and

historic interest" on remaining lands in the central Hanford plateau.

The president's memo, largely overlooked in the hubbub surrounding the Richland visit of Vice President Al Gore on Friday, directs Energy Secretary Bill Richardson to consult with Interior Secretary Bruce Babbitt about how to protect permanently the shrub-steppe, including possibly adding lands to the monument as Hanford is cleaned up.

The current configuration of the Reach monument forms a giant "C" shape around central Hanford. It includes the Arid Lands Ecology Reserve

on the west edge of Hanford and the Saddle Mountain National Wildlife Refuge to the north and east of the Columbia River. It also includes the 51-mile stretch of the Columbia River north of Richland.

In Washington, D.C., congressional offices scrambled to interpret the newly discovered memo, while Tri-City environmentalists praised the president's foresight. The official monument proclamation signed by the president on Friday largely ignored the future of federal non-monument land, leaving environmentalists to ponder its future.

"This is just wonderful," said Rick Leaumont, one of the Mid-Columbia leaders in the Reach preservation movement, when he was told of the memo. "As cleanup is complete, then most of (central Hanford) should go into the monument."

Environmentalists initially pushed for all 560 square miles of Hanford to gain monument status, a request Babbitt said he was considering during a May visit. But Leaumont said it soon became clear the designation would fragment Hanford lands and possibly detract from cleanup.

Some zones — including Energy

Northwest's nuclear energy plant, the Fast Flux Test Facility and the local economic development section at the southeast corner of the site — "would not be appropriate at any point" for monument status, Leaumont said.

Max Benitz Jr., Benton County Commission chairman, said he expected the government to try to lock up more land in the monument, but he opposes the move in part because the county has developed with the Energy Department a land use plan for federal holdings as well

See Monument, Page A2

# DOE plans to finish...

By John Stang  
Herald staff writer

CH2M Hill Hanford Group now fills the "operator" role for design and construction of Hanford's proposed radioactive waste glassification plants.

The tank farms contractor is taking over some functions formerly the responsibility of BNFL Inc., which was fired from the project for excessive cost overruns in its plan estimates.

The Department of Energy sent a letter Friday to CH2M Hill to formally tell it of its expected new role. However, payments and the length of the new contractual duties still are undetermined, said the company's presi-

dent, Fran DeLozier. "This will take some time to digest," she said.

The company did not seek the extra work, and said it was not interested in bidding for the new design and construction contract for the glassification plants.

CH2M Hill is on the last stretch of a five-year contract to manage Hanford's tank farms and to prepare the tank wastes for eventual glassification, a process in which the wastes are locked into glass logs. That contract expires in September 2001.

CH2M Hill is eligible to have that contract extended for up to five years, but DOE has not made that decision yet.

“  
This will take some time to digest.  
”

Fran DeLozier,  
CH2M Hill president

Friday's action essentially adds to the scope of CH2M Hill's existing contract.

CH2M Hill employs about 1,200 people. The added scope will likely add 100 to 120

people to either CH2M Hill's or to its subcontractors' work forces, DeLozier said.

Company official Mike Payne will be the new senior vice president in charge of these new functions.

The new duties include helping design the glassification plants by providing the operator's perspective, researching operator-related matters, obtaining necessary permits, analyzing the tank wastes to be processed, training glassification operators and setting up all site utilities.

The bigger issue of BNFL's termination still is unresolved.

DOE has to negotiate with BNFL and its

partner Bechtel on transferring design duties to Bechtel from BNFL for the rest of 2000.

Those talks were supposed to be completed last week but have stalled.

Plans are up in the air on when to renew those negotiations.

By January 2001, DOE plans to hire a new contractor to finish design work and then build the plants by 2007.

By that time, DOE plans to select through bids a company to operate the plants — the role CH2M Hill is fulfilling in the design and possibly construction phases.

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14 JUN 00

# Hanford health project aims to educate

## \$1.5 million effort hopes to help downwinders make informed choices

By Annette Cary  
Herald staff writer

The federal government is preparing to start a \$1.5 million project to educate those who lived downwind of Hanford on the risks of past exposure to radiation.

"We want to inform people and health care providers and help people make more informed choices about their health care," said Greg Thomas, technical project officer for the program of the U.S. Agency for Toxic Substances and Disease Registry.

Called the Hanford Community Health Project, the effort is an outgrowth of previous plans for medical monitoring of people who could have been exposed to airborne radiation during World War II or the Cold War. ATSDR failed to get money from Congress to monitor Hanford downwinders for thyroid disease that could have been caused by Hanford's releases of radioactive iodine.

This fall, the agency plans to survey 500 people born in Benton, Franklin and Adams counties between 1940 and 1951. Those who remained in the area would have been young children when radioactive iodine releases were believed to be greatest. Children are more vulnerable to thyroid damage from radioactive iodine, which concentrates in the thyroid.

ATSDR is working with the National Opinion

“  
We want to see where the gaps are in knowledge.”

Greg Thomas, technical project officer

”  
Research Center at the University of Chicago to do the survey, although it's still waiting for approval from the U.S. Office of Management and Budget.

Downwinders would be asked about health experiences related to their thyroid, such as whether they get regular medical care and how well-informed their doctor is about radiation exposure. The survey also would ask whether they would use a screening program for thyroid disease if it were available. Other questions would assess how much they know already about their exposure.

"We want to see where the gaps are in knowledge," Thomas said. "We don't want to duplicate what's been done before."

The results would be used to guide ATSDR in developing materials and doing outreach activities to educate all downwinders, Thomas said. Materials should be ready next spring.

ATSDR still is pushing for money for a medical monitoring program, but the Hanford Community Health Project would accomplish that program's first two objectives: outreach and education.

ATSDR had expected to receive \$5 million from Congress to start a medical monitoring program to screen downwinders with the most potential expo-

sure to radioactive iodine for disease, then refer them for treatment.

That money did not materialize after the Institute of Medicine of the National Academy of Science recommended against broad-based testing of those exposed to radiation from above-ground testing at the Nevada Test Site and Hanford. The institute said education was more important.

Also, an \$18 million study of thyroid disease in Hanford downwinders found no link between increasing doses of radiation and thyroid disease.

Although Congress gave ATSDR no money for thyroid screenings, it will use other money from the Department of Energy for the education and outreach program.

DOE's support of programs to compensate nuclear workers who may have fallen ill or died because of workplace exposure is boosting pressure for DOE to consider whether those who lived near nuclear sites also may have been harmed.

According to the Alliance for Nuclear Accountability, DOE has promised a national workshop to discuss the concerns of nuclear watchdog groups. That also could put pressure on the federal government to pay for the medical monitoring.

"We haven't given up on the screening program," Thomas said. "We are continuing talks with the Department of Energy."

Those who would like to be on a mailing list to be informed of Hanford Community Health Project activities and receive information developed by the project can leave their name and address at 800-207-3996 or e-mail it to hanford@nrcmail.uchicago.edu.

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Wednesday, June 14, 2000

# Uranium shipments to Ohio start this month

By John Stang  
Herald staff writer

Hanford expects to ship its first truckload of leftover uranium to Ohio this month.

That will begin a shuffling of Hanford's 2,052 tons of Cold War uranium — sending half to Ohio and half to Hanford's 200 Area by the end of this year.

As a result, all uranium is supposed to be removed from the 300 Area near Richland, where most of it is stored.

Uranium fuel was manufactured in the 300 Area and irradiated in Hanford's now-defunct defense reactors to create plutonium

for the nation's nuclear bombs.

The 300 Area's leftover uranium is contained in finished fuel assemblies, unfinished fuel assemblies and in heavy 20-inch long cylinders called billets. Uranium powders are stored in the 200 West Area in central Hanford.

About 154 tons of uranium fuel had been inserted into N Reactor, but not irradiated, before the reactor closed at the end of the Cold War. That fuel is destined for disposal in low-level radioactive waste burial grounds in central Hanford.

The Department of Energy would like to sell other parts of its uranium inventory to commercial nuclear operations but can't get a rea-

sonable price because of the worldwide glut.

That shouldn't significantly affect plans at Hanford, where about half of the uranium is in a form that can't be used in civilian reactors anyway.

If any of Hanford's uranium is sold by 2005, half of the money would come back to the site. Hanford does not get a cut of any of its uranium sold after 2005.

Hanford's total of 2,052 tons of uranium is tiny compared with the government's total stockpile of 600,000 tons of uranium stored at several sites.

Plans call for storing 909 tons of Hanford's unused fuel above ground in the 200 Area,

agency officials said. Hanford has a target of 2031 to figure out a permanent solution.

Meanwhile, DOE plans to ship 999 tons of billets and uranium powders to Portsmouth, Ohio. About 125 to 150 truckloads will be shipped this year, according to DOE.

Officials estimate that Hanford spends about \$2 million a year to store its uranium. That annual cost should drop to \$500,000 to \$600,000 after all the shuffling is completed, they said.

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14 JUN 00

# DOE to pay for missed deadline

## State sets \$200,000 fine regarding tank study

By John Stang  
Herald staff writer

The state on Tuesday fined the Department of Energy \$200,000 for missing a deadline to study the reliability of six Hanford radioactive waste tanks.

The state will forgive up to half that fine if DOE completes the studies on all 28 double-shell tanks on a timetable that ends in 2006.

"We must make sure the double-shell tanks that hold waste are fit and working properly," said Bob Wilson, compliance inspector for the Washington Department of Ecology.

Hanford has 53 million gallons of radioactive wastes stored in 149 old and leak-prone single-shell tanks and 28 newer and reportedly safer double-shell tanks.

Hanford is pumping its liquid wastes for safer keeping from the single-shell tanks into the double-shell tanks. Then, someday, the wastes will be converted into even safer glass logs.

Beginning in 1994, the state and DOE worked on guidelines on how the site's double-shell tanks should be checked. And the Tri-Party Agreement, the legal pact governing Hanford's cleanup, set a Sept. 30, 1999, deadline for the first six tanks to be checked and analyzed.

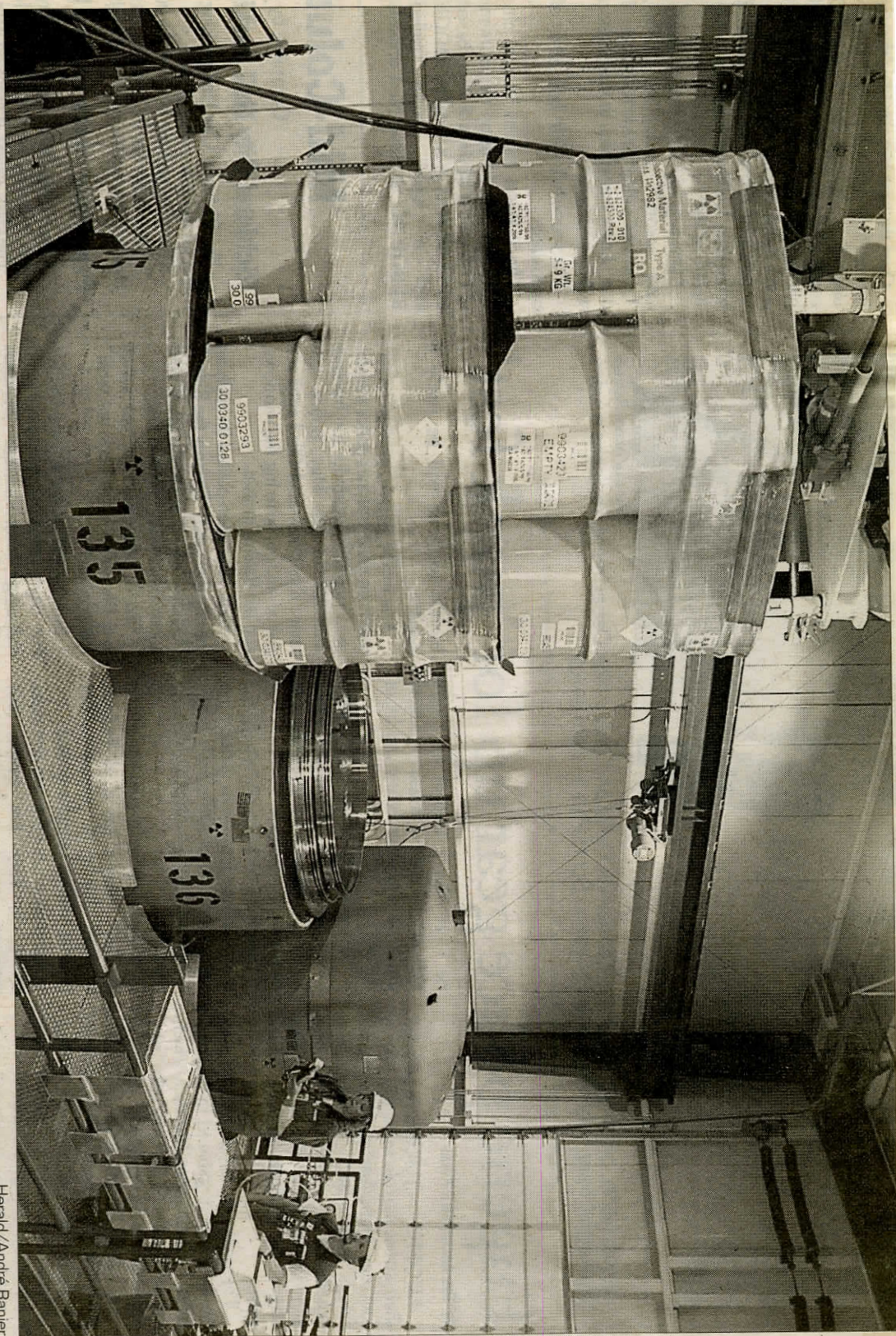
But the state's follow-up inspections showed DOE's studies fell short of what was agreed upon, Wilson said.

The biggest problem was ultrasonic tests were not conducted in several of the most leak-prone spots along the inner walls of the tanks, Wilson said.

The state's formal penalty notice said:

■ The curved areas at the bottoms of the inner walls are weak spots. Ultrasonic exams on those areas in four tanks were not conducted.

■ No ultrasonic tests were done on the bottoms of five tanks.



Herald/André Ranieri

Nuclear Chemical Operators Cathy Polotto, left, and Yvan Fillion watch as barrels of transuranic waste are lowered into a TRUPACT-II shipping container Wednesday at the Waste Receiving and Pro-

## Incomplete review delays N.M. waste shipment

By John Stang  
Herald staff writer

An unfinished New Mexico review has delayed Hanford's first shipment of transuranic wastes to the Southwestern state.

Wednesday, Hanford officials were told Monday's shipment to the Waste Isolation Pilot Project in New Mexico will be delayed, probably for several days.

The WIPP is a manmade, half-mile-deep cavern near Carlsbad, N.M., which is supposed to permanently store transuranic wastes from several Department of Energy sites. Now, only Rocky Flats trucks wastes to WIPP.

Hanford was scheduled to start the 45-hour, 1,808-mile journey of its first shipment on Monday. That will be the first time radioactive wastes permanently will be removed from Hanford. Transuranic wastes include con-

cessing Center in Hanford's 200 West area. Hanford expects to start shipping its transuranic waste in these containers to New Mexico sometime in the near future.

taminated clothes, tools, paint cans, buckets, wire and sliced-up equipment—all stored in 55-gallon barrels in west-central Hanford.

The "transuranic" radioactive substances—such as plutonium—in these items have a higher atomic weight than uranium, which means the radioactivity takes longer to decay than in low-level radioactive wastes.

But the New Mexico Environment Department is still reviewing its final inspection of the Hanford workers, procedures and facilities that prepare the transuranic waste shipments, said department spokesman Pete Maggione. "We're working diligently on it," he said.

The New Mexico agency got sidetracked by the massive fire that threatened Los Alamos earlier this month, Maggione said. He declined to say how quickly the review can be finished. But he added no obvious show-

stoppers have shown up so far.

"We're hoping (the delay) is only a week," said Mark French, DOE's transuranic wastes program manager at Hanford.

Hanford has 35 barrels of transuranic wastes ready to send to WIPP in three custom-built, reinforced, 10-foot-tall containers called "TRUPACT-IIs." All the barrels hold contaminated items from the Plutonium Finishing Plant. The last TRUPACT was loaded with 12 barrels on Wednesday.

The TRUPACTs are on a flatbed tractor-trailer rig that will be handled by a pair of specially trained drivers who will go nonstop to WIPP. The route is completely on superhighways—going from Richland to Umatilla to Ontario on the Oregon-Idaho border, then beyond. Regulations governing the driving, the contents of the barrels, the

integrity of the barrels and the paperwork are strict.

Actually, each TRUPACT can hold 14 barrels, meaning a total of 42 can be hauled on each trip.

However, the checks, analyses and paperwork are complete on 35 barrels this week, French said. About 500 Hanford barrels are in different stages of being checked and fixed. It costs about \$5,000 each to thoroughly check a barrel and fix any problems.

Hanford is expected to ship about 80,000 barrels in about 2,500 truckloads to WIPP through 2052. In the immediate future, Hanford expects to send one truckload a month, increasing the pace as it becomes more efficient in preparing the barrels.

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Thursday, June 15, 2000

# Plutonium chunks spark, glow at finishing plant

By John Stang  
Herald staff writer

Three small plutonium chunks sparked and glowed this month as Hanford dealt with their potential to rupture their containers and release radiation.

The three incidents occurred as the Plutonium Finishing Plant took measures to prevent leaks in small metal containers that hold much of the site's plutonium metal.

No radiation escaped from gloveboxes holding the chunks, and no one was exposed or hurt, said Pete Knollmeyer, Department of Energy assistant manager for nuclear materials and facilities stabilization.

In fact, such incidents are more or less expected.

Scrap plutonium has the potential to spark, glow and even grow if left alone. That increases the chance for radioactive particles to escape and could even cause uncontrolled bursts of radiation.

That is why PFP's top mission is to convert its 4.4 tons of scrap plutonium into safer forms by

mid-2004. "This is the reason we say plutonium at the PFP is not properly stabilized," Knollmeyer said.

Much of the scrap plutonium consists of metal stored in hundreds of stainless steel containers inside a vault.

One problem with the containers is if air leaks in, it creates an expanding layer of rustlike plutonium oxide on the metal that can grow large enough to push out and crack its container.

But if a container is airtight, the oxidizing plutonium consumes all the oxygen and creates a vacuum. That vacuum then can suck in the container wall and pop open the top.

Both scenarios create the potential for plutonium particles or radiation to escape, requiring expensive cleanup work inside the vault. If a rupture appears likely, a container often is nested inside another can.

The preliminary way to judge if a container is likely to rupture is to measure weight gained from the growing plutonium oxides. But most of the weighing had not been done for 10 years.

So, Hanford has been weighing cans for several weeks.

About 30 cans showed enough weight gain to require X-rays to check their insides, Knollmeyer said. X-rays of 15 containers showed enough potential for rupturing to require remedial measures. They are:

- Removing plutonium chunks with their plutonium oxide rust layers from the can. The plutonium oxide is brushed off. The plutonium returns to the vault in a new container. The rustlike powder is baked into a safe form in ovenlike "muffle furnaces."

- If a plutonium chunk is drastically oxidized, the entire piece is baked in a muffle furnace.

The three incidents of glowing and sparking came from three of the 10 containers emptied or repacked so far.

The first occurred June 1 when heavily oxidized plutonium was put into a glovebox holding a muffle furnace. When exposed to air, the chunk sparked, then glowed red like a charcoal briquette for 4½ hours before it burned out,

Knollmeyer said. There were no flames.

The second incident occurred inside a glovebox Monday when an inner container was taken out of another can to be repacked. Sparks and a glow came through a split seam in the innermost can, and the plutonium chunk continued to glow for 45 minutes after being removed from the can.

The third incident occurred Wednesday when a can was emptied so the plutonium oxide could be brushed from a plutonium chunk. That chunk sparked and glowed for a short time.

Knollmeyer said all three incidents occurred in gloveboxes designed to contain sparking, heat and any release of radioactive particles. He added that the operators correctly responded to the incidents, having firefighting equipment present as they waited for the glowing to subside.

The PFP still is at work on five more containers with the potential to rupture.

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21 Jun 00

# DOE workers focus of study on radiation, lung cancer

By Annette Cary  
Herald staff writer

The federal government is studying the records of workers at Hanford and some other Department of Energy reactors to see if exposure to low levels of external radiation over long periods of time may cause lung cancer.

Results of the new study, performed by researchers from the National Institute for Occupational Safety and Health and paid for by DOE, should be available in 2003.

Researchers know there are excess lung cancers in people exposed to large amounts of radiation, including Japanese atomic bomb survivors and patients receiving therapeutic irradiation.

Past research also has linked exposure to radiation among some groups of workers at DOE sites to lung cancer. However, those studies have primarily looked at workers who are exposed to internal radiation, such as those who may have inhaled radioactive particles.

Whether those exposed to low-level external radiation alone are more likely to die of lung cancer is not clear, NIOSH officials say.

Past studies have further been muddied by not taking into account exposure to some chemicals, such as those used in fuel separation processes at DOE sites, that also might contribute to cancer.

The current study is focusing on only workers in reactors because they are less likely to have been exposed to those chemicals or internal radiation, said Roger Briggs, DOE's Hanford health studies coordinator.

NIOSH researchers are expecting to include Hanford reactor workers from the mid-1940s to late 1980s in the study. They'll look at the radiation dose records of workers who died from lung cancer through 1997 and compare their doses with those of a control group of workers of similar ages at the reactors who did not get lung cancer.

The analysis also will look at factors such as gender and race.

# Former DOE Hanford manager takes job at Richland lab

By Annette Cary  
Herald staff writer

Mike Lawrence has accepted a position at Pacific Northwest National Laboratory, after resigning in frustration in April as general manager of BNFL Inc.'s Hanford project.

Lawrence, a former Hanford manager for the Department of Energy, resigned after BNFL said its estimated costs for Hanford's tank waste glassification would be nearly double earlier estimates.

At the DOE national lab in Richland he'll be business leader of international nuclear pro-

grams, a position that resulted after several changes in positions and management within the lab. He begins July 5.

"Mike will bring an incredible amount of expertise and new perspective to our international nuclear programs," said Mike Kluse, the association laboratory director for the National Security Division. "He will be developing our strategic relationships and positioning the laboratory to be a major contributor to future international nuclear programs."

Lab officials see the international nuclear

programs as an area with significant opportunities for growth for the lab.

Lawrence also will provide strategic oversight and direction to such international nuclear and environmental projects as creating a shelter for the Chernobyl nuclear power plant that exploded in 1986 and the Pit Disassembly Conversion Facility. It's planned to be built at Savannah River in South Carolina to convert plutonium from nuclear weapons to material that can be inspected by the International Atomic Energy Agency.

Lawrence has assisted the International

Atomic Energy Agency in creating and implementing international nuclear policy for non-proliferation and safety. He also served as the U.S. expert for an international study on nuclear waste storage and transport.

He is one of the prime architects of the Tri-Party Agreement, the revolutionary 1989 legal pact that consolidates, governs and prods Hanford's cleanup, including getting a waste glassification plant built.

Before holding positions with BNFL, Lawrence served as a nuclear policy counselor for the U.S. State Department in Vienna, Aus-

tria, from 1991 to 1995. From 1990 to 1991, he was director of waste operations for Chem Nuclear Environmental Services Inc. in Golden, Colo. He was the DOE Hanford site manager from 1984 to 1990 and is credited with leading Hanford's turnaround from plutonium production to environmental cleanup.

He began his career as a nuclear materials production engineer and has worked for at least 30 years in nuclear fields, including 21 years with DOE.

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21 Jun 00

# CH2M donates \$6,000 to local kids' programs

By the Herald staff

CH2M Hill Hanford Group is donating \$2,000 each to three Tri-City nonprofit organizations in recognition of the Year of Our Children.

Checks were given to Safe Harbor Crisis Nursery, the Children's Center and the RECA Foundation.

Safe Harbor's grant will be used to provide temporary child care to families in crisis. Last year, the nursery cared for 642 kids. So far this year, more than 600 children have stayed there.

RECA's grant will be used to expand the Arborwood Family Learning Center, a neighborhood computer lab and computer recycling center. More than 200 users, primarily refugees from Bosnia and Kosovo, use the computers to learn English.

The Children's Center's share will fund operations of the Benton-Franklin Development Center and Head Start. So far this year, CH2M Hill Hanford Group has given \$18,000 in grants to more than a dozen nonprofit organizations that benefit children.

Friday, June 23, 2000

# Hanford sludge not an immediate danger

By John Stang  
Herald staff writer

Hanford can safely wait at least six months to start removing plutonium-laced sludge from a small underground tank, but probably should finish that task within five years, the Department of Energy believes.

DOE sent that recommendation to the U.S. Environmental Protection Agency this week. The appropriate EPA officials were unavailable Thursday to say how the agency views that recommendation.

The recommendation addresses Tank 241-Z-361, buried in a corner of the Plutonium Finishing Plant complex. The tank holds 20,000 gallons of radioactive sludge laced with 55 pounds of plutonium.

That tank sat almost forgotten for two decades until a 1997 PFP chemical tank explo-

sion caused Hanford officials to notice it again. Tank Z-361 is about the size of two backyard swimming pools stacked on top of each other. The sludge is about 7 feet deep, filling about half the tank. It is made up of leftover wastes from the PFP's plutonium refining days during the Cold War.

The underground tank's interior is accessible only through a handful of narrow pipes.

Hanford's experts were worried about the distribution and amount of the plutonium inside — plus the potential presence of explosive gases and questions on how solid the tank is. Enough plutonium in the right concentrations, proximities and other conditions could cause a criticality, which is an uncontrolled nuclear reaction that shoots off bursts of radiation.

Before sampling and analyses showed otherwise, experts originally speculated 66 to 154

pounds of plutonium might be in the tank.

But two core samples — vertical, narrow cylindrical waste samples that look like long yucky Tootsie Rolls — extracted through the tank's pipe were among the tests that led to the 55-pound plutonium estimate, said Suzanne Clarke, DOE's project manager on tackling the tank. Tests also showed the plutonium is spread out enough to make a criticality unlikely, she said.

Gas samples showed the unlikelihood of an explosion. A video camera inserted into the tank with soil and water samples collected around the tank showed no indications of leaks.

Consequently, DOE concludes the sludge and tank are stable enough not to require a quick fix. That recommendation legally translates to Hanford having a six-month period before it must start tackling a plan to remove the sludge.

If the EPA approves that recommendation, more evaluations and cost calculations will follow to come up with a plan to neutralize or remove the toothpaste-like sludge.

Clarke said DOE and the EPA want this problem fixed within five years. The potential fix-it plans all are expected to cost \$10 million or less, she said. This project currently has \$2 million annually earmarked for it for the next two years.

Right now, there is no Tri-Party Agreement deadline to finish removing or neutralizing the sludge.

Clarke said when DOE settles on a plan, it and the EPA will have to negotiate the legal completion date plus possible interim deadlines to add to the Tri-Party Agreement, which governs Hanford's cleanup.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

# Hanford manager moves to chaplaincy

By Annette Cary  
Herald staff writer

A Hanford manager has been picked as executive director of the Tri-Cities Chaplaincy.

"I feel I can apply the successful techniques and practices from the for-profit arena to the for-people organization of the chaplaincy," wrote David Riddle of Pasco in his application for the job.

Riddle, a manager with CH2M Hill Hanford Group, will begin work at the chaplaincy July 1. He replaces Tom Halazon, who accepted the job of president of United Way of Benton and Franklin Counties in February.

"We were very impressed not only with (Riddle's) public speaking abilities but also his ability to relate well to a wide range of people," said Cathie Best, the chaplaincy's operations manager. She agreed to serve as interim director during the search.

Best described Riddle as someone with high expectations and a person willing to pitch in to get work done.

"I think this is an opportunity to have some very fulfilling work," Riddle said. He said he's also proud to be associated with the chaplaincy, an agency widely seen as an asset to the Tri-Cities.

Although the job is a shift for his career, he said, "I've tried to listen to where God is leading me. There is a spiritual aspect to this."

Riddle has worked at Hanford for 19 years, starting his career there as a welder for Rockwell International. Since 1988, he's worked as a management consultant responsible for design and implementation of technical and administrative training programs.

He earned bachelor's of art and master's of business administration degrees from City University, and now is an adjunct instructor for the school. He teaches courses in organizational behavior and design.

# DOE's computer 'war games' help in fight against drugs

By John Stang  
Herald staff writer

The drug smugglers' utility vehicle turned hard left off the highway — racing south across the desert soil to the nearby Mexican border.

A white police sedan followed.

Two U.S. Border Patrol utility vehicles loomed ahead. The bad guys' vehicle got stuck in a desert ditch. The police car pulled alongside to make the arrests.

A sedan outperforms an SUV in rugged, off-road four-wheel country?

The police chief of Douglas, Ariz., was a bit skeptical that could happen.

And the chief wasn't too thrilled with having one of his sedans doubling as an off-road vehicle, admitted Douglas police Lt. John Owen. That's a good way to rip up the car's undercarriage.

That's one wrinkle that showed up Friday when several Arizona law enforcement officers demonstrated this drug-smuggler-catching scenario on a bunch of computer screens at the Hanford Training Center in Richland.

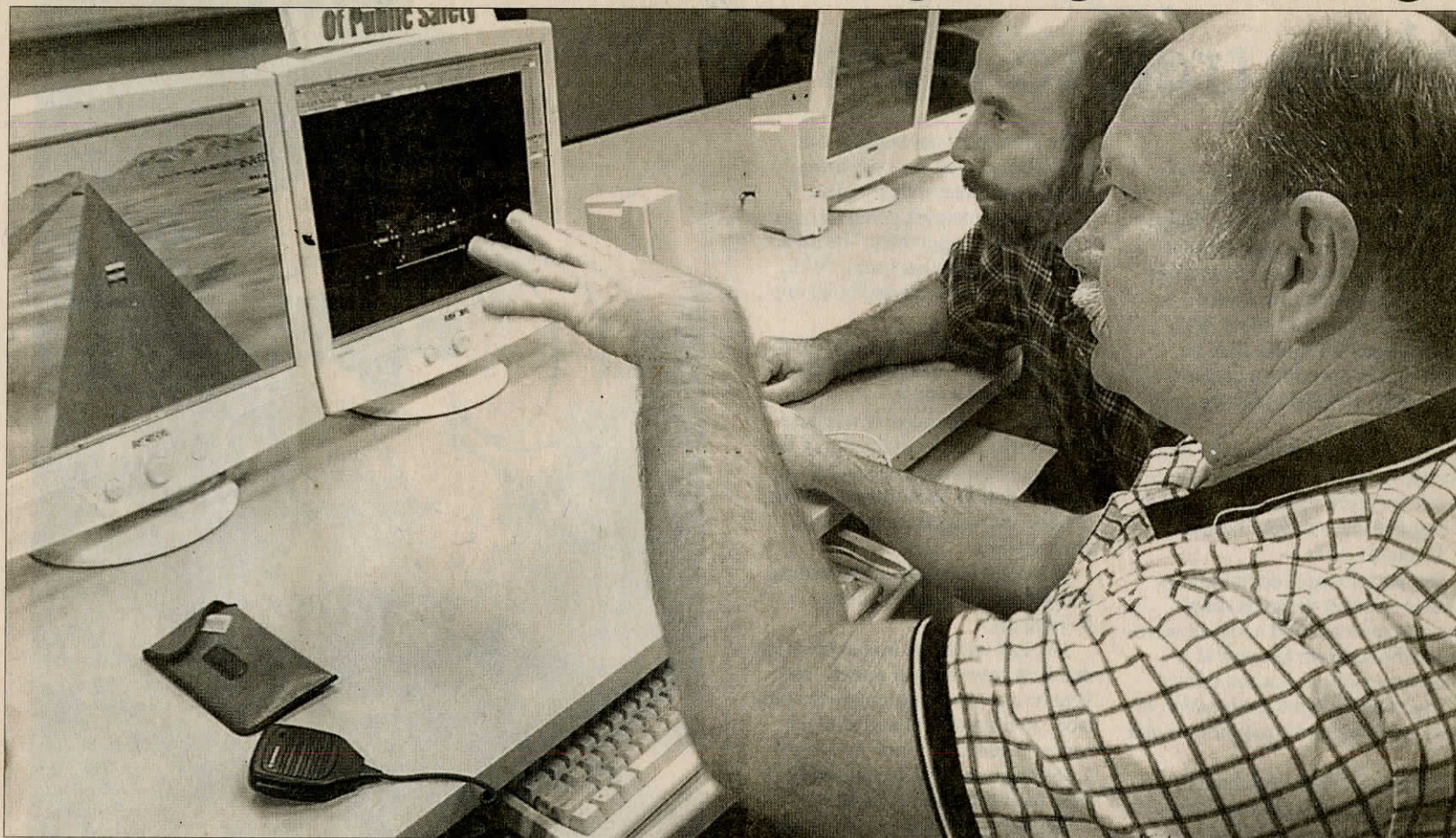
The scenario is actually a computer "war game," designed to train law enforcement supervisors how to cooperate to catch drug smugglers. The concept being tried out by the law enforcement agencies in Cochise County in the southeastern corner of Arizona is a prototype system of hardware and software designed by the Department of Energy and its HAMMER training facility in Richland.

For decades, Cochise County has been an active smuggling route from Mexico into the United States, said Cochise County Undersheriff Norm Bradley.

The law enforcement agencies in that region — the sheriff's department, the Douglas police, other police departments, the Arizona Department of Public Safety, the Border Patrol and the Customs Service — have been on the defensive, he said.

Those law agencies wanted to become more proactive. And they wanted to better coordinate their limited people and equipment, he said.

For example, the Border Patrol might have the only law enforcement helicopter in that area on a specific



Herald/Sharón Steinmann

Steve Tritz of the Arizona Department of Public Safety Criminal Investigations, foreground, explains a computer program to Mike

Monroe of the Pasco Police Department. In the simulation, officers try to catch fleeing drug smugglers.

day. County deputies and Border Patrol agents would be unfamiliar with where the schools and parks — with their collections of children who could get caught in crossfire — are in Douglas. And, Douglas' police drive mostly sedans, which don't do well in sagebrush.

The departments also have different hot-pursuit policies, plus different radio frequencies and procedures.

"To say we couldn't see the forest for the trees is appropriate," Bradley said.

Meanwhile, the departments have limited budgets to train together in the field to work out bugs in joint operations.

The mix of southern Arizona agencies had talked with academics, the military and the Border Patrol for ideas and were pointed toward Hanford's HAMMER operation, which coordi-

nates and supervises training for emergency services.

HAMMER and DOE have the computer expertise to modify military war game simulation systems to train officers in anti-drug operations.

The idea is for police supervisors — sergeants, lieutenants and captains — to learn each department's limitations and procedures and to work out potential glitches without doing and redoing time-consuming and expensive field exercises.

The software can throw unexpected problems at the officers, or trainees can play the smugglers and try to outwit the trainees playing the good guys.

Right now, this project has one scenario ready — drug smugglers crossing the Mexican border at Douglas in cars. The basic programming, including mapping out Cochise

County, took three months.

HAMMER experts want to expand the system's capacity to include civilian pedestrians and traffic, smugglers making air drops and smugglers using pack animals.

With the basic program set up, HAMMER experts believe they can add new scenarios more quickly, hoping to eventually be able to program a scenario in 24 hours. They hope to have a HAMMER-Arizona training network functioning by the end of this year.

Meanwhile, HAMMER plans to set up similar computer simulation training for the American-Canadian border from Blaine to Montana and for the American-Mexican border from El Paso, Texas, to Arizona.

HAMMER would handle the programming and coordination. Local law enforcement agencies would

design the scenarios and work on training and coordinating their anti-drug efforts.

So far, \$10 million in defense money has been allocated to this project, with \$5.2 million actually spent.

Meanwhile, some bugs still have to be worked out on the computer graphics.

On Friday, one computer-simulated police car tended to drive on the highway's shoulder or straddle the center line instead of staying in the proper lane.

Also, when the sedan began its off-road pursuit of the drug smugglers, it ignored a lot of open space to drive right through a telephone pole.

Literally.

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# Efforts to open B Reactor as museum gaining steam

By John Stang  
Herald staff writer

"We can't tell you what it is. But it's really neat." That's how retired Hanford employee Roger Rohrbacher recalled one Manhattan Project worker in the loop telling another about the secret World War II construction along the Columbia River.

That secret was Hanford's B Reactor — the world's first production-scale nuclear reactor. Its construction moved the Atomic Age from theory into reality.

And now, efforts to move a proposed B Reactor museum from theory to reality are gaining momentum.

Those renewed endeavors were outlined Thursday as Hanford officials held a recognition ceremony for Manhattan Project old-timers and the B Reactor Museum Association at the reactor.

B Reactor was built in 15 months at Hanford as part of the wartime Manhattan Project's race to create a nuclear bomb.

## It's Your Call:

Should B Reactor become a museum? Page A3.

See B Reactor, Page A2

# Students to vie for best flying robot at Hanford competition

By The Associated Press

RICHLAND — After the 1986 Chernobyl nuclear disaster in Ukraine, an aerospace engineering professor challenged universities around the world to come up with a safer, more efficient way to respond to emergencies — with flying robots.

On Thursday, college students will show off their designs and compete for \$30,000 in prize money at the International Aerial Robotics Competition at the Hammer Training and Education Center at Hanford. These are "intelligent" unmanned, rotary-wing robots, most designed like 3- to 4-foot-long helicopters, powered by computers and loaded with digital cameras and global positioning satellite systems to inspect areas unfit for humans.

Ideally, they are made to fly through 40-foot-tall flames or gushing water from broken mains. They can find the dead or survivors in need of rescue. They provide coordinates for, and can read the labels on, explosive, radioactive or hazardous chemicals in barrels, then bring back a sample — all without unnecessary risk to emergency response crews.

During the competition, animatronic dummies are used to simulate writhing survivors with bleeding head wounds and other injuries.

The DeVry Institute team from Calgary, Alberta, spent the last year com-

pletely redesigning its rotary-wing robot, which didn't get off the ground in 1999.

Four young men invested close to \$2,000 of their money and most of their vacations and other free time to get the work done.

"Last year, a part broke and we couldn't get a replacement, so this year we have modular parts," said Shaun Giebel, 21, of Calgary, Alberta, Canada, as he yanks out an easily removed Lego like component.

They've also come up with a new microcontroller design that's more efficient and costs less.

The Simon Fraser University team from Burnaby, British Columbia, favors a bright-yellow fixed-wing aircraft called the "Firefly."

"It's different from most rotary-wing aircraft, which are unstable," said Pavel Haintz, 27, of Coquitlam. "This has more range and is easier to control."

But it takes more than a wing and a prayer to make an autonomous aerial robot.

"The best thing to do is use something that already flies and modify it," said Robert Michelson, the Georgia Tech professor who founded the competition, now sponsored by the Association of Unmanned Vehicle Systems International.

The robots have to be "self-aware" or intelligent, meaning they base their

behavior on what they're seeing and respond accordingly without remote control, he said.

The Technische Universitat Berlin from Germany abandoned its original blimp design, which fared poorly in the gusty winds of the Columbia Basin, for a rotary-wing robot.

"We couldn't control our blimp, so we had to change. We are scientists," said team leader Wolfgang Brandenburg.

Michelson began the competition with five university teams gathering at Georgia Tech in 1990. The challenge was to design a flying robot with no one at the controls that could move a metal disk similar to a hockey puck from one ring, over a net, to another ring.

"At the time, there was no robot in the world that could do this," he said. "The first year, they could barely fly. No one was able to do the mission."

But Stanford University did it in 1995.

From there, the competition was changed to a mission that caught the interest of the U.S. Department of Energy — a robotic search of a toxic waste dump. That mission was accomplished in two years, this time at Epcot Center in Florida.

"Then we raised the bar to do search and rescue in the aftermath of a disaster," Michelson said.

# 'Chemical wall' blocks plume of chromium

By John Stang  
Herald staff writer

Think of it as an underground chemical wall.

And it is extending sideways to stop more and more of Hanford's most concentrated chromium plume from seeping into the Columbia River to potentially harm baby salmon.

Sometime in July, the 100-foot-deep, 150-foot-wide subterranean chemical wall will extend to 650 feet wide between Hanford's DR Reactor and the Columbia River.

By 2002, the barrier — actually a filter — is expected to grow to its final width of 2,300 feet.

After that, Hanford experts will study its costs and effectiveness to see if it should be installed to curb chromium plumes near other Hanford reactor sites, said Arlene Tortoso, the Department of Energy's ground water remediation project manager.

On the surface, the barrier does not look like much — just the tops of 16 wells marked by yellow waist-high poles.

But the posts also mark the first spot where Hanford stop-gap measures became a fix-it measure to combat underground contaminants.

Of Hanford's several dozen seeping underground contaminants, hexavalent chromium has the most potential to harm the river immediately.

Chromium is not radioactive. Different types of chromium were used to slow corrosion in Hanford's old plutonium reactor systems when they were running. And the chemical helped decontaminate the reactor complexes after they were shut down. Over the years, chromium leaked into the ground or was discarded in old, long-gone tanks.

Chromium-laced ground water oozes under the Columbia River's bed to seep up through the gravel on the river bottom. The Columbia's huge volume of water then dilutes the chromium to safe concentrations.

But chromium — of which hexavalent chromium is the most dangerous — remains heavily concentrated while in the river bed, where fall chinook eggs are laid and newly hatched salmon linger for a few weeks.

Young salmon absorb the metal, which can make them lethargic, cause breathing problems or kill them.

Hanford's scientists are studying exactly how dangerous chromium is to baby salmon. For now, the state and federal governments consider a concentration of 11 parts of chromium per billion parts of water as dangerous to baby salmon. Concentrations of up to 600 parts per billion — and

See Wall, Page A2

# U.S. House approves \$1.5 billion to clean up Hanford

By John Stang  
Herald staff writer

The full U.S. House on Tuesday approved spending at least \$1.5 billion in fiscal 2001 to clean up Hanford.

The amount is what the Department of Energy asked for.

"I'm confident that the funding levels in this bill will enable us to move forward with cleanup at Hanford," said U.S. Rep. Doc Hastings, R-Wash.

However, DOE's approximately \$5.8 billion nationwide cleanup budget request is still working its way through the U.S. Senate's committees. Hanford is traditionally the

largest single appropriation in DOE's annual nationwide cleanup budget.

Once the Senate passes its appropriations bill, the two congressional chambers will meet to reconcile differences in the two bills. Fiscal 2001 begins Oct. 1.

There are two new wrinkles to the House's 2001 appropriation:

■ The money — \$370 million for 2001 — to design and build a radioactive waste glassification plant is now in Hanford's conventional cleanup budget, bumping it up to \$1.57 billion. Until this spring, Hanford's annual glassification allocations have been set aside to be spent by 2007. Until now, the glassification

money has never been actually spent and was not included in Hanford's regular cleanup budget.

But an unexpected \$15 billion cost estimate to build and run the glassification plant caused DOE fire the BNFL Inc., the project's lead contractor. In the same stroke, DOE dumped the set-aside allocation approach.

This means the DOE and the House added the \$370 million in glassification money to DOE's still-intact \$1.2 billion Hanford conventional cleanup request. The \$1.2 billion is a \$50 million increase from fiscal 2000.

■ Hastings inserted a clause into the House's bill that says no DOE cleanup money can be

used to manage the new Hanford Reach National Monument. So far, DOE has made no such gesture.

President Clinton recently declared Hanford's Columbia River shoreline, the Wahluke Slope, the Fitzner-Eberhart Arid Lands Ecology Reserve and a small northwest chunk of Hanford as a national monument to preserve the shrub-steppe habitat. That land makes up slightly less than half of Hanford's 560 square miles and was never contaminated with radioactive or chemical pollutants.

Hastings opposed Clinton declaring the land as a national monument.

"No matter what your position is on the

Hanford Reach National Monument we can all agree that vital Hanford dollars should be spent solely on the Hanford Reach National Monument," Hastings said. The House bill provides \$382 million for CH2M Hill Hanford tank farm operations, \$191 million for the Basins project and \$158 million for the Plutonium Finishing Plant.

Actually, these figures are not set in concrete. After Congress appropriates the entire nationwide cleanup, DOE's headquarters in Washington, D.C., reslices the money before distributing it to each cleanup site.

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# Benton City, parts of W. Richland, Horn Rapids evacuated

By Terry Hudson and John Stang  
Herald staff writers

A huge wind-driven fire raced across Hanford on Wednesday and raged into Benton City, West Richland and Richland, burning homes and forcing chaotic evacuations of thousands of residents.

The hellish fire scorched at least 100,000 acres. Fire officials weren't sure of the exact boundaries of the fire late

Wednesday. It also burned as many as 25 homes and other structures in Benton City and at least two at Horn Rapids.

At least one person reportedly suffered third-degree burns. Lt. Paul Hart of the Benton County Sheriff's Department said the man was burned on 30 percent of his body and was taken to Kadlec Medical Center. He later was taken by air to Harborview Medical Center in Seattle.

"A citizen saw him come out of the smoke and collapse," Hart said.

Gov. Gary Locke declared a state of emergency at about 11 p.m. and ordered the Washington National Guard to help with the firefighting and evacuation efforts.

The fire flirted with Hanford's highly contaminated 200 West Area, but no problems were reported there or at other Hanford sites by 11:30 p.m. No radiation releases were reported.

The 150-square-mile range fire was started by a fatal car cash early Tuesday afternoon, then exploded Wednesday afternoon as constantly shifting winds came up and temperatures pushed 100 degrees.

Within just a few hours, the fire more than doubled in size and raced off Hanford's Arid Lands Ecology Reserve toward central Hanford and into the outskirts of the Tri-Cities. It jumped across the Yakima River near Wanawish Dam about 8 p.m. and threatened homes in West Richland.

Smoke spewed two miles high and spread across the Tri-Cities more than 20 miles away, sparking a warning for people with respiratory problems to stay indoors.

The fire forced the evacuation of all of Benton City, much of northern West Richland and the Horn Rapids area of Richland.

The setting sun created a kaleidoscope of red, orange and yellow.

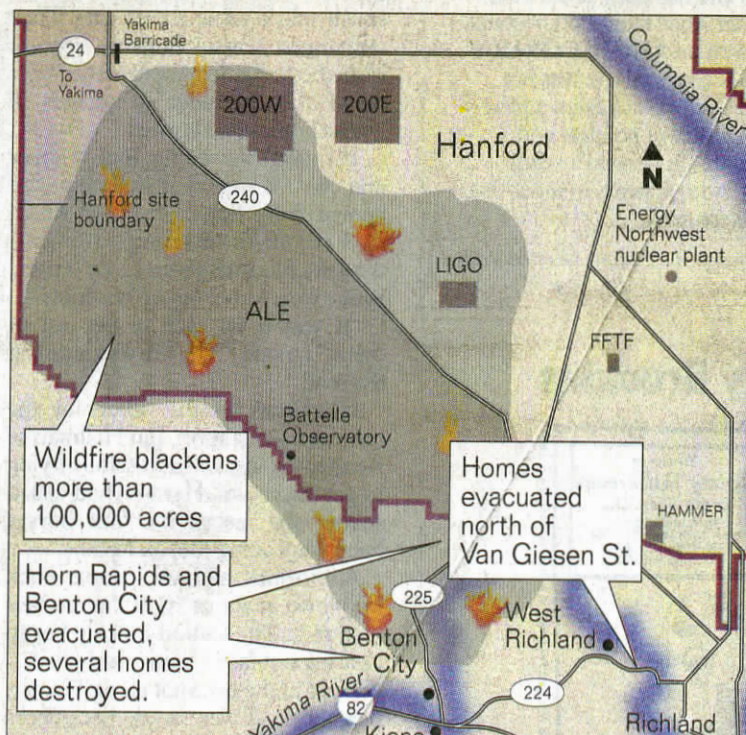
"It looks like the sky is on fire. It looks like hell. It's scary," said Betty Upington of Richland.

Authorities also ordered evacuations at the Horn Rapids neighborhood, West Richland's Snively, Grosscup and Harrington roads. Also evacuated were Siemens Power Corp., Oremet and Allied Technology Group plants on Richland's northern border.



Herald photos/Bob Brawdy

**Top:** Robert Steinbach uses a garden hose to spray around a neighbor's mobile home off Highway 225 near Benton City on Wednesday night after the Hanford brush fire overran Benton City. **Above:** An air tanker from Wenatchee makes a low pass over a wildfire Wednesday on the Arid Lands Ecology Reserve at Hanford. The fire had burned about 30,000 acres as of 6 p.m. and had jumped Highway 240 into the Hanford

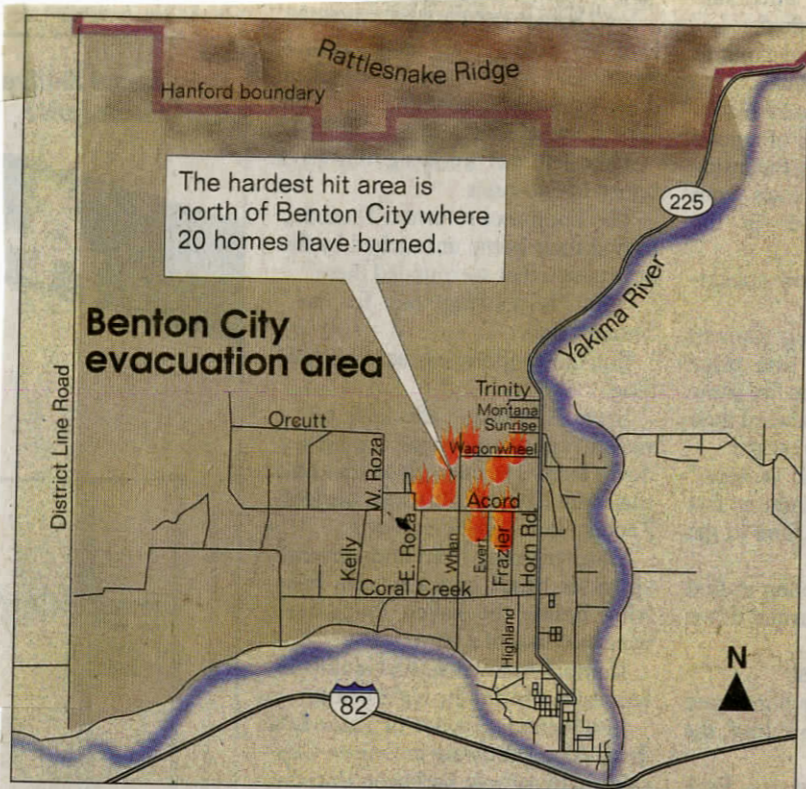


## Fire wreaks havoc on ALE habitat

By Annette Cary  
Herald staff writer

The new designation of national monument wasn't any help in protecting the Arid Lands Ecology Reserve on Wednesday as a large chunk of the Hanford Reach National Monument went up in flames.

Sage and grass lands were consumed by fire at the reserve — land on the west side of Hanford that makes up more than a third of the new national monument. But it was sage and grass lands that were beautiful enough and rare enough to



Herald/Sherry Emery

### 1984 Hanford fire was even larger than this one

This week's Hanford fire had reached almost 200,000 acres Thursday afternoon, but it still wasn't the biggest fire in the area's recent history.

In August 1984, 300,000 acres, about half the total acreage of the Hanford Reservation, was scorched in a fire that burned an area similar to this fire. Homes in West Richland and Benton City were threatened then, as well.

The fire began outside of Sunnyside and spread toward the Tri-Cities fanned by 25 mph winds.

### Firefighters warned about radiation hazards

Firefighters were briefed on potential radiation hazards associated with the fire, with only Hanford firefighters assigned to radiological hazard areas.

On Thursday morning, the fire entered an area known as the BC Crib, a former waste disposal area. Cribbs were used as underground disposal sites for low-level radioactive waste during Hanford's plutonium production days.

A study in 1998 estimated a firefighter spending 12 hours on the fire line would receive the equivalent exposure of a dental X-ray.

No unusual radiation levels were reported by Hanford officials Thursday.

# Nearly 1,000 firefighters from throughout NW help battle blaze

By Terry Hudson, Xiao Zhang and Kristin Alexander

Herald staff writers

Hot, exhausted and reeking of smoke and sweat, firefighters milled around the Trade, Recreation and Agricultural Center in Pasco on Thursday after battling the sagebrush and grass fire that swept through Hanford.

As they wearily discussed the fire, filled out paperwork or rested in shady spots outside, fresh crews awaited assignments before heading out to the fire lines.

Nearly 1,000 men and women from county fire departments, the U.S. Forest Service, the state Department of Natural Resources and private contractors checked in Thursday at TRAC.

Almost half were firefighters from county fire departments, called in to help save threatened homes and property, said

**“ We had a gut feeling it was going to be an all-nighter when we saw all the smoke coming over the hills. ”**

Rick Tyrrell, volunteer firefighter

Larry Sweeney, safety officer for the incident management team.

At about 11 a.m., Benton County District 1 firefighters returned from the Benton City area. Their faces were dark with soot, their yellow overalls smudged with grime. They had battled fires since 8:30 p.m. Wednesday with no sleep and little rest. Firefighter Rick Tyrrell said the

last time he slept was two days ago.

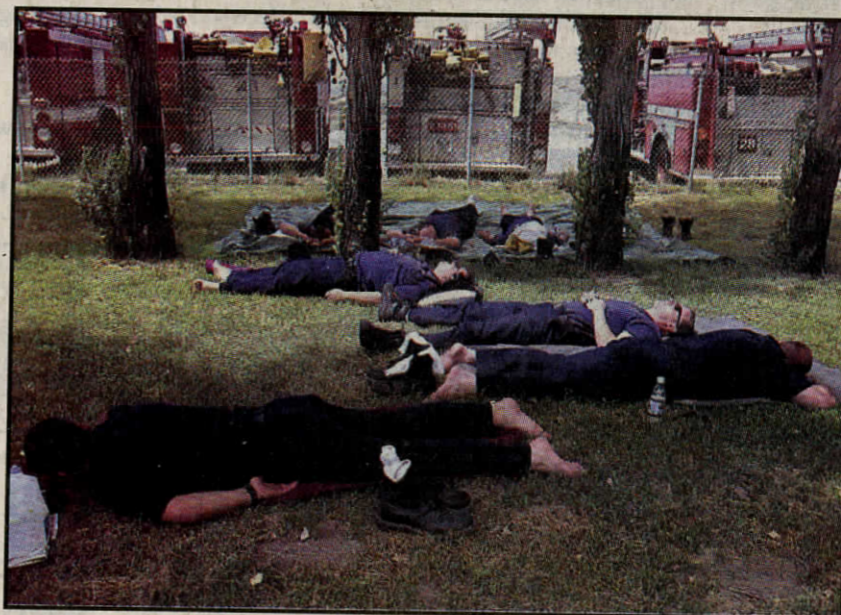
“I'm glad I'm here to help; that's why I'm a volunteer,” said Tyrrell, an electrician for the city of Richland. “We had a gut feeling it was going to be an all-nighter when we saw all the smoke coming over the hills.”

The Benton County crew battled through the night to save Benton City homes, sometimes in vain.

“Our instructions were to defend as many structures as we could and to be safe,” said district Capt. Bob Immele.

He said they were able to save several homes that would have caught fire from adjacent homes and other structures that were engulfed in flames. Immele's crew had a grass rig and four engines with them.

See **Blaze**, Page A2



Firefighters from the Bellevue Fire Department doze near the entrance to the Horn Rapids ORV Park and landfill in Richland on Thursday afternoon after battling flames through the night Wednesday.

Herald/Sharón Steinmann

# Hanford survives trial by fire

**By John Stang**

Herald staff writer

When Energy Secretary Bill Richardson looks at a scorched Hanford today, he'll see places where this week's monster fire came within a stone's throw of several radioactive waste sites.

That includes a trench of 1,500 barrels of uranium shavings less than three miles from Richland — where the fire had its best chance of getting into radioactive materials.

Arriving last night, Richardson is inspecting the second Department of Energy site — Los Alamos in New Mexico was the first — to be ravaged by a massive fire this year.

The fear of such a fire is the potential release of radioactive material into the air.

As of Thursday evening, preliminary results showed no airborne radioactive releases, with more test results due today, said officials with the state Department of Health. State experts collected air and vegetation samples in West Richland, Richland, Benton City, Hanford and Franklin County. And they accompanied Hanford technicians taking air samples to double-check their work.

Keith Klein, DOE's Hanford manager, said having an independent agency check for radiation releases is one lesson Hanford learned from Los Alamos. Health department conclusions — especially if no releases are found — would carry greater credibility than a DOE finding, Klein said.

This week's fire burned 47 square miles of Benton County plus 250 square miles of the 560-square-mile Hanford reservation. That includes a wide swath that came within 50 feet of Stevens Drive with the 300 Area just on the other side. Just north of the 300 Area are the 1,500 barrels of uranium chips.

But the burial trench escaped being endangered, said Doug Sherwood, the U.S. Environmental Protection Agency's Hanford site manager. "The highway is a pretty good (fire) barrier," Sherwood said.

If the fire had crossed the highway, it would then have to travel through a mix of dirt and scanty grass to reach the trench. Not enough grass is there to feed a fire for long. But the drums hold uranium chips stored in oil to prevent spontaneous combustion. Sherwood noted the range fire could spark the oil, leading to the uranium catching fire and radioactive uranium-laced smoke.

Two factors guard much of Hanford's wastes elsewhere — buffer zones and burial.

Fires came a half-mile, and sometimes much closer, to some of the 200 Area's 177 underground tanks holding 53 million gallons of radioactive waste, a waste analysis lab and a complex of metal buildings holding 50,000 barrels of plutonium-laced radioactive junk with some chemicals included in some drums.

But gravel buffer zones, concrete and metal structures, and being buried in some case — all kept the tank farms and the 200 Area other sites fairly safe from the fires, said Hanford officials and observers. Similar features protected Siemens Power Corp.'s uranium fuel plant — which saw the fire stop a third of a mile away.

Meanwhile, the fire surrounding Hanford's gravity-wave observatory came within 3 feet of one of its 2½-mile above-ground concrete tunnels that protect its laser chambers. Observatory director Fred Raab said Hanford's firefighters mapped out firebreaks and a bridge over one tunnel as fire protection measures during the construction — and they worked

# Firefighters continue to keep a close eye on Hanford blaze

By Annette Cary  
Herald staff writer

A thousand firefighters worked doggedly in 100-degree heat Thursday to snuff out what officials said was the nation's fastest-growing fire in the past decade.

A wind shift Thursday night pushed a wildfire that started Tuesday near northern Hanford back on land that had already burned and was welcome news to firefighters. Firefighters have switched to a defensive mode, meaning their focus now is on containing small, scattered fires, officials said.

But despite the better outlook, the fire has already burned about 300 square miles of sage and grass, destroyed rural homes in Benton City and raged across a third of the Hanford nuclear reservation.

The scorched land included a large portion of the newly designated Hanford Reach National Monument, where firefighters were

restricted by federal law from bulldozing fire lines, bringing in their largest firefighting trucks and taking other measures that would have destroyed the fragile shrub-steppe land.

Early Thursday evening, fire officials were nervously watching weather reports — hoping winds would not rise above the 30 mph gusts predicted.

If that was the worst weather to hit, firefighters were confident they could hold what remained of their fire line. But they knew a sudden, unexpected change in the wind had caused the fire to roar out of control the day before, just when they thought it was nearly contained.

In a few hours late Wednesday night and early Thursday morning, the fire incinerated 20 homes north of Benton City and destroyed 53 other buildings, including sheds, garages and shops, most of them also near Benton City.

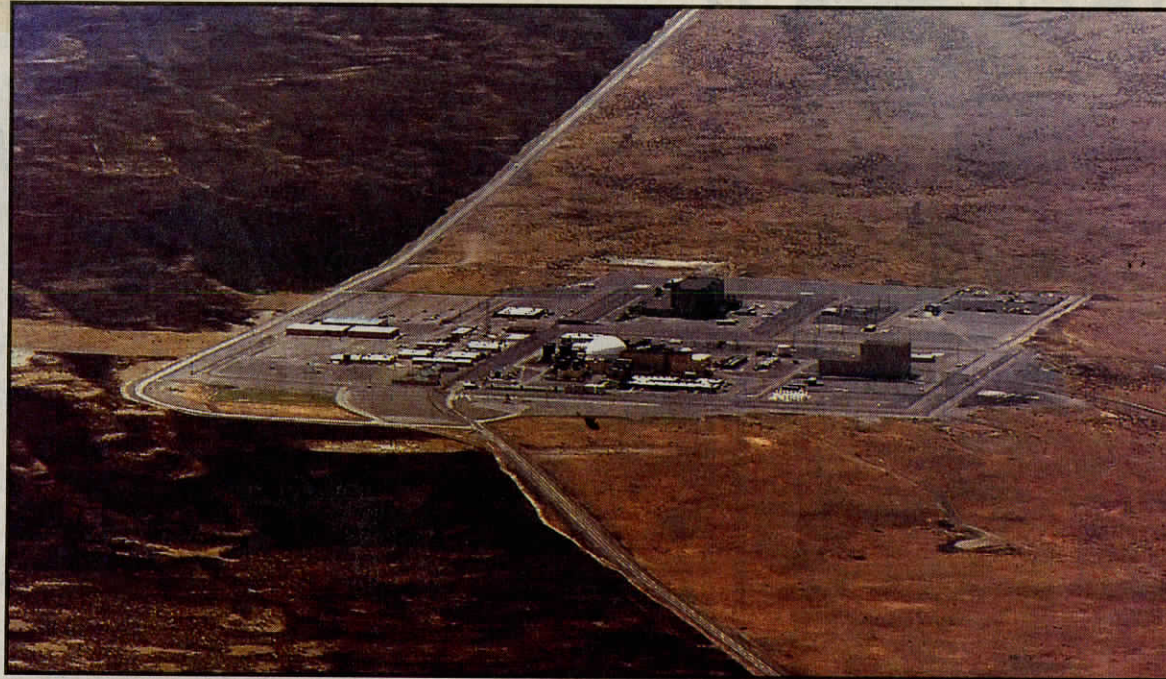
Firefighter John Evans drove by his Acord Road home late Wednesday in a fire truck, fresh from fighting the fire near the Silver Dollar Cafe and "saw huge fireballs coming off it."

"I was tore up," he said. "My heart just sank."

However, the most feared scenario, which had the eyes of the nation on the Tri-Cities, did not occur.

The fire burned across three old radioactive waste sites at Hanford, but no radiation releases were detected. Many Hanford buildings and reactors are protected from wildfire by wide perimeters of gravel, and more fire breaks were being bulldozed Wednesday and Thursday.

The state Department of Health was monitoring air samples Thursday and taking vegetation samples.



Herald/Bob Brawdy

Roads provided a firebreak that helped firefighters protect the Fast Flux Test Facility complex from the 190,000-acre Hanford wildfire. Other Hanford facilities also were threatened, but none was damaged.

## Range fire alters ALE environment

By the Herald staff

The Fitzner-Eberhardt Arid Lands Ecology Reserve with its dominating Rattlesnake Ridge is solid black — a giant ash beneath the sky.

That means change has begun for the animals and vegetation of the ALE.

Major components of the reserve's

vegetation are sagebrush and grass. Grass grows back quickly, probably returning in full to the ALE by next spring. But sagebrush takes many decades to grow back, meaning creatures that dine on sagebrush are unlikely to return for a long time.

That includes sage grouse, an endangered species that showed up

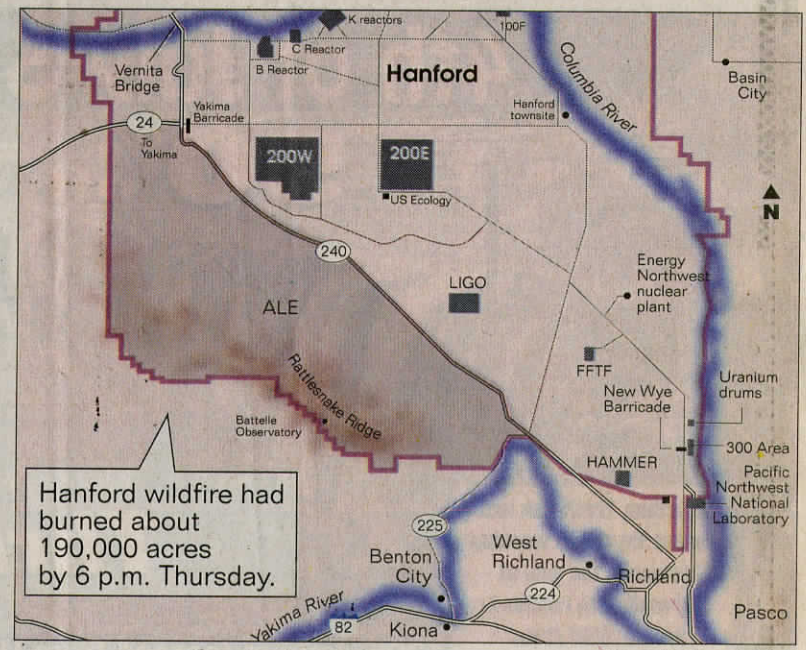
on the ALE in 1999 after not being seen there for at least 10 years. Sage burrows and loggerhead shrikes also are unlikely to return until the sagebrush does, said Larry Cadwell, a staff scientist at Pacific Northwest National Laboratory.

Meanwhile, the 800 or so elk that live there may return in a few months.



Special to the Herald/Peter Haley

Firefighters set a backfire Thursday evening to protect the Canister Storage Building in the 200 East area of Hanford. The fire still was burning near the area Thursday evening.



Herald/Sherry Emery

Hanford wildfire had burned about 190,000 acres by 6 p.m. Thursday.

# CH2M Hill takes over Hanford glassification job for rest of year

By John Stang  
Herald staff writer

Bechtel is getting axed from this year's design work on Hanford's waste glassification project, along with BNFL Inc.

This dismissal is intended to provide a level playing field for prospective bidders to replace BNFL as the lead contractor to design and build plants to convert Hanford's radioactive tank wastes into glass.

And this action will put CH2M Hill Hanford Group in charge of the glassification design for the rest of 2000.

The Department of Energy hopes to soon transfer the rank-and-file engineers, designers and mid-level managers from Bechtel, BNFL and their two subcontractors over to CH2M Hill to hang on to the experts actually designing the plants.

Up to 700 people could be transferred to CH2M Hill, which is Hanford's second-largest cleanup company with about 1,200 employees.

On Thursday, DOE sent a letter to BNFL, Bechtel and their subcontractors GTS Duratek and Science Applications International Corp. to formally announce the termination.

However, all four companies are eligible to bid for the design-and-construction contract this fall, which is supposed to be awarded by Jan. 15, 2001.

BNFL has been the leader of this four-company team with Bechtel as the main partner.

This Bechtel is a sister company of Bechtel Hanford Inc., which manages

several other Hanford projects. Actions involving the glassification project do not pertain to Bechtel Hanford Inc.

BNFL's team was supposed to design, build and operate the glassification plants to convert the tank wastes into a benign glass. Originally, DOE was scheduled to award that contract to BNFL this summer.

Construction is supposed to begin in 2001. Glassification is supposed to begin in 2007.

But this spring, BNFL submitted a cost estimate of \$15.2 billion to do the project. That shocked DOE, which had been expecting an estimate closer to \$6.9 billion. DOE found the \$15.2 billion figure unacceptable and told BNFL it will be fired.

But that action also endangered keeping the glassification project on its legal schedule of starting construction in 2001 and glassification by 2007.

So, DOE plans to open all the construction and much of the design work to bidders in August — with the winner taking over in January 2001.

But to keep the design momentum

and Hanford observers that the bid process would be too heavily weighted in Bechtel's favor. Fears surfaced that Bechtel's advantage would discourage other companies from bidding.

So DOE decided to terminate BNFL, Bechtel and their subcontractors for the rest of 2000.

Meanwhile, CH2M Hill has been managing central Hanford's tank farms, which includes the task of getting the wastes into the right condition at the right places at the right times for the glassification project.

A few months ago, CH2M Hill publicly declared it won't seek the multi-year design-and-construction contract.

Because of this stance, DOE decided to put CH2M Hill in charge of the design work for the rest of 2000. CH2M Hill also is forbidden from bidding on the 2001 contract. The company has 60 days to assume control from BNFL.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

# Substandard pipes cost CH2M Hill \$100,000

## Department of Energy hands out penalties to CH2M Hill and Fluor Federal Services

By John Stang  
Herald staff writer

The Department of Energy is fining CH2M Hill Hanford Group \$100,000 for quality control problems with pipes intended to transport highly radioactive wastes at Hanford.

Most of the welds in those pipes were substandard.

Fluor Federal Services also faces a penalty in this case, but the amount could not be confirmed Friday.

The penalties zero in on the two companies' failures to map out and follow adequate quality control procedures in obtaining 127 feet of specialized pipe to transfer wastes. CH2M Hill manages Hanford's tank farms, and Fluor Federal Services was CH2M Hill's subcontractor.

The penalty is the result of a legal consent order under which DOE agreed to fine the companies

and they would correct the problems and not fight the fines. The idea is to resolve the matter quickly without extended investigations and legal battles that often come with a formal federal violation notice.

Also, DOE considered the fact CH2M Hill discovered the defective welds and voluntarily reported the problem, said Dick French, manager of DOE's Office of River Protection.

CH2M Hill spokesman Ace Etheridge said the company "is determined to remain diligent in its pursuit of quality and safety, even if the lessons learned are not pleasant."

The appropriate Fluor Federal officials were not available for comment Friday.

The issue comes from CH2M Hill supervising the installation of underground pipes to transfer wastes at the AY Tank Farm in the 200 East Area. The pipes were to be "safety-class" quality, which is the strongest and strictest classification of materials to be used in Hanford's construction work.

Fluor Federal was in charge of the actual installation, and it ordered the safety-class, double-walled pipe from Perma-Pipe of Lebanon, Tenn. The pipe contains an inner pipe surrounded by an outer pipe, with the two separated and held in

place by spoke-like struts. A safety-class, double-walled pipe requires full welds along all the joints where the struts meet the inner and outer pipes.

But Perma-Pipe's engineers gave the wrong directions to the company's welders — and only spot welds were used. Perma-Pipe's and Fluor Federal's quality control inspectors failed to spot that mistake after the manufacturing was completed.

The pipes were shipped to Hanford. But when union workers unwrapped the pipes on Jan. 24, they spotted some broken welds. Fluor Federal notified CH2M Hill, which notified DOE.

French said CH2M Hill has been working to fix the procedures and follow-through that led to this problem, which delayed the pipe project by a couple of months. He said there is enough flexibility in the tank farm cleanup timetables that this glitch should not slow efforts to prepare wastes for eventual treatment.

"We need good processes, and we need diligent people to make them work. ... We have to reinforce the human aspect. I believe this is an isolated event," French said.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

# Blaze fades out as Richardson pays visit to Hanford, Benton City

By John Stang  
Herald staff writer

Hanford's four-day, 300-square-mile range fire is on its death bed.

Recovery now has entered the minds of those who fought it and those devastated by it.

On a quick visit to Hanford and Benton City on Friday morning, Energy Secretary Bill Richardson said the Department of Energy will work with the state, U.S. Rep. Doc Hastings, R-Wash., the Benton County commissioners and Benton City on repairing the massive damage caused when the fire roared south from the nuclear reservation into northern Benton City. Twenty homes and 53 other buildings were destroyed.

Meanwhile, 1,000 firefighters finished putting out the monster blaze by early Friday. Now, firefighters patrol the blackened zone, dealing with smoldering patches and flare-ups.

A lone, twin-bladed helicopter zig-zagged across western Hanford on Friday, armed with at least 1,000 gallons of Columbia River water in a basket dangling beneath it. That water was dumped on any flare-up spotted by the helicopter's crew.

Just before he flew back to Washington, D.C., Richardson said: "We really care about those 20 homes. These are men and women of this community. Some are Hanford workers."

Richardson talked with the Federal Emergency Management Agency about helping Benton City. DOE plans to consult with

Hastings plus state and local officials on what is needed. And DOE will try to get a congressional appropriation to pay for the recovery, he said.

"I hope we focus on this as soon as we can so we don't lose momentum," Richardson said.

No one has begun to calculate any of the firefighting or recovery costs.

Benton City Mayor Lynn Johnson said: "We're just getting through the aftershock at this point."

Johnson has begun talking with Benton City residents, trying to compile a list of what must be done to fix up a town of 2,200 people hit with its second major disaster in four years. The Yakima River flooded much of Benton City in 1996.

"The top priority naturally is going to be the homeowners," Johnson said.

Several lost houses and other buildings were uninsured. Other losses include dead livestock, ruined wells and pumps and destroyed cars and farm equipment.

Johnson talked with Gov. Gary Locke and U.S. Sen. Patty Murray, D-Wash., and both offered help. Also, the Port of Benton has offered to lend heavy equipment to help with the cleanup.

State Reps. Shirley Hankins, R-Richland, and Jerome Delvin, R-Richland, plus Benton County Commissioner Max Benitz and Richland City Councilman Larry Haler plan to meet with Johnson at 1:30 p.m. today at Benton City's City Hall to tour the devastated area. This is to begin planning how to help the people who lost their homes.

### On the Net:

For more coverage of the blaze, go to the Herald's Web site and click on "The Hanford wildfire."



Herald/Bob Brawdy

Firefighters from Washougal and Clark County pause from patrolling for hot spots Friday for a lunch break along Highway 240 near the Horn Rapids ORV Park. The dome of the Fast Flux Test Facility is visible behind them against the scorched earth.



2 July 00

# Hanford Environmental Restoration Project

Your comments are requested on...

## Proposed Plan to Clean Up Sites in the 300-FF-2 Operable Unit at the Hanford Site

The public is invited to comment on a proposed plan to clean up waste sites and burial grounds in the 300 Area National Priorities List Site.

- This operable unit contains 56 waste sites including: trenches, storage areas, process sewers, French-drains, cribs, dumping areas, unplanned releases, general content burial grounds, and burial grounds contaminated with transuranic materials.
- The preferred alternative is to remove the contaminated soil/debris, treat as appropriate, and send to an engineered disposal facility.
- Other cleanup options evaluated include: no action and containment.
- The reasonably anticipated future land use for this portion of the Hanford Site is industrial.
- Public input will be considered before the cleanup plan is finalized in a record of decision.
- The public comment period will be held from July 3 through August 3, 2000.
- If you would like to request a public meeting where agency representatives will be available to answer questions and record your comments, please contact Mike Goldstein by July 17, 2000.

The Proposed Plan for the 300-FF-2 Operable Unit (DOE/RL-99-53) and associated technical background documents are available for review at the following location:

U.S. Department of Energy Reading Room  
Washington State University, Tri-Cities  
Consolidated Information Center, Room 101L  
Richland, WA 99352  
(509) 372-7443  
Attn: Terri Traub

Please submit comments in a written or electronic format to:

**Mike Goldstein**  
U.S. Environmental Protection Agency  
712 Swift Boulevard, Suite 5  
Richland, WA 99352  
(509) 376-4919  
goldstein.mike@epa.gov



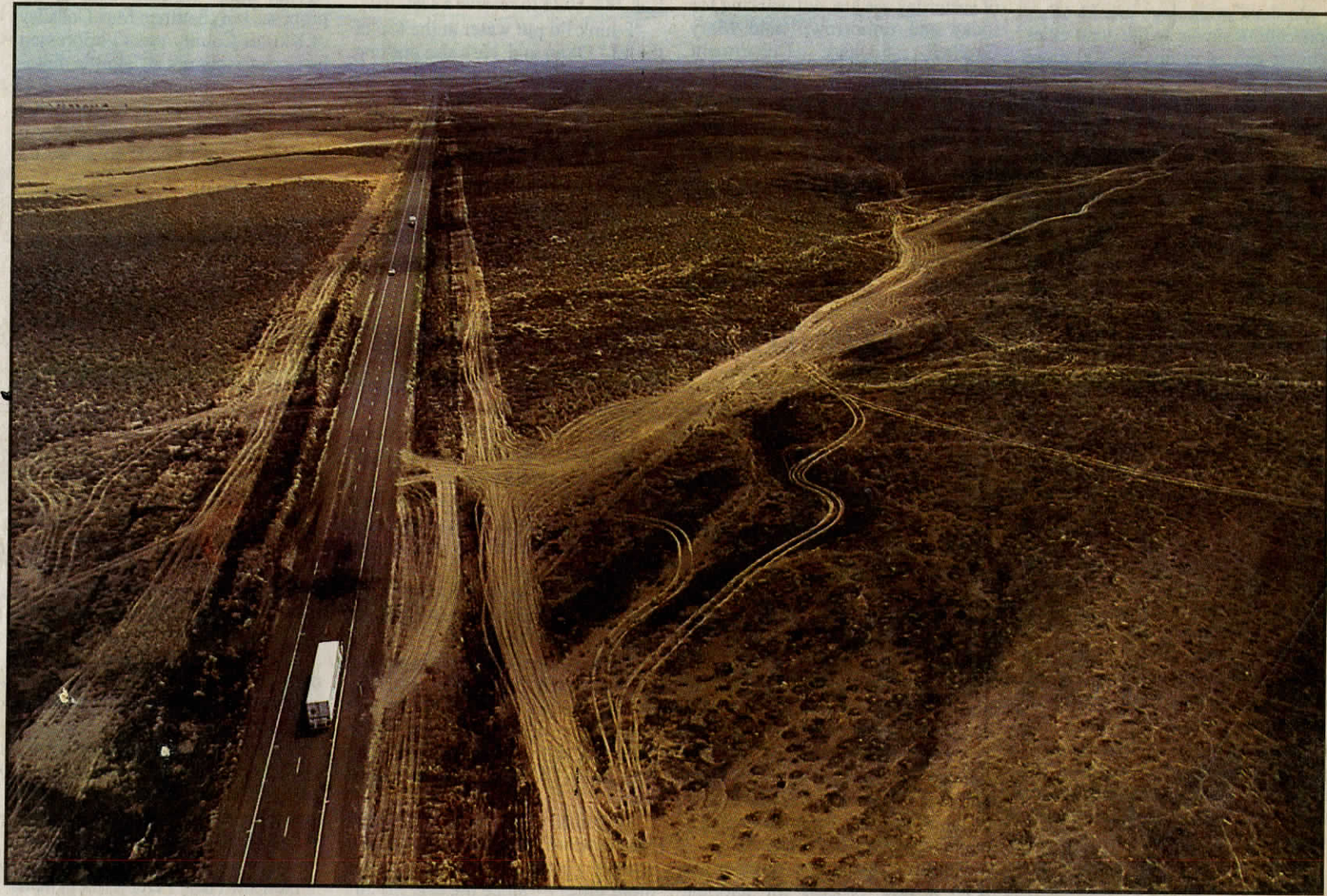
For additional information call the Hanford Cleanup line toll-free: 1-800-321-2008

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## Fish and Wildlife was concerned before burn



Herald/Bob Brawdy

A semi-truck drives past the site of last week's fiery fatal collision on Highway 24 near the Arid Lands Ecology Reserve at Hanford. The accident sparked a 192,000-acre brush fire that reached Benton City. U.S. Fish and Wildlife Service officials were concerned about the vegetation along the highway before the fire but had not found an acceptable way to clear the right-of-way.

# Control methods faced obstacles

By Annette Cary and John Stang  
Herald staff writers

U.S. Fish and Wildlife Service officials were concerned vegetation along highways 240 and 24 might fuel a fire but couldn't find an acceptable control method before a traffic accident sparked last week's 192,000-acre fire.

Fish and Wildlife had been considering a controlled burn along the roadway but had not received money for the project, said Greg Hughes, project leader for the Arid Lands National Wildlife Refuge Complex.

The lack of money was not the only obstacle. Officials at Fish and Wildlife and other agencies

were concerned about closing the highways, blowing smoke and controlling the fire so it did not spread beyond the fence line to the Arid Lands Ecology Reserve.

Even if money had been available, the roadway's shoulders likely would not have been burned. In early May, Interior Secretary Bruce Babbitt banned prescribed burns on federal land in the West. The ban was announced after a controlled burn in the forests southwest of Los Alamos, N.M., destroyed 47,000 acres and left several hundred families homeless.

The ban was not lifted until June 12 — too late in the spring to be doing controlled burns in the

Mid-Columbia's dry, desert land.

Fish and Wildlife officials also discussed blading the highway shoulders to the fence line, leaving bare ground, to control vegetation. However, there were air quality concerns and fears that blowing dust would reduce visibility on the highways and cause accidents, Hughes said.

The reserve has been under the management of Fish and Wildlife for three years and continues to use the Arid Lands Ecology Facility Management Plan developed by Pacific Northwest National Laboratory for the Department of Energy.

See **Burn**, Page A2

6 JULY 2000

## Scorched reserve displaces elk, creates driving problems



Herald/Bob Brawdy

A herd of bull elk rests on a firebreak next to scorched earth Wednesday morning at the Arid Lands Ecology Reserve at Hanford. Biologists are warning motorists to use

caution near the ALE because the elk herd, estimated at between 700 and 800 animals, is on the move since last week's fire.

# Vegetation to return to land through care, time

By Annette Cary

Herald staff writer

From a distance, Rattlesnake Mountain is unrelieved black char.

But from the air above, the mountain and the rest of the Arid Lands Ecology Reserve are a mosaic of greens, grays and browns where the quickly moving fire spared vegetation in spots.

At the bottom of steep ravines down the sides of Rattlesnake, gray brush remains healthy where the fire skipped from ridge to ridge above it.

"There are areas the fire flew past so fast it

didn't touch," said Greg Hughes, project leader for the Arid Lands National Wildlife Refuge Complex.

In other places, the 300-square-mile fire roared through grass so quickly last week that clumps of sage were left untouched as the fire licked through the grass in its path. Along springs and creeks, vegetation stands out in emerald green oases against the black.

"Where it was wettest, the fire cleared it in a single bound," Hughes said.

Other patches high on the hill remain light brown. Where soil was thin, little grew to add fuel to the fire. And close to Highway 240, the

black of the fire has already been erased by winds that swept away dark ashes.

However, the vegetation that remains isn't enough to support the reserve's animals. Nearly all the ALE burned.

The estimated 700 to 800 elk on the reserve have started to roam in search of food, moving back and forth across roadways as they leave, then return to the burned reserve.

"They like the ash to roll in and remove insects and ticks," said Erv Gasser, a specialist with the Burnt Area Emergency Rehabilitation team, or BAER team, of the Department of Interior.

Two elk have already died, the losers in a confrontation with a semi-truck just before the sun rose Tuesday. A herd of bull elk ran into the roadway in the Horn Rapids area of Highway 240 in front of the semi, said Richland police reports.

Fish and Wildlife officials are warning drivers to slow down and watch for elk in unexpected areas, particularly when the animals are likely to be active in the early morning and evening hours. With a cow elk weighing about 500 pounds and bulls weighing more, a collision

See **Scorched**, Page A2

# Hanford could lose vit project workers

By John Stang

Herald staff writer

Hanford could soon lose a few hundred key technical people needed to keep work going on the troubled radioactive waste glassification project.

Hanford should know by July's end whether it will hang on to most of those engineers and designers.

The answer will influence whether Hanford's biggest project falls behind its legal timetable of starting construction in 2001 and beginning glassification in 2007.

The potential brain drain exists because the Department of Energy is terminating BNFL Inc. and Bechtel National from design work on the glassification complex. CH2M Hill Hanford Group is taking over that work until a new contractor is hired next January.

The unfolding dilemma is this:

BNFL's glassification team has about 700 employees, of which 165 belong to BNFL and 250 to Bechtel, the team's main partners.

CH2M Hill wants to hire everyone for the rest of 2000. Then, it would transfer those people to a new, yet-unpicked contractor in 2001.

But BNFL wants to keep at least 80 to 100 of its senior people and transfer them elsewhere. And Bechtel wants to keep all its people and transfer them elsewhere.

These 330 to 350 people are the bulk of the experts who spent the past two years designing the proposed

See **Hanford**, Page A2

# Complaints lead to new Hanford union vote

By John Stang  
Herald staff writer

Hanford's largest union local is redoing its last election of officers — this time under federal supervision.

Ballots recently were mailed to the 2,200 to 2,500 members of Local 8-369 of the Paper, Allied-Industrial, Chemical & Energy Workers International Union, or PACE.

In early 1999, PACE merged with the Oil, Chemical and Atomic Workers union nationwide, boosting the combined membership to about 320,000.

The ballots are due at Local 8-369's headquarters in Richland by late July from members at Hanford, and elsewhere in Washington, Alaska, Oregon, Idaho and Hawaii. The Department of Labor is supervising the new election. About 600 to 650 local members work at Hanford.

The new election's roots can be traced to last November's vote, when Randy Knowles defeated David Wight to become the new president, replacing longtime President Jim Watts, who retired and did not run.

Shortly after that election, Watts and PACE's Nashville, Tenn., headquarters both received complaints about how the election was conducted. The chief complaint was that Mid-Columbia union members had to drive to Richland to vote, while everyone else used mail-in ballots.

Wight and his supporters contended the mail-in ballots allowed those members a much bigger window of time in which to vote. PACE's Nashville headquarters also received other complaints, which it mentioned in a general way in a December letter to Local 8-369. That letter, which did not go into details, said the allegations included:

- Charges of financial malpractice within the local.
- Violations of PACE's procedures and bylaws.

PACE appointed a trustee, Bob Johnston, to supervise Local 8-369 until the financial allegations are investigated. That investigation continues, said Bill McGoveran, PACE vice president and regional director for the western states. He declined to elaborate on the allegations or the investigation.

Johnston and Knowles declined to be interviewed. Watts, who had sided with Knowles, stressed he had not been active in the local's politics for several months.

Wight contends Watts and Knowles are part of a faction that has controlled the local for many years and tries to shut down challenges to its control. "If you're not in the clique, you're not in," Wight said.

He also contended the local's leaders made it extremely difficult for other members to examine financial records. Wight contends the organization's cash reserves are shrinking.

Watts described Wight and his supporters as a faction frustrated with decisively losing the past two leadership elections — adding that local members

can scrutinize union finances. McGoveran said Local 8-369 financial accounts "are not in the red," declining to elaborate further.

In March, Wight's supporters filed a complaint with the Department of Labor about the balloting methods. A few weeks later, a new election was called.

McGoveran wrote to Local 8-369, saying the federal agency and PACE agreed to the new election to clear the air.

"The International Union believes that any error made during the conduct of the election was made inadvertently and in good faith. Furthermore, the International notes that these errors were technical and minor in nature," McGoveran wrote.

Wight noted the union agreed to the new election as soon as the Labor Department approached it, interpreting that to mean the union already knew there were problems.

Watts said one reason the Labor Department called for new balloting was that the union's newspaper said, "All offices (in the local) are open," instead of listing each of the more than a dozen offices up for election.

Ralph Tremain, the Labor Department's regional director in Seattle, said the department does not comment on these matters — including verifying that it is involved — until any investigation is completed.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

## Key report on FFTF due out July 24

By Annette Cary  
Herald staff writer

The Department of Energy plans to release a draft environmental report this month that's key to the future of Hanford's Fast Flux Test Facility.

The report, due out July 24, is expected to recommend whether the reactor should be restarted. The plant was deactivated as surplus in 1993 after 10 years as a test site for nuclear fuel and components. It remains one of DOE's most modern reactors.

Although it's had no mission for a decade, the sodium coolant has not been drained from its cooling system. Once the sodium is drained, the reactor cannot be restarted.

Keeping the reactor in standby condition is costing \$35 million to \$40 million annually.

Supporters of FFTF are interested in saving the reactor to make isotopes for new medicines, particularly to treat cancer. Medical isotopes, most of them imported, are used by one in four U.S. hospital patients to diagnose heart disease and other ailments.

However, promising medical trials show more powerful isotopes could be used not just to diagnose cancer, but also to treat it.

Isotopes can be attached to proteins that travel through the body, seeking out and latching on to cancer cells. Those "smart bullets" then release a deadly dose of radiation to the cancer cell, with far less damage to

See Report, Page A2

## EPA audit finds fault with delays in cleanup

By The Associated Press

RICHLAND — Delays in the 30-year, \$50 billion effort to clean up hazardous wastes at the Hanford nuclear reservation are increasing risks at the nation's most contaminated nuclear site, says an audit from the Environmental Protection Agency recently made public.

Part of the problem is regulators — the EPA and the state Ecology Department — have failed to enforce deadlines set under an agreement with the Department of Energy, which owns the 560-square-mile site.

"We are facing big delays out there, due in part to funding and in part to DOE having (dragged) its feet," Ecology's Mike Wilson said Friday.

Major delays in pumping and treating Hanford's most dangerous wastes could extend the nation's priciest nuclear cleanup by as much as 19 years beyond the original 2028 deadline, says the yearlong audit by EPA Regional Inspector General Truman Beeler.

The delays "significantly increase" the risk of leaks from old, compromised tanks into ground water or air, says the

See Cleanup, Page A2

## Hanford canisters repaired

### Plutonium cans showed possibility to rupture, leak

By John Stang  
Herald staff writer

Hanford recently finished fixing 15 plutonium containers that showed the most potential to rupture and leak.

The Plutonium Finishing Plant either had repacked the plutonium or baked it into a more benign powder about a week and a half ago, finishing an overdue check that began in March of all containers of scrap plutonium in a vault at PFP.

Those checks and subsequent repair work are to prevent the small canisters from bulging and leaking — allowing plutonium particles to escape.

A February memo by the Defense Nuclear Facilities Safety Board noted about two-thirds of the cans of plutonium had not been checked for the potential to leak in the past 10 years. Since March, that work has been done, leading to remedial work on the 15 containers, said Pete Knollmeyer, Department of Energy assistant manager for nuclear materials and facilities stabilization.

The PFP has 4.4 tons of plutonium mingled among 19.6 tons of scrap material left over from its Cold War production. The facility's mission is to convert those 4.4 tons into safer forms of plutonium by mid-2004.

This plutonium is in several forms, requiring several methods to convert each type into a more benign material.

The bulk of the plutonium consists of small chunks stored in sealed, airtight containers, which are inside slightly bigger airtight containers.

But this leads to a dilemma. If a sealed container actually is

See Canisters, Page A2

# ALE recovery plans carry \$600,000 tag

## Burn team recommends spending to restore habitat

By Annette Cary  
Herald staff writer

A team of burn rehabilitation experts is recommending \$600,000 be spent at the Arid Lands Ecology Reserve to make emergency repairs and start restoring habitat after last week's wildfire.

That would cover nurturing replacement sage brush, tracking elk, protecting endangered species

and fighting weeds that take hold on damaged land.

Additional money would be used to rehabilitate parts of the rest of the burned Hanford reservation and to rehabilitate public and a small amount of private land damaged not by the fire but by fighting it.

The Burned Area Emergency Rehabilitation Team, or BAER, comprised of specialists from around the West, has spent the last week assessing the effects of the fire and firefighting at Hanford. Specialists came from several federal agencies with expertise in soils, wildlife biology, archaeology, hydrology, geology and botany.

The team is recommending \$250,000 from a fed-

eral fund for emergency fire rehabilitation be used to encourage native vegetation to return to the arid lands reserve. The 192,000-acre fire burned nearly all the 77,000 acres of the reserve — part of a security zone established around Hanford during World War II that remains untouched by development or agriculture.

Some of that money would be spent to plant 80,000 sage seedlings on the reserve that already were being grown for planting on damaged areas of Hanford. Seed also would be collected to grow sage to be transplanted on the reserve.

"This will give us a jump-start for the sagebrush

community," said Erv Gasser, a natural resource specialist and BAER team leader. "If we did not, it would take a number of years for sage to naturally germinate."

Sage regenerates with tiny seeds that fall from the plant to the nearby ground — rarely getting spread far from the parent plant — and the brush requires ample moisture and little competition from other plants to germinate.

More of the \$250,000 would be used to promote the growth of rare plant species that have been found

See ALE, Page A2

On Page A3:

- Cleanup effort launched to aid 11 families rendered homeless by fire.
- Benton City man burned in blaze recalls experience.
- Benton, Franklin counties say emergency centers handled fire well.

# Federal policies on fires at issue

## Some say rules hindered Hanford firefighting efforts

By Annette Cary  
Herald staff writer

Despite an agreement calling for Hanford firefighters to tread lightly on environmentally protected land, fire officials immediately ordered heavy equipment after the blaze started and began aggressively fighting a fire that grew to 192,000 acres, Hanford Fire Chief Don Good said Tuesday.

How the fire was fought continues to be an issue as public officials question whether federal policies hampered firefighting efforts two weeks after a fire raged across federal land and destroyed 11 Benton City homes.

Monday night, the city council in West Richland, where some homes were endangered by the fire, voted to ask the Washington congressional delegation to allow fires on public lands to be fought with heavy equipment.

"Let's get the rules changed so firefighters can use heavy equipment to put out the fire when it starts," said Councilman Ken Dobbin.

Last week, U.S. Rep. Doc Hastings, R-Wash., raised similar concerns. He said he'd heard Mid-Columbia residents say Fish and Wildlife Service policies may have hindered efforts to combat the Hanford fire when it started. Fish and Wildlife manages the

See **Fires**, Page A2

# PNNL work suspended after security breach

By Annette Cary  
Herald staff writer

Pacific Northwest National Laboratory is undergoing a security stand down after a classified drawing apparently was mistakenly copied and taken from a secure area.

The problem was discovered June 30, about the time firefighters were mopping up a huge wildfire at Hanford, but the security breach was unrelated to the fire, said lab spokesman Greg Koller. The problem occurred on the main campus of the Richland national laboratory, rather than in one of the Hanford areas that was evacuated because of the fire.

However, the fire contributed to the decision to hold a stand down. Some of the lab's classified work is done on the Hanford nuclear

reservation in an area that was evacuated because of the fire.

The stand down, a temporary suspension of security work at the lab, also was intended to make sure classified work was conducted with normal high levels of safeguards as employees returned to work last week after the fire, Koller said.

The security breach that led to the stand-down decision began June 29 when a lab employee with security clearance intended to make photocopies of nine drawings that were not classified. However, a mistake was made and a classified drawing was copied, Koller said.

The copies were taken to an office out of the security area and left there for about 25 hours.

The office was locked for all but a few minutes of that time, he said.

The mistake was discovered and reported by another employee who was preparing the documents to be sent elsewhere.

All staff who handled the classified drawing had security clearance, Koller said, and no documents are missing.

However, in response to the incident and the fire, the lab and the Department of Energy launched a stand down Monday. Most employees had both Monday and Tuesday off and others took additional time off.

But management plans to meet with all staff member who work on classified projects to reinforce security awareness before each employee resumes work on classified projects.

Classified work accounts for \$65 million worth of research annually at the lab, or about 13 percent to 14 percent of the lab's total research budget. The lab does research in fields such as environment, energy, health and national security, but is not a weapons or defense lab.

The lab's classified work ranges from developing information technologies that can sort and analyze large amounts of intelligence data to the design of facilities for disassembling and disposing of nuclear weapons materials. Koller said he couldn't name the specific project involved in the incident.

DOE and lab officials are continuing to review the security concern and should release a report this week.

The lab has had occasional security breaches in the past, although lab officials have said no information appeared to have leaked past employees with security clearances. That included three apparently minor security incidents in late 1998, all of which were discovered and reported by lab staff.

No foreign nationals work on classified projects at the Richland lab.

Since the recent wildfire at Hanford, DOE has checked the classified materials in Hanford's evacuated areas to ensure against a repeat of a security incident that occurred at the recent Los Alamos fire, said DOE spokesman Mike Talbot.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at [acary@tri-cityherald.com](mailto:acary@tri-cityherald.com).

# \$100 billion lawsuit filed against 13 Hanford contractors

By John Stang  
Herald staff writer

A \$100 billion lawsuit has been filed in federal court against 13 past and current Hanford contractors over the site's World War II and Cold War radioactive releases.

The contractors "irradiated thousands of unsuspecting men, women and children without their consent through their activities (at Hanford)," stated the complaint filed June 28 in U.S. District Court in Spokane. The case has been moved to the district's chambers in Richland.

The lawsuit has 17 plaintiffs, including the dead husband of one of them. All used to live in Richland or the immediate area during Han-

ford's plutonium production days. All have some form of cancer or thyroid disease.

"In their rush to produce plutonium, to keep laborers, the defendants kept quiet about the worker and public health risks concerning production, no matter the costs," the complaint alleges.

The complaint asks the judge to turn the lawsuit into a class action suit to include those who lived or visited the Richland area during World War II or the Cold War and became sick because of radioactive releases. The complaints speculated that number could range from 10,000 to 14,000 people.

The plaintiffs seek \$100 billion in punitive damages, which one of their attorneys, Brian Depew of Los Angeles, said is the "high bar"

for the damages. That's because the punitive damages can go below the complaint's sought-after amount but not above it.

The complaint also seeks a public apology, full disclosure of the circumstances of Hanford's releases, plus medical monitoring and treatment for those whose illnesses can be linked to the site's releases.

This complaint is somewhat similar to two previous downwinder lawsuits filed in federal court in Yakima in 1990, which were combined, then separated again for complicated reasons. At one point, the litigation had about 4,000 plaintiffs.

That number dwindled for several reasons. The biggest cutbacks came in 1998 and 1999, when federal Judge Alan McDonald dismissed

most of the plaintiffs, leaving at most a few hundred. McDonald ruled many facets of the highly scientific litigation were too complex for a jury to sort out. He limited claims to only those involving thyroid cancer, leukemia, stomach cancer, colon cancer and some related conditions.

The plaintiffs' attorneys currently are appealing that ruling. This new litigation has been filed by several of the lawyers representing the dismissed plaintiffs.

"Judge McDonald did not apply the law correctly," Depew contended, saying the plaintiffs believe any other federal judge would rule differently on that issue. Depew said the plaintiffs' attorneys — representing five law firms in California, Minnesota and Seattle — believe they

have the means lined up to determine if a cancer case can be linked to Hanford's releases.

The overwhelming majority of Hanford's radioactive airborne releases occurred in 1944 and 1945. Significantly fewer releases took place from 1946 to 1951. And much smaller releases occurred from 1952 to 1972.

In early 1999, Seattle's Fred Hutchinson Cancer Research Center, which conducted the most thorough study on the matter, announced a preliminary conclusion that no significant statistical link exists between Hanford's iodine releases and thyroid cancer. But the study's methodologies received heavy criticism.

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12 JULY 00

# 12 to 15 employees expected to be laid off as Fluor projects shift

By John Stang  
Herald staff writer

Cogema Engineering Corp. told 12 to 15 employees Monday they will be laid off in two weeks.

With Fluor Hanford focusing on starting the removal of the K Basins' spent nuclear fuel in November, that program will get top priority, shifting money away from some projects handled by Cogema, said Bruce Morson, the firm's engineering president.

While Cogema has done engineering work on the K Basins project, that program has shifted into an operations mode, in which Cogema does not play much of a role, he said.

Cogema is one of Hanford's four "enterprise" companies, which are primarily Hanford subcontractors that are trying simultaneously to build up off-site business.

Cogema does engineering, designs equipment to study and retrieve radioactive wastes and conducts non-destructive examinations of materials. Much of its work is for Fluor Hanford, the site's lead contractor.

Morson said he hopes the layoffs will be a one-time occurrence. He added Cogema hopes to regain some funding in the fiscal 2001 Hanford cleanup budget, which goes into effect Oct. 1.

Before the layoffs, Cogema had about 195 employees.

Cogema has been one of the Tri-Cities' two fastest-growing enterprise companies.

When Fluor took over Hanford management in 1996, it spun off about 2,200 Hanford workers into six off-site companies. They are supposed to do Hanford work while building up outside clients as an economic development measure to wean the Tri-Cities from economic dependence on Hanford.

Since then, two enterprise companies have been reabsorbed "inside-the-fence" at Hanford. Two more — Fluor Federal Services and Lockheed Martin Services — have been fairly stable.

Cogema and Waste Management Technical Services have grown significantly in the past 3½ years. Recently, GTS Duratek bought Waste Management Technical Services, planning to keep it intact in the Tri-Cities.

Cogema has grown from 105 employees in the fall of 1996 to 153 in the fall of 1998, then to 195 by November 1999.

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Herald/Bob Brawdy

Maria Titus of Long Beach, Miss., tries to get customers Tuesday morning for a free car wash on Columbia Drive in Kennewick. The church youth group is spending the week in the Tri-Cities performing service projects.

## Port of Benton land annexation approved by Prosser council

By the Herald Staff

Police said the Sunday robbery occurred in St. In that earlier incident, a man re-armed men in a corner of his home. tied him up with duct tape, stole his 1986 Nissan Pulsar. The license plate

The first suspect is described as a he and a goatee. The second suspect is th third is described as a short Hispanic tuft of long hair in the middle of his he

Anyone with information is asked Office at 509-754-2011 or 800-572-

### Reported robbery in Geor

GEORGE — Grant County Sheriff Saturday at George Scales Store didn

Police said the store's owner said he reported the armed robbery to cover taped statement about the false report George was arrested and booked into false statement to a public servant. The owner

### Fluor executive joins CBC Foundation board

Tom Harper, vice president of site services for Fluor Hanford, has joined the Columbia Basin College Foundation board of directors. He began his term in June.

Some of Harper's other volunteer community activities include serving as school board president, United Way loan executive and as a youth sports coach.

In addition to serving on the CBC Foundation board, Harper also serves on the boards of the Tri-Cities Visitor and Convention Bureau and on the Association of Washington Business. The CBC Foundation is a volunteer 30-member board that raises money for scholarships and provides financial assistance for campus projects.

12 JULY 00

## Hanford ships 1st load to WIPP

By John Stang  
Herald staff writer

The first bunch of radioactive wastes has been removed permanently from Hanford.

That truckload of transuranic wastes left central Hanford about 5 p.m. Wednesday, beginning a 45-hour, 1,808-mile trip to the Waste Isolation Pilot Project in southern New Mexico.

The WIPP is a manmade, half-mile-deep cavern near Carlsbad, N.M., which is supposed to store transuranic wastes from several Department of Energy sites.

Seven of those barrels — containing wastes from the Plutonium Finishing Plant — are on the first flatbed truck headed to WIPP.

Originally, the first shipment was supposed to leave Hanford in mid-

June. But the New Mexico Environment Department was still reviewing at that time its final inspection of Hanford's procedures and facilities that prepare the transuranic waste shipments.

Originally, three DOE sites were shipping to WIPP — until New Mexico revised its requirements for accepting the wastes. At this time, only Rocky Flats and Hanford have passed the new requirements to ship to WIPP.

Hanford expects to ship about 80,000 barrels in about 2,500 truckloads between now and 2032. The site expects to ship about one truckload a month, eventually increasing the pace as it becomes more efficient in preparing the barrels.

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# Tainted particles from fire no threat

Radioactivity released at Hanford poses no health risk, officials say

By John Stang  
Herald staff writer

Some radioactive particles churned about in central Hanford during the site's massive fire, although at levels officials say don't pose health risks.

The Department of Energy, its regulators and a watchdog group are collecting and analyzing air, plant and soil samples to see how the fire and firefighting efforts knocked loose contaminated dirt at Hanford.

This is a follow-up stage after federal and state test results showed no fire-related radioactive releases occurred that could threaten the health of the firefighters or people living around Hanford. Those conclusions came from general tests with quick turnaround times.

"I'm very confident there are not going to be health problems. Even if we missed something so far, it'll be below the limits for health risks," said Debra McBaugh, a state health department official who deals with radioactive matters.

Now, these agencies are conducting much longer, more detailed tests designed to detect much lower levels of radioactivity than the first quick general tests. This second round of tests, which could take up to two months, also will pinpoint which radioactive substances may have scattered about because of winds, fire trucks or the fire.

Last month, a range fire burned 300 square miles of sagebrush, including 250 square miles of mostly noncontaminated western Hanford. Although the fire flirted with several

See **Particles**, Page A2

# 'Privatization' at DOE sites not working, report finds

By John Stang  
Herald staff writer

The Department of Energy's "privatization" concept has flopped so far, a recent federal General Accounting Office report concluded.

"DOE's privatization initiative has had little success in achieving cost savings, keeping the projects moving forward on schedule or getting improvements in contractors' performance," the report said.

The report covers the GAO's June 22 testimony to the U.S. House Commerce Committee's subcommittee on oversight and investigations. The GAO serves as the investigative arm of Congress.

The GAO looked at three DOE privatized projects — including Hanford's troubled radioactive waste glassification project. The other two projects are at DOE's Idaho Falls site.

DOE designed the privatization concept for very long, complicated projects. Under the concept, the hired company would pay all upfront costs and would not be repaid for its expenses and profits until specific goals are met. The idea is to get private money invested in cleanup projects with federal money not being used until the goals are actually accomplished. This is supposed to be an incentive to get work done on time and within budget in nationwide cleanup

“  
**This lack of awareness raises questions about the adequacy of DOE's expertise to oversee this aspect of the project.**  
”

General Accounting Office report

programs notorious for delays and cost overruns.

However, DOE's two biggest privatization projects have failed, and a third is showing its first signs of struggling. These projects are:

■ BNFL Inc.'s effort to build Hanford plants to convert the site's radioactive tank wastes into glass. Construction was supposed to begin in 2001, with glassification to run from 2007 to 2018. The original cost estimate was \$6.9 billion — which was supposed to be a \$2.1 billion to \$3.5 billion savings over using a conventional contract.

But the high financing costs for an 18-year project plus design changes caused BNFL to submit a revised \$15.2 billion estimate in April. That led DOE to fire BNFL. DOE is trying to

hire a new company under a more conventional contract by January 2001.

■ Lockheed Martin's efforts to clean up a one-acre plutonium-laced burial site called "Pit 9" at DOE's Idaho Falls site.

The supposedly \$200 million project was run from 1996 to 1999 and saved \$134 million. But Lockheed's performance problems got it fired in 1998, with the cleanup work still not done. Now, DOE and Lockheed are fighting in court, with DOE trying to recover \$54 million already paid to Lockheed, and the company claiming DOE owes it another \$271 million.

■ BNFL's efforts to set up a mixed waste treatment plant at Idaho Falls, to be operated from 2003 to 2018. This \$876 million project is supposedly \$670 million cheaper than what could be done under a conventional contract.

So far, DOE is happy with BNFL, but some permitting and legal problems could delay construction. The GAO is not sure if those problems could delay the overall project. Delays would likely increase the price tag, the report said.

The GAO found common problems at all three projects.

The required work grew in all three. The wastes had not been thoroughly studied. Some

technical and regulatory issues were unresolved when plans were made. Schedules were unrealistic. DOE erroneously thought a privatized project's costs would not grow once it was started, the GAO concluded.

Also, the GAO noted all the contractors had major problems in lining up private investors — other than their own companies — to pay for the upfront costs while waiting several years for returns on their investments.

And in all three cases, DOE limited the options to set up and finance contracts — comparing a privatized approach only with a conventional cost-reimbursement contract without performance incentives. That shut out many avenues and comparisons DOE should have explored, the GAO report said.

Finally, the GAO wondered if DOE effectively supervised a privatized contract, citing Hanford's tank waste project as an example. The GAO noted DOE became aware of BNFL's estimate approaching the \$15 billion mark only a few weeks before it was submitted.

"This lack of awareness raises questions about the adequacy of DOE's expertise to oversee this aspect of the project," the report said.

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## METRO/NORTHWEST

# DOE halts Hanford scrap metal recycling

By John Stang  
Herald staff writer

The Department of Energy is suspending its sites' sales of scrap metal for recycling — a move that includes about 1 million pounds of Hanford scrap annually.

DOE has been criticized in the eastern United States for selling scrap metal with some surface contamination to be recycled for industrial uses.

In January, Energy Secretary Bill Richardson halted the sales of slightly contaminated nickel for recycling. That decision mostly affected DOE's sites at Paducah, Ky., and Oak Ridge, Tenn.

Thursday's suspension apparently is an expansion of January's action, intended to ensure contaminated materials are not recycled

in products used by the public.

DOE also wants to improve its recordkeeping and procedures in this matter, according to a DOE press release. The suspension is supposed to stay in place until these improvements are made. No timetable was announced.

Fluor Hanford sells about 1 million pounds of noncontaminated scrap metal a year to Pacific Recycling of Kennewick. Details on the costs and other financial aspects of selling Hanford's scrap metal were unavailable late Thursday afternoon.

While measures are taken that Hanford's scrap — mostly broken equipment — is not contaminated, that metal is covered by DOE's suspension order, said Fluor spokesman Michael Turner.

Hanford's contaminated scrap metal normally is buried in one of the site's trenches or landfills. Han-

ford has screening measures to make sure contaminated scrap does not leave the reservation, Turner said.

Hanford recently had an incident of a small piece of carcinogenic, but nonradioactive scrap material leaving the site.

Last April, Last Chance Wrecking & Salvage Co. of Pasco bought a load of stainless steel at a Hanford surplus materials auction, intending to sell it as scrap. A one-gallon container holding some beryllium — dangerous if its dust and flakes are inhaled and lodged within lungs — was found among the steel. Fluor bought back the beryllium.

Turner said Richardson's suspension decision was not related to the beryllium incident.

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## Radioactive waste arrives in New Mexico

The first shipment of Hanford's radioactive wastes arrived Friday at a permanent storage site in New Mexico after a 46-hour journey.

Seven 55-gallon barrels of Hanford's transuranic wastes traveled 1,808 miles on a special flatbed truck to the Waste Isolation Pilot Project near Carlsbad, N.M.

The WIPP is a manmade, half-mile-deep cavern built to store transuranic wastes — essentially radioactive junk with long decay rates — from several Department of Energy sites.

Hanford expects to ship about 80,000 barrels in about 2,500 truckloads between now and 2032.

The site expects to ship about one truckload — a maximum of 42 barrels — a month, eventually increasing that pace as it becomes more efficient in preparing the barrels.

## Isotope group plans meetings

By the Herald staff

Citizens for Medical Isotopes has planned a series of meetings at 5 p.m. each Monday through August to discuss using Hanford's Fast Flux Test Facility to make isotopes for medicine.

The group will be on the deck at the Shilo Inn, 50 Comstock St., Richland. The public can pick up information on how medical isotopes can be used to treat cancer and about the draft environmental study on the reactor's future. That study, which is expected to recommend whether to restart the reactor, should be available Monday.

Citizens for Medical Isotopes now has an office in the Benton Franklin Title Co. at 3315 Clearwater Ave., Kennewick. The office is open Tuesdays and Thursdays. For more information, go to [www.medicalisotopes.org](http://www.medicalisotopes.org) on the Internet or call 737-8463.

# Hanford cleanup budget nears \$407 million

By John Stang  
Herald staff writer

The U.S. Senate Appropriations Committee added \$25 million to Hanford's cleanup budget Tuesday, bumping a proposed 2001 tank farms budget from \$382 million to possibly \$407 million.

The extra money would go toward pumping radioactive wastes to double-shell tanks, dealing with oozing subterranean contaminants and preparing wastes for eventual glassification.

"This sends a powerful signal that Congress will support cleanup (at Hanford)," said U.S. Sen. Patty Murray, D-Wash.

Murray and U.S. Sen. Slade Gorton, R-Wash., are on the Appropriations Committee's subcommittee that addresses Hanford's cleanup budget.

The Department of Energy is asking Congress to appropriate \$1.6 billion for Hanford's cleanup in fiscal 2001 — including \$382 million to manage the tank farms and \$370

million to design and build tank waste glassification plants. The full U.S. House approved DOE's request.

Gorton and Murray recently got the Appropriations Committee's energy and water development subcommittee to add at least \$29 million to DOE's budget request. This is supposed to provide extra cash for projects dealing with Hanford's old plutonium reactors, the Plutonium Finishing Plant and the K Basins.

That bumped the Senate's pro-

posed Hanford cleanup allocation to \$1.603 billion.

Meanwhile, Gorton's staff had been scrutinizing the energy and water development appropriations bill and found the bill had \$25 million not allocated to anything, said Gorton spokeswoman Cynthia Bergman.

Gorton approached U.S. Sen. Ted Stevens, R-Alaska, the Appropriations Committee's chairman, about the unallocated \$25 million, and Stevens said it could go to Hanford because

Gorton's people spotted the discrepancy, Bergman said.

That sends a \$1.6 billion Hanford cleanup budget request — including \$407 million for the tank farms and \$370 million for the glassification project — to the full Senate next week.

House and Senate members are to meet in the fall to reach a compromise on the proposed appropriations.

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# DOE offering urinalyses to Hanford firefighters

By John Stang  
Herald staff writer

The Department of Energy is offering urinalyses to more than 700 firefighters for anyone who wants to check for exposure to radioactive particles in June's massive Hanford fire.

So far, 29 Hanford firefighters have requested the tests.

DOE has just begun contacting the numerous Northwest fire departments that helped fight the fire to tell them about the available tests, said Harry Boston, DOE's deputy manager for site transition at Hanford.

When the fire was burning, DOE offered whole-body radiation counter tests to any firefighter who wanted

one. None took up that offer.

The urinalysis tests are follow-up checks with seven- to eight-week turnaround times. The tests focus on strontium 90, which can cause bone cancer and is considered one of the most potentially dangerous radioactive substances in the waste sites touched by the fire.

This is part of DOE's hunt for potential radiological problems from the 300-square-mile range fire that destroyed 11 Benton City homes and burned about 250 square miles of western and central Hanford late last month. Most burned areas contain no contaminants. But the fire swept across three radioactive waste burial

sites just south of central Hanford's highly contaminated 200 Area.

The U.S. Environmental Protection Agency, the Washington Department of Health and the watchdog organization Government Accountability Project also are testing air samples to double-check DOE's conclusions.

So far, no radioactive releases harmful to humans have been detected in Hanford or off-site. Many central Hanford samples indicate some slightly radioactive particles have churned about. Detailed studies of those particles are still ongoing.

Two fire-touched waste sites are dried-out ponds where slightly contaminated water was dumped from

the 1950s to 1970s. Federal and state officials voiced little concern about those two sites.

The main concern is the B/C Cribs area where about 40 million gallons of moderately radioactive fluids were dumped from 1956 to 1958, and from 1962 to 1967, according to Bechtel Hanford Inc. One hundred grams of plutonium ended up in one trench.

Meanwhile, no air samples have been collected after Friday's Mid-Columbia dust storm. But the state and DOE have scheduled routine follow-up samplings. The state plans to collect samples during the next major Hanford dust storm, said

Debra McBaugh, a state health department official.

Here is how the air sampling is unfolding:

■ DOE collected 76 samples in and around Hanford several days ago with 34 to 36 showing general radioactive levels slightly higher than before but significantly below dangerous concentrations. DOE is analyzing those elevated samples in greater detail to find out what radioactive substances in what concentrations are in them.

■ DOE collected 44 sample since then from different spots. Seventeen have been tested so far, showing no increased radioactive levels. DOE expects to collect more samples from

those 44 sites in the near future.

■ The EPA collected 35 samples at 20 locations in and around Hanford. A few off-site samples show slightly elevated levels of naturally occurring radioactive lead 212. On-site samples' results were unavailable Wednesday

■ The state health department sampled several spots, with some tests done and some still being conducted. So far, no significant increases of radioactive particles have been found.

■ GAP split three samples with DOE to independently test them. Those results are not back yet.

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20 JUL 00

# Knowles wins election to remain president of Hanford's largest union

By John Stang  
Herald staff writer

Randy Knowles won a redone election to remain president of Hanford's largest union.

Results tallied Tuesday gave Knowles 65 percent of the vote, compared to 35 percent for shop steward David Wight for the presidency of Local 8-369 of the Paper Allied-Industrial, Chemical & Energy Workers International Union, or "PACE."

The vote count numbers were not available Wednesday. About 725 people voted. Local 8-369 has at least 2,000 members in Hanford and the surrounding area, Spokane, Alaska, Oregon and Hawaii. Between 600 and 650 work at Hanford.

Actually, 15 Local 3-369 officers were elected, with the slate led by Knowles sweeping the field.

This has been a bitter fight between Knowles' and Wight's supporters. Wight originally lost to Knowles last November in an election to succeed long-time and now-retired local president Jim Watts.

Wight's side charged irregularities

occurred in that election. Eventually, the overall PACE leadership and the U.S. Department of Labor agreed, although a regional union vice president previously said the irregularities were minor and unintentional.

As a result, November's election was conducted again this summer.

Knowles, Wight, plus the appropriate international union and federal labor department officials could not be reached for comment Wednesday.

In a press release, Knowles stated: "Now comes the difficult task of putting aside our internal differences, and moving forward as a group. I

hope that Dave and his supporters will join us in that task."

Earlier this year, Wight's side charged that Local 8-369's leadership has been responsible for financial malpractice, a diminishing local cash reserve and violations of union by-laws. PACE and possibly the labor department have investigated those charges.

No information was available Wednesday on the results of those investigations.

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22 JUL 00

# DOE again delays decision on FFTF

By Les Blumenthal and Annette Cary  
Herald staff writers

WASHINGTON — The Department of Energy again put off a decision on restarting the Fast Flux Test Facility at Hanford, this time in a long-awaited draft environmental study due out next week.

"A preferred alternative has not yet been identified," the department said after months of looking at restarting the research reactor and reviewing the best ways to supply the nation with medical and industrial isotopes, to provide a plutonium 238 power source for space missions and to conduct nuclear research.

DOE is waiting for two more key reports, both expected in August, and wants to hear from the public before picking a preferred alternative, said Matt Nerzig, a Washington, D.C., DOE spokesman.

The report due next week offered no major reasons not to use FFTF for those three missions and, in fact,

hinted it might be the best alternative.

"Due to its large core size, flux spectrum, demonstrated testing capability and rated power level, it would be able to concurrently support the projected plutonium 238 needs, production of medical and industrial isotopes and nuclear research and development related to a broad range of materials, advanced reactors, advance fuels and waste transmutation," the draft said.

The draft environmental impact statement said it was uncertain whether existing department facilities could handle the new missions without disrupting current programs and projects. Two new accelerators might have to be built in order to handle isotope and plutonium 238 needs, it said, and a new research reactor may not have the same capabilities as FFTF.

A copy of the environmental

See FFTF, Page A2

22 JUL 00

# Hanford eyes deals to dispose of barrels

By John Stang  
Herald staff writer

Hanford plans to soon scrutinize proposals to deal with about 1,500 barrels of potentially flammable uranium chips that Hanford's massive range fire flirted with three weeks ago.

The site expects to receive about a half-dozen proposals from companies competing for the work by the Aug. 15 deadline, said Jeff James, the project's task leader for Bechtel Hanford Inc.

Neutralizing and disposing of those oil-filled barrels of uranium chips could take a year, said James and Bob McLeod, the 300 Area project manager for the Department of Energy.

Late June's 300-square-mile range fire came within a few hundred yards of the uranium barrels' burial site, just north of the 300 Area and three miles north of Richland. It was where the threat was greatest for the fire to reach a significant amount of radioactive wastes. The range fire could have caused the uranium to burst into flames and start a conflagration fueled by the oil.

Ironically, the oil's purpose is to prevent the uranium from spontaneously bursting into flames on its own.

Hanford studies show at least 134 barrels at this site need to catch fire to produce a dangerously high radioactive dose to a human standing almost 100 feet away. Uranium particles are dense and tend not to float far in the air, McLeod and James said.

Hanford already has taken precautions by building earthen berms around the burial site, and setting up concrete barriers to ensure no more than 133 barrels are in one spot, James said.

## VALLEY/NORTHWEST

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# Fluor nearly ready to repack pools' spent fuel

By John Stang  
Herald staff writer

Hanford's K Basins project is entering its "dress rehearsal" stage.

The finishing construction touches should be done in a couple of weeks. Fluor Hanford plans to do a limited shakedown run, moving live spent nuclear fuel across the K West pool in mid-August.

Meanwhile on Monday, Fluor juggled the project's leading managers to reflect the change from a construction phase to an operations mode.

That shift included redefining the duties of Dave Van Leuven, Fluor Hanford's executive vice president. Until a later date, Van Leuven will concentrate solely on the K Basins, with Fluor President Ron Hanson absorbing Van Leuven's other duties.

The K Basins are two leakprone, water-filled indoor pools holding 2,300 tons of spent nuclear fuel about 400 yards from the Columbia River.

The K Basins are the most important pro-

gram within Fluor's sphere of Hanford projects. The project has a troubled past, and Fluor is trying to make a Nov. 30 legal deadline to begin removing spent nuclear fuel from K West Basin.

"We're confident we're going to make that date, but we have a lot to do, though," Van Leuven said.

Hanford's plan is to pluck the sometimes corroded fuel canisters from the pools' bottoms, move them underwater and insert them inside special storage containers called Multi-Canister Overpacks or MCOs.

The MCOs will be trucked to the Cold Vacuum Drying Facility where all moisture will be sucked out to prevent the fuel's radiation from breaking the water down into a highly combustible mix of hydrogen and oxygen in a confined space. The MCOs then will go to a huge underground vault in central Hanford for safer storage.

In 1996, this project had an estimated cost of \$814 million with a 2001 completion date. But numerous management and technical

problems ended up extending that completion date to 2005 with an estimated cost of \$1.6 billion. Recently, that completion date was moved up to 2004.

Until a few months ago, this has been primarily a construction project. Recently, Fluor has started phasing out the construction work and phasing in training to move "dummy fuel."

At this time, the only significant construction-related work is taking care of some problems with a K West Basin system that takes water clouded by sludge and bits of fuel and cleans it for return to the pool, Van Leuven said. Also, some final checks and tests remain at the Cold Vacuum Drying Facility. Work on both should be done in a couple of weeks, he said.

The beginning of formal tests and rehearsals with real nuclear fuel are scheduled to begin in mid-August. These are:

■ Fluor will take a week in mid-August to pick up its first live fuel canisters and move them into metal baskets near where several baskets will be loaded into an MCO. This first move-

ment will stop when the baskets are filled. This is a rehearsal for a more formal Fluor review.

■ From late August to late September, Fluor will test its operators' and equipment's capabilities to move fuel. This will consist of about two weeks of reviews and two weeks of correctional work.

■ From late September to late October, the Department of Energy will test Fluor's capabilities to safely and properly move the spent nuclear fuel.

■ Sometime in late October or early November, Van Leuven hopes to take the fuel already in the baskets, put it into an MCO and begin its journey to the underground storage vault.

Fluor has three to four weeks of contingency time in case of delays. "We've got time. ... But I don't want to use it up," Van Leuven said.

Van Leuven expects movement to be slow when reviews, rehearsals and the first trips are conducted with real fuel. "The consequences of a mistake are greater (than with dummy fuel). It's a different mindset," Van Leuven said.

It could take two eight-hour shifts to move the first fuel canisters from the pool's bottom to the baskets. And it could take a week to get the first fuel from the baskets to the storage vault, he speculated. "We're going to be real slow on the first one," Van Leuven said.

Speed should increase with later shipments as Fluor gains more experience, he said.

K East Basin's fuel is more corroded and crumbly than K West's fuel. And K East has much more radioactive sludge to deal with. The deadline to begin moving K East's fuel is January 2003.

Monday's management changes are as follows: Ray Jones, the Fluor vice president in charge of the K Basins and a Fluor Federal Services employee, has transferred to Fluor Federal Services. Jim Wicks, Fluor K Basin's operations manager, is now the project director. Bob Wilkinson has been put in charge of preparing the K East Basin's fuel for movement.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).



# DOE report to restart Hanford facility reactor released

By Annette Cary  
Herald staff writer

A draft environmental study considering whether to restart Hanford's Fast Flux Test Facility was released as expected Monday, and Heart of America Northwest wasted no time in criticizing it.

The Department of Energy report took no stand on whether to restart the reactor or take other steps, such as building new accelerators, to conduct research and to produce isotopes for medicine and plutonium 238 to power space missions.

A decision is scheduled to be published in December. That follows a public comment period that includes hearings in Seattle, Portland and Richland in the last week of August.

The draft study includes favorable comments about a restart, saying that alternative would have the greatest flexibility for isotope production for medicines, industry and the space program and for nuclear-based research and development projects.

Other alternatives include building a new research reactor, using already-busy DOE reactors or building new accelerators, which also can produce some isotopes.

“  
**An accelerator would be a cheaper and safer alternative.**

Hyun Lee,  
Heart of America attorney

”  
Heart of America Northwest is criticizing DOE as being too partial to the reactor to consider alternatives to its restart objectively.

DOE's Office of Nuclear Energy and Hanford contractors are advocates of restarting the reactor, according to a statement from the group.

“We'd prefer the Council on Environmental Quality out of the White House,” said Hyun Lee, an attorney with Heart of America.

The group is asking for negotiations to be held between reactor opponents and proponents with an independent facilitator.

If supporters' main objective in restarting the reactor is to make isotopes for medical use, accelerators should be used, said the group.

“An accelerator would be a cheaper and safer alternative,” Lee said.

However, the draft report said a proposed low-energy accelerator “could only produce a limited number of isotopes, it has no ability to satisfy the plutonium 238 needs, and it has a limited ability to support the proposed nuclear-based research and development needs.”

If a high-energy accelerator also was built to produce the isotopes for space missions, it could be expanded to produce limited medical isotopes.

However, to use developing technology that would also allow research would “increase the size of the facility, add complexity to the facility design and operation, increase the cost of construction and operation and potentially require more time for design and construction,” according to the draft report.

Heart of America also criticized DOE for not doing an independent

analysis of the need for more medical isotopes.

DOE assigned that task to a scientific panel that concluded the United States should develop the capability to produce large quantities of isotopes to maintain existing technologies and to stimulate growth in biomedical sciences.

“The successful implementation of such a program would help ensure our position as an international leader in the biomedical sciences well into the 21st century,” the panel concluded.

Now one in three hospital patients in the United States undergoes a medical procedure using medical isotopes, most of them using imported isotopes for diagnosis and imaging.

In addition, new studies are showing promise in using isotopes for highly localized radiation to kill cancer cells.

Heart of America discounts the panel's recommendation to DOE on medical isotopes because most members “have a personal interest in a revitalized nuclear reactor research industry,” Lee said.

The organization also is questioning the wisdom of generating more radioactive waste at Hanford.

The draft report said restarting the reactor would generate “a relatively small amount of additional waste.”

DOE intends to use commercially available facilities for treatment and disposal of waste from the reactor, if it is restarted, according to the report.

The restart could generate 35,200 pounds of spent fuel, which is less than 1 percent of the spent fuel already at Hanford.

The report concluded environmental impacts of managing the fuel would remain minimal.

Supporters and opponents of restarting the reactor are saying public comment will be critical to DOE's decision.

The public comment period does not begin until Friday. Then comments can be given by telephone to 877-562-4593; faxed to 877-562-4592 or mailed to Colette E. Brown, U.S. Department of Energy, NE-50, 19901 Germantown Road, Germantown, MD, 20874-1290.

The draft report is expected to be posted at <http://nuclear.gov> on the Internet, and copies of the summary or the complete report can be requested by calling 877-562-4593.

■ Reporter Annette Cary can be reached at 582-1533 or via e-mail at [acary@tricityherald.com](mailto:acary@tricityherald.com).

## Kitty believed to be Hanford fire survivor

BENTON CITY — A gray cat believed to be a stray from the wildfire that ravaged 192,000 acres last month has been found by workers at the Hanford Patrol Training Center in Richland.

The cat, which rescuers think may be male, is a gray tabby with a bob tail and large fangs. The cat was extremely thin and appeared as if it had traveled a great distance.

Call 509-376-2350 for more information.

## Security at PNNL, Hanford inspected

By John Stang  
Herald staff writer

In a couple of months, the Department of Energy's security czar expects to have a chart of the agency's security strengths and weaknesses.

Where and how is DOE's computer security weak?

Is inadvertent photocopying and misplacing of classified documents a major problem? If so, where?

And so on.

DOE's year-old Office of Security and Emergency Operations already has taken an initial look and has sent numerous policy changes to DOE field offices. And now, it is collecting detailed information on its security problems.

The director of the semi-independent security agency, retired Air Force Gen. Eugene Habiger, inspected Pacific Northwest National Laboratory and Hanford on Tuesday.

“There are three or four sites in the Department of Energy that I don't worry about, and this is one of them,” Habiger said.

He declined to identify the other sites that don't worry him or to elaborate on which ones need improvements.

“There's none that I lay awake at night worrying about,” he said.

The new security agency was formed after a Los Alamos scientist was accused of committing espionage for China.

Habiger noted he was “astounded” almost a year ago when he learned there was no requirement for contractors to report classified security problems to DOE headquarters. Since then, the new agency has put into action more security policies than DOE did in the previous 10 years, Habiger said.

# DOE finds increased plutonium levels at 5 Tri-City sites

By John Stang  
Herald staff writer

Increased plutonium concentrations have been found at five Tri-Cities sites following the site's massive range fire.

This is the first time increased plutonium levels have been found off Hanford after the 192,000-acre wildfire late last month.

However, all five elevated concentrations in Richland, West Richland and Pasco are drastically below levels hazardous to people, said state and federal officials Wednesday.

“If I were a member of the public, I would make no changes to my day-to-day activities,” said Jerry Leitch, an environmental engineer with the Environmental Protection Agency. The EPA's sampling found the increased plutonium levels.

Debra McBaugh, the Washington Department of Health official in charge of the state's radioactive sampling after the Hanford fire, agreed levels were significantly below threatening concentrations.

Leitch, McBaugh and Harry Boston, the Department of Energy's deputy manager for site transition at Hanford, held a weekly briefing Wednesday on fire-related sampling for moving radioactive particles.

A 300-square-mile range fire burned 11 Benton City homes and 250 square miles of Hanford, including three central Hanford waste burial sites.

DOE increased its air sampling to see if the fire or firefighting efforts disturbed and moved radioactive particles. The EPA and state health department have done their own sampling to double-check DOE's conclusions.

The EPA collected 63 air samples from 24 off-site locations from north Richland to Walla Walla to study. So far, 41 have been analyzed for the presence of plutonium and 37 analyzed for uranium. All samples still must be examined for strontium 90. So far, five samples showed plutonium concentrations of higher than normal background levels.

Here is the breakdown:

■ 0.00036 picocurie of plutonium per cubic

meter of air was found at the EPA's Richland office on Swift Boulevard. A picocurie is 1 trillionth of curie, which is a measure of radiation.

■ 0.00042 picocurie per cubic meter was found at the Franklin County Fire District No. 3 station on Road 48 in west Pasco. This was the EPA's highest plutonium reading and translates to a dose of roughly 10 millirem to a human.

Hanford's dose limit for a non-Hanford person is 100 millirem per year. An average person absorbs about 350 millirem a year in background radiation. A dental x-ray is 10 to 15 millirem.

■ 0.00014 picocurie per cubic meter was found at a private home on Crestview Avenue in Richland.

■ 0.00023 picocurie per cubic meter was found at a private home on Prestwick Street in Richland.

■ 0.00012 picocurie per cubic meter was found at West Richland's public library.

The normal background plutonium concentration at Hanford's perimeter edge is 0.0000003 picocurie per cubic meter. The

federal limit for plutonium leaving Hanford is 0.002 picocurie per cubic meter per year — five times less than what was collected in Pasco.

If the annual concentration of plutonium leaving Hanford reaches 0.43 picocurie per cubic meter, that is when the federal government says people need to take action such as washing down cars and other items, closing up homes or leaving. The highest concentration in Pasco “is a thousandfold below what's required for protective action,” Leitch said.

Meanwhile, DOE has contacted about 80 Northwest fire departments, which sent 700 to 800 firefighters to battle the Hanford fire, and told them urinalysis tests are available to check for exposure to radioactive particles.

“We made great efforts to make sure we contacted everybody,” Boston said.

So far, 29 Hanford firefighters and about 100 non-Hanford firefighters have requested the urinalysis test kits. None have been returned yet. There is a six- to eight-week turnaround on processing the test kits.

In other sampling developments:

■ DOE collected 75 air samples two weeks after the fire. Two samples showed increased gross alpha and beta radiation levels, meaning the concentrations of radioactive particles increased. But more and longer tests are needed to pinpoint which substances are responsible for the increased radioactivity.

During or just after the fire, DOE collected 76 samples with 35 showing increased gross alpha and beta levels. Six of those were tested for increased plutonium concentrations, with one 200 Area sample showing such an increase. That elevated plutonium reading was below levels harmful to humans.

■ The state health department has collected about 70 air samples and several soil and vegetation samples, finding no significantly elevated levels so far.

■ No state nor federal tests results are back yet on samples collected after major Mid-Columbia dust storms on July 14 and July 23.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

# Beginning K Basins work 1st step in Fluor contract consideration

By John Stang  
Herald staff writer

Fluor Hanford won't learn whether it has earned a possible contract extension until after work starts to remove spent nuclear fuel from the K Basins.

Keith Klein, manager of the Department of Energy's Richland office, said Thursday that his

In the past, DOE has usually taken at least one year to seek bids for a management contract, select a contractor and get it in place. Klein's timetable calls for doing that in 10 months or less.

Fluor's team had a rough first two years. Since then, its record has improved.

The K Basins are two indoor

## Scientists talk genomics this weekend at PNNL

Water Follies is not the only event drawing people to the Tri-Cities this weekend.

About 75 scientists from around the world are gathered to talk about structural genomics at an Environmental and Molecular Sciences Laboratory conference at Pacific Northwest National Laboratory in Richland.

While government and industry recently completed mapping the human genome, the challenging task lies ahead of determining the function of proteins within each gene. To make new discoveries and health advances, scientists need to know how the proteins are structured, how they interact with each other and how to determine each protein's function.

PNNL scientists are using 10 nuclear magnetic resonance units at EMSL to study the proteins and their interactions. The workshop also will cover the future of using the nuclear magnetic resonance units and other equipment to answer questions about proteins.

# Metro/Northwest

Tri-City Herald

Friday, July 28, 2000

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## Briefly

Compiled by the Herald staff

### How Mabton man died still uncertain

MABTON — Investigators still haven't determined what killed a 45-year-old Mabton man who was found dead near his front porch Wednesday but said homicide looks unlikely.

Darrell Bryan Hugie's partially-clothed body was found by irrigators from a nearby vineyard after noon at 3700 Euclid Road.

Lt. Dan Garcia of the Yakima County Sheriff's Office said an autopsy by the Yakima County Coroner's Office found no signs of foul play.

"Homicide has all but been ruled out," Garcia said.

The coroner is sending samples to a toxicologist's office to determine the cause of death.

# PNNL wraps up 3 eminent high-tech awards

By Annette Cary  
Herald staff writer

Technology that could make computer and television screens lighter and flexible enough to roll up like a projector screen has won Pacific Northwest National Laboratory a prestigious R&D 100 Award.

The Richland lab also has received R&D awards for a system developed with Lamb Weston for detecting equipment failures on food processing lines and a low-cost system for measuring radiation doses when irradiating food.

Each year R&D Magazine conducts the competition to find the most promising new products, processes and materials developed throughout the world. Awards are based on each invention's technical significance, unusualness and usefulness.

The three awards to the Richland lab this year bring its total to 54 since 1969.

The technology developed for cell, computer and television screens should make plastic an alternative for electronic display panels. Plastic should weigh less and be more rugged —

small, light and flexible flat display panels.

Roll-up or flexible displays could be affixed to walls, windshields and clothing and used in new portable devices.

Now, plastics cannot be used because oxygen and water vapor can easily pass through to damage the electronics. The Richland lab has developed two coatings that form a barrier over the plastic, one called Flexible Glass and the other Barix.

Without the coating, electronics with plastic display panels fail in a matter of days. But the coated panels have survived eight months of exposure to air and have withstood being submerged in water.

Battelle, which operates the Richland lab for the Department of Energy, has formed the subsidiary Vitex Systems Inc. of Sunnyvale, Calif., to market the technology.

The second award was for technology developed for food processing lines already being used at Lamb Weston plants to reduce wasted food.

When knives used to cut potatoes into fries on food processing lines break, the problem may

hour. The irregularly cut food then has to be sorted from the rest of the product and substantial amounts of ruined food shipped away for use as animal feed.

The knife failure detector developed by the Richland lab and the Lamb Weston Technical Research Center in Richland requires less than a second to spot failure and redirect the ruined product away from correctly cut food.

The system detects the sound of the knife breaking, a sound at too high a frequency for humans to hear. It is designed to work in severe conditions, including constant immersion of equipment in water.

There may be other applications for the system, such as detecting pipe leaks or monitoring rotating machinery.

The radiation dose measurement system, for which the lab won the third award, has been developed by PNNL just as the U.S. government has approved irradiation to kill bacteria in red meat.

That expands the need for an accurate, inexpensive way to measure how much radiation food receives.

The new system uses disposable tabs as part

of a system that depends on light instead of heat to read the amount of radiation passing through the product.

It's more versatile than currently used technology, allowing both lower and higher radiation measurements to be detected without companies having to invest in systems for each radiation range.

The tabs that are used also are more durable than existing systems, according to the lab.

They last longer so they don't have to be ordered as frequently and can be stored in a cold environment, such as a refrigerated building where meat is kept.

The system has been licensed to Sunna Systems Inc. of Richland, a company formed by three lab employees through its entrepreneurial program.

The system also could be used for other irradiation processes, including medical equipment sterilization and radiation processing or for curing of environmentally friendly inks and paints that require no solvents.

Reporter Annette Cary can be reached at 582-1533 or via e-mail at [acary@tri-cityherald.com](mailto:acary@tri-cityherald.com).

# French removed from Hanford post



French

By John Stang  
Herald staff writer

Dick French, the Department of Energy's leader on dealing with Hanford's radioactive tank wastes, was removed from his post Friday apparently because of a managerial clash with DOE's Washington, D.C., headquarters.

He has been placed on leave for an indefinite time, said Deputy Energy Secretary T.J. Glauthier. Leif Erickson, the Office of River Protection's assistant

manager for procurement, is the new acting director for the agency.

French has been the only DOE manager for Hanford's Office of River Protection — an agency created in the spring of 1999 to focus exclusively on all matters pertaining to the site's 53 million gallons of highly radioactive wastes in 177 leak-prone underground tanks.

"We took the action (of placing French on leave) because we had serious management concerns about the project," Glauthier said. He

declined to elaborate on those concerns.

French said: "The situation is caused by a disagreement between headquarters and me on what (the request for proposals to replace BNFL Inc. as the glassification contract leader) should be." French also declined to elaborate.

The request for proposals is expected to be available Monday on the Internet. This is part of the process to replace BNFL's glassification team, whose last day of existence was Friday.

BNFL led a corporate team for the past two years to

design waste glassification plants and put together the financing for the multi-billion-dollar project. The idea was for BNFL to submit its financing package and partial designs to the Office of River Protection in April. The federal agency hoped to give BNFL the green light in August. Construction is supposed to begin in 2001, and glassification is supposed to begin in 2007.

However, BNFL turned in a cost estimate of \$15.2 billion in April, drastically more than the

See French, Page A4

## Feds tally Hanford fire costs, strategize

### Report recommends ways to rehabilitate scorched land reserve

By Annette Cary  
and Genoa Sibold-Cohn  
Herald staff writers

Cost estimates for the June Hanford wildfire are continuing to mount as federal agencies add up expenses and plan rehabilitation efforts.

A report released Monday recommended \$881,000 be spent on rehabilitation of federal land burned in the 164,000-acre fire. That report, completed by the U.S. Department of Interior's Burned Area Emergency Rehabilitation team, or BAER, recommended work ranging from replanting sagebrush to increasing patrols to protect against looters of archaeological sites.

However, the Department of Energy's rehabilitation costs likely will be higher than the report indicated, said Bob Tibbatts, director of the budget division for DOE's Richland office. The BAER team recommended \$591,707 be spent by the U.S. Fish and Wildlife Service to rehabilitate Hanford Reach National Monument land the agency manages and \$288,866 be spent by DOE for rehabilitation of other land on the Hanford nuclear reservation.

DOE officials expect to do more rehabilitation than recommended, including more soil stabilization to prevent blowing dust and sand that could cause traffic accidents, endangering the public and workers on roads through the site and clog filters on the nuclear reservation.

Those rehabilitation costs are in addition to costs to fight the fire that was sparked by a fatal car crash June 27.

DOE, Fish and Wildlife and Washington state have agreed to divide

See Feds, Page A2

### METRO/NORTHWEST

# Hanford seeks companies to save glass project

## Proposals to build, run facility must be made within next 2 months

By John Stang  
Herald staff writer

A two-month countdown began Monday for companies to prepare pitches to save a stumbling Hanford tank waste glassification project.

A draft version of the federal Department of Energy's request for proposals was released Monday. The document is designed for potential contractors to study to see how they

could take over the design and construction of the glassification plants by early 2001.

The draft request's language is very general, apparently leaving prospective bidders some leeway for at least a month to put together their proposals.

DOE's timetable calls for potential bidders to have their questions and feedback submitted by Aug. 14. Then a final and more detailed request for proposals will go out on Aug. 30. Written proposals are due Sept. 29, oral presentations will begin Oct. 13, and the contract is to be awarded by Jan. 15, 2001.

This timetable is extremely short, compared with the normal one year to 18 months DOE usually takes between seeking bids and awarding a contract. The haste is prompted by

BNFL Inc.'s firing in May — leaving the waste project in limbo.

The draft request indicates the Office of River Protection wants to work out a cost estimate and schedule with a prospective contractor — paying extra if the company completes work under budget and ahead of schedule. But the company's payments also would be reduced for cost overruns and delays.

Some aspect of the request for proposals apparently contributed to DOE removing Dick French from his post as manager of the Office of River Protection on Friday. That indicates an apparent disagreement over how DOE should get the glassification project back on track, but specifics on that

dispute are not publicly known.

The first wastes are supposed to be converted into glass by December 2007, with the contract to run through September 2009. DOE had hoped to begin waste treatment as early as 2005, but the contractor change may delay that goal.

Along with the contractor change, DOE is dumping its failed "privatization" approach that led to BNFL being fired.

The government had hired BNFL to treat Hanford's 53 million gallons of highly radioactive wastes now stored in 177 leak-prone underground tanks, with the company to pay most up-front costs. BNFL was to get paid once it started producing treated wastes.

However, the uncertainty of such a contract

meant BNFL faced very high financing costs because investors would have to wait seven years or more to be paid.

That drove up BNFL's estimate for the glassification project from \$6.9 billion to \$15.2 billion, which DOE rejected.

CH2M Hill, Hanford's tank farms management contractor, is the caretaker of the glassification design work until a new design-and-construction team takes over in 2001. The lead contractor of any new team must have successfully completed a major nuclear or chemical project with a cost of at least \$500 million to be eligible to bid.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

## Driver injured when car hits Kennewick aid unit



## Hanford high middle school for \$105 million

By Terry Hudson

## Workers at depot say fumes

2 Aug 00

# Hastings says French's removal dangerous

By John Stang  
Herald staff writer

The sudden removal of Dick French as the head of Hanford's tank waste program could jeopardize that project, U.S. Rep. Doc Hastings told Energy Secretary Bill Richardson on Tuesday.

Hastings, R-Wash., told Richardson that French's removal could "increase the risk that key cleanup milestones will not be met — posing a potential danger to our community," said a press release from Hastings' office.

The Department of Energy removed French as its manager of Hanford's Office of River Protection on Friday and put him on indefinite leave. This agency manages the maintenance and safety of Hanford's 53 million gallons of radioactive waste in 177 underground tanks, plus the long-term project to turn those wastes into glass.

Most details are not publicly known about French's removal. Indications are DOE's Washington, D.C., headquarters has serious management concerns about French. French and DOE's Washington, D.C., headquarters disagreed on how to set up a request for proposals to replace BNFL Inc. as Hanford's tank waste glassification contractor.

Also, there appears to have been a long-running battle between French and Washington, D.C., on which should have the most authority to make decisions addressing Hanford's tanks farms.

Until Friday, French had been the Office of River Protection's only manager in its 15-month history.

That agency currently faces a major problem in that BNFL was recently fired for an excessive cost estimate to convert Hanford's wastes into glass. The Office of River Protection is trying to get a new contractor on board by January. That is an extremely quick turnaround for DOE to start from scratch in selecting a major contractor.

Hastings' statement said he is concerned French did not receive all of the authority intended when Congress created the Office of River Protection. Hastings sponsored the bill that created the agency.

Hastings wants Richardson, French and French's superiors to meet to discuss his removal.

"Not only do I think Secretary Richardson should hear first-hand about the difficulties that necessitated French's removal, but it is absolutely essential that the department fully debrief Dick to minimize as much as possible the inevitable disruption that will result without Dick's leadership," Hastings said.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

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# 4 more sites turn up small increases in plutonium tied to fire

By John Stang  
Herald staff writer

Four more sites show tiny increased plutonium concentrations after Hanford's massive fire of about a month ago.

That brings the number up to 10 — five on-site and five off-site — of places with slightly higher plutonium levels because of the fire.

In each case, the plutonium concentrations are significantly below the levels considered harmful to human health from inhaled carcinogenic particles.

However, the Department of Energy doesn't know where these blown-about, dustlike plutonium come from on Hanford.

"Plutonium was drifting around in the wind and dust. We expected that," said Harry Boston, DOE's deputy manager for site transition at Hanford, at DOE's weekly briefing Wednesday on radiological effects of the Hanford fire.

In late June, a range fire destroyed 11 Benton City homes and burned 256 square miles of sagebrush, mostly on Hanford.

The fire swept over two dried-out ponds just south of the 200 West Area where mildly contaminated water was dumped from the 1950s to 1970s. The fire also burned part of the B/C Crib Area just south of the 200 East Area, but did not actually burn vegetation on top of that area's radioactive waste cribs and trenches, Boston said.

Wednesday's briefing covered the follow-ups test on 34 air particle samples from 76 collected on the reservation immediately after the fire. Those 34 samples showed slight gross alpha radiation increases at those 34 spots from the levels recorded before the fire. A few weeks ago, more detailed follow-up tests were conducted on six of those samples, with one showing slightly increased plutonium concentrations.

With all 34 samples tested, the number of on-site spots showing increased plutonium concentrations grew to five. There are two next to the 200 East Area, two next to the 200 West Area — both in central Hanford — plus one in the 300 Area near Richland.

Last week, the U.S. Environmental Protection Agency unveiled test results from samples taken off-site, which showed slightly increased plutonium concentrations at three Richland sites, one West Richland site and one western Pasco site.

DOE's elevated on-site plutonium contamination readings range from

0.000018 picocurie to 0.0002 picocurie of plutonium per cubic meter of air. The EPA's elevated off-site readings range from 0.00012 to 0.00042 picocurie per cubic meter. The normal plutonium background level at Hanford's perimeter is 0.0000005 picocurie per cubic meter, with the federal limit for plutonium being 0.002 picocurie.

A person exposed for a year to the 0.00042 picocurie reading — the highest of the 10 elevated samples — would likely receive a radiation dose of 10 millirem. Hanford's annual dose limit for a non-Hanford person is 100 millirem. A dental X-ray is 10 to 15 millirem.

DOE has not pinpointed the origin of the extra loose plutonium particles. "We're still trying to figure out where in the devil they came from," Boston said.

He noted much of the open regions between Hanford's waste sites have a smattering of radioactive particles scattered on the sagebrush and grass. Those particles come from mildly radioactive tumbleweeds, animals that are contaminated vegetation elsewhere on site and from burial sites that were open years and decades ago.

Outside the waste sites, many Hanford spots are marked with warning signs to keep people from walking through and picking up loose radioactive particles on their shoes.

The fire and firefighting efforts stirred up a lot of dust, including some that may have contained radioactive particles.

#### In other developments:

DOE has received requests from 49 Hanford firefighters and 42 non-Hanford firefighters for urinalysis kits to test for radiation exposure. After the kits are returned to Hanford, it takes seven to eight weeks to analyze the samples. DOE expects more requests from off-site departments that fought the fire.

DOE has begun efforts to keep topsoil from blowing about central Hanford's burned areas.

DOE has begun spraying several hundred acres with a liquid that hardens loose soil so it won't blow around.

In six months, DOE expects to have sprayed 10 to 15 square miles around the 200 Area.

Also, DOE has begun installing 2,000 feet of irrigation pipes to serve new sprinklers around the 200 West Area, which are also to wet down soil so it does not blow.

Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).

3 AUG 00

# Office of River Protection gets new manager

By John Stang  
Herald staff writer

The No. 2 cleanup official at the Department of Energy's Richland office has replaced Dick French as the manager of DOE's Office of River Protection.

Harry Boston, DOE's Richland office's deputy manager for site transition, begins his first day today as manager of the Office of River Protection.

One program Boston inherits is a stumbling

tank waste classification project that is halfway in limbo.

Boston, 44, worked at Hanford's tank farms from 1996 to 1999 as Lockheed Martin Hanford Corp.'s vice president for tank waste retrieval and disposal, before becoming one of DOE's two deputy managers at its Richland office. For the past nine months, Boston has been DOE's Hanford manager Keith Klein's right-hand man for cleanup projects. Bob Rosselli, the Richland office's other deputy manager, supervises support activities.

The Richland office and the Office of River Protection are equal DOE agencies that split Hanford's cleanup responsibilities.

Meanwhile, 14-year Hanford veteran Leif Erickson, the Office of River Protection's acting deputy manager is now its deputy manager. Boston's replacement was not named Wednesday.

In a written statement, Energy Secretary Bill Richardson said: "In order to keep our project on schedule and meet our commitments, we've assigned two senior managers to ensure

we have the expertise and experience in place at the Office of River Protection. Dr. Boston is the right person for this challenging assignment."

Boston said his tank farms past should help him get up to snuff quickly. "We won't be losing any momentum in educating the new boss," he said.

Boston's appointment comes five days after the controversial removal of Dick French as the Office of River Protection's manager. Until Friday, he had been the only manager in that

agency's 1 1/2-year existence.

The agency was created to focus solely on Hanford's 53 million gallons of highly radioactive wastes in 177 underground, largely leak-prone tanks. Its responsibilities are managing the maintenance and safety of the tank, plus supervising efforts to build and run plants to convert those wastes into glass.

DOE put French on an indefinite leave Friday after a clash over the draft request for

# CH2M Hill to donate \$2 million to CBC

By Wendy Culverwell  
Herald staff writer

Efforts to promote the Tri-Cities as an incubator for the next Microsoft will get another boost today with an announcement by CH2M Hill Hanford Group Inc. that it will donate \$2 million to Columbia Basin College over the next six years.

It is the largest corporate cash donation in CBC's 45-year history.

CH2M Hill is the prime contractor for the Department of Energy's Office of River Protection.

CBC President Lee Thornton said the school will invest the money in an endowment fund named for CH2M Hill, with proceeds earmarked for repaying a loan taken out to build the Workforce Training Center.

The 40,000-square-foot building, completed during the 1996-1997 school year at a cost of \$4 million, is

ground zero for efforts to nurture information technology-related businesses in the Tri-Cities. A separate \$1 million grant from another Hanford contractor is paying to upgrade the facility to support fledgling businesses.

Fran DeLozier, president and general manager of CH2M Hill's Richland office, said the company chose not to restrict how CBC uses the donation to give the school flexibility to take on projects that fit the information technology vision.

She said the contribution signals the company's commitment to the Tri-Cities and to education.

"CH2M Hill does have a long-term vision of its future in the Tri-Cities," she said, calling the investment in education a "sound business decision."

Thornton said today's announcement shows community leaders are united behind the idea that an infor-

mation technology-based economy can bring some of the prosperity of Western Washington to the dry side of the mountains.

"I hope what people are getting here is that we're all working together toward the same economic development goals," he said.

To build the Workforce Training Center, the CBC Foundation raised about \$1 million and borrowed the rest. Repaying the loan, which has a current balance of about \$2.9 million, has been an ongoing challenge, said Thornton. The school has 12 more years of payments to go.

Even if it wanted to, CBC couldn't pay off the loan today because of the terms of the financing agreement.

The workforce building consists of classrooms, offices and a flexible meeting area that can accommodate hundreds. It is often used for community events and group meetings.

Close to the Tri-Cities Airport in

Pasco, it is frequently used by visiting dignitaries. In February, Republican presidential hopeful George W. Bush campaigned there before the Washington presidential preference primary.

The transformation from community center and training facility got started in May when DynCorp Tri-Cities Services, the federal contractor that oversees Hanford's site services, committed \$1 million toward fostering an information technology-based economy in the Mid-Columbia.

The pledge included money to transform the facility into a kind of kindergarten for high tech startup businesses. Businesses will be able to lease office suites and have access to lab facilities where they can develop and demonstrate new products. Expert consultants will be available as well to advise young businesses on a variety of topics.

Thornton said computers and other high tech equipment are on order and should be installed in coming months.

Less certain are plans to rename the building. The college had pledged to rechristen it the "Columbia Basin Advanced Technology Center," or CBAT. The new name ran into problems when some wondered if CBAT — pronounced "sea bat" — was some sort of animal.

Thornton said it now looks like the center may retain its old name, with a notation it contains the information technology center.

CH2M Hill officials will formally announce the gift to CBC at 10 a.m. today at the Workforce Training Center, which can be reached from Argent Road on the north side of the campus.

■ Reporter Wendy Culverwell can be reached at 582-1537 or via e-mail at wculverwell@tri-cityherald.com.

## CH2M Hill donation boon to CBC coffers

By Wendy Culverwell  
Herald staff writer

CH2M Hill Hanford Group's unrestricted donation of \$2 million to Columbia Basin College is doing more than boosting the college's bottom line.

The donation is elevating the case for corporations to support not just four-year colleges and universities, but also their two-year siblings.

The company announced the six-year gift to CBC on Thursday morning at the school's Workforce Training Center.

Nationally, CBC President Lee Thornton said the corporate world is increasing its support to colleges and universities, but community colleges have seen little of the largesse.

The need is hardly in question, said Thornton. Of all the freshmen starting college in the United States this fall, half will attend classes at community colleges, he said. Of all philanthropic donations made to colleges, less than 1 percent goes to community colleges, he said.

"There is a tremendous amount of higher education going on at community colleges," Thornton said. He said \$2 million in unrestricted donations are mostly unheard of for community colleges.

CH2M Hill is the prime contractor for the Department of Energy's Office of River Protection. As part of its contract, it sponsors programs that support job growth in the community.

Fran DeLozier, president and general manager of CH2M Hill, said the company supports causes that are important to its business interests, such as education and the arts.

"This is one of the most fun things



Herald/Sharon Steinmann

Fran DeLozier, president and general manager of CH2M Hill Hanford Group Inc., visits a computer facility Thursday in Columbia Basin College's Workforce Training Center after her company announced an unrestricted donation of \$2 million to the school.

I do, give away corporate money," she said.

CBC will place the money in an endowment fund. Interest earnings will go toward the \$500,000 CBC pays every year on the loan associated with construction of the Workforce Training Center.

Thornton said the building, which opened in 1996 at a cost of \$4 million, has never been used as much as its creators envisioned, forcing CBC

to draw on its general fund to pay off the loan.

It still will have to draw from its general fund, but Thornton said any money not spent on the loan payments is money available for education programs.

A separate \$1 million donation by DynCorp Tri-Cities Services, the federal contractor that oversees Hanford's site services, is helping transform the Workforce Training Center

into a business incubator where fledgling information technology businesses can get going.

Thornton said it was tempting to spend the CH2M Hill money on equipment or other immediate needs, but school officials decided to invest the principal so it will always be there working for the school.

■ Reporter Wendy Culverwell can be reached at 582-1537 or via e-mail at wculverwell@tri-cityherald.com.

# Homecoming bittersweet for ex-White Bluffs resident

By John Trumbo  
Herald staff writer

For 57 years, Shirley Buckman didn't want to go home. Precious memories from her childhood in White Bluffs might not survive a visit to the barren landscape where sand and sagebrush are slowly eroding the sidewalks.

But Buckman, 76 and now of Kennewick, chose to return anyway Saturday as one of 60 people taking a bus ride into the past during the 57th White Bluffs-Hanford Reunion.

The bus rolled past the site of the former railroad station, then turned left onto what is now a gravel road, heading due east toward the Columbia River.

"There, that's where I lived," said Buckman, pointing to a place in land that showed no evidence of past human habitation. She was certain because her home used to be across the road from the train station, and the tour guide told her where that was.

Bits and pieces of a sidewalk led eager eyes down the road to a concrete block building, still stout but battered by half a century of neglect. A freshly placed sign and U.S. flag proudly declared it as White Bluffs' first bank.

The flag was a recent decoration, placed to welcome the visitors.

Farther on, the bus came to the end of the road and the start of a boat ramp leading straight into the Columbia River.

"Look how green everything is over there. How pretty," Buckman said. "This was our swimming hole. I

love that river."

The visitors disembarked from the bus, and enjoyed a light lunch not 50 yards from a sign declaring the spot a bald eagle roosting area.

White Bluffs and its neighbor Hanford were ordered out of existence in 1943 by the U.S. government, which seized the land so scientists could have a place 560 square miles across to build the world's first nuclear plant.

Inhabitants like Buckman and her mother had to get out of town quickly. People who owned land received 25 cents an acre.

"A lot of people were angry," said Buckman, who was 17 years old at the time and had spent 10 years of her childhood in that tiny town. "Just about everybody went into shock."

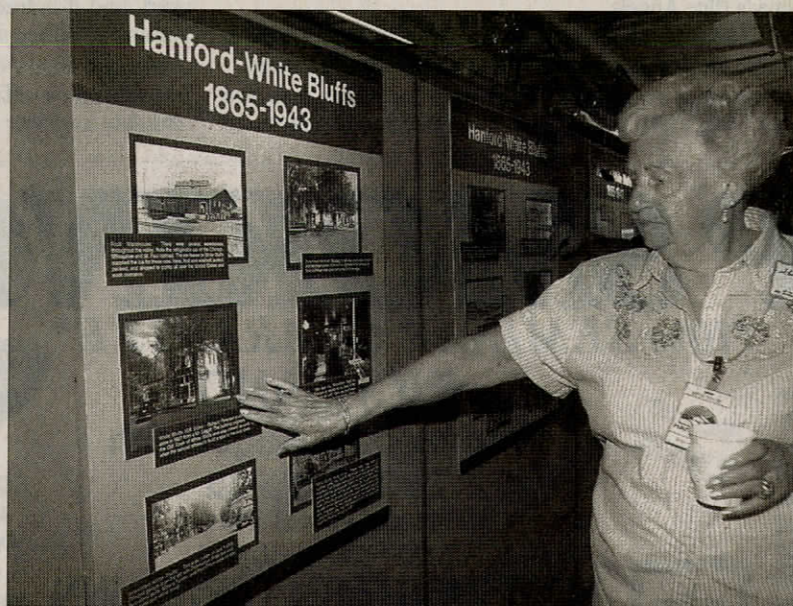
The desert landscape belies the fact that half a century ago, White Bluffs was alive with people and farms. "We had the most beautiful orchards, apples, apricots, cherries, peaches," Buckman said.

The returnees and other guests on the tour had to get permission from the Department of Energy to snoop around. They also visited the B Reactor, the world's first to produce plutonium from uranium.

The demise of Hanford and White Bluffs was the beginning of a nuclear boom on the shores of the mighty Columbia.

Work camps teemed with 55,000 men and women in a marathon effort to launch the nuclear age and end World War II with a big bang.

Roger Rohrbacher of Kennewick arrived in 1944 as an instrumenta-



Herald/John Trumbo

Shirley Buckman of Kennewick looks at photographs of the Hanford and White Bluffs communities Saturday during the 57th reunion.

tion and control engineer. Now retired, he is a volunteer tour guide at B Reactor and an enthusiastic member of the B Reactor Museum Association.

Rohrbacher grinned as he told the tour group everything he knows about how to operate a nuclear reactor, then added, "All of this is top secret."

Well, it used to be.

Larry Denton, 75, of Kennewick came in September 1943 as a clerk. He stayed 43 years, moving up in position and skill and into management at Hanford.

Like Rohrbacher, Denton is a tour

guide who sounds like a nuclear scientist.

"I had a wonderful experience. I was in the right place with the right people," he said, readily admitting that he had no prior training in the nuclear field and no college experience before taking that first job.

Chris Staveley of Wimbledon, England, and his cousin, Marthiel O'Larey of Vancouver, British Columbia, came to see where their grandparents lived. E.J. O'Larey was postmaster in White Bluffs and for a time the editor and publisher of the White Bluffs Spokesman.

"I have an interest in history that I

find hard to suppress," said Staveley. His last visit was at age 7 in 1937.

Dale McGee of Salem, Ore., looked over the landscape and was reminded of what his family lost.

"The government took my folks' ranch. It was at the west gate, on the road to Vernita. The McGee Ranch had a big artesian well," he said.

Not everyone on the tour was connected to the past.

Gene Weisskopf has lived in the Tri-Cities for five years. His interest is in getting B Reactor turned into a bona fide museum open to the public.

Weisskopf, president of the B Reactor Museum Association, said now that the Hanford Reach is a national monument, perhaps a road from Vernita to the west could be dedicated and fenced off through the reservation to allow direct public access to the historic reactor.

Evidence of the good times has been preserved on several panels of historic photographs from the 1920s, 1930s and 1940s displayed at B Reactor.

Buckman examined the photos, immediately recognizing the IGA store and the gas station in White Bluffs.

Although it was her first trip back to the deceased town, she has attended many of the annual reunions. "I come to see my friends," she said.

One of them, Annette Hereford, "talked me into it," Buckman said.

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# Bombs remembered, 55 years after they fell

By John Stang  
Herald staff writer

Hiroshima was the blockbuster.

Nagasaki was the footnote. Aug. 6, 1945's atomic bombing of Hiroshima seared Paul Tibbets, his B-29 bomber named Enola Gay and Oak Ridge, Tenn., into the world's consciousness.

Few people outside the Mid-Columbia and Japan think much about the atomic bomb that destroyed Nagasaki three days later. Fewer still know anything about Chuck Sweeney, the B-29 named Bock's Car or the creation of Hanford, which blossomed into the modern Tri-Cities.

Both bombs, plus their predecessor that exploded secretly in New Mexico on July 16, 1945, were created by the super-top-secret Manhattan Project in World War II.

But the two bombs — Little Boy and Fat Man — were totally different creations.

Little Boy was a somewhat cylindrical, relatively simple bomb that used mined uranium in its core. A secret plant at Oak Ridge turned that

## Series:

In the first of a three-part series, the pilot of the Enola Gay helps a man understand his father's life. **Page A6.**

## B-29:

Boeing's B-29s played a more important role in ending World War II than just dropping two atomic bombs. **Page D1.**

uranium into a substance capable of erupting into a blast of previously unimagined destruction.

Fat Man was a round and much more complicated atomic bomb that used a brand-new, man-made and difficult-to-create element called plutonium.

The Manhattan Project kicked the residents out of three tiny Columbia River farming villages in 1943 to set up the super-secret Hanford Reservation, where scientists, engineers and construction workers built revolutionary new reactors and chemical plants that mass-produced plutonium for atomic bombs.

See **Bombs**, Page A2

# Hanford frustrations boil over

By John Stang  
Herald staff writer

The pent-up frustration exploded from a longtime Hanford insider and loyalist.

Someone who is familiar with the site's tank wastes and waste glassification project. Gung-ho about cleanup. Someone who normally speaks in that dispassionate precision favored by many Hanford scientists, officials and technical experts.

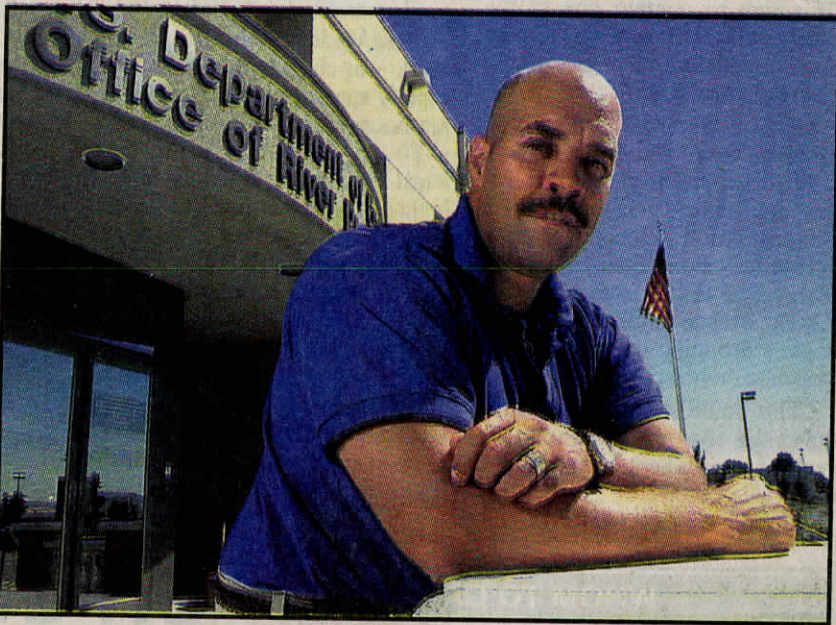


French

"They're a bunch of bozos at (the Department of Energy's) headquarters," vented this usually low-key Hanford insider who requested anonymity for an interview that doubled as a cathartic session.

This insider voiced the frustration that recently has mushroomed throughout the Pacific Northwest's Hanford circles.

DOE's July 28 removal of Dick French as manager of Hanford's Office of River Protection has sparked widespread cynicism about DOE's ability to convert Hanford's highly radioactive tank wastes into glass. Cynics now



Herald/Paul T. Erickson

Harry Boston, 44, has taken over for Dick French as head of the U.S. Department of Energy Office of River Protection in Richland. He had been deputy manager for site transition for DOE at Richland, supervising waste cleanup efforts.

include people who passionately defended DOE a few years ago against outside critics.

"It's a travesty that Dick French had to leave," said Ken Bracken of Kennewick, co-vice chairman of the Hanford Advisory Board.

Top officials arriving and leaving their posts commonly are accepted at Hanford. And French's successor, Hanford veteran Harry Boston, has been universally praised in Hanford's circles.

See **Hanford**, Page A2

# Hanford uranium on move to Ohio

By John Stang  
Herald staff writer

Hanford shipped its first truckload of leftover uranium to Ohio last week.

That began a shuffling of Hanford's 2,056 tons of Cold War uranium — sending roughly half to Ohio and half to central Hanford's 200 Area.

The uranium is stored in several forms in the 300 Area and 200 West Area. A major federal goal is to remove all of it from the 300 Area just north of Richland.

On Aug. 1, the Department of Energy sent the first of a predicted 125 to 150 truckloads of low-enriched uranium powder to its site at Portsmouth, Ohio, to consolidate nationwide storage of the

material, DOE announced Monday.

Hanford's first shipment contained 17.6 tons of uranium trioxide powder.

During World War II and the Cold War, Hanford manufactured uranium fuel in the 300 Area to irradiate in the site's now-defunct defense reactors to create plutonium for nuclear bombs.

The 300 Area's leftover uranium is contained in finished fuel assemblies, unfinished fuel assemblies and in heavy 20-inch-long cylinders called "billets." Uranium powders are stored in the 200 West Area.

DOE wants to sell part of its nationwide uranium inventory to commercial nuclear operations but cannot get reasonable prices because of a worldwide glut of uranium. DOE expects to keep it in storage for now.

Hanford plans to ship 737 tons of uranium trioxide powder to Portsmouth this year. It also plans to ship 258 tons of uranium-filled billets to Portsmouth, but no schedule is set.

Meanwhile, Hanford experts calculate 148 tons of slightly contaminated uranium fuel and at least 5 tons of scrap have no marketable value, so DOE plans to bury that material in the low-level radioactive waste burial grounds in the 200 Area.

About 908 tons of unused uranium fuel is supposed to be consolidated and stored in the 200 Area.

Hanford's 2,056 tons of leftover uranium is a small drop in the federal stockpile of 600,000 tons.

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# BNFL gets money for Hanford work

Payments will settle BNFL, DOE financial books

By John Stang  
Herald staff writer

The federal government recently sent an advance payment of \$100 million to BNFL Inc. for design work on a slowed-down Hanford tank waste glassification project.

And the Department of Energy is scheduled to send another \$100 million to BNFL at the end of August. The first payment was made July 28.

These payments are part of BNFL and DOE settling the financial books after the federal government fired the contractor from the tank waste glassification project.

BNFL is expected to get a third payment in 2002 at the earliest in an amount DOE and BNFL still have to negotiate.

This is how BNFL and DOE agreed to handle paying what the federal government owes the company for two years of work to design

plants to convert 10 percent of Hanford's 53 million gallons of tank waste into glass by 2018.

This summer's \$200 million in initial payments to BNFL is intended to keep the glassification project on schedule and cut future financing costs, said Bill Taylor, the deputy assistant manager for systems acquisitions for DOE's Office of River Protection.

Since 1998, BNFL did much of the designing with legal deadlines to begin construction in 2001 and glassification in 2007.

In April, BNFL submitted its financial package and partial designs to DOE — with both hoping to sign a long-term contract in August. But BNFL's price estimate of \$15.2 billion drastically exceeded the project's 1998 estimate of \$6.9 billion, catching DOE off guard. Soon after, DOE fired BNFL.

That action left major loose ends, such as:

■ DOE quickly appointing Hanford's tank farms contractor CH2M Hill Hanford Group as caretaker for designing the plants until a new

See **Money**, Page A2

# Waste from Spain on way to Hanford via Moses Lake

By The Associated Press

MOSES LAKE — About 120 55-gallon drums of low-level radioactive household and medical waste from Spain arrived at the airport here Monday for transport to Hanford.

The waste comes from naturally occurring radium that was used in now-outdated cancer therapy devices, lightning rod parts, discarded smoke detectors and other consumer products, said Nicki Hobson, a spokeswoman for US Ecology, which operates a commercial low-level waste dump at Hanford.

"It's exactly the kind of waste disposed of at the Richland facility for more than 30 years," Hobson said.

US Ecology, a subsidiary of American Ecology in Boise, has operated the leased commercial site at Hanford since 1965.

The reactor from the Trojan nuclear power plant in Northwestern Oregon was disposed of there last year.

Spain has no low-level waste disposal site of its own.

Most of the material from Spain will be repackaged and solidified in concrete before disposal, Hobson said.

Heart of America Northwest, a Hanford watchdog group, objected to the shipment, contending it violates

state policy against importing radioactive waste from outside the Northwest.

"State laws and policies have been deliberately skirted to bring this nuclear waste by airplane from Spain for burial here, and the residents of our state — particularly around the Moses Lake airport — have been put at high risk," said Gerald Pollet, director of Heart of America Northwest in Seattle.

However, a state Health Department official said there is no state or federal regulation against importing low-level radioactive waste.

"We routinely collect these kinds of waste from around the country," but this is the first such shipment from another nation, said John Erickson, director of the department's radiation protection division.

When handled and packaged properly, the material can be buried like any other radioactive waste, he said, adding that the shipment meets all regulations.

State inspectors were on hand for the arrival of the waste drums, which were being hauled by truck to the US Ecology site at Hanford.

Erickson said a state inspector had checked the material earlier in Spain.

# Hanford moving N Reactor wastes

Hanford has begun to dig up about 150,000 tons of contaminated soil and debris from radioactive waste burial and disposal sites near N Reactor and move the material to a huge central Hanford landfill.

The project is expected to take Bechtel Hanford two years and two months to complete, according to a Department of Energy news release.

Because N Reactor was Hanford's last reactor to shut down — which occurred in 1987 — much of the radioactive material has had little time to decay. So, extra precautions are being taken to decrease the chances of workers being exposed to radioactive materials, DOE said.

# Metro/Northwest

Tri-City Herald

Tuesday, Aug. 8, 2000

## DOE secretary assures officials on glass project

By John Stang  
Herald staff writer

**"We ... seek your personal written commitment to carry forth the statutory mandate and congressional intent that led to the creation of the Office of River Protection."**

letter from Gov. Gary Locke and Attorney General Christine Gregoire

Protection is hanging onto its decision-making clout and is getting enough federal money and people to maintain the tanks safely and to classify wastes.

Locke and Gregoire noted the 1998 congressional legislation that created the Office of River Protection in early 1999 was intended to give the new field office extra autonomy to stay clear of DOE's internal bureaucracy. The legislation intended for the office's manager to report directly to DOE's assistant secretary for environmental management.

"We ... seek your personal written commitment to carry forth the statutory mandate and congressional intent that led to the creation of the Office of River Protection," Locke and Gregoire wrote.

Also on Friday, Richardson wrote back that the Office of River Protection "will continue to have the full authority and support it needs to carry out its legislative mandate."

Richardson also wrote DOE plans to keep the classification project on schedule, despite its problems. And Richardson noted he appointed Harry Boston as acting manager Aug. 2, intending to make Boston the permanent manager. Boston has extensive experience in radioactive tank wastes at Hanford and Oak Ridge, Tenn.

Many Hanford observers in the Pacific Northwest believe DOE's Washington, D.C., headquarters is pulling much of the office's authority back inside the Capitol Beltway — and French was a casualty of that tussle.

DOE's Washington, D.C., headquarters contends those perceptions are not correct. The public reason given for French's removal is a dispute over setting up a request for proposals on how to replace BNFL.

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## DOE hopes sharing can save on cleanup costs

By John Stang  
Herald staff writer

The Department of Energy hopes to trim some costs with sharing between the two major pieces of its Hanford radioactive tank waste cleanup program.

Those two pieces are the site's regular tank farms program and the tank waste classification project.

For the rest of 2000, both programs will be managed by CH2M Hill Hanford Group. In January, another yet-to-be-picked contractor is supposed to take over the classification project.

Right now, CH2M Hill is looking at how it and the future classification contractor can share equipment and possibly tank space to trim costs, said Harry Boston, acting manager of DOE's Office of River Protection.

Boston declined to elaborate but said CH2M Hill's initial ideas "have a lot of promise."

Those ideas also intrigued U.S. Reps. Doc Hastings, R-Wash., and Duncan Hunter, R-Calif., who were briefed on them Monday. The two held a news conference Tuesday in Richland. Hunter is chairman of the

National Security Committee's military procurement subcommittee, which Hanford's annual cleanup budget requests go through. Hastings and Hunter said they expect Congress to approve adding a few hundred million dollars a year to DOE's cleanup budget to cover Hanford's waste classification costs. Meanwhile, Boston said the sharing idea grew from the recent firing of BNFL Inc., which was to pay for the classification design, construction and operations work under a new "privatization" approach.

With privatization, BNFL would have owned the classification facilities and would not have been paid until the first wastes were converted into glass. But privatization was fingered as a major culprit for why BNFL's cost estimate of \$6.9 billion zoomed to \$15.2 billion — which resulted in DOE firing BNFL. So DOE has dumped the privatization approach and named CH2M Hill caretaker of the design work until January. That is when DOE plans to pick a new classification contractor under a "cost-plus-incentive" contract. That means DOE would reimburse the contractor for its costs — and add bonuses if the company finishes work under budget and ahead of schedule. But the company's profits would be cut if the work falls behind or goes over budget. This also means DOE would own

the classification facilities, as well as the tank farms — making sharing equipment and other assets between the two much easier, Boston said. CH2M Hill is being paid about \$20 million a month for handling BNFL's duties until a new contractor is hired. The money comes from a pool of \$491 million in congressional "set-aside" funds being saved to start paying BNFL in 2007. Much of this money is now earmarked to pay BNFL for the past two years of design work, plus to pay for the transition to a new contractor.

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TRI-CITY HERALD

THURSDAY, AUGUST 10, 2000

NORTHWEST

## Hanford will no longer accept foreign waste

By The Associated Press

Radioactive garbage from foreign countries will no longer be accepted at a commercial dump on the Hanford nuclear reservation.

US Ecology — which leases land in central Hanford — has assured Gov. Gary Locke that it will not seek any more radium-contaminated trash business from other countries.

"US Ecology's Richland facility will not accept or solicit any other (similar) shipments from foreign sources," Stephen Romano, vice president of US Ecology's parent company, wrote in a letter to Locke.

Locke criticized a shipment from Spain that arrived Monday by plane at Moses Lake. The governor also wrote the White House to protest the lack of federal monitoring of such shipments.

The material from Spain arrived in Moses Lake, bound for Hanford, on the same day that the

National Academy of Sciences reported that the federal reservation is among 100 U.S. nuclear weapons sites so contaminated they would never be cleaned up.

The shipment was about 120 55-gallon drums of low-level radioactive household and medical waste. It included radium-contaminated smoke detectors and needles used in chemotherapy.

The shipment contained 20 curies of radiation; the US Ecology site already holds about 15 million curies, the governor's office said.

The Spanish Radioactive Waste Management Co. in Madrid contracted with US Ecology to bury the wastes at its Hanford dump, the only site in the nation licensed to bury the material.

State officials approved the shipment, sending a state inspector to Spain to examine the drums before the flight.

It's the first time that international nuclear trash will be buried at the US Ecology site at Hanford.

Heart of America Northwest of Seattle, a Hanford watchdog group, protested the shipment after hearing from a Moses Lake airport worker Monday.

"It opens up the entire world nuclear waste market," Director Gerald Pollett complained.

Monday's announcement by the National Academy of Sciences that Hanford is too contaminated ever to allow unrestricted public access added to the state's concerns about accepting more nuclear garbage, the governor's office said.

US Ecology, a subsidiary of American Ecology in Boise has operated the leased commercial site at Hanford since 1965.

Spain has no low-level waste disposal site of its own.

"We hope this is the only shipment from out of the country," said John Erickson, director of the state Department of Health's radiation protection division.



# Criticism continues to simmer in wake of Hanford fire

By John Stang

Herald staff writer

An activist organization criticized Hanford's late June firefighting efforts Wednesday, calling for a federal investigation for possible criminal violations.

Heart of America Northwest sent a letter to the U.S. Environmental Protection Agency, requesting the agency call in the Department of Justice to look for potential environmental crimes related to the massive range fire that burned much of Hanford in late June.

Heart of America's allegations of criminal actions boil down to:

■ The Department of Energy failing to tell firefighters and emergency officials about contaminated areas that burned or were in danger of burning.

■ DOE saying — as the fire was being fought — that no radioactive materials were spreading. Follow-up sampling showed some scattered spots of slightly increased radioactive concentrations in and around Hanford.

■ DOE should not have left 350 dug-up barrels of uranium chips in open trenches north of

the 300 Area. Heart of America contended DOE did not have plans to deal with a fire getting into the barrels.

These allegations came on a Wednesday that also saw the Hanford Advisory Board's health and safety committee ask questions about the range fire that burned 256 square miles of sagebrush, mostly on Hanford, plus 11 Benton City homes. The surfaces of three waste disposal sites just south of the 200 Area were burned, although DOE officials said flames reached just the fringes of those areas, missing the actual burial spots.

Also Wednesday, DOE and state health department officials gave a press briefing on the latest test results examining the spread of radioactive particles from the fire.

Don Good, Hanford fire chief, said protecting the 350 barrels of flammable oil-soaked uranium chips was a high priority for firefighters and the emergency operations center in the Federal Building. Using Stevens Drive as a firebreak, firefighters were poised to stop the range fire from reaching the barrels east of the road. The fire was stopped a few hundred feet west of Stevens Drive.

Good said firefighters were in contact with the emergency center, which briefed them on the danger of the barrels catching fire and spewing radioactive smoke. "We were well aware of the consequences of those drums," Good said.

Water and sand are not supposed to be used on burning uranium. A truck with special chemicals for use on a uranium fire was posted nearby in case the fire reached the barrels, Good said. He also said Hanford has mapped its radioactive spots with fire-related dangers and the appropriate firefighting techniques noted, which are made available to firefighters.

Meanwhile, Debra McBaugh, the state health department official in charge of the radioactive sampling, said the sampling results announced during the fire came from quick-turnaround tests that looked only at if immediately dangerous amounts of radiation were being released — and showed radiation was below detectable limits for those quick tests. The follow-up tests to look for smaller concentrations of radioactivity take much longer. These are the more in-depth results being

announced in the weeks after the fire, she said.

In other fire-related matters discussed Wednesday:

■ The state announced results from nine air and vegetation samples collected around Hanford. Only one showed an increased concentration. That was of strontium 90, which was found at the Ringold hatchery. The level was 0.1 picocurie of radiation per gram, which is on the high end of normal background radiation. The federal danger levels are 4 picocuries per gram in food and 59 picocuries per gram in pasture grass.

A major unknown is the origin of the increased radiation in this sample plus 10 others collected in and around Hanford in July. The fire, or winds, or 1960s atomic bomb fallout, or something else could have caused those elevated readings, McBaugh said.

■ DOE's study of samples from around the 200 West Area show a plutonium concentration of 0.0016 picocurie per cubic meter. The normal plutonium background for that area is 0.0001 picocurie per cubic meter. The federal limit for plutonium is 0.002 picocurie.

Gerald Pollet, director of Heart of America,

questioned the elevated plutonium levels because DOE said the fire reached the fringes, but did not burn the actual burial spots south of the 200 Area. If that is the case, where do the increased plutonium levels come from, he asked. Pollet contended Hanford needs to hunt for the origin of those elevated readings, which he speculated might be an uncharted waste burial site.

■ Questions were raised on why high flammable tumbleweeds were not removed from fences along Highway 240 prior to the fire.

Good said Hanford quit burning tumbleweeds inside both highway fences in 1995.

But Good said those measures would not have stopped the range fire from jumping Highway 240 to roar into central Hanford. Firefighters reported the winds blowing flaming sagebrush a half mile ahead of the advancing fire line, including leaping across the Yakima River.

■ Urine samples have been collected from about 75 firefighters so far, but the tests for contaminants are not done yet.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

## Future budget shortfalls threaten waste shipments

By Brye Butler

Herald staff writer

Possible future budget shortfalls are threatening Hanford's legal obligations to ship radioactive waste to New Mexico.

The Department of Energy is looking into stepping up cleanup efforts along the Columbia River, potentially taking money away from efforts to send barrels of radioactive waste on schedule to a permanent storage site in New Mexico.

About 80,000 barrels of transuranic waste — essentially radioactive junk in drums — is to be eventually sent to a half-mile deep manmade cavern, called the Waste Isolation Pilot Plant, or WIPP, near Carlsbad. But, a predicted lack of money may slow the project, meaning DOE might not meet a legal deadline in the Tri-Party Agreement, the pact governing Hanford's cleanup.

This deadline calls for Hanford to dig up 10,000 barrels of transuranic and low-level radioactive waste by 2004 to later be checked to see if those barrels should be shipped to WIPP or reburied. Hanford's master plan calls for low-level radioactive waste to be buried on site.

This dilemma comes from DOE officials considering increasing cleanup efforts along the Columbia River, which could take money from cleanup projects in the 200 Area, where Hanford's transuranic waste is stored.

Mark French, the DOE official in charge of the transuranic waste disposal program, said the pace of the site's shipments will have to be

increased in order to ship 80,000 barrels to New Mexico by 2032.

Only three shipments are scheduled for this year and five for 2001. No more than 42 barrels can be shipped at a time, and so far only one shipment of seven has left Hanford.

But the pace is controlled by the budget. "We're going to try to do everything with the budget we have," French said.

The site's transuranic waste program is one part of Hanford's \$112 million waste management budget earmarked for fiscal 2001. If DOE shifts more cleanup money to river shore projects, that could take away possibly 10 percent of the waste management budget, said George Sanders, director of DOE waste management division. Such a shift could throw the shipment schedule off track.

Wednesday morning, officials gathered at central Hanford to celebrate the safe arrival of the first seven drums at WIPP. About 200 Hanford employees, community members and leaders listened to glowing reviews about the program.

"It's important to remind ourselves why Hanford is here," said U.S. Rep. Doc Hastings, R-Wash. "This (the shipping) is very symbolic, but it's very real."

DOE Hanford Manager Keith Klein and other state, federal and tribal officials expressed similar pride in the Hanford cleanup kick-off.

■ News intern Brye Butler, a student at Washington State University, can be reached at 582-1531 or via e-mail at [intern@tri-cityherald.com](mailto:intern@tri-cityherald.com).

## B. Reactor designer to visit Richland

By the Herald staff

Physicist John Wheeler helped design Hanford's historic B Reactor in World War II.

Later, he pioneered much of the science addressing black holes in outer space, which a fledgling gravitational-wave observatory at Hanford will try to detect.

And on Sunday and Monday, he will be in Richland. It is a town he lived in for more than a year during World War II as he worked on B Reactor as part of the Manhattan Project that created the first atomic bombs.

From 3 to 4:30 p.m. Sunday, he will autograph copies of his autobiography, *Geons, Black Holes and Quantum Foam*, at the Columbia River Exhibition of History, Science and Technology.

The CREHST museum is at 95 Lee Blvd., Richland. His book includes sections on Hanford's early days and the discovery of black holes.

Monday, he will lecture with LIGO physicist Kip Thorne at 7:45 p.m. at the Battelle auditorium in Richland.

The lecture will cover gravitation, black holes and related topics.

Both events are open to the public and are free.

LIGO is the Laser Interferometer Gravitational-Wave Observatory in southern Hanford.

Major shakedown tests on hunting for gravity waves in outer space are expected to be conducted there next year.

Wheeler has worked closely with many pioneers of nuclear physics, including Albert Einstein, Niels Bohr, Enrico Fermi and Robert Oppenheimer — and has done work on the nature of time, space, gravity and quantum mechanics

11 AUG. 00

# DOE aims to speed river shore cleanup

Funding woes could hamper proposal to finish by 2012

By John Stang  
Herald staff writer

The Department of Energy wants to speed cleanup along the Columbia River.

But DOE's Richland office must find a way to beat Hanford's merciless zero sum budget game.

Hanford's regulators and observers are skeptical. They're intrigued by the idea but fret that many details and possible sacrifices could make the proposal unacceptable.

Thursday, DOE's Hanford Manager Keith Klein unveiled a preliminary proposal to complete most of the river shore cleanup work — including nine defunct reactors and the 300 Area — by 2012. The goal is to clean up the Benton County shoreline from Richland to the Vernita Bridge, a strip that covers 100 square miles, Klein told the Hanford Advisory Board's environmental restoration committee.

For years, the Hanford board has cited the river as a top cleanup priority, Klein said. Also, speeding river shore efforts will produce major tangible results in the near future, which should buy political good will from Congress, which controls Hanford's purse strings, he noted.

"This is to make (cleanup) more real so people can see it, taste it," Klein said.

But that sped-up river shore effort will require an extra several hundred million dollars.

The dilemma is that no one — even Klein — expects much growth in Hanford's overall cleanup budget for the next several years.

This raises the questions: Where will the extra river shore money come from? Will 200 Area work be delayed to pay for the shoreline efforts? What hasn't DOE thought about yet? Can a cleanup contract be designed to circumvent Hanford's internal rob-Peter-to-pay-Paul budget situation?

The backdrop for this proposal is that Bechtel Hanford Inc.'s environmental restoration contract, which includes river shore cleanup, expires in September 2002. That means Bechtel or another company will continue the river shore work under a new contract that can be radically different from the one between Bechtel and DOE today.

13 AUG. 00

# Scientists hunt stronger particle board

**Kennewick teen-ager spends summer aiding Battelle research team**

By Terry Hudson  
Herald staff writer

While other teens are flipping burgers, Anna Ostergaard is spending her summer helping scientists at Battelle's Pacific Northwest National Laboratory in Richland.

Judging by the progress made over the summer on Ostergaard's project, the recent graduate of Kennewick High School may be part of a breakthrough in the particle board business.

As part of the Student Research Apprenticeship Program at the lab, Ostergaard was assigned to work with scientists Bill Samuels and Kevin Simmons on straw fiber and wood fiber composites.

The goal is to produce stronger particle board for furniture and buildings.

"We're making particle board out of all natural resources and mixing it with different binders," Ostergaard explained.

Wearing thick, oversized gloves, she takes a metal mold from a heat press machine and pours in a pre-mixed combination of wheat-straw fiber and epoxies.

She pulls down on a lever several times, increasing the pressure and sets the temperature at 300.

In about five minutes, the machine has pressed the mixture into a circular particle board sample, referred to by the scientists as a "puck."

The puck is weighed, measured and labeled. Later, the puck is glued to two flat metal surfaces, which are attached to another machine.

The machine pulls the metal in opposite directions, measuring how much pressure is needed before the puck breaks apart. Scientists get immediate feedback via computer.

"It's hands-on, and that's what I really like about it," Ostergaard said. "I can understand the processes better."

Samuels says by the time the



Anna Ostergaard, a recent graduate of Kennewick High School, is working this summer at Battelle's Pacific Northwest National Laboratory in Richland doing research on the use of wheat straw and wood fiber as building materials.

Herald/Paul T. Erickson

project is finished, they'll have some significant findings to report to Northwest Particle Board, which is sponsoring the research.

"In a typical particle board case, you expect to see about 200 pounds of pressure before it breaks apart," Samuels said. "We're seeing 500 to 600 pounds."

How does Ostergaard feel about the possibility of being involved in a major breakthrough in the particle board business?

"I'm not even 20," she said.

One thing Ostergaard is finding out is that research demands lots of redundant testing and meticulous record-keeping.

"Everything takes time," she said.

Those sort of real-life lessons are what the program is all about. By summer's end, students at the laboratory have a realistic view of the scientific process.

"We go home at the end of the day not knowing if it's right or wrong," Simmons said. "In school, they're worried about getting the answer right. Here, you learn by failure."

The Student Research Apprenticeship Program was created in 1979 as a way to connect to groups who traditionally haven't pursued scientific and technical careers.

This summer, Ostergaard is one of 15 students to receive a research

appointment at the lab for the eight-week salaried program.

Ostergaard has impressed her scientists enough that she has been offered the chance to work on another project at the lab next year, while she attends Columbia Basin College.

But don't expect to hear her bragging about it. Even her friends aren't aware of her contribution to the future of stronger building materials.

"I tell them it's top secret," Ostergaard said. "It's hard to explain to someone who hasn't been in here."

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14 AUG. 00

## Public input sought on tank waste plant

The public comment period on the draft request for proposals for Hanford's tank waste glassification contract is extended until Friday.

The four-day extension will provide the public and potential bidders more time to offer questions, ideas and opinions on how to improve competition for the project, said Harry Boston, acting manager of the Department of Energy's Office of River Protection.

The company selected for the contract will take over in January the slowed-down project to build glassification plants for central Hanford's radioactive tank wastes.

The final request for proposals is scheduled to go out Aug. 30. Written proposals from contractors are due Sept. 29. Submit questions or comments to Michael Barrett, DOE's contracting officer on this matter, via e-mail at michael\_k\_barrett@rl.gov. Or call Hanford's main switchboard at 376-7411.

## Hanford health panel to meet in Oregon

The Hanford Health Effects Subcommittee will meet at the Tamastslit Cultural Institute in Pendleton from 8 a.m. to 5:30 p.m. Thursday and from 8 a.m. to 2 p.m. Friday. Public comment periods are scheduled from noon to 12:15 p.m. Thursday and from 11:40 to 11:50 a.m. Friday.

On Wednesday, the Inter-Tribal Council on Hanford Health Projects will meet from 9 a.m. to 3:30 p.m., with public comment hearing from 2:15 to 2:30 p.m.

# Battelle experts predict 10 energy innovations by 2010

Special to the Herald

It's not all bad news on the energy front, despite the summer's soaring gas prices and threats of electric black-outs, says a panel of experts.

"We're on the cusp of some major, fundamental changes in energy. In fact, it's already starting," said Steve Millett, manager of Battelle's forecasts.

Energy experts from Battelle and the national laboratories that it manages for the Department of Energy, including Pacific Northwest National Laboratory in Richland, predict a number of innovations by 2010:

- Deregulation of the natural gas and electric utilities will continue, resulting in more competition and more mergers. Small, independent utilities will decline and be swept up into the emerging super utilities. Oil companies will become energy companies. New players, such as automobile companies, may emerge as formidable

influences in the energy industry.

- High gas prices will increase the popularity of hybrid cars. Mileage of 70 mpg will create a lot of converts. The first generation of these vehicles already is here in a sporty two-seater from Honda. Hybrid vehicles use smaller, more efficient internal combustion engines and power from electric batteries for an extra boost during acceleration.

- Computers, the Internet and global positioning systems will increase the efficiency of transportation. They'll reduce congestion and traffic delays and be used in heating, air conditioning, household appliances and business equipment. They also will

play vital roles in efficiency of energy production and distribution systems such as pipelines, refineries, power plants and transmission lines.

- The current system of power grids is on the way out, making major black-outs caused by storms and overloading a thing of the past. Power may be generated locally for neighborhoods and individual residences and businesses through micro-turbines, internal combustion engines and fuel cells. There will be an increased use of natural gas because it's clean, cheap and available.

- Fuel cells will become increasingly popular for transportation and for portable and stationary power genera-

tion over the next decade as they become smaller and cheaper.

- The development of chemical engineering processes to transform hydrocarbon compounds from gases to liquids will permit more flexible use and storage of fuels. One example is the conversion of natural gas to diesel fuel for transportation.

- Next-generation batteries will be based on lithium polymer technology

and have about three times as much energy capability as those currently on the market. These developments will play a more crucial role as we make the transition to hybrid and electric vehicles. Consumers also will see better batteries for laptop computers and cell phones.

- The use of bio-engineered crops for fuels will be hurried along by the genetic revolution that permits cultiva-

tion of crops to produce fuels such as ethanol.

- Solar Energy will remain difficult to capture and store in a cost-effective manner, but experts see substantial improvements over the next decade.

- Discoveries of rich deposits of frozen natural gas crystals on the ocean bottom show promise, although ways to mine the crystals still are under development.

## Work set to begin soon on dorm for PNNL visitors

By John Stang

Herald staff writer

Construction is expected to begin in a few weeks on a long-planned dormitory-style building for scientists and students visiting the Pacific Northwest National Laboratory.

The planned two-story, 28,000-square-foot building will have rooms for 83 temporary residents, said Staci Maloof, PNNL spokeswoman.

The majority of the visitors will be working at the nearby Environmental and Molecular Sciences Laboratory.

The building — currently called the "User Housing Facility" — will be at the corner of Battelle Boulevard and Q Avenue in north Richland. It is expected to open in March.

About 500 scientists and engineers visit PNNL for research projects each year, and an additional 1,000 scien-

tists and students participate annually in PNNL's education programs.

The new building is supposed to provide an affordable living space at PNNL's campus for these visitors, Maloof said.

Battelle, which operates PNNL, signed a private lease last week with Sigma Financial Group of Kennewick, which will finance, build and operate the dormitory.

Dick Hoch, head of the company, declined to discuss construction costs or lease arrangements. Because it's a private, nongovernment arrangement, Battelle also wouldn't release details.

Hoch said this building will be similar to visitors' dorms at other national laboratories.

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A4

TRI-CITY HERALD

WEDNESDAY, AUGUST 16, 2000

METRO

# Experts gather at LIGO to discuss improved lasers

Plans under way to overhaul huge research project in 2005

By John Stang

Herald staff writer

In theory, a fledgling gravitational-wave observatory at Hanford will be able to "see" black holes in outer space by measuring infinitesimal changes in gravity.

At least that's what scientists expect once the \$300 million project starts operating in 2002.

Still, even though no one knows yet if the Laser Interferometer Gravitational-Wave Observatory will work, plans already are in the works for a \$100 million overhaul of the massive research project in 2005.

The upgraded LIGO should be 30 to 100 times more sensitive than the current gravity wave catcher and able to see much farther out into the universe, said physicist Gary Sanders

of the California Institute of Technology, who also is LIGO's deputy director.

"Instead of tens of mega-parsecs away, we can see hundreds of mega-parsecs away," Sanders said.

A mega-parsec is about 3.26 million light-years. A light-year is the distance light can travel in one year — about 5.88 trillion miles.

Sanders is among 120 physicists — experts on gravity, lasers, optics and astrophysics from around the world — who have gathered from Tuesday through Thursday at Hanford's LIGO to discuss how to improve the LIGO.

The LIGO coalition meeting this week expects to submit a draft proposal for funding to the National Science Foundation in November. The foundation, in turn, would decide whether to request money from Congress in 2002 or 2003.

Joe Dehmer, director of the foundation's physics division, acknowledged the dilemma of trying to convince the foundation's top

managers to seek upgrade money even before the LIGO ever proves itself.

But Dehmer pointed out years of advance time are required for such massive scientific research projects. And continuous advances in lasers, optics, ultraprecise measuring and other technology mean upgrades are needed to get the most out of the project.

The Hanford-related LIGO operation is led by scientists from Cal Tech and the Massachusetts Institute of Technology, and consists of a headquarters at Cal Tech and two LIGOs — one at Hanford and one in Louisiana. Other nations also have LIGO projects. All are expected to go online in the next two years.

A LIGO's purpose is to try to capture gravity waves, which currently exist only in theory.

In 1916, Albert Einstein theorized gravity waves exist as ripples in space and time. LIGOs are supposed to catch these ripples in much the same way as a microphone catches sound waves.

At Hanford, the LIGO looks like a monster "L" from the air — two concrete aboveground tunnels stretching 2½ miles each and meeting in a 90-degree angle. Each tunnel holds a long tube containing the most-perfect vacuum possible. Inside each tube, laser beams split and reflect back and forth among ultraprecise quartz mirrors.

The idea is a gravity wave striking the LIGO will move the mirrors an infinitesimally small amount — maybe one ten-trillionth of the diameter of a human hair. That gravity-wave-induced wobble would then be measured and analyzed.

Theoretically, the LIGO will enable scientists to "see" black holes, where gravity is so powerful, even light cannot escape, and stellar explosions and neutron stars. The most extreme possibility is catching gravity ripples from the "Big Bang," a cosmic explosion that many scientists believe created the universe.

The LIGO at Hanford is scheduled to undergo shakedown tests in 2001 and begin full-fledged hunting for gravity waves in 2002.

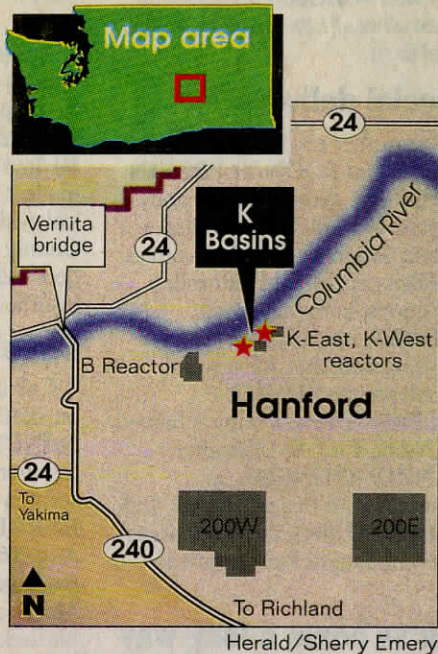
But the current LIGO project's basic structures — such as the vacuum chambers and seismological cushioning — were deliberately overdesigned and overbuilt so they would not be obsolete when the lasers and mirrors are upgraded, Sanders said.

One example of this research is possibly replacing the LIGO's quartz mirrors with ones made of sapphire. A sapphire mirror is believed to be less susceptible to nongravity vibrations than quartz.

About \$6 million is being spent this year on researching LIGO modifications, and possibly up to \$10 million will be sought in 2001.

The tentative target to shut down Hanford's LIGO for an 18-month overhaul is 2005, Sanders said.

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Herald/Sherry Emery

## K Basins cleanup schedule in question

Extra preparation not leaving project much leeway as deadline looms

By John Stang  
Herald staff writer

The bit of leeway left in the cleanup schedule for Hanford's K Basins has gotten even smaller. Until recently, the project had about three weeks to spare as it faced a Nov. 30 deadline to start moving spent nuclear fuel out of the leaky K West Basin.

But that cushion is shrinking as workers use it up for extra preparation and practice in moving the fuel underwater in the basin.

Right now, no one seems certain how much room is left to spare.

"Everything is very tight. It's hard to quantify what the cushion is," said Dave Van Leuven, Fluor Hanford's executive vice president.

Van Leuven remains confident in the deadline, however. "We're going to make the Nov. 30 date," he said.

The start date is part of the Tri-Party Agreement,

See **Schedule**, Page A2

## 3rd fire chars Hanford national monument

By Annette Cary  
Herald staff writer

Fire charred more of the Hanford Reach National Monument on Thursday.

Firefighters got the flames under control in the early morning only to have the fire reignite in the evening. The fire was believed to have been sparked by lightning.

An estimated 150 to 200 acres of the 200,000-acre national monument had burned by Thursday evening, with the fire contained but not under control.

It was the third fire on the new monument this summer. This one burned through sage and grass four miles from the Vernita Bridge on Highway 24, while another, much larger fire near Mabton, dubbed the Mule Dry fire, turned the sky smoky in the Tri-Cities.

In late June, an out-of-control fire burned 164,000 acres of the monument, the Hanford nuclear reservation and nearby private and government land. It was sparked by a fatal car wreck in a remote area of the monument.

"An auto collision in the middle of nowhere there is no way to plan for,"

"  
**We were just about to let them go because of the high danger in Montana when the fire started.**

Greg Hughes,  
U.S. Fish and Wildlife Service

said Greg Hughes of the U.S. Fish and Wildlife Service and the project leader for the Arid Lands National Wildlife Refuge Complex.

But firefighters have been prepared. Fish and Wildlife had patrols out watching for fires when lightning but little rain is predicted. Other agencies, such as the Hanford Fire Department and county fire districts also have been alert for fire danger.

The fire near the Vernita Bridge was spotted by patrols about 4:30 a.m. and the perimeter was contained and under control by 6:06 a.m. However, the fire, then about 100 acres, continued burning in the center throughout the day.

Then, about 6 p.m. Thursday a dust devil blew through charred area, picking up embers. The small whirlwind carried the embers outside the controlled area and started a blaze in fresh territory.

Thursday morning, firefighters from various agencies had been helped by high humidity and low winds. However, when the fire rekindled in the evening, firefighters had to contend with strong winds.

Fish and Wildlife officials expect to declare the fire out today.

Earlier this month, a fire burned about 30 acres of national monument land near Saddle Mountain. Crews on patrol for fire saw the lightning hit the ground and start the fire in that instance, Hughes said.

Additional Fish and Wildlife employees from the eastern United States have been in the Mid-Columbia to help patrol for fires and fight them this summer.

"We were just about to let them go because of the high danger in Montana when the fire started," Hughes said.

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

## Wind fans lightning fire near Horse Heaven Hills

By Wendy Culverwell  
Herald staff writer

A fire started by lightning on the Yakama Indian Reservation late Wednesday night consumed more than 32,000 acres by Thursday and was burning out of control in the Horse Heaven Hills at about 10 p.m.

Brisk winds propelled the Mule Dry fire across the reservation boundary toward Bickleton and Mabton in rural Yakima County and sent smoke billowing over the Tri-City sky at sunset.

"The wind is not being nice to us," said Bonnie Spencer, lead dispatcher for the Bureau of Indian Affairs/Yakama Nation Fire Management Program.

The Associated Press reported the fire threatened 50 rural homes outside Mabton and destroyed 10 outbuildings. Reports that some homes burned could not be con-

firmed.

Spencer said she thought the fire may have burned some old corrals. She said the initial fire began at about 9:45 p.m. Wednesday when lightning struck a brushy area in the Pine Spring area on the south side of the reservation, near the Yakima-Klickitat county line.

From there, the wind spread it in all directions, Spencer said.

Firefighters from BIA, the Fish and Wildlife Service, the Department of Natural Resources, Yakima County Fire District 5 and Job Corps were fighting the fire Thursday night and state officials were considering whether to call outside help under a state mobilization plan. State emergency management officials could not be reached Thursday night.

Reporter Wendy Culverwell can be reached at 582-1537 or via e-mail at wculverwell@tri-cityherald.com.

## Cost report sets FFTF restart as solid move

Analysis shows option is cheapest in initial costs but not in annual expense

By Annette Cary  
Herald staff writer

Restarting Hanford's Fast Flux Test Facility would appear to be a reasonable choice for the Department of Energy to produce isotopes, based on a cost analysis released Friday.

The report "confirms that the Fast Flux Test Facility is the most cost-effective means for meeting the entire suite of missions proposed by the Department of Energy," Sen. Slade Gorton, R-Wash., said Friday.

The report reviews the cost of restarting the reactor for nonmilitary uses compared with alternatives such as building accelerators or a new smaller reactor. FFTF would be used to make isotopes for medicine, to produce plutonium 238 for deep-space mission batteries and for research and development.

The report was prepared as part of an environmental study that will be discussed next week in public hearings in Hood River, Ore., Portland, Seattle and Richland. DOE is expected to make a decision by the end of the year whether to restart the reactor or permanently shut it down.

The cost analysis found building new accelerators would be by far the most expensive alternative. It puts construction costs at \$1.1 billion. In addition, FFTF would have to be deactivated at a cost of \$281.2 million, bringing the combined cost to \$1.4 billion.

Although accelerator construction costs would not come out of the money budgeted to clean up nuclear waste, deactivating FFTF would be considered a cleanup cost.

The next alternative, building a small research reactor, would cost about as much as making modifications to restart FFTF.

See **FFTF**, Page A4

ALSO OVER

# New FFTF missions would require study

3 FFTF proposals currently being considered by DOE

By John Stang

Herald staff writer

SEATTLE — Another full-fledged environmental impact study would have to be conducted if the federal government wants to add missions to the Fast Flux Test Facility beyond those currently proposed.

That answer came from Collette Brown, the Department of Energy official in charge of the FFTF environmental impact study, after the question was posed at Wednesday's public hearing in Seattle on whether to revive the reactor.

Three FFTF missions are currently being considered — producing medical isotopes, producing plutonium 238 and nuclear research.

Jim Trumbo of Washington Physicians for Social Responsibility asked the extra-mission question in the context of whether military missions could be added to the FFTF a few years from now, if it is revived.

About 250 people attended Wednesday's hearing. Slightly more than half applauded anti-

FFTF remarks. About 30 to 35 FFTF supporters attended. Most were from the Tri-Cities.

The stances voiced by both sides reflected positions they had taken during many past hearings and arguments on reviving the reactor.

Each side accused the other of spreading lies and half-truths.

"There's a long list of misinformation by the anti-nuclear activists," said Stan Scott of Richland.

Tiffany Devoy of Heart of America Northwest complained about the Tri-City critics of the anti-FFTF people: "You are right, and the entire Seattle City Council is wrong? It's disgraceful for you to come into our city and tell us that our concerns are wrong."

The order of speakers at Wednesday's hearing was picked by a lottery. Of the first 14 speakers, six were Tri-Citians supporting FFTF, and eight were Puget Sound residents opposing the reactor.

Opponents cited general distrust of nuclear power and of DOE, worries that reviving the reactor would distract attention from Hanford's cleanup, and fears that plutonium-based reactor fuel from Germany for the FFTF would be transported through Puget Sound and catch on fire.

Gerald Pollet, director of Heart of America Northwest, cited a 1997 DOE fiasco in not

giving exposed workers nasal smears after a chemical tank explosion. Nasal smears are used to check if a worker inhaled a chemical. Pollet contended that track record will carry over to operating the FFTF.

Megan Cornish of the Freedom Socialist Party said: "I find the bias for restarting the reactor (in the environmental impact study) appalling."

The Tri-Citians emphasized counterpoints to what they contended were lies and half-truths.

Bruce Klos, a Pacific Northwest National Laboratory official who works with the FFTF, said any imported plutonium fuel likely would enter the United States through Charleston, S.C.

Bill Dautel of Richland questioned a Seattle contention that a catastrophic fire would devastate the city if plutonium is shipped through that port. "Have they supplied you with an independent risk analysis on how this could occur," he asked Brown during the hearing.

Tri-Citians also jumped on the opponents' positions that the space programs did not need FFTF-produced plutonium 238 and that there is no need to produce medical research isotopes.

The National Aeronautics and Space Administration no longer needs small plutonium-powered generators, Tri-Citians agreed with the opponents. But the Tri-Citians accused the

opponents of ignoring NASA's plans to use another type of plutonium 238-powered engines instead in the deep space probes.

Also, while making research isotopes is not cost-effective for the FFTF, a DOE panel concluded the reactor could cost-effectively produce medical isotopes in commercial volumes, the Tri-Citians said.

In the Tri-Cities on Wednesday, FFTF supporters staged a press conference at the American Cancer Society offices to turn up the volume at tonight's hearing in Richland.

Amy Evans, director of Citizens for Medical Isotopes, which favors restarting FFTF, urged Tri-Citians to learn the facts about FFTF and then tell the Department of Energy it should restart the reactor.

Bill Martin, president of the Tri-City Industrial Development Council, Tom Schaefer of the Hanford Atomic Metal Trades Council, Bob Schenter, a nuclear physicist, and state Sen. Pat Hale, R-Kennewick, agreed DOE officials need to hear pro-FFTF messages when they visit this week.

The next hearing is at 6 p.m. today at Richland's Tower Inn.

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## Portland crowd mixed on FFTF

Thursday meeting is at Tower Inn in Richland

By John Stang

Herald staff writer

PORTLAND — The flavor varied a bit, but the basic dish remained the same.

The usual suspects opposed reviving Hanford's dormant Fast Flux Test Facility at a Department of Energy public hearing Tuesday in Portland.

And the other side turned out to support resurrecting the reactor.

In all, about 300 people were at the hearing, the second of four this week in the Northwest. Today's hearing is at 6 p.m. at the Washington State Convention Center in Seattle. Thursday's is at 6 p.m. at the Tower Inn in Richland.

About a quarter of the Portland crowd belonged to Ralph Nader's Green Party. Overall, slightly more than half applauded anti-FFTF remarks.

About 15 percent to 20 percent of the crowd came from the Tri-Cities, focusing their comments almost exclusively on FFTF's capability to produce medical isotopes to combat cancer.

"The FFTF is the safest, lowest-cost option for medical isotopes. ... We must put aside antiquated, environmental phobia and see the FFTF for what it is — hope for the future," said Derek Jones of Kennewick.

In a twist, a Portland woman who has been an anti-nuclear activist talked about her mother having cancer.

"For the first time in my anti-nuclear life, I opened my ears to listen. ... I want facts on the table, both for and against. My mother deserves that much," she said.

Opponents mostly contended they did not want a new mission at Hanford distracting from an often-fumbling cleanup effort, and they said DOE generally has a poor track record managing projects.

"I'm much more interested in the environment than in space missions," said Joyce Follingstad of Portland.

Charlie Hales, a Portland city commissioner, said, "We want the Department of Energy to concentrate on cleaning up the mess out there, not concentrating on new missions."

The draft environmental impact study being discussed at the hearings looks at creating medical isotopes, plutonium 238 to power deep-space probes, and at other nuclear research and development.

Reviving FFTF, building two new accelerators, building a new small reactor or some combination of these options are being considered.

See FFTF, Page A2

## Baron's in Richland has last call on Friday

By Wendy Culverwell

Herald staff writer

It's last call today for Baron's Beef 'N Brew, the folksy Richland restaurant and pub known for its sports paraphernalia, hummy atmosphere and great bar food.

Victoria Silvernail, who started the popular eatery with her husband, Gene, 18 years ago, said the restaurant became unprofitable as federal workers shifted way from downtown Richland and some offices shifted to a nine-day, nine-hour

## Richland FFTF meeting draws about 325

By John Stang

Herald staff writer

About 95 percent of crowd favors restart

The Department of Energy took the pulse of about 325 people Thursday on whether the Fast Flux Test Facility should be revived — with almost all the Richland crowd supporting resurrection.

"I believe our citizens are behind that dream," said Richland City Councilwoman Carol Moser.

Tuesday and Wednesday, DOE plans to take the pulse of 10 people — five proponents and five opponents.

A closed-door combination debate and negotiating session is scheduled next week

in Federal Way in an attempt to see if backers and critics of reviving the Hanford experimental reactor can find any common ground.

If they can, they might send a letter of recommendations to Energy Secretary Bill

See FFTF, Page A2

# DOE aims to meet deadline on glassification

By John Stang  
Herald staff writer

Construction of Hanford's tank waste glassification plant will likely start a year later than originally planned, according to the Department of Energy's latest plan for the project.

However, DOE aims to keep to the legal deadline of converting the first radioactive tank wastes into glass by 2007.

DOE released its final request for proposals late Thursday on designing, building and test running the glassification complex in central Hanford.

The deadline for corporations to submit written proposals is Oct. 16, with oral presentations completed by Oct. 23. DOE plans to select a new glassification team in January 2001 to replace BNFL Inc., which was fired in late May.

That means DOE will have about 2½ months to study the proposals and select a new contractor. The new team will have to take over a partly begun, almost stalled project to catch up with the original timetable.

"This is a very aggressive schedule," said Harry Boston, acting manager of DOE's Office of River Protection. DOE is counting on the new team inheriting partially started designs and completing them. However, a new team does not necessarily have to use BNFL's technical designs and approaches.

Prospective bidders have been doing homework on this project since BNFL's ouster, Boston said.

DOE's final request for proposals calls for:

- Construction to begin July 2002, instead of the original July 2001 target. That's because the 2001 dead-

line does not appear feasible because of complicated permitting matters, Boston said.

He said DOE has discussed this with the Washington Department of Ecology, which is the lead enforcer of the glassification project's legal deadlines. Mike Wilson, the Ecology Department's nuclear waste program manager, could not be reached for comment Friday on whether the state is willing to defer the start of construction until 2002.

- The contract setting 2007 for glassification to begin, with a four-year shakedown period that would extend the contract to 2011.

- The contractors to be reimbursed for their costs annually, with their fees — meaning profits — determined every three months by how well they keep to the agreed-upon budget,

timetable and specifications. If the contractor falls behind schedule or goes over budget, that company might have to pay back money to DOE in 2011.

If a company finishes under budget and ahead of schedule, it earns more profits. DOE calculated that the highest possible accumulated fee payments could be \$300 million over 11 years. "The schedule is very tight from here on out. That's why the incentives are there," Boston said.

- A contractor's initial cost estimate through 2011 to be somewhat close to DOE's target of \$4 billion. The final cost estimate and fee structure won't be pinned down until the contract is awarded.

The hunt for a new contractor is prompted by BNFL turning in a \$15.2 billion estimate this spring, compared to an original \$6.9 billion

estimate.

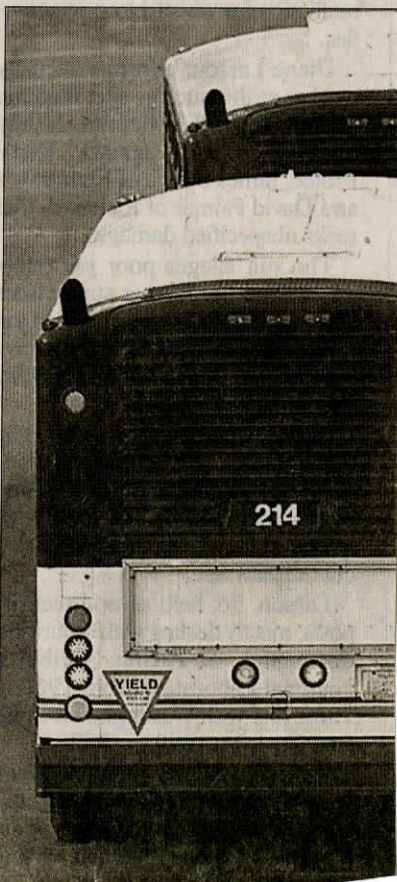
DOE liked BNFL's designs, which are 13 percent to 20 percent complete.

Consequently, DOE wants a new team to finish the design, build the plants and operate them for up to four years to work out any problems.

Then a long-term operating company is supposed to take over.

Boston declined to say which corporations might submit proposals by Oct. 16. Leif Erickson, deputy manager of the Office of River Protection, said dozens of companies could link as prime contractors or subcontractors to compete for the project — with the possibility of at least three teams forming.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tricityherald.com](mailto:jstang@tricityherald.com).



## 3 teen girls suspected of prowling Richland

Three teen-age girls are suspected of stealing cellular phones, compact discs and cash this summer from nearly 100 cars in north Richland.

The wave of car prowls occurred between 10 p.m. and 4 a.m. from July 1 to Aug. 23.

Cars in apartments, a trailer park and in front of homes around McMurray Street and George Washington Way were targeted, police Cpl. Kent Hoover said.

The value of items stolen ranged from \$10 to \$3,000, Hoover said. All of these items were taken from unlocked cars, he added.

The girls, ages 15, 16 and 18, have not been arrested, but are considered the main suspects in the prowls, he said.

The Benton County Prosecutor's Office is considering charges. The girls' names have not been released.

# Anti-aircraft battery site can't be found

## Kennewick man has no luck pinpointing area he couldn't wait to leave 48 years ago

By John Stang  
Herald staff writer

Lost. Lost in time. Lost in memory. Lost in the sagebrush. Last week's search for Hanford's first anti-aircraft battery site went everywhere — and nowhere.

Don Fleming hunted through his mind for clues.

It was near a long-gone farmhouse on a knoll somewhere north of the old White Bluffs town

site — maybe near H Reactor, maybe near F Reactor.

On the ground, that area is a huge chunk of almost featureless nothing, broken only by the occasional back road or small clump of trees. Hanford's last farmhouse was removed decades ago.

Each knoll looked like every other one. Fleming and his companions never found a clue where the site's first battery was set up.

It's been 48 years since Fleming, 69, of Kennewick last set foot in this area. Back in 1952, he couldn't wait to leave Hanford, then considered one of the crummiest assignments in the Army.

Guarding Hanford was so bad that many young GIs volunteered for combat duty in Korea just to get out of there.

"I don't understand how I made it 33 months out here," said the retired Benton County Public Utility District warehouse manager.

Fleming was in the first contingent of soldiers who came to set up a ring of anti-aircraft guns around Hanford in 1950, a post that grew into Camp Hanford.

Sept. 14-16, a 50th anniversary celebration is planned for anyone who served at Camp Hanford, which was the collective name for a series of facilities — the reservation's 16 anti-aircraft artillery sites, some later Nike Ajax missile sites, and the base camp in north Richland just north of First Street.

See **Battery**, Page A2

# Restart of FFTF fares well in report

## Proliferation report by government examines issues of other options

By Annette Cary  
Herald staff writer

Restarting Hanford's Fast Flux Test Facility stacks up well compared with other options for producing isotopes and could have some slight advantages over some, according to a new government report looking at nuclear proliferation issues.

"I think the message with the report is all the options ... can be done in a way that does not add to any proliferation problems," said William Magwood IV, head of the Department of Energy's Office of Nuclear Energy, Science and Technology.

The report means Energy Secretary Bill Richardson will not have to worry about proliferation issues when making his decision on whether FFTF should be restarted or if other sources should be found to produce isotopes for medicine, the U.S. space program, industry and to perform nuclear research, Magwood said.

The final supplemental report with

See **Report**, Page A2

# Policy didn't hinder attack on Hanford fire

No delay seen in fighting blaze, but management plans, training inadequate, report says

By Annette Cary  
Herald staff writer

A federal policy to tread lightly when fighting fires on the Hanford Reach National Monument did not prevent an aggressive attack on the runaway fire there in June, according to an interagency draft report.

A team of nine federal and local fire specialists concluded there were no delays in fighting the Hanford fire but did say that fire management plans, communication during the fire and, in some instances, training was inadequate.

"This report shows that we have our work cut out for us, but we are committed to improving fire-

fighting capabilities at the Hanford Reach National Monument," said Anne Badgley, regional director of the U.S. Fish and Wildlife Service.

The Hanford fire burned 164,000 acres on the nuclear reservation, the new national monument managed by Fish and Wildlife and on other state land and private lands. It destroyed 11 homes and many other buildings.

Fish and Wildlife requested the report be done by fire specialists not involved in the Hanford fire, in part because of rumors that the fire could have been contained at a few acres if firefighters had not been afraid of damaging the monument's nearly pristine shrub steppe ecology.

While the written federal policy is to use a "light hand on the land," the incident commander decided that attacking the fire quickly took precedence over protecting the land, the report found.

"He used his discretion to send the crews directly onto the Arid Lands Ecology area in an attempt to cut off the fire before it could spread," according to a draft copy of the report, as quoted by Fish and Wildlife.

"The initial attack is to be commended," said Pam Ensley, Fish and Wildlife's regional fire management coordinator.

However, the report did conclude that firefighters from Mid-Columbia city and county fire districts

who were fighting the fire on the monument believed the federal "light hand on the land" policy restricted the use of certain firefighting tactics, such as driving heavy equipment in there.

The report was expected in late August but has been delayed because many of the team members have been needed to fight fires across the West. Fish and Wildlife has not released the draft of the complete report so far, but Thursday, officials discussed what they said would be the final report's key findings.

Firefighters were trapped behind flames of the

See Hanford fire, Page A2

## METRO/NORTHWEST

# Hanford may need more waste tanks, state says

By John Stang  
Herald staff writer

SEATTLE — The math goes like this. Hanford's latest master plan calls for glassification of its radioactive tank wastes to be at full speed by 2011.

But Hanford's 28 double-shell tanks, the safest ones, are expected to be filled by 2006.

The bottom line: Hanford might have to seriously look at building new, expensive underground double-shell tanks to accept wastes removed from less-safe tanks from 2006 to 2011.

That has been a course of action Hanford's officials had planned to avoid by building and running tank waste glassification plants.

But if extra tanks have to be built, that likely will add another expensive burden to a long-range Hanford cleanup program already facing huge budget woes.

Washington Department of Ecology officials briefed the Hanford Advisory Board on this increased possibility Thursday in Seattle.

This latest development unfolded like this.

When the Department of Energy fired BNFL Inc. in June as the glassification project's contractor, the program had operated with a proposed 2007 deadline to glassify the first wastes, and a 2009 deadline to have the plants fully operating.

In DOE's recent request for proposals for contractors to replace BNFL, the procurement document calls for the first waste to be glassified in 2007 and for glassification to be fully under way by 2011.

Hanford has 149 old, leak-prone single-shell underground tanks whose liquids are being pumped into 28 newer, safer double-shell tanks to await glassification. After all the liquids are pumped out, Hanford still must remove the solids and stiffer sludges and transfer them to the double-shell tanks.

The majority of the liquids have been transferred. And now, the 28 double-shell tanks have enough empty space to accept another 2 million gallons, said Suzanne Dahl, the state

Ecology Department's tank waste disposal project manager.

Those 2 million gallons of space are expected to be filled by 2006, said Mike Wilson, the state ecology department's nuclear program manager.

"We'll most likely run out of tank space before the (glassification) plants are up and running," said Hanford board member Susan Leckband, representing Hanford's work force.

Board member Harold Heacock, representing the Tri-City Industrial Development Council, said: "If we start talking about adding double-shell tanks, that's almost a double whammy, budget-wise."

Here is how that double whammy would likely occur.

Hanford's current annual budgets run about \$1.2 billion for work on and off the tank farms. DOE's long-range plan foresees no major budget increases for the next several years.

When BNFL was fired, DOE also dumped

the so-called "privatization" approach that called for extra money to be set aside until at least 2007 — a move that did not count as part of Hanford's predicted \$1.2 billion annual budget.

The elimination of privatization means glassification funding will now count as a regular budget expense each year. That means several hundred million dollars theoretically would have to be added, despite DOE's master plan of level annual budgets.

And all that never included the dozens, maybe hundreds, of millions of dollars that would be needed to build new tanks, which now loom as an extra expense.

Meanwhile, DOE and the state have agreed to fill the remaining 2 million gallons with dissolved semi-solid and solid wastes from the single-shell tanks.

Even after the liquids are pumped from the single-shell tanks, they still contain solids, salts cakes and thick sludges that still have to be removed. Hanford's scientists and engineers

are still groping for the best way to remove those solids and semi-solids

A tentative plan to test removing solids is supposed to be adopted if no showstoppers materialize from a public comment period from Oct. 2 through Nov. 17. The tentative plan calls for:

■ A sprinkler-like system to be put inside Tank S-112 to dissolve the solid salt cakes in the tank's bottom enough for the resulting goo and liquids to be pumped out.

■ A second, yet-undetermined method to be tried in Tank C-104.

However, this method cannot be the current technique of sluicing the solids with water like a fire hose to break up the waste and pump it out. The problem is that it floods a leak-prone tank with radioactive water that might seep into the ground.

■ Tank S-102's solids would be removed by one of the methods tried in S-112 or C-104.

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## Hanford removes tanks from watch list

Hanford officials have resolved safety issues associated with Hanford waste tanks C-102 and C-103.

Both have been removed from the Wyden Watch List, established by Congress and named for Sen. Ron Wyden, D-Ore. The tanks were placed on the watch list when it was established in 1990 because of concerns that a floating layer of organic material similar to kerosene could be ignited, releasing radioactive material.

Results of subsequent sampling and detailed analyses show it is extremely unlikely a fire could ever be ignited in either tank, Hanford officials said.

Of the 56 tanks that have been on the watch list, safety concerns on 31 of the tanks have been resolved. Those have been removed from the list.

9 SEP. 00

# Vit plans possible budget booster

Fiscal 2002 request for cleanup at Hanford could reach \$1.8 billion

By John Stang  
Herald staff writer

SEATTLE — Hanford's cleanup budget request for fiscal 2002 could end up at about \$1.7 billion or \$1.8 billion — \$250 million to \$300 million more than what is expected for fiscal 2001.

Most of that increase would be for designing and starting to build plants to turn Hanford's radioactive tank wastes into glass.

And part of it would be likely be because of a Department of Energy proposal to shift more money and attention to speeding cleanup along the Columbia River shore.

Harry Boston, manager of DOE's Office of River Protection, and Keith Klein, DOE's Hanford manager, both voiced cautious optimism their agency will ask Congress for the increases.

Finding the extra money will seriously challenge DOE's long-term plan of keeping annual cleanup budgets about level.

In other budget news, the U.S. Senate on Thursday night passed the Energy and Water Appropriations bill for fiscal 2001, which includes money for Hanford cleanup. According to Sen. Slade Gorton's office, the bill includes about \$1.5 billion for Hanford, covering projects such as \$950,000 for a B Reactor museum.

In June, the House of Representatives approved spending at least \$1.5 billion at Hanford in fiscal 2001.

See **Budget**, Page A2

# Hanford uses new technique to pack plutonium

Plant has range of options for disposing of wastes

By John Stang  
Herald staff writer

Hanford's Plutonium Finishing Plant contractors kicked a new technique into gear Monday to eventually rid the plant of plutonium-laced residue.

And in the near future, PFP contractors expect to start neutralizing the plant's impure plutonium liquids.

"We've reached another milestone," said Bob McQuinn, Westinghouse's PFP director, working for Fluor Hanford.

This means most of the techniques earmarked to convert the PFP's scrap plutonium into safer forms now are in use.

The Department of Energy and its contrac-

tors have a legal deadline of mid-2004 to neutralize or remove 4.4 tons of Cold War plutonium mingled among 19.6 tons of scrap metal at the PFP.

This leftover plutonium is in several forms — each requiring a different method to neutralize or eliminate it.

Originally, the scrap plutonium problem was supposed to be fixed by 2002. But in 1996 and 1997, major safety troubles with handling plutonium and a chemical tank explosion pushed that deadline back to 2004.

On Monday, PFP workers began taking ashlike plutonium residue from cans in a vault and packed the ash into 3-foot-tall pipelike containers 15 inches in diameter. Those containers are sealed and inserted one each into 55-gallon drums, which are also sealed.

A predicted total of 280 barrels will be sent to a nearby 200 West Area storage site to join

Hanford's thousands of drums of transuranic wastes. Transuranic wastes contain radioactive elements with higher atomic weights than uranium, coupled with extremely long decay rates, such as plutonium. The PFP's residue will then await its turn to be trucked to a mammoth man-made storage cavern in New Mexico, dubbed the Waste Isolation Pilot Plant.

Some of the PFP's residue is plutonium processing ash from Rocky Flats, Colo. Much more of the residue comes from the PFP itself. There is a limit of 150 grams of plutonium in each barrel to help prevent uncontrolled nuclear reactions that would shoot off bursts of radiation.

Overall, this residue makes up 5 percent of the plutonium stored at the PFP and is expected to take two years to pack, McQuinn said.

Meanwhile, PFP employees are tackling the final necessary fixes for equipment that will neutralize the bulk of its plutonium-laced fluids. This process turns the plutonium in the liquids into tiny granules that can then be filtered out.

Overall, the PFP has about 400 10-liter containers of pure and impure liquids containing plutonium. The deadline to neutralize all liquids is December 2001.

A prototype "vertical calciner" is already neutralizing some of the purer plutonium liquids. But it can not process material with lots of impurities, which meant another technique of converting plutonium into granules had to be developed.

The PFP's other neutralization methods include the following:

■ Five small ovenlike "muffle furnaces" are baking the bulk of the scrap plutonium into a

safer powder. Four more muffle furnaces are scheduled to go on line next spring. This baking is supposed to be completed by April 2004.

■ Rustlike plutonium oxide found on plutonium chunks will be brushed off, and the metal will be repacked to await eventual shipment to DOE's Savannah River site near Aiken, S.C. The metal in a few cans were brushed off this year. Most is scheduled to be brushed and repacked in 2001.

■ A small amount of very radioactive and unstable plutonium is bound within 2-inch "polycubes" of plastic polymers, which could emit flammable gases in a muffle furnace. The PFP is waiting for the right slack time to change the way the ovens heat up to enable them to neutralize the polycubes, McQuinn said.

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## Cantwell clarifies FFTF position at Pasco rally

She now advocates waiting for federal study before decision

By Chris Mulick  
Herald staff writer

Maria Cantwell made her third campaign stop in the Tri-Cities on Monday with next Tuesday's primary election looming to determine which Democrat will face U.S. Sen Slade Gorton in November.

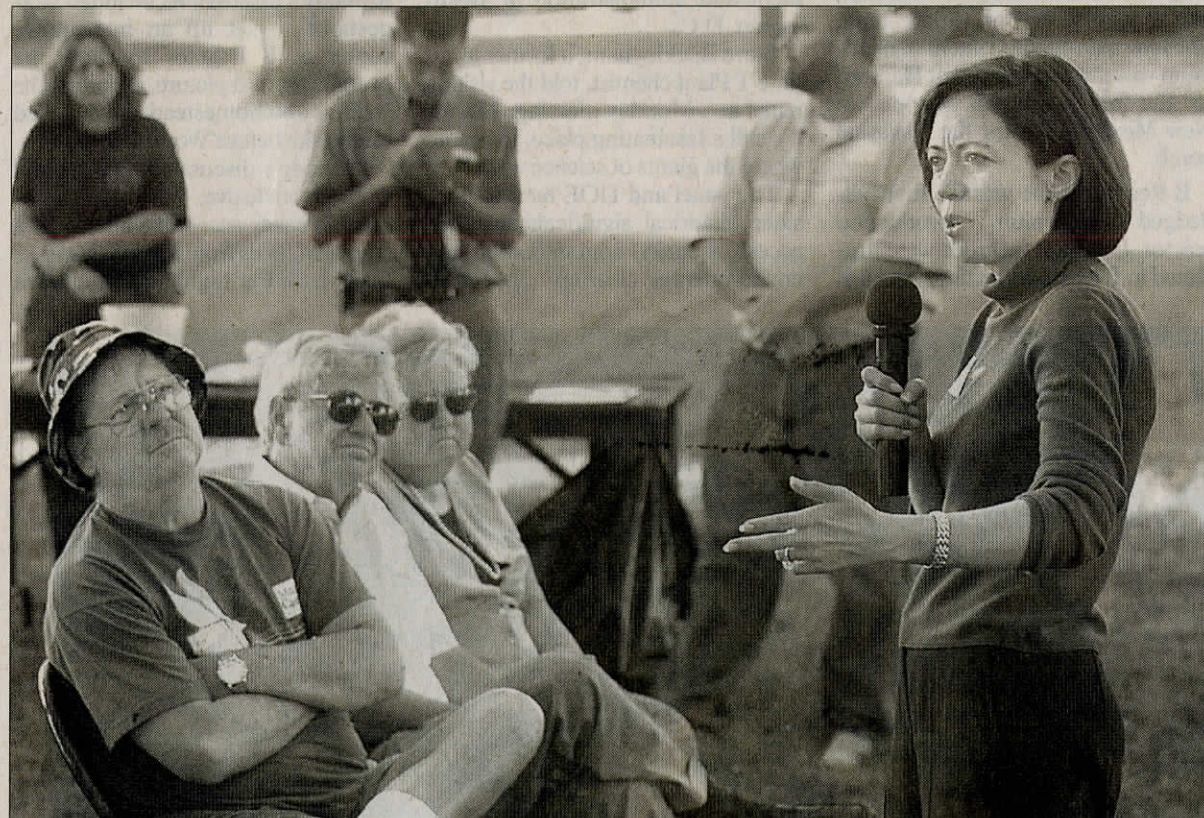
About 70 supporters and organizers showed up at a rally at Pasco's Volunteer Park to hear the former state legislator, congresswoman and Internet executive make her pitch.

"Get charged up," she told the audience. "Go back and tell people we're going to get it done."

The only notable change in rhetoric was a further clarification of Cantwell's stand on a possible restart of Hanford's Fast Flux Test Facility. During an earlier trip to the Tri-Cities, Cantwell said she supported a restart for the production of medical isotopes.

But that drew criticism from the Hanford watchdog group Heart of America Northwest. This spring, Cantwell returned a survey sent out by the group saying she opposed a restart of the reactor. Campaign staffers later said there had been a misunderstanding and that Cantwell did support a restart.

On Monday, Cantwell said she wants to wait until a federal study to determine possible uses of the facility



Herald/Sharón Steinmann

U.S. Senate candidate Maria Cantwell speaks to a crowd of about 70 people Monday during a rally at Volunteer Park in Pasco. Seated in the foreground are, from left, Ray Ruddles of Pasco and Jess and Ricki Greenborg of Kennewick.

is completed before making a decision.

"I want the process to go through," Cantwell said. "Let's see what the research shows."

Washington Insurance Commissioner Deborah Senn, Cantwell's opponent in the primary, opposes a

restart of the experimental reactor, calling it a "solution looking for a problem."

Cantwell never mentioned Senn by name during her brief remarks, saving her few pointed remarks for Gorton.

"I think it's time for him to go," she said.

Cantwell talked of lowering prescription drug costs, reducing classroom sizes and learning more about Washington by taking bus tours of the state in her specially equipped tour bus.

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## Mid-Columbia briefs

Compiled by the Herald staff

### Woman injured in accident near Othello dies

SPOKANE — A 19-year-old Bainbridge Island woman died Monday at Deaconess Medical Center, four days after she was injured in a two-car accident at the intersection of highways 17 and 26 in Othello.

Kathrine M. Horst, the driver of a 1988 Acura, suffered head, collarbone and pelvis injuries when her car collided with a 1997 Ford pickup about 3:15 p.m. last Thursday, according to the Washington State Patrol.

She was taken to Othello Community Hospital and later flown to Deaconess Medical Center in Spokane where she died about 5:15 p.m.



## DOE must commit to river cleanup, officials say

### Hanford Advisory Board, EPA warn Hanford not to sacrifice other projects

By John Stang  
Herald staff writer

Hanford must stop sacrificing one project to pay for another if it expects to gain support for plans to accelerate cleanup along the Columbia River shoreline.

Two Hanford Advisory Board committees, the state and the U.S. Environmental Protection Agency delivered that message to Department of Energy officials Tuesday in Richland.

DOE is thinking about increasing emphasis on cleaning up the river shore to finish the bulk of that job by 2012.

That would reduce drastically the amount of land contaminated by five decades of producing nuclear weapons materials at Hanford. And it would show tangible progress to Congress and the public, which are skeptical about the effec-

tiveness of pouring billions of dollars into cleanup.

That progress would include demolishing and sealing up eight nuclear reactor complexes by 2012, cleaning up the contaminated 300 Area next to Richland 30 years early and saving about \$1 billion in long-range costs to watch over contaminated sites.

The shift would require tradeoffs, likely delaying soil and ground water studies and cleanup work at central Hanford. Plans for removing waste from Hanford's huge underground tanks would remain unchanged.

Beth Bilson, DOE assistant manager for environmental restoration, told the two HAB committees that DOE plans to seek a 10 percent budget increase for fiscal 2002 to handle the extra river shore work.

Right now, Hanford's work outside the tank farms has cost about \$720 million a year under a long-term plan to keep annual cleanup budgets level. This one-time 10 percent increase would boost that to close to \$800 million — a level it would stay at annually for the next several years.

HAB members, the state Ecology Department and EPA initially like DOE's proposal — at least until they study it some more. But they also said they could offer support only if the extra 10 percent actually materializes. They generally felt too much 200 Area cleanup would be sacrificed if the extra 10 percent isn't committed.

"We really need to make sure the Department of Energy and the administration support this," said Doug Sherwood, the EPA's Hanford site manager.

No one outside top DOE circles will know if the extra 10 percent will be sought until February, when DOE's fiscal 2002 budget request to Congress is to be unveiled.

Until then, DOE has put its traditional annual embargo on its budget plan — waiting for the president's annual budget request to go to Congress.

Another wrinkle is that a new president — Al Gore or George W. Bush — will be in power with a new energy secretary. That raises the question of what DOE's overall cleanup spending philosophy will be.

"If they (DOE) don't ask for the extra money, that changes the tradeoff picture," said HAB member Susan Leckband, representing Hanford's nonunion workers.

Another factor is that several milestones in the Tri-Party Agreement — the legal pact the state and EPA use to enforce DOE cleanup obligations — would have to be renegotiated.

Sherwood and Ron Skinnarland, the Ecology Department's waste management section manager, noted DOE and the two regulatory agencies recently have had trouble negotiating changes. Talks are usually slow. And in some cases, they deadlocked until the state used its legal power to force changes, and DOE appealed the changes.

A special HAB multicommittee meeting is planned in the second week of October to discuss and outline the problems, advantages and unanswered questions of DOE's proposal. Then the full Hanford Advisory Board plans to determine its stance in November.

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## Lockheed Martin plans partnership to create technology workers

### \$5 million going to effort with local schools, colleges

By Wendy Culverwell  
Herald staff writer

Thanks to a new contract, Lockheed Martin Services Inc. needs to hire 22 computer-savvy workers to field questions about software and hardware.

That number could easily double in the next six to 12 months, and Lockheed Martin is pursuing additional contracts that could bring hundreds more such "help desk" jobs to the Tri-Cities in the next five years.

But landing contracts is one thing. Finding capable workers in a field where there is a national shortage of qualified employees is another. So Lockheed Martin is putting \$5 million into a unique partnership with local schools and colleges to produce more

technologically literate workers.

The effort is welcome news to Bill Martin, president of the Tri-City Industrial Development Council.

Information technology is one of the industries the economic development group has targeted in its efforts to boost the economy and wean the Tri-Cities from its dependency on federal spending at Hanford, Martin said.

Attracting businesses and developing a skilled work force go together, said Bob Russell, general manager of Lockheed Martin's Richland operations. The industry is faced with the likelihood that finding employees will just get harder because they are in such high demand, he predicted.

Salaries for computer workers at Lockheed Martin start at \$25,000 a year for entry-level technicians and

See **Partnership**, Page A2

## Hanford officials confident of meeting K Basins deadline

By John Stang

Herald staff writer

Work at Hanford's K Basins is back on a pace to meet a Nov. 30 deadline to start removing spent nuclear fuel, say top officials on the project.

"I'm really confident we're going to make it," said Dave Van Leuven, Fluor Hanford's executive vice president, who is also in charge of the K Basins' project.

The project has just finished a one-week extensive review based on documents, 110

worker interviews and practice runs using dummy fuel — with only minor glitches, said Van Leuven and Phil Loscoe, the Department of Energy's K Basins project director.

A formal operational readiness review — a sort of major hands-on test of moving fuel and fixing any problems that arise — is set to begin Sept. 25. That review is expected to last three to four weeks.

Then, DOE plans to conduct a similar review of its own, expected to last two to four weeks.

All this means that fuel movement should

be expected to begin in mid- to late November — if no major problems materialize.

"It is tight — no question about it," Van Leuven said.

The Tri-Party Agreement, the legal pact governing Hanford's cleanup, calls for the first shipment of spent nuclear fuel to leave the K Basins by Nov. 30.

The K Basins are two indoor leak-prone, water-filled pools near the Columbia River that hold 2,300 tons of spent nuclear fuel.

During the past week's dummy fuel practices, dummy fuel was removed from canis-

ter's, washed off, sorted and put in baskets — all underwater by remote control.

The biggest problems involved caps that wouldn't come off or go on canisters.

The workers "handled that perfectly" in stopping, consulting and coming up with new procedures to fix the problems, Van Leuven said.

Both Van Leuven and Loscoe said the K Basins staff has worked hard and smart for long hours in recent months. "I couldn't be prouder of this team," Van Leuven said.

Hanford's master plan is to move all that

fuel from the basins to an huge safer underground storage vault in central Hanford by 2004.

The almost \$1.6 billion project was plagued with delays, skyrocketing cost estimates, managerial problems and technical troubles in the late 1990s.

After reorganizing and regrouping, Fluor got the project back up to speed on a revised schedule.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

# Senate's Hanford cleanup budget gets NW nod

By John Stang

Herald staff writer

All 14 Washington and Oregon U.S. representatives endorsed the U.S. Senate's version of Hanford's cleanup budget for the next fiscal year.

Both chambers will soon try to reach a compromise between the House's proposed \$1.58 billion Hanford budget and the Senate's proposed \$1.61 billion budget.

The Senate wants to add an extra \$29 million for work to demolish and seal up Hanford's reactor complexes, to remove spent nuclear fuel from the K Basins and to convert plutonium into safer forms at the Plutonium Finishing Plant.

The 14 House members wrote a Sept. 7 letter to U.S. Rep. Floyd Spence, R-S.C., chairman of

the House's Armed Services Committee, and U.S. Rep. Ike Skelton, D-Missouri, the committee's ranking Democrat, in anticipation of the upcoming conference committee talks on the Department of Energy's budget for fiscal 2001, which begins Oct. 1.

"Hanford is a nonpartisan issue that is vital to the nation and the Pacific Northwest in particular, said the representatives wrote.

The letter also pushed for the final appropriations bill to strengthen the role of the manager of DOE's Office of River Protection, who supervises cleanup efforts at Hanford's tank farms, including the proposed construction of plants to convert the tank wastes into glass.

There had been conflict between Dick French, DOE's former Office of River Protection manager and DOE's Washington, D.C., headquarter

on who should make some key decisions on the glassification project. That tussle contributed to DOE recently removing French from his post.

"It is vital that the local manager be provided the necessary authority delegated in writing to successfully manage this project without unnecessary interference from DOE headquarters that has too often impeded cleanup progress," the letter stated. The House and Senate both support a \$759 million Office of River Protection budget for 2001. That splits into \$382 million to operate and maintain Hanford's tank farms, and \$377 million to design and start building glassification plants.

Actually, this Congress is being asked to provide only \$280 million of that \$377 million. Another \$97 million is left over from allocations

in previous years.

The Office of River Protection's budget is expected to hit roughly \$1 billion in 2002, when construction of the glassification plants should be at full speed.

The House is looking at appropriating \$726 million to DOE's Richland office, which manages all of the cleanup projects other than the tank farms. The Senate's version calls for a \$755 million appropriation.

Roughly \$96 million is being sought for Hanford's programs that are controlled by DOE's Washington, D.C., headquarters. Much of this allocation covers the salaries of the more than 500 DOE employees working at Hanford.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at [jstang@tri-cityherald.com](mailto:jstang@tri-cityherald.com).

# Bechtel officials turn gravel pit into wildlife oasis in the desert

By Annette Cary

Herald staff writer

On Wednesday morning, a blue heron rose from a gravel pit on the Hanford nuclear reservation not far from the Vernita Bridge.

Along the pit's muddy edges were the tracks of deer and coyotes. The high, piercing cry of a killdeer broke the stillness.

"We like to think of it as an oasis in the desert," said Alvin Langstaff of Bechtel Hanford Inc.

The pit still looks much like what it's been for decades — a gravel pit used first in the early days of the Hanford project and more recently for fill material to replace contaminated soil excavated at the old B and C reactors.

But with some strategic digging in the last round of excavations, it's also become a wetland that's attracting wildlife.

Workers in the early days of the Hanford project dug out a small portion of the pit below ground water. That created what Langstaff, leader for the wetland project, called a "permanent puddle" surrounded by a small but lush pocket of willows.

Bechtel staff, with the Department of Energy's encouragement, thought a little creative digging could turn the puddle into a wetland that could provide needed habitat for plants and animals in the desert.

"Even though the Columbia River is so massive, there are not many backwater areas," said April Johnson, a Bechtel scientist. "This makes kind of a secluded area so

(animals and birds) can come and feel secure."

Birds in particular like the willows, she said.

Because more digging was already planned at the site, there was no extra cost for converting it to a wetland.

An equipment operator who used to excavate wetlands for the Army Corps of Engineers removed the latest gravel needed for fill material, in the process carving out a winding pond.

"He took a lot of pride in making it appear as natural as possible," Langstaff said. The 5-foot boulders that were dug up were dotted along the banks to provide shade for wildlife, and an island rises in the north side of the wetlands.

Earlier this summer, the water was as deep as 6 feet, but as the Columbia has dropped, so has the water in the wetlands, receding from the island.

But the willow, cottonwood and locust saplings freshly planted along the new shoreline seem to be taking hold.

"It was finished in February 2000, and within a matter of a few weeks the animals were coming in," Langstaff said. A couple of months ago, Bechtel staff watched tadpoles in the water that have since grown to spade-foot toads.

In three to five years, the still harsh, stone-covered landscape should be green with vegetation that attracts nesting birds, Bechtel scientists said. Then it should look more like the water refuges the public is

used to seeing.

However, Bechtel, the contractor charged with restoring the Columbia River corridor, isn't likely to have many chances to duplicate the project. Although Hanford has other gravel pits, they're too far above the water table to be easily converted to wetlands.

The new wetlands could be expanded, however. Since 1999, nearly 700,000 tons of dirt and rock have been hauled from the gravel pit, and another 300,000 tons are expected to be removed nearby and eventually used as back fill in the B Area.

Because of security at Hanford, the public won't be allowed to watch the wetlands transform as willows take hold, native cattails spread and shrubs and grasses are planted to revegetate higher areas of the gravel pit.

But people eventually may be able to enjoy the wetlands. The new wildlife habitat, four miles from the Vernita Bridge, is close to the historic B Reactor, which some would like to see turned into a museum open to the public.

All restoration efforts are being done with the expectation that the nuclear site is being cleaned up for other uses.

"When alternative uses for the river corridor are decided, this area will present some interesting options," Langstaff said.

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# TRIDEC, DOE revise revitalization plan after snag

## Plan to lease Hanford buildings stalls when test Building 314 found to be more contaminated than believed

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

By John Stang

Herald staff writer

A proposal to rent Hanford buildings cheap in return for cleanup help has died.

Bottom line: The prototype building for this program was too radioactive to use — and no good substitute could be found.

It cost \$203,000 in federal grant money to find that

Monday update

Now, the Tri-City Industrial Development Council believes it can make the original concept work — with old Hanford heavy equipment instead of old Hanford buildings.

Last week, TRIDEC and the Department of Energy found a way through some legal red tape to try this idea with some Bechtel Hanford Inc. equipment, said Sean Stockard, the TRIDEC official in charge of the project.

Here is how Hanford and TRIDEC's 17-month experiment with "reindustrialization" evolved:

Jim Hall, DOE's interim Hanford manager from January through April 1999, brought the "reindustrialization" concept to Hanford from Oak Ridge, Tenn., where he'd spent most of his career.

Reindustrialization had a decent track record there, and he wanted to try the idea at Hanford.

The idea was DOE would lease slightly contaminated Hanford buildings to an economic

development group, such as TRIDEC, which would sublease the facilities at bargain rates to private companies. In return, the companies would pick up the cost of decontaminating the buildings.

Consequently, unused buildings could be used for economic growth, and taxpayers would save money on cleanup costs.

In April 1999, DOE gave a one-time grant of \$500,000 to TRIDEC to set up a pilot project to try out the concept.

Using \$150,000 of that grant, TRIDEC created Assets Reinvestment Co. to act as the middleman.

And in Hanford's built-up 300 Area just north of Richland, Building 314 was picked as the guinea pig. Building 314 is a former World War II and Cold War plant that molded uranium fuel for Hanford's reactors.

The 25,000-square-foot building — filled with leftover furnaces, presses and labs — later became a chemical and radioactive analytical lab until it closed in 1996.

Reinvestment Co. wanted to find a potential tenant by December 1999. But in the fall of 1999, a Pacific Northwest National Laboratory survey showed that Building 314 is more contaminated than originally thought — and is impractical for the experiment.

Reinvestment Co. and DOE looked for another building — and didn't find any likely candidates, Stockard said.

Overall, checking out Building 314 and related



Stockard

work cost \$203,000, on top of the \$150,000 to create Reinvestment Co. That left \$147,000 of the original grant money.

At the same time, Bechtel and Reinvestment Co. began talking about Bechtel getting rid of two front-end loaders, two water wagons and a tractor used by workers digging up contaminated soil in the B Reactor and C Reactor areas.

Bechtel wants to get rid of the items because they have too many operating hours on them, and it would be expensive to dispose of them in central Hanford's huge landfill for slightly radioactive equipment and debris, said Bechtel officials Sue Kuntz and Douglas Duvon.

Although the equipment is considered uncontaminated for use on Hanford, the pieces have not been checked for radioactivity sufficiently for public use.

Reinvestment Co. wants to funnel \$70,000 to Bechtel for those checks. But complicated legalities prevented such a transfer, until now.

But while Reinvestment Co. has an inside track on obtaining surplus Hanford equipment, it does not have the expertise nor contacts to sell the items outside of the Tri-City area.

So, Reinvestment Co. contracted several months ago with Aerospace Designs Fabrications of Oak Ridge, Tenn., to handle that aspect.

After the first five pieces are checked, possibly decontaminated and sold, Bechtel has eight more in waiting.

Any profits from the equipment sales would be split between Reinvestment Co. and the Oak Ridge firm that's marketing the equipment.

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# Neutralization process begins at Hanford

**Stabilization of plutonium liquids are expected to be done by December 2001**

By John Stang  
Herald staff writer

Hanford has begun neutralizing impure plutonium liquids at the Plutonium Finishing Plant, which means most of the plant's processes to convert plutonium into safer forms are under way.

The Department of Energy announced Tuesday that the PFP has begun stabilizing the bulk of its 1,118 gallons of plutonium-laced fluids.

Westinghouse PFP Director Bob McQuinn said the work is a top priority because plutonium in solution

form poses the greatest potential safety risk.

The treatment process turns the plutonium in the liquids into tiny granules that then can be filtered out to be baked into a safer form.

DOE and its contractors have a legal deadline of mid-2004 to neutralize or remove 4.4 tons of Cold War plutonium that is mixed among 19.6 tons of scrap metal at the PFP.

The process begun Tuesday — called "magnesium hydroxide precipitation" — is the second of two ways set up at the PFP to deal with plutonium fluids.

A prototype "vertical calciner" is already neutralizing some of the purer plutonium liquids. But it cannot process fluids with lots of

impurities, which means the magnesium hydroxide precipitation technique had to be developed.

All the PFP's liquids are supposed to be neutralized by December 2001.

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## Transuranic waste shipped to WIPP

Hanford sent its third truckload of transuranic wastes to the underground Waste Isolation Pilot Plant in New Mexico on Wednesday morning.

Forty-two 55-gallon drums of wastes were shipped on the 45-hour trip. The first shipment of an estimated 2,500 trips left Hanford on July 12.

# Few clear solutions to glassification woes

■ Monday: The lack of competition raises questions about cleaning up Hanford's radioactive tank wastes.

By John Stang  
Herald staff writer

Hanford's radioactive waste glassification project is like the monster from the sci-fi horror flick *Alien*.

Every time you look at it, the creature changes into something drastically different and elusive.

Something that knocks off cast members one by one.

The Department of Energy should get a better idea of this mutating monster after Oct. 16, when bidders must submit their proposals for taking over the 10-year, \$4 billion project.

DOE is to award the contract — the biggest and longest in Hanford's history — by Jan. 15.

Earlier this month, DOE unveiled a revised request for proposals to potential bidders — outlining what the new contract will probably look like. In one of the biggest changes, DOE delayed the deadline for full-speed waste glassification by 13 months, from December 2009 to January 2011.

That change has angered state officials because the 2009 deadline is part of the Tri-Party Agreement, the legal



Herald/Sharón Steinmann

Workers take samples of radioactive waste from Tank AW-101 in the 200 East Area to study it in preparation for eventually encasing it inside glass logs.

pact governing Hanford's cleanup.

State Attorney General Christine Gregoire charges that DOE moved the deadline without getting the state's approval — or even informing state officials.

Others also are wondering whether DOE's new request for proposals leaves room for any real competition.

For one thing, DOE is requiring bidders to use the initial designs left by BNFL and Bechtel before those two were removed from the project because of skyrocketing costs.

Observers say that requirement obviously gives a significant advantage to any bidding team that includes BNFL or Bechtel.

In any event, probably only two — with an outside chance of three — corporate teams are even likely to submit bids.

Hanford observers are keeping an eye on a Boise-based corporate conglomerate — Washington Group International — which owns or is linked to several firms that could team up to bid.

Those firms include two of the world's three companies that can claim extensive radioactive waste glassification experience, making the conglomerate a leading contender.

DOE's revised bid request also made moot some of the reasons for replacing Dick French as head of the glassification project.

French, former manager of DOE's Office of River Protection, which supervises Hanford's tank waste issues, opposed his superiors in Washington, D.C., over the required makeup of the bidding team.

He argued that with only three companies qualified to do the extensive four-year shakedown tests and two of them linked to Washington Group International, there was not sufficient competition for the contract.

See **Glassification**, Page A2

# Grant may help pick visitors center site

**\$250,000 available for Hanford Reach center, economic development**

By Annette Cary  
Herald staff writer

A \$250,000 grant may be available to help determine the location of a visitors center and do related economic development work for the Hanford Reach National Monument, but the Tri-Cities needs to act quickly.

Sen. Patty Murray, D-Wash., added the money to a Senate spending bill as a member of the Senate Appropriations Committee several days ago.

Now, the Tri-City area needs a nonprofit corporation with a 501(c)(3) taxation designation willing to administer the grant. The Tri-Cities Visitor and Convention Bureau, a natural choice, is ineligible. It's a 501(c)(6) nonprofit corporation, the taxation designation used for agencies such as chambers of commerce.

That left bureau president Kris Watkins scrambling Thursday to find an administrative partner for the grant by today or risk losing the money.

Thursday evening, Watkins said two charitable organizations were prepared to administer the grant money. Although she didn't name them, the Benton Franklin Volunteer Center confirmed it was one of them.

Watkins said both would do a good job, and she'll be discussing the choices with the bureau's board of directors and Murray's office before a decision is made.

The grant would be used to coordinate an analysis of the new economic development opportunities created by establishing the Reach as a national monument in June. That will include looking at tourism, community

See **Grant**, Page A2

# Missing waste blamed on ex-Hanford worker

About 2½ gallons of toxic liquid can't be located at PNNL

By John Stang  
Herald staff writer

Roughly 2½ gallons of slightly hazardous liquids were lost several months ago in Hanford's 300 Area, apparently because of a careless employee.

The employee — whom Pacific Northwest National Laboratory declined to identify — resigned April 14 after several months of substandard work, according to a final version of a PNNL occurrence report filed Sept. 13.

The lost liquids, which were in four containers, would be dangerous to drink but posed no threat of fire or explosions, PNNL officials said. The fluids are mostly water mixed with alcohol and solvents.

In another glitch apparently involving the same employee, 34 barrels of low-level radioactive wastes were found with the wrong documents on them.

The problems led to searches of parts of the 300 Area in late spring and early summer and double-checking of the contents of the 55-gallon barrels. The four missing glass containers — ranging in size from a cup to about a gallon — were never found.

Other than what could be traced to the one employee, no system-wide problems were found, said Alice Ikenberry, manager of PNNL's environmental management services department.

The employee was the field service representative from October 1998 to April 14, 2000, for Building 331 complex, which is the life sciences laboratory in the southeastern 300 Area, according to the occurrence report.

A field service representative controls and monitors hazardous and radioactive wastes as they are gathered in labs, temporarily stored and eventually shipped for final disposal.

PNNL had been working on improving the performance of Building 331's field service representative from October 1999 to April 2000, the report said. Meanwhile, PNNL officials dis-

covered that:

■ A Building 331 researcher sent eight hazardous waste containers to the field service representative in September 1999 to be stored in a 90-day holding room. But PNNL's paperwork later stated those containers did not show up in the interim storage area until Feb. 2, 2000. PNNL has no information on the status of those eight containers from September 1999 to February 2000.

■ A janitor found three containers with hazardous waste labels in a vacant Building 331 lab on Feb. 7, 2000.

Two containers were removed from one Building 331 lab in May 1999. The third was removed from another Building 331 lab in the fall of 1999. No one knew what had happened to these three containers until the janitor discovered them.

The field service representative took charge of the three containers on Feb. 7. One was sent to the proper storage site. PNNL never learned what happened to the other two containers — 8 ounces and 16 ounces in size — after Feb. 7.

■ On April 13, the day before the field service representative resigned, that person and his supervisor checked a low-level radioactive waste storage area holding 38 barrels.

Contaminated papers, glass, towels, gloves and other items are kept in drums after being used in soil and microbiology experiments that use tiny amounts of radioactive materials as tracers. The barrels are eventually buried in central Hanford.

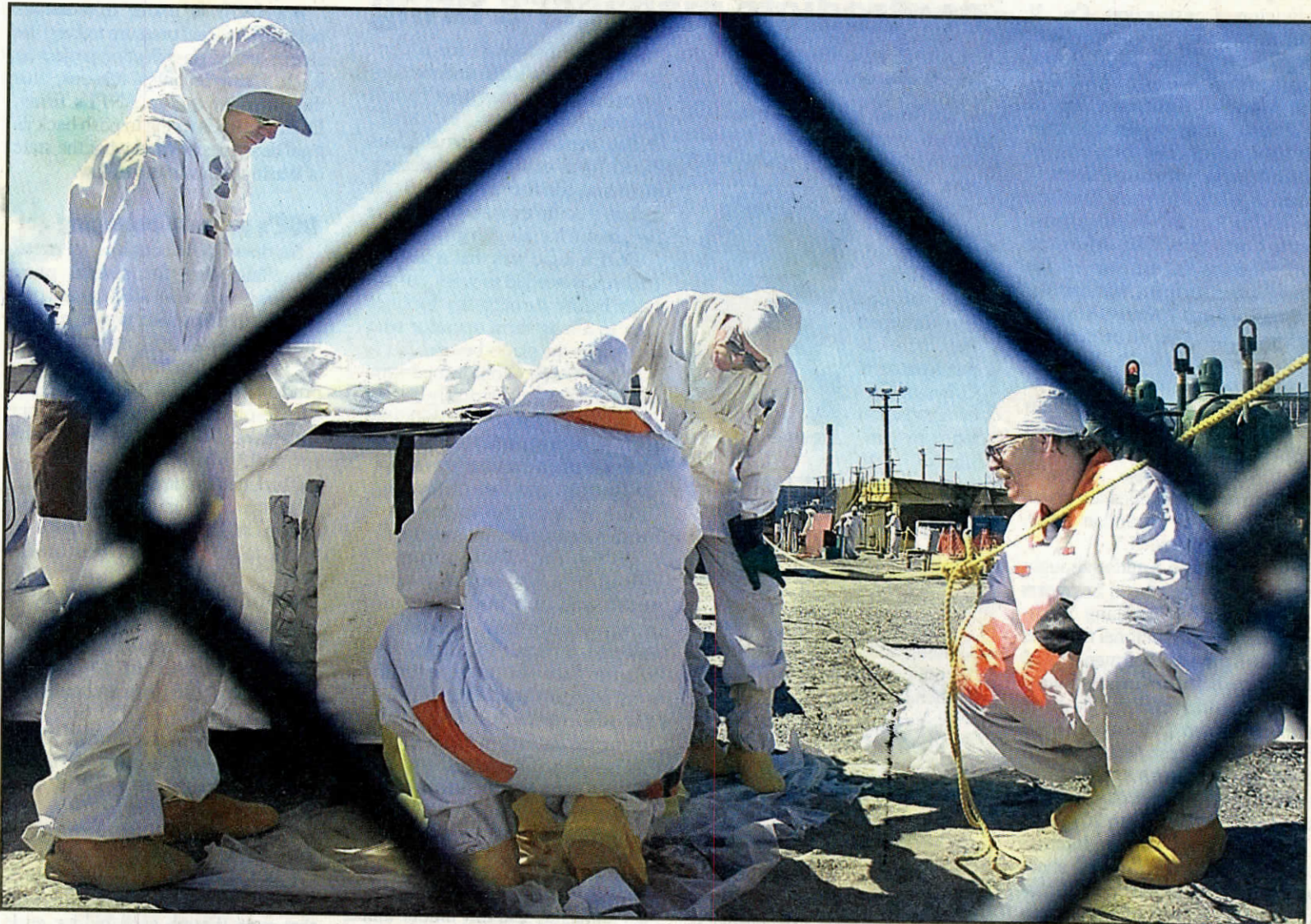
The barrels' paperwork appeared jumbled and incomplete. PNNL checked the insides of the barrels in late April to find that paperwork on 34 drums was wrong or missing.

The barrels themselves were in the proper place and were not mishandled, Ikenberry said. The paperwork since has been fixed.

■ Late April searches for the two missing containers found two additional 4-liter containers of slightly hazardous wastes are unaccounted for — with none of the four containers found since.

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## Working on the (tank) farm



Herald/Sharón Steinmann

Workers loosen debris on a cover block for a valve pit at Tank AY-101 at AY tank farm. From left are Dave Noland, Stan Haff, Elden

Beck and Jerry Pearsall. Bids for the contract to turn Hanford's radioactive tank wastes into glass are due Oct. 16.

9-25-00

# Who will win glassification contract?

By John Stang  
Herald staff writer

Some oddsmakers believe only one or two corporate teams will bid for an upcoming \$4 billion contract to build plants to turn Hanford's radioactive tank wastes into glass.

A host of questions revolves around that fundamental dilemma. With such a narrow field, will there be enough competition to drive down costs? How fair was the bidding process? Will the best available technology be used?

The Department of Energy says the potential exists for three bids to be submitted by Oct. 16 for the 10-year contract.

But outside of DOE, Hanford observers think only one or two bidders is more realistic.

Either way, questions remain. The most important one may be: How will DOE keep momentum going on Hanford's biggest and most important project without

## Lack of competition raises some questions

haphazardly slapping the contract together?

"There is no easy way out," said Todd Martin, an independent environmental issues consultant and chairman of the Hanford Advisory Board's tank waste committee.

The heart of the problem is only three companies have ever successfully built and operated full-size radioactive waste glassification plants — British Nuclear Fuels Ltd. in England, Cogema Group in France and Westinghouse Electric Co. in South Carolina and New York.

And those three essentially shrank to two because British Nuclear Fuel's American subsidiary, BNFL Inc., bought 40 percent of Westinghouse in early 1999.

"It's a limited universe. It's not even a universe. Actually, it's not even a neighborhood — just a

couple of streets," Martin said.

### Likely bidders are being secretive

The roots of DOE's dilemma go back to May, when a team led by BNFL and Bechtel more than doubled its estimated price tag for the project to \$15.2 billion.

DOE dumped BNFL and Bechtel, then launched a plan to collect new proposals. Bids from interested corporate teams are due by Oct. 16, and DOE is to award a contract by Jan. 15.

Even after the rocky start, several Hanford observers agree a bidding team would gain a significant advantage if it includes BNFL or Bechtel.

So far, every potential bidding company is being secretive about its intentions and about who it might team up with. But because the realm of possibilities is so limited, Hanford observers haven't had much trouble identifying

the most likely combinations:

■ Fluor Federal Services and Cogema have seriously talked about teaming up, but Fluor has been undecided about the glassification contract. Cogema — the world's only serious competitor to BNFL and Westinghouse in the operation of radioactive waste glassification plants — appears definitely interested in the Hanford project.

However, Cogema's glassification technology is different from the BNFL designs that bidders must use.

■ Washington Group International has caught the attention of everyone on the sidelines and on the playing field, although the corporation itself won't comment.

While nothing could be confirmed about Washington Group's intentions, it has an intriguing corporate family tree.

The group began in 1964, when construction manager Dennis

# House, Senate to vote on \$1.61 billion cleanup budget

By John Stang  
Herald staff writer

A roughly \$1.61 billion Hanford cleanup budget for fiscal 2001 is on its way to a vote before the full House and Senate this week.

That budget emerged late Tuesday from a congressional conference committee, which hashed out differences between water and energy appropriations bills passed by the two chambers, according to congressional staff.

The House had sent a bill containing \$1.58 billion for Hanford's cleanup into the committee talks — a bill that mirrored the Department of Energy's request. The Senate version

included an extra \$29 million to increase Hanford's 2001 cleanup budget to \$1.61 billion.

The Senate wanted the extra money to help with a few key cleanup projects — demolishing and sealing Hanford's old reactors, removing spent nuclear fuel from the K Basins and converting plutonium into safer forms at the Plutonium Finishing Plant.

All 14 U.S. House members from Oregon and Washington pushed for the bigger Senate version.

Staffers for several members of the Northwest delegation cautioned there still could be full-floor fights over parts of the water and

water appropriations legislation unrelated to Hanford — such as a dredging project on the Missouri River.

In broad strokes, the cleanup budget for fiscal 2001, which begins Sunday, looks like this:

■ \$755 million for DOE's Richland office, which manages all Hanford operations outside the tank farms.

■ \$759 million for DOE's Office of River Protection, which manages Hanford's tank farms and supervises the design, construction and eventual operation of the site's waste glassification plants. This money includes \$97 million set aside in previous years from Hanford's

now-defunct privatization program to build the glassification plants.

■ \$96 million for Hanford programs controlled by DOE's Washington, D.C., headquarters. Much of this allocation would cover the salaries of the more than 500 DOE employees working at Hanford.

Even if Congress approves the budget and President Clinton approves it, the numbers are still tentative. DOE's Washington, D.C., headquarters reviews allocations to all of its projects after the president signs DOE's overall budget, and usually does some last-minute juggling.

Also, it is difficult to make an apples-to-

apples comparison between the fiscal 2001 figures and Hanford's current \$1.15 billion budget.

An additional \$106 million was added on top of this year's spending package for the so-called "set-aside" fund for glassification.

The major difference between the 2000 and 2001 budgets are that the set-aside concept is gone. Also, fiscal 2001 will be the first year that actual glassification plant construction will take place, which drastically increases the Office of River Protection's spending.

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3 OCT-00  
**Benton pledges funds to bring non-Hanford firms to Richland**

By the Herald staff

Benton County agreed Monday to dedicate \$300,000 over the next two years to help bring non-Hanford companies to a 760-acre site in north Richland.

Commissioners Claude Oliver and Leo Bowman voted in favor of using \$150,000 in 2000 and 2001 to provide streets and utilities for firms that want to move into the area and to recruit potential companies. The site is along Stevens Drive and south of Hanford.

Richland, the Port of Benton and the TRIDEC each also have committed \$300,000 over two years.

The state's Community Economic Revitalization Board is giving \$710,000 to the project. The board also awarded a \$2.5 million grant to the project to improve Stevens Drive. The Port of Benton matched that grant with \$400,000. The businesses include light industrial, manufacturing, transportation and electronics and could bring 3,000 to 5,000 jobs over the next five years, Oliver said.

29 SEP 00  
**BNFL Inc. reorganizes; bureaucracy reduced**

Managerial layer eliminated; projects reported directly

By John Stang  
Herald staff writer

BNFL Inc., the company fired from Hanford cleanup, has trimmed some of its internal bureaucracy in a reorganization that comes after more than a year of corporate troubles.

"This has been a tough year for BNFL Inc., and for our parent company in general. However, over the last few months ... we have emerged a stronger, more focused and dedicated company," said BNFL Inc. President Paul Miskimin in a Thursday news release.

In the reorganization, one layer of managers has been eliminated. Now all of its projects around the United States report directly to Philip Strawbridge, the company's No. 2 man and chief operating officer.

Two managers from BNFL's Hanford project were promoted to management slots at BNFL Inc.'s headquarters in Fairfax, Va.

Maurice Bullock, who had been BNFL's acting general manager at Hanford, now heads the project services organization at BNFL Inc., This division provides technical support to all of the company's American projects.

Alan Dobson, who had been BNFL's operations and safety man-

ager on the Hanford project, is now head to the company's operations organization, which supervises oversight, planning and supplies for all of its American projects.

BNFL Inc. is the American subsidiary of England-based British Nuclear Fuels Ltd.

In Great Britain, the corporation has struggled with safety, document falsification, quality control and financial problems that have led to an overhaul of its top leadership.

In the United States, BNFL Inc. ran into trouble at Hanford, where it tried to obtain a long-term contract to build and operate plants to convert the site's tank wastes into glass. Last spring, the Department of Energy fired BNFL after it turned in a cost estimate of \$15.2 billion, more than double the original \$6.9 billion estimate.

The glassification contract has been reopened for competition. Proposals are supposed to be submitted to DOE by Oct. 20. DOE plans to pick a new glassification team by Jan. 15.

BNFL, which still keeps an office of 45 people in Richland, wants to get part of that contract, although the role it might play remains unclear.

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29 SEP 00  
**Benton officials find little humor in state's 'Got vit?' campaign**

Cow's green 'moo-stache' has commissioners seeing red

By John Stang  
Herald staff writer

"Got vit?" Well, it put the Benton County commissioners into a snit.

And they got the state to say "we quit."

This torrid tale of whether a cutesy parody is really state-sanctioned slander revolves around a small publicity sticker that the Washington Department of Ecology came up with.

But first, here's some much-needed background for those who aren't Hanford junkies.

Hanford's biggest and most troublesome project is to build plants to convert radioactive wastes into glass, a process called vitrification.

Everyone in the greater Hanford universe is for this — including the Benton County commissioners. The Ecology



Washington State Department of Ecology The state Department of Ecology is backing off from the "Got vit?" ad campaign after complaints from Benton County commissioners.

Department enforces the federal government's obligations to build these plants.

Around Hanford, most people call this the "vit" project.

A couple of weeks ago, the state

See 'Got vit?', Page A2

# Plutonium storage method milestone for Hanford

## New process eliminates problem of bulging canisters

By John Stang

Herald staff writer

Hanford began putting its neutralized plutonium into long-term storage canisters Saturday.

The action marked two milestones in Hanford's efforts to convert its leftover Cold War plutonium into safer forms for eventual removal:

■ The Plutonium Finishing Plant now is systematically replacing its older storage canisters that have potential to bulge and crack with newer containers designed to prevent bulging and leaking.

■ With some minor exceptions, the PFP's plutonium-neutralizing equipment now is fully installed and running.

What began functioning on Saturday was a "bagless transfer" packaging system.

The PFP's mission is to convert into safer forms or "stabilize" 4.4 tons of scrap plutonium mingled among 19.6 tons of scrap metal. The PFP uses several stabilization methods to tackle different types of scrap plutonium.

But until now, the plutonium metals and powders — before and after stabilization — were stored in small stainless steel cans nestled inside other steel cans. Vacuum in the tightly sealed cans and oxidizing plutonium in cracked cans caused the canisters to bulge and split.

Contributing to the bulging and splitting was that the innermost canisters holding the plutonium were removed from the PFP's gloveboxes inside plastic bags.

The plastic and the innermost cans were then inserted into other canisters. As the plastic was exposed to radiation it created gases that increased the pressure and danger of combustion inside the canisters.

The bottom line is that the plutonium metals and powders need to be stored in stronger, safer, more leak-roof canisters without any plastic.

And that is what kicked into motion Saturday, Hanford officials said Monday.

The stabilized plutonium now is being inserted into stronger "3013" containers with helium gas replacing the vacuum. The helium displaces combustible gases or a vacuum from the 7-inch-tall, 4-inch-diameter canister's interior, prevent the bulging and splits.

The bagless transfer packaging equipment is a glovebox chamber designed to place the plutonium into the 3013 cans, seal them and remove them from the glovebox without using plastic bags to safely handle cans outside of the chamber.

The equipment is designed to handle four cans in one eight-hour shift. The 3013 cans will be stored in the PFP's vaults.

Now, the only missing piece of PFP equip-

ment is the machinery to insert a 3013 can into another canister for even safer storage. That equipment should be running by next March, said Bob McQuinn, Westinghouse's PFP director, who is working for Fluor Hanford.

Hanford now has five ovenlike "muffle furnaces" baking scrap plutonium into a safer powder, devices that remove plutonium powder from plutonium-laced liquids, and efforts are under way to pack certain types of plutonium powders.

In 2001, Hanford plans to add four more muffle furnaces to the PFP. And one muffle furnace will be converted to bake a small amount of very radioactive and unstable plutonium bound within 2-inch "polycubes" of plastic polymers.

Overall, the PFP is trying to neutralize all its plutonium by a Defense Nuclear Facilities Safety Board-imposed deadline of mid-2004.

Almost all the stabilized plutonium is to be

eventually shipped to the Department of Energy's Savannah River, S.C., site where it will await federal decisions to either convert it into mixed-oxide reactor fuel or to immobilize it in a ceramic substance.

Meanwhile, a tiny bit of the PFP's less potent plutonium is scheduled to be shipped to an permanent underground storage site in New Mexico.

The PFP has exceeded one goal DOE's Hanford Manager Keith Klein set several months ago, said George Jackson, Fluor Hanford's vice president for the nuclear materials stabilization project.

Klein wanted to quadruple the PFP's stabilization rate in fiscal 2000, which ended Saturday. In fiscal 1999, the plant neutralized the plutonium in 150 canisters. This year, it has stabilized the plutonium in 650 canisters, Jackson said.

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Saturday, Sept. 30, 2000

# Bottomless containers could be source of tritium

By John Stang

Herald staff writer

A Hanford burial site that has leaked radioactive tritium near the Columbia River shore should be added to a proposal to accelerate cleanup, the Environmental Protection Agency says.

The highly contaminated Site 618-11, which is 3½ miles from the river, appears to have extremely concentrated tritium oozing from its north side, recent analyses show.

It's unknown how much tritium is leaking, how fast will it reach the river and how radioactive will it be when it finally gets there. Tritium's radioactivity decays by half every 12.3 years.

The Department of Energy plans to get a better grasp on those questions this year, Hanford officials said Friday.

Mike Goldstein, the EPA's remedial project manager for Hanford's 300 Area, said his agency is concerned the burial site is leaking tritium in concentrations 400 times higher than federal drinking water standards — and it is not part of a DOE proposal to com-

plete cleanup of most of the rivershore area by 2012.

"We can't keep studying the symptoms and not cure the problem," Goldstein said.

Hanford's current plans call for 618-11's cleanup effort to begin in 2010 and cost more than \$300 million. A major problem is the wastes are so radioactive they must be handled by remoted-controlled equipment that has not been developed yet.

DOE Hanford Manager Keith Klein has proposed accelerating cleanup efforts along the river. To accomplish that by 2012, he hopes to begin rerouting money and finding new cash to start the effort in the fiscal 2002 cleanup budget. That budget request has to be ready by February.

In the 1960s, radioactive wastes from nuclear fuel tests and other 300 Area experiments — including cesium, strontium and 11 to 22 pounds of plutonium — were buried at the 8.6-acre Site 618-11 just northwest of Energy Northwest's complex.

The wastes were buried in "caissons," "vertical pipes" and 55-gallon

barrels. A caisson is a small underground steel chamber connected to the surface by a crooked pipe to prevent radioactive dust from escaping when objects were dumped into it. The vertical pipes are five 55-gallon open-ended drums welded together to form a 15-foot-deep vertical tube.

The caissons and vertical pipes are open at the bottom.

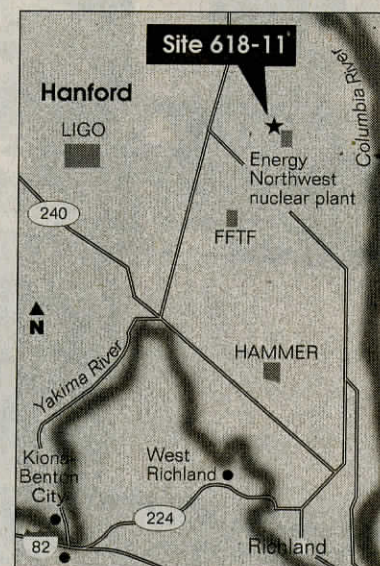
Today's Hanford experts don't know why.

Wade Ballard, DOE assistant manager for planning and integration, speculated the bottomless containers could be a source for the tritium.

In 1999 and early 2000, a monitoring well just east of 618-11 showed previously undiscovered tritium concentrations of up to 8 million picocuries per liter.

The federal drinking water standard is 20,000 picocuries. Initially, Hanford experts checked 22 existing monitoring wells near 618-11, which showed the tritium has not spread far.

Then 50 "gas probe" holes were drilled 20 feet deep along 618-11's north and east sides to hunt for ele-



Herald/Sherry Emery

vated levels of the radioactive isotope helium 3. Its presence indicates tritium-laced water is nearby.

Elevated helium concentrations found just north of 618-11 are 15 to 20 times greater than levels collected outside of 618-11's east fence, said

Mike Thompson, DOE acting manager for ground water projects.

Since 618-11's north fence line is "uphill" of water flowing through the aquifer, that indicates the collected helium gases come from tritium that has not reached the aquifer, said Jan Borghese, CH2M Hill Hanford Group's ground water monitoring task leader.

So, Hanford experts believe the greatest concentration of leaking tritium has not seeped to the aquifer.

Hanford plans to drill two monitoring wells down to the aquifer soon and put in several more gas probe holes, Thompson said.

One well will be about 50 yards east of the well where the 8-million-picocurie reading appeared. The second will be where the highest helium gas reading occurred.

If monitoring shows the tritium is moving faster than expected, that will likely lead to faster remedial measures, Ballard said.

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# \$1.61 billion for Hanford faces veto from Clinton

By the Herald staff

The U.S. Senate passed a spending bill Monday that contains \$1.61 billion for Hanford's cleanup in the 2001 fiscal year, but the bill faces a possible veto by President Clinton.

The U.S. House passed the same energy and water appropriations bill last Thursday.

Overall, the bill earmarks \$23.6 billion for energy and water projects across the nation, of which \$1.61 billion would tentatively go to Hanford in fiscal 2001, which began Sunday.

But the bill also contains language that would block the Clinton administration's plan to let the Missouri River return to a seasonal ebb and flow. That measure's opponents — including Missouri's congressional delegation — say it

could cause floods and hurt farmers and shippers.

Monday's Senate 57-37 vote on the \$23.6 billion budget package split mostly along party lines. Sixty-seven Senate votes are needed to override a presidential veto.

Republicans voted 51-1 for the bill, while Democrats voted 36-6 against it. U.S. Sens. Slade Gorton, R-Wash., and Patty Murray, D-Wash., both voted for the package. Murray said passing the Hanford budget was why she split with her party on the vote.

In broad strokes, this budget would send \$759 million to Hanford's tank operations and glassification projects, \$755 million to the rest of the site's cleanup projects and likely about \$96 million to Hanford programs supervised by the Department of Energy's Washington, D.C., headquarters.

The overall figure will likely change a little in November, which is when DOE traditionally juggles funds to cleanup projects at all of its sites.

## Veto fight:

Republicans promise a pre-election fight over possible veto.  
Page A12.

# Fluor donation kicks Prosser marketing into high gear

**\$10,000 grant will go toward attracting businesses to area**

**By Wendy Culverwell**  
Herald staff writer

For folks in the dry storage, wooden barrel-making or steel drum-refurbishing business, the postman will indeed cometh — bearing promotion materials about Prosser.

As in: Why you should put your next plant in Prosser.

A \$10,000 grant from Fluor Hanford Inc. will help the Prosser Economic Development Association step up efforts to recruit the sort of

companies Prosser-area businesses say they want for neighbors.

Though modest as grants go, Fluor's \$10,000 represents nearly 15 percent of PEDA's marketing budget for 2001.

PEDA launched its recruitment campaign last fall in its own back yard when it surveyed Prosser businesses about what they need to succeed.

Gayle Wheeler, recruitment director, ended up with a list of five target industries: dry storage facilities where food processors can stash supplies until they're needed, a company to refurbish steel drums, a wooden barrel

manufacturer, more wineries and companies that can turn farm waste into useful products.

Identifying which businesses Prosser needs is one thing. Bringing those businesses to town is another, which is where PEDA's marketing efforts and the Fluor donation come in.

Wheeler delivers a one-two punch to hundreds of businesses that fit the profile. First, she sends a picturesque postcard featuring either a glass of wine, a bunch of grapes or artfully arranged carrot slices on one side and pithy facts about Prosser on the other.

A few weeks later, she follows up with a phone call.

PEDA President Ken Carter has no illusions that recipients actually read or save the postcards, but he figures three rounds of postcards followed by a phone call from the persistent Wheeler will at least lodge Prosser's name in the target's mind.

"By then, we're hoping they're saying, 'Where is this place?'" he said.

Naturally, postcards and informational packages cost money. PEDA paid \$1,000 for the first 1,500 cards, and information packages run \$2 apiece, before postage and envelopes. If a business is interested enough to solicit an economic profile of the community,

that's an additional \$6.

Tom Harper, Fluor Hanford vice president for site services, said the donation signals the company's belief PEDA is a credible economic development agency. "We support programs like this with a strong plan of action," he said.

Fluor Hanford is the prime contractor for the Department of Energy's cleanup of the Hanford site. As part of its contract, the company supports efforts to diversify the region's economy.

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## Hanford's new cleanup pact to raise questions

**By John Stang**  
Herald staff writer

Questions keep surfacing on the Department of Energy's plan to try a new type of contract to clean up part of Hanford.

The Hanford Advisory Board's financial affairs committee told DOE officials Friday to expect numerous questions next week during public discussions on the agency's plan to increase emphasis on cleaning up the Columbia River shore area.

On Tuesday and Wednesday, many HAB members plan to meet with DOE officials at 2770 University

Drive, Richland, to discuss this proposal.

DOE's hope is to complete the bulk of the rivershore cleanup by 2012 — years and decades earlier than originally planned.

That proposal raises questions about whether extra federal money can be found to pay for this and whether some projects in central Hanford would have to be delayed.

A major plank of the proposed boosting of rivershore cleanup is to hire a corporation under a type of contract that DOE has not tried at Hanford.

DOE seriously is considering hiring

a company from 2002 to until the work is done in 2012 — with the hired company's profits tied to meeting that 2012 goal.

Currently, Bechtel Hanford Inc. does this work.

But its contract expires in 2002. That means serious budget shifting and preparations to seek bids must be tackled in 2001 if this new concept is to be used.

On Friday, HAB members wondered about how much influence the state and the U.S. Environmental Protection Agency would have in defining what a finished cleanup project would look like under this new

type of contract.

"Defining end states should be a regulatory matter," said HAB committee chairman Gerald Pollet, representing Heart of America Northwest.

And several questions — part of the preparations for next week's discussions — arose on how much leeway the to-be-hired contractor would have to shuffle priorities over the 10-year period, and how much control DOE and other government agencies would have over those priorities.

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## More signs planned for highway to reduce deer deaths

**By The Associated Press**

WENATCHEE — The stretch of U.S. 97A through Chelan County is Ground Zero for deer-automobile collisions, and local residents hope new road signs and fences will reduce the carnage.

More than 400 deer were killed on the 37-mile stretch from 1991 to 1998, according to the state Department of Transportation.

No people were killed in those

deer-auto collisions on 97A, which follows the Columbia River's western shore from Wenatchee to Chelan.

"I know some locals refer to the area as 'blood alley' because there are so many (deer) kills there," said state Trooper Kevin Overbay.

Volunteers plan to post eye-catching signs to warn drivers about the deer that cross the highway.

The volunteers work for the Highway 97A Corridor Safety Pro-

ject, established to reduce accidents of all types on the notorious two-lane highway.

In addition, the Wenatchee Sportsmen's Association and the Mule Deer Foundation's local chapter plan by Dec. 1 to install signs with flashing lights at two spots on the highway where deer-auto collisions are especially frequent.

The groups hope to eventually install fences along those two sections

of highway to keep deer away from the road.

The groups are working with the Washington State Patrol and state Department of Fish and Wildlife to find the estimated \$130,000 needed for the two fences.

"We're all out here for the same thing, and that's conservation of wildlife and safety for drivers," said Tracey Manning, chairman of the local Mule Deer Foundation chapter.

## Just-completed shipment to Ohio reduces Hanford uranium surplus

**By John Stang**  
Herald staff writer

Hanford just finished shipping 734 tons of uranium trioxide powder to Ohio.

That trims the reservation's stockpile of surplus uranium by about one-third, with an additional 413 tons of leftover Hanford uranium to be disposed of within the next two years, according to the Department of Energy.

Ultimately, this is expected to trim the uranium storage costs. Now, the cost is about \$2 million a year, which is expected to drop to \$500,000 to \$600,000 annually after all the shuffling is complete.

When 2000 began, Hanford had about 2,054 tons of surplus uranium in various forms — leftovers from the Cold War when Hanford assembled uranium fuel for its plutonium-producing reactors.

Eventually, about half is expected to remain at Hanford and about half is supposed to be stored at DOE's Portsmouth Site in Ohio.

Hanford's surplus uranium is a tiny drop in DOE's stockpile of about 600,000 tons of uranium stored across the nation — predominantly at Portsmouth, Oak Ridge, Tenn., and Paducah, Ky.

DOE wants to get the uranium out of Hanford's 300 Area, where it plans to speed up cleanup efforts.

Meanwhile, the federal agency faces major problems if

it tries to sell Hanford's uranium commercially. World-wide uranium prices have dropped in recent years. And Hanford's uranium was set up to work specifically in the now-closed N Reactor. So, the uranium needs to be reprocessed into a commercially viable form before it can be sold.

Slightly more than two months ago, Hanford began trucking the 734 tons of uranium trioxide powder from the 200 Area to the Portsmouth site, with the last shipment arriving in Ohio on Monday, said Dave Evans, DOE's facility transition division director.

Hanford's budget projections call for 259 tons of uranium metal billets — heavy 20-inch-long cylinders holding uranium — to be shipped to Ohio in 2002. An additional 149 tons of slightly contaminated uranium fuel and 5.5 tons of uranium scrap in the 200 Area are supposed to be buried in west-central Hanford in 2002.

DOE is trying to get those projects done in 2001, Evans said.

The rest of Hanford's leftover uranium is to be stored above ground in the 200 Area, awaiting a permanent disposal plan. Hanford has until 2031 to come up with that solution, according to DOE's long-range plans.