

Cleanup review draws criticism

■ *Hanford Advisory Board sends letter to DOE chief Abraham*

By John Stang
Herald staff writer

A "top-to-bottom" review of all Department of Energy cleanup projects will likely slow those projects down, the Hanford Advisory Board contends.

When Energy Secretary Spencer Abraham unveiled a reduced nationwide nuclear cleanup budget proposal for 2002, he also called for an extensive review this summer of the agency's cleanup programs to see if they should be overhauled.

Meanwhile, DOE's proposed 2002 cleanup budget is \$5.913 billion, which is down from \$6.267 billion in 2001. Hanford's cleanup budget would drop from \$1.456 billion in 2001 to \$1.4 billion in 2002.

Board

Members set aside FFTF differences to unite against budget proposals. **B1.**

The Hanford Advisory Board sent Abraham a letter Friday, voicing displeasure at the upcoming review.

"Since 1989, when cleanup began at Hanford, DOE has conducted many reviews of its cleanup program. For the most part, the end result at Hanford from these various reviews has been repeated delays and a general slowdown in cleanup progress," the letter said.

Later, the letter added: "We urge you to resist the temptation to reinvent cleanup, and instead focus efforts to meet the deadlines and schedules DOE is now obligated to meet."

The Hanford board recommended that DOE provide all the funds to meet its legal obligations for the next four years, then study whether enough cleanup progress is being made.

If Abraham goes ahead with the review, the Hanford board argued study should not interfere with DOE meeting its current legal deadlines. Also, Hanford's numerous constituencies should participate in the review, the board's letter contended.

Also Friday, the Hanford board:

■ Sent another letter to DOE to protest the proposed budget cuts at the HAMMER training complex. DOE proposes to cut the HAMMER's budget from \$5.9 million in 2001 to \$1 million in 2002, which would shut down most of its training.

■ Received a copy of a May 28 letter that Oregon Gov. John Kitzhaber sent to President Bush. Kitzhaber's letter protested Hanford's proposed \$1.4 billion budget when it needs at least \$470 million extra to meet its legal obligations in 2002.

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

Hanford may get extra \$53.3 million

■ *Supplemental money would be used for ongoing cleanup projects*

By John Stang
Herald staff writer

Hanford is supposed to receive an extra \$53.3 million for this fiscal year under a supplemental budget request the Bush administration submitted to Congress.

Bob Tibbatts, director of the Department of Energy's budget division at Hanford, cautioned Hanford Advisory Board members Thursday that the request still

has to go through Congress.

If it survives, Hanford should see the extra money in July or August to be spent this fiscal year, which ends Sept. 30. The money would supplement several ongoing cleanup projects.

DOE's fiscal 2001 Hanford cleanup budget is \$1.456 billion. Each year, DOE traditionally asks Congress for some extra money in a "supplement request" for its cleanup programs. The \$53.3 million Hanford would receive comes from a pool of \$100 million, Tibbatts said.

If the request survives intact, DOE would spend slightly more than \$1.509 billion on Hanford's cleanup in fiscal 2001.

Right now, DOE has asked Congress for \$1.4 billion for Hanford in fiscal 2002, which is \$470 million to \$527 million short of what is needed to meet the site's legal obligations. The extra 2001 money can help chip away at that 2002 shortfall, Tibbatts said.

The extra requested money would be used as follows:

■ \$25 million would be added to the tank waste glassification project's 2001 budget of \$377 million.

■ \$10 million would be added to CH2M Hill Hanford Group's budget of \$370 million to take care of the tank farms.

■ \$10 million would go the K Basins pro-

ject's budget of \$191 million.

■ \$5 million would go to converting scrap plutonium at the Plutonium Finishing Plant into safer forms. The majority of Hanford's \$177 million facilities stabilization budget covers the PFP's work.

■ \$3.3 million would go to the demolition of outlying buildings and sealing off the main reactor chamber at F Reactor. That work is not expected to be done by Sept. 30, and DOE's budget request for fiscal 2002 does not have money to continue this work for the next year.

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Hanford board decries budget

■ *HAB calls on Ecology, EPA to enforce schedule*

By John Stang
Herald staff writer

Hanford Advisory Board members put their differences over the Fast Flux Test Facility on hold Friday, uniting to condemn the Department of Energy's proposed cleanup budgets for 2002 and 2003.

They agreed to send a letter to Energy Secretary Spencer Abraham, other DOE officials, the Environmental Protection Agency and Washington's Department of Ecology that says the budget proposals undermine DOE's legal obligations to clean up Hanford.

"If we do not protest, we'll certainly drop the ball," said board member Charles Kilbury, representing Pasco.

DOE recently sent a proposed 2002 Hanford budget of \$1.4 billion to Congress. It would keep Hanford K Basins

“
If we do not protest, we'll
certainly drop the ball.”

Charles Kilbury,
HAB Pasco representative

and Plutonium Finishing Plant projects on schedule but is too little to meet Hanford's other legal cleanup obligations.

The biggest shortfall stems from DOE's request of \$500 million for Hanford's top-priority waste glassification project in 2002 when the agency's own figures say \$690 million is needed. That means a huge but politically unlikely budget increase would be needed in 2003 to put Hanford projects back within schedule.

DOE and Hanford Advisory Board calculations show the glassification project falling at least four years behind schedule

without major funding increases.

The board's letter said existing plans "signal an intent to slow Hanford cleanup progress" and would cause DOE to miss at least 50 percent of its deadlines under the Tri-Party Agreement, the legal pact governing the site's cleanup.

If Hanford's 2002 budget does not increase significantly, the letter said: "The (Hanford Advisory Board) insists the Environmental Protection Agency and the Washington Department of Ecology carry out their enforcement responsibilities to restore cleanup progress to the pace committed to in all (Tri-Party Agreement) milestones."

The state is threatening to sue DOE over glassification delays. And the EPA said it will fine DOE if the present budget remains unchanged and forces deadlines to be missed.

The board — with strong factions for and against reviving the dormant FFTF reactor — stalled Thursday on whether to specifically add the FFTF to the cleanup timetables it wants enforced.

When former Energy Secretary Bill Richardson signed the paperwork Jan. 19 to shut down FFTF, that reactivated dormant Tri-Party Agreement milestones covering the reactor's shutdown and cleanup. But on April 25, new Energy Secretary Spencer Abraham ordered a 90-day review on whether the reactor should be revived or closed.

Board members compromised on not naming the FFTF in the letter, but will stress "all Tri-Party Agreement milestones" should be enforced.

That gives the pro- and anti-FFTF contingents a grace period until Abraham's 90-day review is complete.

Board member Gerald Pollet, representing the anti-FFTF Heart of America Northwest, said he hopes if DOE decides to shut down the reactor, the pro-FFTF board members would back enforcement of the FFTF cleanup timetable.

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

Hanford driver files suit over firing

■ *Man, 58, accuses union, subcontractor of age discrimination*

By John Stang
Herald staff writer

A 58-year-old truck driver filed a lawsuit this week against a Hanford subcontractor and his union that alleges he was discriminated against because of his age.

Pat Dumaw, a union truck driver with 30 years of experience, filed the suit Tuesday in Spokane County Superior Court. He was joined in the action by his brother, Dennis Dumaw of Spokane, who alleges he lost his job as business agent for Spokane-based Teamsters Local No. 690 because of internal political fallout over what happened with his brother.

The pair's lawsuit seeks unspecified damages against Foster Wheeler Environmental Co. and Teamsters Local No. 690.

Foster Wheeler and Local No. 690 officials could not be reached for comment late Friday.

Pat Dumaw began working for Foster Wheeler at Hanford in the spring of 2000. He was laid off in May 2000, rehired later, then laid off again in mid-summer.

In a phone interview, Pat Dumaw said he was the oldest truck driver working for Foster Wheeler. "They used my age to lay me off," he said, adding he heard supervisors say his age counted against him.

White House wants to add \$180 million to cleanup budget

■ *It's not known how much of that would go to Hanford*

By Les Blumenthal and John Stang
Herald staff writers

WASHINGTON — The Bush administration wants to add \$180 million to its nationwide nuclear cleanup budget of

\$6.267 billion for fiscal 2001. But DOE's Washington, D.C., headquarters has not calculated how much of that extra money would go to Hanford — and for what. Partway through each year's annual federal budget negotiations in Congress, the president's administration submits a "supplemental request" for extra money for items not covered in the original budget request.

The administration's overall supplemental request of about \$6.5 billion — mostly for the Department of Defense — is expected to go to Congress any day now. DOE staff and U.S. Rep. Doc Hastings' staff said the supplemental request includes \$180 million for DOE's nuclear cleanup programs, of which \$100 million is in a pool of cash that Hanford is eligible to receive. However, several other DOE

sites besides Hanford are also eligible for the \$100 million pool, staff members said. The \$80 million is for nondefense cleanup programs, which Hanford doesn't qualify for. The supplemental request document says that yet-to-be-determined amounts of the \$100 million should go to Hanford's K Basins and radioactive waste glassification

See **Budget**, Page A2

Bechtel Hanford truckers pass safety milestone

Bechtel Hanford truck drivers recently posted their 5 millionth mile without an accident that was their fault. Bechtel is in charge of Hanford river shore cleanup efforts. Its trucks have hauled contaminated soil and debris about 152,000 times from the river area to a huge specialized landfill in central Hanford, said Bechtel. The streak dates to July 1996, and 88 drivers have been involved. Thirty-one are employed today, including three — Gary Mecham, Richard Masias and Terry Thompson — who have been drivers since July 1996. "The constant focus on safety by the drivers and mechanics, and excellent teamwork between Bechtel Hanford drivers, the Hanford Atomic Metal Trades Council and RCI Environmental, our subcontractor, has made this accomplishment possible," said Tom Logan, Bechtel vice president of operations. "The drivers are some of the very best in the trade."

Proposed Hanford budget irks board

■ *Proposed 2002 funding could delay vit plant completion 4 years*

By John Stang
Herald staff writer

Completion of Hanford's tank waste glassification project faces a potential delay of at least four years under the Bush administration's proposed 2002 budget.

And that has the Hanford Advisory Board growling that the site's regulatory agencies should crack down much harder on the Department of Energy underfunding and missing Tri-Party Agreement obligations. The regulators appear ready to do so.

"I think that is the only card we have left to play," said board member Leon Swenson, representing the public-at-large. The Tri-Party Agreement legally governs Hanford's cleanup.

A four-year delay in finishing the glassification project would smash the timetable of Hanford's top-priority project.

Using DOE figures, the HAB's co-vice chairman Ken Bracken, a retired Hanford project manager, looked at Hanford's potential 2003 budget scenarios that emerge from DOE's fiscal 2002 budget request. DOE officials at Thursday's Hanford Advisory Board meeting said Bracken's calculations are on target.

The basis for these calculations is DOE sending a fiscal 2002 Hanford cleanup budget request of \$1.4 billion to Congress. That is \$470 million to \$527 million short of meeting the site's legal cleanup obligations, according to DOE's figures.

That \$1.4 billion breaks down to \$500 million for glassification, which needs \$690 million; and \$314 million to maintain the tank farms, which need \$370 million. Bracken did not examine the rest of Hanford cleanup. For that, DOE asked for \$586 million when it needs \$765 million to \$823 million.

If DOE's \$500 million 2002 glassification request stays intact, that project would need \$898 million in 2003 to catch up to its timetable.

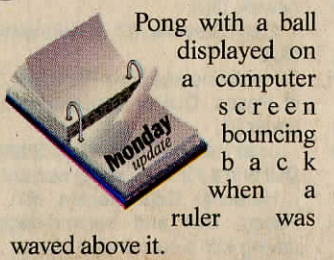
That timetable is already fuzzy. The Tri-Party Agreement calls for full-speed glassification in 2009.

Budget
Hanford should get extra \$53.3 million this fiscal year. **B1.**

Seattle museum makes good use of PNNL-generated technology

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

By Annette Cary
Herald staff writer



In late 1998 Richard May of Pacific Northwest National Laboratory was working on a system that allowed a computer to recognize and respond to hand gestures.

That was only the beginning, May said then. One day museums might be interested in the technology as a way to give large numbers of visitors a virtual reality experience, he said.

Pong with a ball displayed on a computer screen bouncing back when a ruler was waved above it.

Less than three years later, that prediction has come true. The Seattle Art Museum has used HI-Space to create an elaborate virtual reality experience. Before visitors enter an exhibit of ancient Chinese art from Sichuan, virtual reality allows them to work together to unearth some of the artifacts from a simulated archaeological pit.

Additional software developed by the University of

See **PNNL**, Page B2

'Pit Vipers' ease Hanford work

■ *Machine designed to do work where workers can absorb high radiation doses*

By John Stang
Herald staff writer

Think of it as a mutant backhoe with a remote-control robotic arm.

It's called the "Pit Viper," which Hanford's engineers and technicians plan to test at central Hanford's tank farms this summer.

The Pit Viper's purpose is to tackle work in about 600 highly radioactive concrete pits scattered throughout the 200 Area's tank farms. These pits' dimensions usually are 8 feet by 10 feet by 8 feet, although some are bigger and some are smaller.

They act as junction boxes. Underground pipes leading to and from the 200 Area's 177 subterranean radioactive waste tanks meet inside these pits, where flexible tubing is used to connect one tank to another for the pumping of liquid wastes.

Work in the pits is expected to increase dramatically because many will be used to set up lines to pump liquid

wastes from the tanks to the yet-to-be-built waste glassification plant, said Rick Raymond, vice president for projects at CH2M Hill Hanford Group, which is in charge of the tank farms.

Since the pits' interiors are highly radioactive, workers use long "pike poles" — somewhat similar to the long poles people use to trim the tops of trees while they stand on the ground.

Operators stand at the edge of a pit and use pike poles to install and remove equipment, clear out debris, sludge and liquids and do other work inside the pits.

This can be cumbersome and sometimes requires sheer muscle power.

But the biggest problem is that these employees easily can absorb the maximum dose of radiation that a Hanford worker is allowed to receive in one year — 500 millirem.

"This is the most dose-intensive task for the river protection project," said Sharon Bailey, the Pit Viper project manager at Pacific Northwest National Laboratory. At least one pit is capable of giving a worker 50 rem — 50,000 millirem — in one hour.

This means numerous workers are needed to work at the pits — just to manipulate the pike poles and to shuttle

people in and out before they absorb 500 millirem.

The workers told their managers that using pike poles was inefficient, especially when dealing with radiation dose limits. So CH2M Hill huddled a year ago with PNNL, the Department of Energy, Fluor Hanford, Numatec and Oak Ridge National Laboratory to develop the Pit Viper — testing it at the HAMMER training complex.

The Pit Viper is a backhoe chassis with the backhoe replaced by a huge remote-controlled mechanical arm designed to twist and turns like a human arm from the shoulder to the wrist. The chassis and mechanical arm are parked next to a pit. Meanwhile, the Pit Viper is controlled from a van, which can be parked outside a fenced-off radiologically controlled portion of a tank farm.

So instead of several people working in a radioactive area in special suits, the same job can be done by two people in street clothes in the van, while possibly a third in protective clothes watches the work from the pit's edge.

A camera on the mechanical arm and three more inside the pit let the two operators see what they are doing on two sets of four screens inside the van.

See **Pit Viper**, Page B2

Hanford waste board to meet in Baker City

BAKER CITY, Ore. — The Oregon Hanford Waste Board will hold a public meeting June 26-27 in the Oregon Trail Room at the Quality Inn in Baker City.

Board members will discuss efforts to clean up the site and federal funding for project. For more information, call 503-373-7400 or 800-221-8035.

Bureau of Reclamation crews prepare to study a massive landslide across from Locke Island, shown here across the Columbia River channel.

Reaching: Management clouded by animosity, lack of funds

Continued from A1

And the federal agency still must deal with animosity that was generated when it plopped into the middle of one of the nation's most complex and long-running nuclear cleanup efforts.

"There's a lot of people's turf that we have taken over here, and they are not all happy that we are here," acknowledged Hughes, 45, of Kennewick.

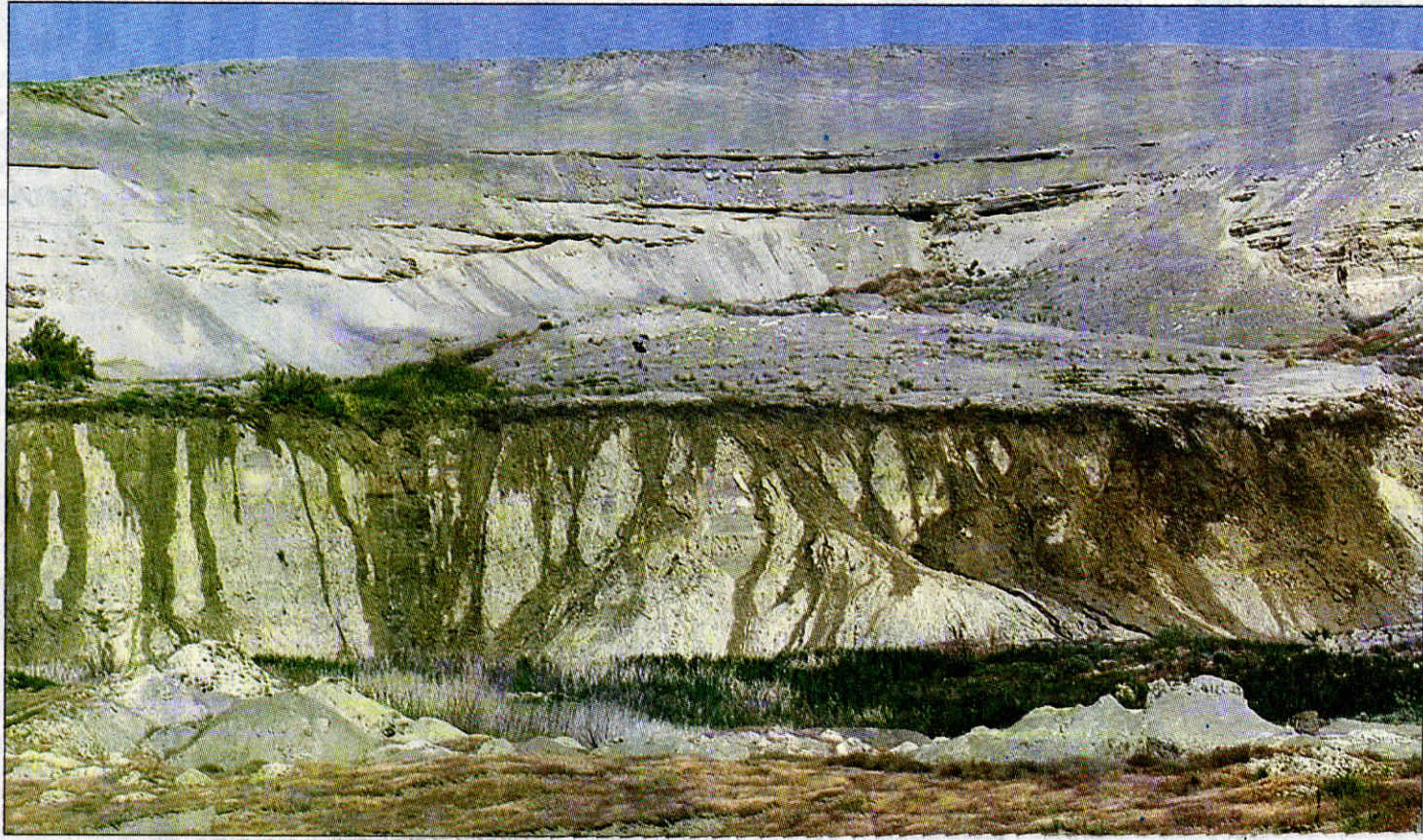


Hughes

He's well aware he holds a high-profile position, given the years of controversy about Reach management, the massive fire that scorched the monument last summer

and the possibility the monument may be explored for oil and gas.

With summer near, curious tourists are expected to visit the monument in increasing numbers. But they have few clues



elk hunting on the west edge of Hanford.

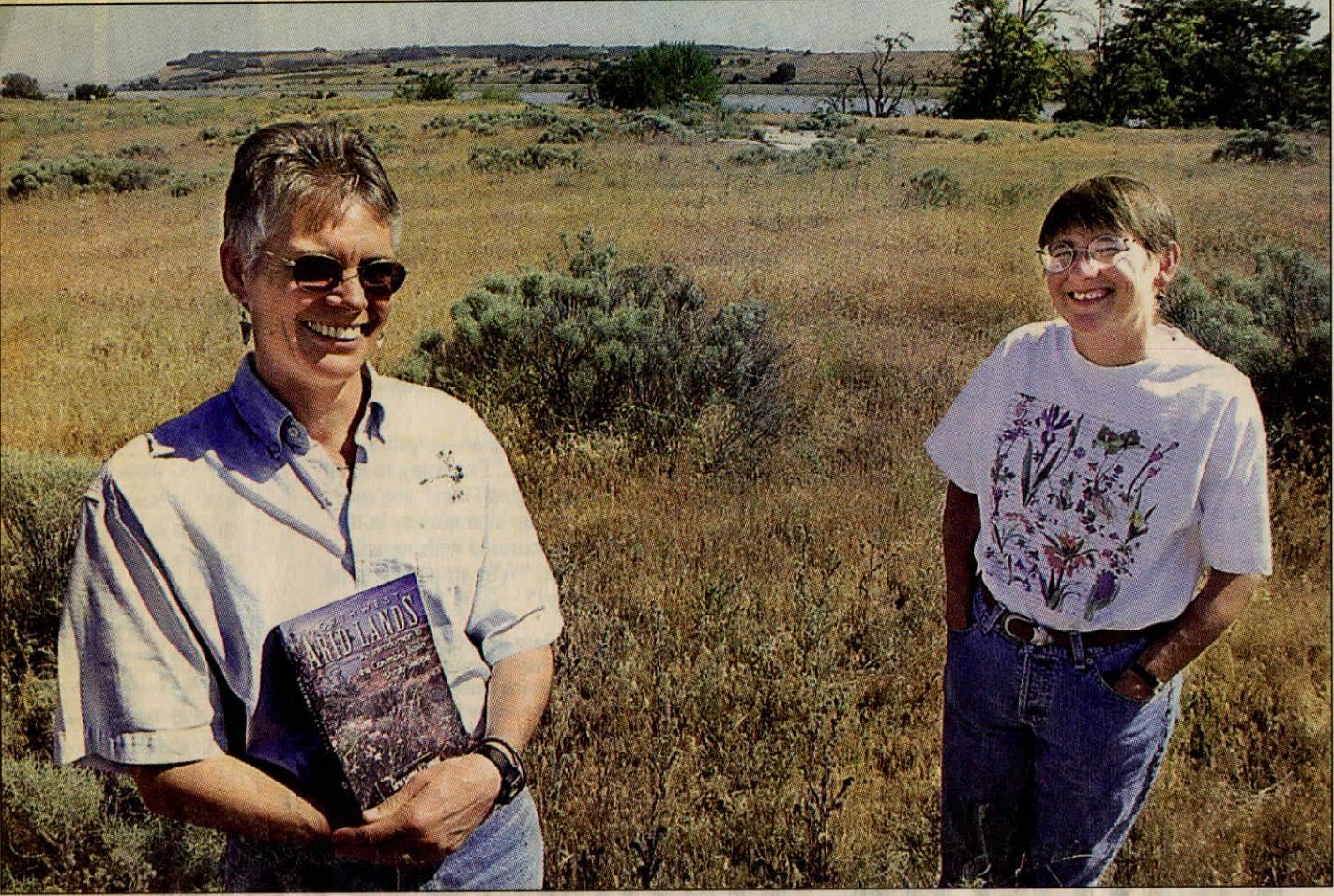
After last summer's catastrophic Hanford fire, the elk herd caused more than \$200,000 in damage to crops in the Yakima Valley. The state wants a selective hunt to reduce elk numbers, but the Fish and Wildlife Service has resisted.

"We don't want to have to pay a quarter-million dollars every year because we were unable to harvest elk on federal ground," Schafer said.

Advisory team gears up

On June 20, a 13-member advisory team representing government, tribes, educators and the at-large public will convene for the first time to consider what the Reach monument should look like.

"Now we have got it. What are we going to do with it?" asks Hughes. He said work on the monument in the past year has been slowed by his desire not to



Herald/Evan E. Parker
Karen Wieda, left, and Georganne O'Connor co-wrote *Northwest Arid Lands*, a field guide to the Columbia Basin's flora and fauna.

28 MAY 01

Dry-side guide

By Annette Cary
Herald staff writer

Go to any bookstore in Washington and you can find plenty of guides to the Cascade Range and Olympic Mountains — the lush green parts of the state. But just try to find a guidebook that covers the dry side. Most of the information about the arid lands of the Columbia Basin is contained in technical papers that aren't readily available. It's been collected, but just hasn't been accessible — until now.

This month Battelle Press published *Northwest Arid Lands — An Introduction to the Columbia Basin Shrub-Steppe*.

If you use it as was intended by authors Georganne O'Connor

Battelle Press publishes guidebook for Northwest's arid lands

and Karen Wieda of Pacific Northwest National Laboratory in Richland, the book is going to get muddy, creased and dog-eared.

"I'm hoping people will carry it in their backpack or keep it in their car or have it on their bookshelf — then they'll have somewhere to go if they have questions," O'Connor said.

The book offers a good starting point for Mid-Columbians who want to explore nature — either just beyond their back yard or within a couple

of hours' drive. Want to see one of the black-tailed jackrabbits once plentiful in the Mid-Columbia? Look around the Tri-Cities Coliseum.

Seen a lizard at Juniper Dunes? It's probably an *Uta stansburiana*, or side-blotched lizard, which eats insects, scorpions, spiders, mites, ticks and sowbugs.

To catch a bullfrog — a non-native species in the Mid-Columbia — search the willows at an irrigation return on the Columbia River.

You may hear the male frog's loud bellowing at dusk on summer nights there or near the Yakima River or Columbia River sloughs. Just don't release it to a new area, since biologists want to contain its spread.

See **Guidebook**, Page B2

27 MAY 01

Reaching for answers

A year into national monument status, and questions remain

By Mike Lee
Herald staff writer

LOCKE ISLAND — Greg Hughes rarely gets out here, where pelicans fish in the riffles of the Columbia River.

As manager of the U.S. Fish and Wildlife Service's only national monument, he's usually chained to his desk fighting to keep together the fledgling landmark with a minor-league budget and a stressed-out staff of eight.

As the one-year anniversary of the monument's creation approaches, however, that's just the start of Hughes' problems.



Hanford Reach National Monument

He doesn't have money to run a citizen advisory group that was established to help manage the monument's 51 miles of river and 195,000 acres of nearby land. That effort alone is expected to cost \$150,000 a year, money that will have to be

siphoned away from other work such as maintenance.

He also doesn't have money to hire a fish biologist, a permanent archaeologist or any of roughly 25 other positions he wants to fill. Nor does he even feel he has the full support of his own agency.

A year after the Reach was crowned a national monument, there's not so much as a sign or visitor brochure to explain the landmark. In fact, the most prominent notice is emblazoned in huge defiant letters on one of the private farms near the Reach: "No federal control!"

See **Reaching**, Page A6

30 MAY 01

Hastings urges isotope studies

■ *Congressman fears economic benefits not being pursued*

By Annette Cary
Herald staff writer

The federal government should study how medicines and medical devices using radioactive isotopes could improve health care and cut government costs, Rep. Doc Hastings, R-Wash., said Tuesday.

"I am concerned that medical isotope technology, which has the potential to dramatically reduce costs and improve the quality of life for millions of Americans, is not being aggressively pursued," Hastings wrote in a letter to Energy Secretary Spencer Abraham and Tommy Thompson, secretary of Health and Human Services.

Supporters of restarting Hanford's Fast Flux Test Facility

would like the reactor to make isotopes to meet a growing medical demand. The United States imports 90 percent of the medical isotopes it uses.

"With FFTF's potential in review, now is a crucial time to examine how medical isotopes can save lives and reduce costs for patients and the federal government," Hastings said.

The Bush administration is conducting a 90-day review of the Clinton administration's decision to shut down the reactor permanently.

The new administration has asked businesses and agencies interested in using the reactor or buying the isotopes it could produce to submit information to the Department of Energy. FFTF could be used to conduct research and to make isotopes for medical uses and for power sources for deep space missions.

See **Hastings**, Page A2

31 4

Contractor to donate \$2 million to WSU

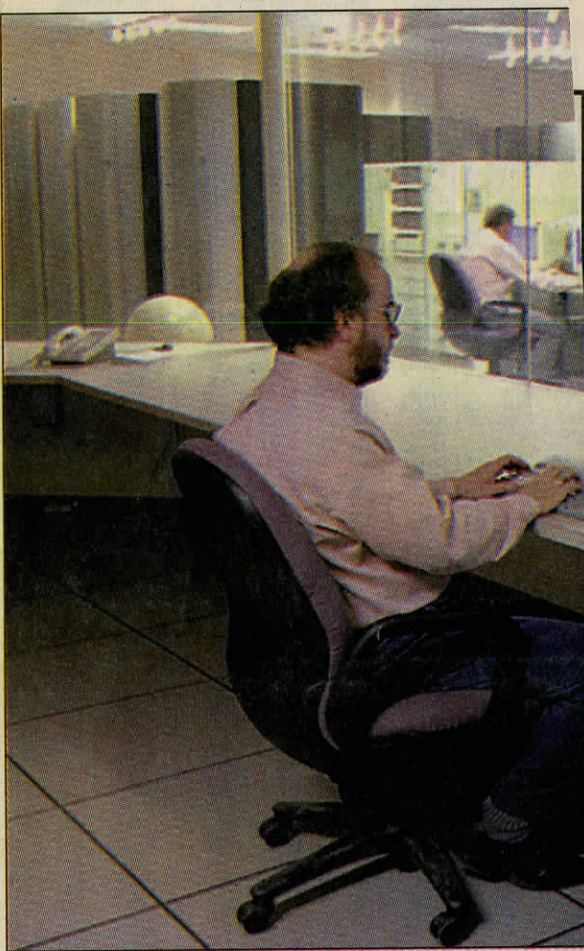
By Joni Carrasco
Herald staff writer

CH2M Hill Hanford Group announced Wednesday that it will contribute \$2 million to Washington State University Tri-Cities over the next six years.

The \$2 million endowment will be in cash and in-kind contributions to support entrepreneurial programs and expand information technology course offerings.

It is the largest gift ever to WSU Tri-Cities, officials said at a news conference held to announce the bequest.

WSU President Lane Rawlins said the gift will not only have a huge effect on the branch, but it also "marks the arrival of WSU Tri-Cities as a major institution in the region."



Dan Adams, a chief scientist at Pacific Northwest National Laboratory. Later the Environmental Molecular Sciences Laboratory. LA MAY 01

PNNL shops for

By Annette Cary
Herald staff writer

Just four years ago, Pacific Northwest National Laboratory in Richland boasted the sixth-most-powerful computer in the world.

Today researchers there are shopping for a new one.

In the fast-moving world of computer technology, the supercomputer, which fills a space about the size of a four-bedroom house, no longer is even in the top 100 computers worldwide. Considering that computer power doubles every 12 to 18 months, "our computer is 16 times behind the times," said Jeff Nichols, a chief scientist at the lab.

The Environmental Molecular Sciences Laboratory at PNNL has put out a request for proposals for a new supercomputer to cost \$19 million to \$24 million over a three-year lease — possibly under a lease-to-own contract.

The proposed Department of Energy budget for 2002 includes money for the new supercomputer, which would be

paired with new equipment and operations, the price could rise to about \$10 million a year.

That money would buy and operate a computer that could be among the top 10 worldwide, Nichols said.

"It would be 2,000 to 3,000 times more powerful than the most powerful desktop computer," he said.

However, it still would just be a quarter as powerful as the world's leading supercomputer now, one used to simulate nuclear explosions at Lawrence Livermore National Laboratory in California.

But it's still a major improvement over the Richland lab's current supercomputer. Its current computer can perform 227 billion floating point operations — or single multiplication or addition calculations — per second. The new supercomputer would perform 2 trillion to 3 trillion of those calculations per second.

While the existing supercomputer can store 2.6 trillion bytes of data, the new computer should store 100 trillion bytes.

Mid-Columbia

DynCorp denied extension

■ *Fluor won't extend firm's contract at Hanford, saying it's a 'business decision'*

By John Stang
Herald staff writer

Fluor Hanford won't extend DynCorp Tri-Cities Services' contract at Hanford beyond Sept. 30.

"It was not a performance issue. It was a business decision," Fluor spokesman Michael Turner said Wednesday.

DynCorp manages the nuclear reservation's roads, buildings, utilities, some equipment and its fire department and supervises about 750 people. About 260 work for DynCorp, and the rest are union workers employed by Fluor.

DynCorp President Bob Frix did not

know why Fluor opted not to extend the company's contract, other than it was a "business decision."

Information on what went into that decision was unavailable Wednesday. A Fluor memo sent to its employees Wednesday said the decision came after "a period of negotiation." Also unavailable was information on if Fluor plans to absorb DynCorp's work or put it out for bid.

Fluor told DynCorp about its decision Tuesday. "It was disappointing. Not only did we do a good job at the site, but we also like the community," Frix said.

DynCorp earned an average of 92 percent of its potential annual fees from Fluor, Frix said. It also had earned a major federal safety award.

"Our decision not to extend the contract will not affect the work force con-

ducting the infrastructure work," Fluor's memo said.

DynCorp was one of Fluor's six original major subcontractors when it took over managing Hanford on Oct. 1, 1996. Fluor's and DynCorp's original five-year contracts ran through Sept. 30, 2001.

The Department of Energy recently extended Fluor's contract another five years.

Today, Fluor has four full-time subcontractors — DynCorp, Protection Technology, Numatec and Duratek Federal Services. Fluor has extended Protection Technology's, Numatec's and Duratek's contracts.

Numatec and Duratek — which bought the original Waste Management Hanford — are the only original "inside-the-fence" subcontractors to stay with Fluor beyond Sept. 30, 2001.

Inside

Fluor Hanford grant pays off in Tri-City campaign for conventions. **Business, B6**

• Deaths **B2**

• Stocks **B4-5**

Another subcontractor, Lockheed Martin Hanford, split from Fluor to become a prime contractor before CH2M Hill bought it. Fluor earlier eased out two other subcontractors with performance troubles.

Protection Technology replaced Fluor's troubled "outside-the-fence" security subcontractor B&W Protec and was brought under Fluor's umbrella.

Another Fluor "outside-the-fence" subcontractor — Lockheed Martin Services Inc., which also tackles lots of non-Hanford work — is awaiting Fluor's decision on a contract extension.

If that contract is not extended, DynCorp plans to bid for LMSI's Hanford computer support work, Frix said.

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complex computational science, not that there's any lack of demand for the capabilities of the current computer.

Projects compete for space on the lab's supercomputer, with 10 "grand challenge projects" awarded this year. About a quarter of the 300 people working on those projects work at PNNL and the rest are from a mix of other national laboratories, universities and computer centers worldwide.

The supercomputer has been used for a range of scientific projects, from sophisticated thermochemistry to atmospheric chemistry. It's also being used for heavy element chemistry, modeling compounds containing radionuclides. The result could be a better understanding of the exotic mix of chemicals in Hanford waste tanks, leading to new technology to dispose of the waste.

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HAMMER faces hard budget hit

■ *DOE budgeting could bring 80 percent cut*

By John Stang
Herald staff writer

A proposed 80 percent budget cut would remove most of what makes the HAMMER training complex unique as a training ground for emergency workers.

Much of the village of structures that spew flames and smoke would be shut down. The trimmed-down HAMMER would be limited primarily to classroom work and enough hands-on training to qualify Hanford employees to enter radioactive and hazardous areas.

The expected cutbacks come from the Department of Energy sending Congress a scaled-back fiscal 2002 nationwide cleanup

budget. It would slash Hanford's overall funding to \$1.4 billion — far short of the \$1.87 billion needed to meet the site's legal obligations.

The proposed budget also would mean the budget for the Hazardous Materials Management and Emergency Response training center — HAMMER — would drop from \$5.9 million this year to \$1 million in 2002.

The DOE money funds most of HAMMER's budget. The complex receives another almost \$1 million from outside rescue departments that pay for using the site.

See **HAMMER**, Page A2

CH2M Hill Hanford Group forms community council

CH2M Hill Hanford Group in Richland has formed a panel of community leaders to advise company managers on charitable contributions, employee volunteerism and economic diversification efforts.

Members are: Ed Allen, president of the Tri-Cities Corporate Council for the Arts; Tom Halazon, president of United Way of Benton and Franklin Counties; Bill Henderson, president of the Tri-Cities Enterprise Center; Larry James, dean of Washington State University at Tri-Cities; Bill Martin, president of the Tri-City Industrial Development Council; Lee Thornton, president of Columbia Basin College; and Kris Watkins, president of the Tri-Cities Visitor and Convention Bureau.

PNNL faces DOE cuts

■ *But lab working on projects that could bring other funding*

By Annette Cary
Herald staff writer

Pacific Northwest National Laboratory could see less money for some of its current research projects under the proposed 2002 budget for the Department of Energy.

But the Richland lab also has started work on projects in new strategic areas, such as advancing the knowledge gained from the human genome project, that could bring millions in new research dollars to the lab.

"PNNL's diverse research portfolio helps us weather changes to individual programs," said lab spokesman Greg Koller.

Other national labs with a narrower focus of research already have a good idea of how much money the Bush administration proposes they receive in 2002, as does the Hanford cleanup project and the HAMMER training center in Richland.

But lab officials say they don't have a good grasp of PNNL's budget picture for 2002.

"It's difficult to assess a dollar impact to PNNL from the president's proposed budget as much of PNNL's budget first goes to other agencies and entities, such as Hanford, various (Department of Defense) and DOE programs, other national labs, research universities and organizations in the former Soviet Union," Koller said.

Out for a deal

PNNL out for a new supercomputer. **B6.**

Mid-Columbia

B2

TRI-CITY HERALD

SATURDAY, MAY 19, 2001

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CH2M Hill safety audit halts tank farm work

■ *Mistakes, near accidents prompt review of practices*

By John Stang
Herald staff writer

CH2M Hill Hanford Group has halted construction work while it tightens safety procedures at Hanford's tank farms.

A series of mistakes and near-accidents, plus four months of internal and

independent reviews, prompted CH2M Hill to do the review of safety matters.

No one was injured in the incidents.

On Thursday, the Department of Energy's Office of River Protection sent CH2M Hill a letter telling it to identify problems and causes, and to come up with a plan to address them by Monday.

On Friday, CH2M Hill stopped construction by its subcontractors and ordered that senior supervisors be on the

scene for all tank-related work until further notice, said Fran DeLozier, CH2M Hill Hanford Group's president.

Harry Boston, manager of DOE's Office of River Protection, said, "This was a preemptive measure. ... We've got a good team, but enough is brewing out there that is increasing risks on the site. The time to do (preemptive measures) is now before someone gets hurt."

CH2M Hill manages central Hanford's

177 tanks that hold 53 million gallons of radioactive wastes.

CH2M Hill is in charge of maintenance and safety at the tank farms and manages pumping wastes from the old single-shell tanks to the newer and safer double-shell tanks.

It also prepares the tanks, pipes and wastes for a proposed waste glassification plant.

Boston's letter and DeLozier said

problems were found in identifying hazards, planning work before it is tackled, making sure subcontractors were performing work safely, and following safety procedures.

Also, improvements are needed in how CH2M Hill traces and fixes the underlying causes of safety-related incidents.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at jstang@tri-city-herald.com.

DOE opens FFTF to more debate

■ *Public hearings set on restart of reactor*

By Annette Cary
Herald staff writer

The Department of Energy will hold more public meetings on Hanford's Fast Flux Test Facility as part of a review of whether the reactor should be restarted, DOE announced Tuesday.

The review also will include a look at all studies, reports, assessments and environmental reviews related to the reactor's original mission of medical isotope production, isotope production for space missions and nuclear energy study.

In addition, DOE is promising a well-defined forum to allow submission of public and private interest in the continued operation of the FFTF for those and other missions.

The further details of the review were released as members of Hanford watchdog groups gathered Tuesday in Richland to question whether the review will be fair and denounce the 90-day suspension of a decision to close the reactor permanently.

All sides will be heard, DOE officials responded.

"It's time for a fresh start and a fresh, positive working atmosphere with all of the interest groups, and so we certainly hope they'll take advantage of that," said DOE spokesman Joe Davis in Washington, D.C.

A coalition of groups, led by Heart of America Northwest and the Government Accountability Project, sent a letter to Energy Secretary Spencer Abraham criticizing the review and the choice of Michael Holland to lead it.

Holland, manager of DOE's Brookhaven, N.Y., office, has 25 years of experience in the conduct of operations of nuclear reactors and large facilities. In the decade he's been with DOE, he's overseen the operation of research reactors, decommissioning of



Herald/Bob Brawdy

Members of Hanford watchdog groups, from left, Gerald Pollet, Tom Carpenter and Robin Klein, hold a news conference Tuesday in front of the Federal Building in Richland to voice their opposition to the Department of Energy's decision to further review restarting the Fast Flux Test Facility.

reactors and environmental restoration.

"Appointment of one person to conduct this review for you, who manages another facility under the same management as FFTF, is not credible," the letter said. "A credible review would be by persons with the independence to criticize the outlandish cost and management claims made by FFTF managers and the Office of Nuclear Energy."

Holland, who will work with a team of experts, will only collect information and compile it for a decision by the secretary at the review's end, DOE said.

"If anyone wants to talk to him, he will listen," Davis said. "He's a straight, nuts-and-bolts technical guy."

Also this week, Portland City Commissioner Charlie Hales sent a letter to Abraham criticizing the review of the shutdown decision on behalf of the Portland City Council. Rep. David Wu, D-Ore., also was preparing a letter to be signed by several representatives, including Adam Smith and Brian

Baird, both D-Wash., calling for a permanent shutdown.

Most critics of FFTF want no more DOE nuclear production that would produce waste at the site. However, some, such as Heart of America Northwest, would support an accelerator there to produce medical isotopes.

"The question is whether FFTF is the right place to make medical isotopes," said Tom Carpenter, director of the West Coast office of the Government Accountability Project. "We could make these same isotopes quicker and cheaper (elsewhere)."

"That's not true," said Bob Schenter, a board member of Citizens for Medical Isotopes. "There are already existing shortages today in medical isotopes."

Other reactors can make the same isotopes, but not in the quantity and quality needed as new cancer treatments are approved, Schenter said.

However, the Heart of America and GAP letter notes the Washington State Medical Association

and the Family Practice Association oppose restart of the reactor.

Hanford watchdog groups also maintain the three-month suspension of the decision to shut FFTF down violates the Tri-Party Agreement, which governs Hanford cleanup. It requires DOE to submit a proposal for cleanup of FFTF within 90 days of a decision to shut it down.

The Clinton administration, in its final days, ordered the shutdown. However, within 90 days, Abraham announced the decision was being suspended for more study, which meets the requirements of the Tri-Party Agreement, Davis said.

Other groups signing on to the Tuesday watchdog letter to Abraham include Washington Physicians for Social Responsibility, Sierra Club Cascade Chapter, Columbia Riverkeeper, Hanford Action and Washington Peace Action.

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PNNL joins labs to make faster chips

■ *Lab agreement focuses on faster semiconductors*

By Annette Cary
Herald staff writer

Pacific Northwest National Laboratory in Richland has signed a research and development agreement with Motorola Labs and Oak Ridge National Laboratory in Tennessee to create faster semiconductors.

The three labs are working on new materials that overcome a fundamental physics problem that limits the advance of semiconductor improvements. And better semiconductors mean better computers, cell phones, pagers and other electronic products.

For decades, the amount of computing power on chips has increased even as the chips have gotten smaller, allowing smaller and faster electronic products. But there's a limit to how much more chips can shrink with existing materials.

"In a chip is material we want the electrons to flow through and other material we do not want them to," said Mary Peterson of PNNL, who manages Motorola relationships for Battelle. Battelle manages PNNL and other labs for the Department of Energy.

As the chips are made smaller, the distance between those paths shrinks.

Now, a layer of silicon dioxide is used in chips to act as a gate and control the flow of electricity. As that gate gets thinner and thinner, it no longer can stop the flow of electrons.

Now that layer typically is about 35 angstroms thick, or the thickness of 25 individual silicon atoms. Once the thickness falls below 20 angstroms, which is anticipated next year, devices fail to work properly.

Scientists at the three labs want to develop materials that electrons will not flow through, even when the barrier becomes narrower yet.

Key to PNNL's role is the molecular beam system at the Environmental Molecular Engineering Laboratory, which is used to layer crystalline materials onto another material.

The system originally was used to study environmental conditions at Hanford, where scientists were interested in sand — silicon dioxide — and other kinds of soil minerals.

HAB has had it with DOE delays

■ *Advisory board wants state to take action on deadlines*

By John Stang
Herald staff writer

Will the state ever take legal action against the Department of Energy's delays in meeting major cleanup deadlines?

That was the lament from the Hanford Advisory Board on Wednesday as members flayed DOE for inadequate budgets and further delays.

The state has snarled at DOE for inadequate funding of legally mandated cleanup work and growled as DOE tried to delay legal deadlines.

And another deadline went on the endangered list Wednesday. One DOE budget scenario would further delay completion of Hanford's waste glassification plant, pushing it from 2011 to 2015.

Members of two HAB committees complained at a budget briefing that DOE headquarters in Washington, D.C., ignored the state with impunity despite state Attorney General Christine Gregoire's order that her staff research a possible lawsuit.

The suit would claim DOE has violated waste glassification deadlines in the Tri-Party Agreement, the legal pact governing Hanford cleanup.

Delay rejected

The state has denied DOE's request for a delay. B3.

State doesn't agree to DOE cleanup delay

By John Stang

Herald staff writer

The state rejected Wednesday the Department of Energy's request to delay some legal deadlines in Hanford's top-priority waste glassification project.

Hanford's legally locked-in master plan is to build plants to convert the site's 53 million gallons of radioactive tank wastes into glass.

Two weeks ago, DOE sent a letter to the state requesting changes in the Tri-Party Agreement, the legal pact that governs Hanford's cleanup, including glassification.

The Tri-Party Agreement includes calling for the glassification plants' construction to begin this July 31, the first experimental glass to be produced by Dec. 31, 2007, and testing to be done by Dec. 31, 2009.

But a year ago, DOE fired its glassification contractor, BNFL Inc. In December, DOE hired Bechtel to design, build and test the plant. The changeover made the July 2001 construction start unreachable. All sides unofficially have agreed to try for a 2002 construction start.

DOE asked the state to renegotiate some Tri-Party Agreement deadlines, with the federal agency wanting to:

- Replace the July 2001 construction start-up deadline with a yet-undetermined date with the idea that hot testing would still start by the Dec. 31, 2007 deadline.
- Move the completion of testing from Dec. 31, 2009, to April 30, 2011.
- Replace the yet-undetermined interim milestones with keeping a general eye on progress consistent with meeting the 2007 hot commissioning.

Wednesday, Mike Wilson, the state's nuclear waste program manager, sent a letter to DOE that said the state won't renegotiate those deadlines.

Wilson's letter blamed DOE for BNFL-to-Bechtel changeover leading to the current time crunch.

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15 MAY 01

Hanford contractor declares bankruptcy

■ *But move not expected to affect hiring, completion of Hanford, Umatilla work*

By John Stang and Mary Hopkin
Herald staff writers

Washington Group International — a major player at Hanford's waste glassification project and the Umatilla Chemical Depot — filed for Chapter 11 bankruptcy Monday to try regain its financial footing.

The Chapter 11 reorganization is not expected to affect Hanford's glassification project nor the construction of Umatilla's nerve gas incinerator, said corporate and federal officials.

Boise-based Washington Group announced Monday that it had filed the petition to restructure itself in U.S. Bankruptcy Court in Reno, Nev.

The corporation is one of the nation's largest construction firms with 17,821 employees in 97 subsidiaries plus 68 limited and joint ventures, according to its bankruptcy filing. It began in 1964 as a three-person highway construction company in Missoula, Mont.

Employee salaries and benefits at both Mid-Columbia projects will be protected under the reorganization, said Washington Group spokesman Jack Herman.

Washington Group is the chief Hanford subcontractor for Bechtel National, which is in charge of designing, building and testing Hanford's top-priority glassification project through 2011. The facility is supposed to convert at least 10 percent of the site's 53 million gallons of radioactive tank wastes into glass by 2018.

The bankruptcy proceedings will not affect ongoing hiring at the glassification project nor the pace of its construction, said Bechtel spokesman John Britton. The project currently employs 950 people with 110 working for Washington Group. It is supposed to employ about 4,400 people — mostly short-term construction workers under Bechtel — by 2004.

Washington Group's role in the project is to provide technical expertise from glassification projects at Savannah River, S.C., and West Valley, N.Y. Washington Group absorbed those projects in 1999 when it bought them from Westinghouse Electric Co.

Washington Group's problems should not affect its role under Bechtel, nor

See **Hanford**, Page A2

16 MAY 01

Hanford budget raises worries

■ *DOE official says proposal could make for missed deadlines*

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

WASHINGTON — A top Department of Energy official admitted Tuesday that the Bush administration's proposed budget for cleaning up Hanford may fall short of what's needed to meet current deadlines and changes in the schedule may have to be negotiated to avoid a lawsuit from Washington state.

"The danger in meeting the commitment we have is real," Carolyn Huntoon, the department's assistant secretary for environmental management, told the Senate energy and water development appropriations subcommittee. "We do have challenges. We will work with the regulators."

Under questioning from U.S. Sen. Patty Murray, D-Wash., Huntoon said she hoped the \$500 million included in the administration's budget would be enough to get started on a plant to solidify the highly radioactive waste stored in leaking underground tanks at Hanford.

But Huntoon said the department may also have to renegotiate the contract for constructing the so-called vitrification plant.

"The funding level could mean we have to renegotiate," Huntoon said. "But we haven't heard from the contractor yet."

Murray said the current contract for the vitrification plant was based on a funding level of \$690 million in the coming fiscal year, not \$500 million, and that almost \$880 million will be needed for the plant in the following fiscal year.

"I fear (this budget) jeopardizes the progress we have made at Hanford," Murray said.

Budget

Details revealed at HAB meeting. **B1.**

16 MAY 01

Hanford advisers say feds clueless

■ *Board members say DOE doesn't understand budget needs for 2002-03*

By John Stang
Herald staff writer

Energy Secretary Spencer Abraham and his budget advisers appear clueless about the complexities and legal obligations of Hanford cleanup, several Hanford Advisory Board members grumbled Tuesday.

Their main evidence: The Department of Energy's proposed 2002 and 2003 budgets, which fall several hundred million dollars short of legal obligations for the two years.

Their frustration erupted when DOE officials briefed two HAB committees on preliminary budget figures for fiscal 2003. The 2003 figures are soft and depend on whether Congress adds any money to Hanford's fiscal 2002 budget, which is \$470 million to \$527 million short of meeting obligations for 2002. Except for the K Basins and Plutonium Finishing Plant, the rest of Hanford's major projects are underfunded.

If Congress does not add any money for 2002 and Hanford's budget stays level for 2003, Hanford could find itself \$879 million to \$936 million short of what is needed in 2003, DOE's preliminary figures show.

"It appears the administration has no intention of adhering to (the Tri-Party Agreement)," said HAB member Denny Newland, representing Benton County. The agreement among DOE, Washington state and the federal Environmental Protection Agency governs Hanford cleanup plans and timetables.

Board member Joe Richards, representing the Confederated Tribes of the Umatilla Indian Reservation, said Abraham "is a person I believe is going to dismantle" nuclear cleanup.

Several factors led to board members' frustrations, including:

■ Abraham telling Congress that DOE's current 2002 budget request meets all Tri-Party Agreement obligations for 2002 — despite longstanding DOE figures that contradict that claim.

■ Abraham wanting a "top-to-bottom review" of cleanup programs with the intent of reorganizing them to become more efficient. No timetable has been set for the review.

Board members fear any changes would stop cleanup efforts, which they believe are moving in the right direction. Any major changes could lead to layoffs, down time and force the training of new hires — all inevitably leading to delays.

■ DOE's 2002 budget document citing efforts to accelerate cleanup along Hanford's Columbia River shore through 2012, although the 2002 budget has no money for it. Local DOE officials worked with the public and regulatory agencies to develop the accelerated

See **Hanford**, Page B2

13 May 01

Fluor Hanford

Fluor Hanford would like to say **"THANK YOU"** to these local businesses that were hired to assist in the cleanup efforts of the Hanford Site during the second quarter of fiscal year 2001. It is only through the continued support of local community businesses like these that Fluor Hanford will succeed in its cleanup efforts.

360 Post Inc.
 A & M Supply Inc.
 Abadan Inc.
 Applied Industrial Technology
 Aspireon. Com
 Babcock Services Inc.
 Barrymor LLC DBA Information Matters
 Bigsky Software LLC
 BOSS Computer Solutions Inc.
 Bur-Bee Food Service
 Carrell Technical Services Inc.
 Cascade Title Company
 Chemchek Instruments Inc.
 COGEMA Engineering Corp.
 Columbia Energy & Environmental Svcs.
 Columbia Rigging Corporation
 COMTEC International Inc.
 Credit Card Solutions
 E2 Consulting Engineers Inc.
 Environmental Quality
 Exitech Columbia Corporation
 Express Personnel Services
 Ferrellgas
 Global Technologies Inc.
 H&N Electric Inc.
 Hiline Engineering & Fabrication
 Holmes & Narver Inc.
 Irrigation Specialists

M&M Bolt Co. LLC
 MACTEC Inc.
 Melbran Distributing Inc.
 Norco Welding and Supplies
 Nuvotec Inc.
 Oxarc Inc.
 Oxbo International Corp.
 Paradise Bottled Water
 Paramount Supply Inc.
 Parsons Infrastructure & Technology Group Inc.
 PLCS Plus Inc.
 Prescription Pharmacy
 Raymar Sales
 Richland Industrial Inc.
 RTS Enabling Technology
 SAFR Systems Engineering
 Science Applications
 Shunyata, Inc.
 ST&MS Inc.
 Standard Batteries Inc.
 Standard Paint & Decorating
 Synergy Value Solution
 Taylor Automotive Parts Inc.
 Technical Resources Int'l, Inc.
 TriState Supply Co.
 Verdon LLC
 Vista Engineering Tech.

15 MAY 01

FFTF foes assail DOE decisions

■ *News conference planned at noon today in Richland*

By **Annette Cary**
Herald staff writer

The Department of Energy is violating the Tri-Party Agreement by not filing a cleanup plan for Hanford's Fast Flux Test Facility, says a coalition of groups that opposes restarting the Hanford reactor.

They're also critical of DOE's proposal to have the manager of its Brookhaven, N.Y., office head the review of whether the reactor should be restarted, overturning a January decision by the Clinton administration.

"The only fair review of the decision to shut down the FFTF reactor would be the

secretary himself (Spencer Abraham) attending hearings in our region and hearing firsthand why (we oppose) adding more nuclear wastes to Hanford's problems," said Gerald Pollet, executive director of Heart of America Northwest, a Hanford watchdog group.

The Washington State Department of Ecology says it is not clear whether DOE is out of compliance with the Tri-Party Agreement, but it may be.

The Clinton administration in its final days ordered the Hanford reactor permanently shut down. That triggered a 90-day deadline for DOE to submit a proposal for dismantling the system, including removing and disposing of liquid sodium in its cooling system and treating waste.

However, in April, Abraham suspended

the former administration's decision to permanently close the reactor. DOE notified the Department of Ecology then that it would not be filing a schedule for shutdown of FFTF under the Tri-Party Agreement because the shutdown decision had been suspended.

The agreement is a legal pact among DOE, the Environmental Protection Agency and the state that governs Hanford's cleanup.

DOE has agreed to spend three months looking at possible uses for the reactor and whether DOE can find private or other partnerships to decrease its costs.

Although the Department of Ecology is not sure if DOE is in compliance with the cleanup agreement, it's focusing its energies on bigger worries, such as budget cuts

that could slow getting tank wastes cleaned up and vitrified, said Sheryl Hutchinson, department communication director.

"We're concerned the budget cuts are putting this in jeopardy for the umpteenth time," she said.

Gov. Gary Locke has said he would support a restart if a viable research use for the reactor is identified. The Department of Ecology will follow his lead and wait for the Bush administration's decision on the reactor's fate, Hutchinson said.

Michael Holland, DOE's Brookhaven manager, was named last week to lead the review of the decision to shut down the reactor. Holland is expected to visit FFTF this week and meet with workers there.

See **Decisions**, Page B2

13 MAY 01

Hanford subcontractor has new leader

■ *Lockheed Martin boss committed to developing more business in state*

By **Wendy Culverwell**
Herald staff writer

If the new head of Hanford's computer support company could send only a brief message to the Tri-Cities, it would be this: LMSI is committed to retaining its Hanford contract, to developing more business in Washington state and to being an active member of the Tri-City economy. "We're here above and beyond the site," said Darrell Graddy, vice president and general manager for Lockheed Martin Services Inc. Graddy succeeded Bob Russell, who retired in April.

Graddy, pronounced Grady, is a longtime Lockheed Martin employee who stepped away a year ago to form a solar energy company. Now he's returned to

head-up offices in Richland, Raleigh, N.C., and Washington, D.C.

In Richland, Lockheed Martin supports 10,000 computers and computer users at the Hanford site as well as other government contracts. In Raleigh, the central mission is to support customers at the Environmental Protection Agency.

In all, Graddy oversees about 1,100 employees, nearly 600 of them in Richland.

At the outset, Graddy and his wife will move here from Tucson, Ariz., but he hasn't decided where to make his permanent base. Day-to-day activities in Richland will remain under the direction of Ron Petro, the local program director.

Lockheed Martin's five-year contract to provide technical support and information services to the Hanford site ends this year. Graddy said retaining the contract is his first priority.

But he's also expected to continue work to build the Richland operation's base of non-Hanford related business,



Graddy

which was the reason Lockheed Martin Services Inc. formed in the first place.

In addition to DOE, Lockheed Martin's Richland office has contracts to support computer services at the Veterans Administration, the Department of Defense, U.S. Gypsum, General Motors and a smattering of others.

The company is seeking additional work that, if the right contracts are secured, could total as much as \$1 billion and add 1,000 to the Mid-Columbia work force over the next 10 years, Graddy said.

Graddy said his top priority is to secure the Hanford contract for the future.

Following that, he aims to consolidate the company operations in Raleigh and Richland, building on similarities the

sites share but not detracting from the presence of either.

Why those cities?

"There is a large base of talent on the job, and there's a large base of talent outside the job," he said, adding that each exists in a state with technological savvy and a strong education system.

A native of Peoria, Ill., Graddy earned a degree in business administration from Florida Southern College. He returned to Peoria for 10 years where he worked for Caterpillar Inc. before joining Martin Marietta, a predecessor of Lockheed Martin. There, he worked his way up through the evolving computer operation. His background in manufacturing, coupled with his early entry into the information services business, left him with a strong customer focus, he said. He and his wife have three grown children.

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Feds, Fluor Daniel settle overcharge suit

By John Stang

Herald staff writer

The federal government and Fluor Daniel Inc. settled a lawsuit Monday that alleged the corporation padded overhead bills by \$5.9 million in the mid-1990s.

Fluor will pay the federal government \$8.2 million, which is less than half of the more than \$18 million in potential penalties Fluor faced if it lost.

A small amount of that alleged overcharging involved Richland-based Fluor Daniel Northwest in 1996 and early 1997, said Assistant U.S. Attorney Gary Plessman of the Justice Department's Los Angeles office. Fluor Northwest now is Fluor Federal Services. Fluor Daniel now

is Fluor Enterprises Inc. and is a subsidiary of California-based Fluor Corp.

None of the alleged overcharges was tied to Richland-based Fluor Hanford, Plessman said.

Fluor Corp. contends it is innocent of any wrongdoing.

"This is a difference in opinions between the Justice Department and Fluor on how we interpreted the accounting procedures," said Fluor spokesman Keith Karpe.

Fluor checked its accounting with outside experts who agreed with the corporation's interpretations, he said.

Karpe said Fluor did not want to be tied up for years in expensive litigation

that could cost more than this week's settlement. Also, the federal government had put on hold payments and other actions regarding other Fluor invoices — none related to Hanford — submitted in 1995 and 1996. With the settlement, Fluor could collect on those bills, Karpe said.

Meanwhile, Fluor agreed to pay an additional \$1.8 million plus \$300,000 in attorneys' fees to Patrick Hoefler, Fluor Daniel Inc.'s former director of government finance compliance, who levied the original overcharging allegations against Fluor.

He filed a lawsuit against Fluor in 1997, alleging he was retaliated against for bringing improper accounting prac-

tices to his superiors' attention. In 1999, the federal government took over from Hoefler as the lawsuit's chief plaintiff.

The Justice Department and Hoefler alleged that Fluor Daniel set up a division called the Technology Operating Co. in 1994 to find and evaluate new technologies that Fluor could use. At that time, about 95 percent of Fluor Daniel's work was commercial and about 5 percent was with federal contracts.

As a start-up division, most the Technology Operating Co.'s costs were overhead, which were supposed to be charged to the specific Fluor subsidiaries and subsidiaries' customers that would benefit from any new technology the new com-

pany would acquire.

However, the federal government's lawsuit alleged most of the Technology Operating Co.'s overhead costs were put into invoices that were charged against Fluor's federal government customers, which did not benefit from any Technology Operating Co. work.

The federal government alleged Fluor knew those charges were excessive and violated federal law.

The Technology Operating Co. folded in mid-1997 because it never acquired any significant profitable technologies.

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State fines Washington Group

No. 2 firm on Vit plant fined \$48,500 last year for violations at Superfund site

By John Stang

Herald staff writer

The No. 2 company on Hanford's top-priority waste glassification project was fined \$48,500 last year for numerous safety violations at a federal Superfund site in Seattle.

The state's violation notices outline a pattern of ignoring safety training and rules at Harbor Island on Seattle's industrial waterfront.

Washington Group International is appealing the fines levied by Washington's Department of Labor and Industries — contesting the validity of

the state's charges.

"We're maintaining we did everything right," said Washington Group spokesman Rod Hunt.

Boise-based Washington Group is the chief subcontractor under Bechtel National, which is the company in charge of designing, building and testing plants to convert Hanford's radioactive tank wastes into glass.

Bechtel and Washington Group officials also said Washington Group will provide technical advisers and designers at Hanford, as opposed to the company's role of managing on-the-ground efforts at Harbor Island.

Washington Group bought the old Westinghouse Electric Co.'s nuclear programs branch, which built glassification plants at the Department of Energy's sites at Savannah River, S.C., and West Valley,

N.Y. So Washington Group brings in former Westinghouse experts in designing and operating glassification plants, corporate officials said. And Westinghouse posted good safety records at Savannah River and West Valley, they said.

At Hanford, Bechtel is in charge of actually hiring and managing at least 3,000 construction employees who must work among radioactive waste tanks and chained-off sites that have greater contamination problems than Harbor Island.

Harbor Island is mishmash of old oil and chemical spills plus numerous, uncharted underground petroleum tanks. The presence of oil, lead, arsenic, cadmium and other toxic substances in the soil led to the island becoming a Superfund site in 1983.

The original Washington Construction

Co. merged with a bankrupt Morrison Knudsen Corp. in the mid-1990s, keeping the Morrison Knudsen name. The still financially troubled company became Washington Group International last year after some more corporate acquisitions. Morrison Knudsen won a contract to demolish old buildings and build new ones on the Port of Seattle's Harbor Island.

Then, in 2000, state inspections found at least 30 safety violations at Harbor Island.

Washington Group has appealed the violation notices to a special state board. The company also obtained a legal order that prevents state inspectors from discussing the matter and from releasing the violation notices while the appeal is under

See **Fined**, Page B7

prevent a permanent shutdown. Once sodium is drained from its cooling system, it never can be restarted.

As part of the review, DOE will look at possible uses of the reactor and prepare an analysis of the benefits and difficulties of operating it. DOE also will be considering whether the government can find significant partnerships that would decrease the government's costs to operate the reactor.

The Clinton administration ordered the

Chief picked for FFTF review

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Department of
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, Mike Holland,
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employees there,

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reactor dismantled in one of its final acts, in part, because not enough interest from companies and other governments and government agencies had been found to restart the reactor. But supporters argued little work had been done to assess interest in the reactor or its products.

Since the January order to shut down the reactor, a drug company and researchers have written letters saying the reactor is needed to ensure a reliable supply of isotopes for new medical treatments.

The American Nuclear Society also called for a restart of FFTF saying it is needed for tests required in the development of advanced nuclear energy systems.

DOE still is coming up with the formal process to submit proposals on use of the reactor and to collect comments, Hastings said.

Supporters of the reactor want it restarted for civilian uses, including making isotopes for medicine, producing isotopes to provide electrical power for space missions and for research.

"I continue to believe FFTF is vital to the nation's nuclear infrastructure and has the real potential to save thousands of lives through the production of medical isotopes," Hastings said.

Holland has 25 years of experience in the operation of nuclear reactors, including 10 years at DOE. He took the job as manager of the Brookhaven office this year and is responsible for contract management and

safety oversight for the Brookhaven National Laboratory.

In the early 1990s, he was responsible for program management and safety oversight of reactor programs at the High Flux Beam Reactor and the Brookhaven Medical Research Reactor. His duties from 1997 to 2001 included directing the permanent shutdown and stabilizing those reactors.

This year, an independent report prepared for DOE concluded the government's nuclear technology capabilities are "in a near free-fall" as reactors and other facilities have been shut down and research dollars have diminished.

It called the High Flux Beam Reactor at Brookhaven and the FFTF at Hanford "irreplaceable assets."

FFTF was built in the 1970s as part of a government breeder-reactor research program, but the program was ended in the 1980s under the Carter administration's nuclear nonproliferation policy. It remains one of DOE's largest and most modern reactors.

However, keeping it in standby condition costs about \$40 million a year. Opponents of restarting the reactor consider that wasted money and want Hanford to focus exclusively on cleaning up the nuclear site, which was used to produce plutonium for bombs during World War II and the Cold War.

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Hanford pipefitters appeal termination case

By John Stang

Herald staff writer

Eleven former Hanford pipefitters are appealing a judge's decision to move their case from a jury trial to an arbitrator.

They filed their appeal Tuesday in the state Court of Appeals in Spokane to try to overturn Judge Carolyn Brown's ruling Thursday in Benton County Superior Court.

A trial was scheduled to begin this week on whether Fluor Federal Services wrongfully fired the pipefitters in retaliation for raising safety concerns in 1997.

Fluor Federal Services, which was Fluor Daniel Northwest in 1997, denies the allegations.

If the pipefitters, represented by the Government Accountability Project, lose the appeal, their case will go to an arbitrator selected from a federally sponsored panel.

This is the latest development in a see-saw legal battle between the pipefitters and Fluor Federal in which both sides have won and lost rounds in the federal administrative law arena.

The clash originated in May 1997 at Hanford's 200 Area when a pipefitting

crew balked at participating in a hydraulic pressure test with a pipe valve they feared was unsafe. The crew members also raised concerns about possible overexposure to X-rays from tests on pipe welds. And they questioned a trench's safety classification being based on a phone conversation, instead of an on-site inspection.

The pipefitters and some supporters were later laid off, and they contend it was in retaliation for raising their concerns.

Fluor Federal says the layoffs were part of job fluctuations of construction work at Hanford. Fluor denies any retaliation

was involved, said company spokesman Jerry Holloway.

The pipefitters filed a lawsuit in Benton County Superior Court in August 1999, seeking lost pay and unspecified damages.

The case originally was scheduled to go to trial in September 2000, but a lack of courtroom space postponed it. Meanwhile, Fluor Federal's attorneys have long argued this case should go to arbitration because the collective bargaining agreement between Fluor and the pipefitters' union.

Last week, Brown ruled that a March 21 U.S. Supreme Court decision on an

unrelated California case backed Fluor's contention to send the case to arbitration.

That is what GAP wants to appear, arguing Hanford's union employees should not be banned from taking their legal grievances and complaints to court, said Tom Carpenter, a GAP attorney.

Randi Walli, one of the former pipefitters, said: "Without a trial, we're left swinging in the wind, and workers will be afraid to report safety problems that could turn into nuclear disasters."

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

Education: 31 honored

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science class," Johnson said. "For those who want to go to college, it's a great opportunity. Most colleges won't take students without some upper-level science courses."

Valoria Loveland, the former state senator now with Nuvotec.

Pasco

Kristi Docken, Mark Twain Elementary School

Richard Calcavecchia, McLoughlin Middle School

Brad Johnson, Pasco High School

Clarence Alford, retired Pasco educator

Finley

Lorianne Donovan-Hermann, Finley Elementary School

Kennewick looks at longer garbage contract

By John Stang

Herald staff writer

Kennewick's garbage contractor wants a 10-year extension on its contract in return for lowering some of its pickup rates in the near future.

The city council is interested

The company uses semi-automated trash trucks in Kennewick and wants to buy a fleet of fully automated garbage trucks, said Dave Patterson, Waste Management's division manager.

But the company wants to amortize such a purchase over a long period of time — beyond

the Consumer Price Index. And with a significant increase in this year's Consumer Price Index, Waste Management believes this is a good time to pitch a contract extension in return for the company limiting its 2001 and 2002 trash pickup rate increases — below what they would be

Waste Management proposes all customers get 96-gallon carts for \$11.94 a month for the rest of 2001. The exception would be customers — likely couples or single people — wanting 35-gallon carts for \$9.75 a month with an extra charge levied when a small home puts out an occa-

DOE chief set to sell Hanford budget

By John Stang

Herald staff writer

Energy Secretary Spencer Abraham will try to sell a trimmed-down Hanford 2002 budget to a U.S. Senate committee today.

He is scheduled to discuss the Department of Energy's proposed 2002 budget with the Senate's Committee on Energy and Natural Resources.

That will put him in the same room as committee member Sen. Maria Cantwell, D-Wash., whose staff said she plans to pressure Abraham to increase Hanford's funding to meet the site's obligations in 2002.

The Bush administration has sent a budget request to Congress that proposes cutting DOE's nationwide nuclear cleanup budget from \$6.267 billion in 2001 to \$5.913 billion in 2002.

The administration contends cleanup efforts should become more efficient.

That means Hanford's budget would drop from \$1.456 billion in 2001 to \$1.4 billion in 2002. That reduction would keep the K Basins and Plutonium Finishing Plant projects on their legal timetables, but would stop most major Hanford projects from meeting their legal deadlines for 2002.

A bipartisan effort in Congress has staked out an initial bargaining stance of about \$6.6 billion for nationwide nuclear cleanup as DOE's \$5.9 billion proposal begins its months-long journey through Congress.

"We're short a significant amount of money in the president's budget (for nuclear cleanup). ... I'm still working on that," Sen. Pete Domenici, R-N.M., said Thursday. Domenici is chairman of the Senate's Budget Committee and chairman of the energy and water appropriations subcommittee that has a big say on DOE's cleanup budgets.

Abraham's testimony today is expected to repeat his remarks made last week to a U.S.

House subcommittee, according to his prepared statement, which was provided to the Herald.

His prepared statement says increasing Hanford's radioactive waste glassification project's budget by \$124 million to \$500 million in 2002 will meet the legal deadline to glassify its first wastes in 2007.

But that statement contradicts a longstanding and still-current DOE estimate that \$690 million will be needed in 2002 to make the 2007 deadline mandated by the Tri-Party Agreement, which is the legal pact governing Hanford's cleanup. Abraham also said DOE will conduct a full review of its cleanup programs to try to improve them.

No timetable has been announced yet for that effort.

And he said DOE wants to meet with governors of states with DOE sites to discuss

See **Budget**, Page B2

Last uranium cylinders sent from Hanford

Hanford sent its final shipment of Ohio-bound leftover uranium to the Department of Energy's Portsmouth site on Friday.

Last week's 12.8 tons of uranium billets finishes a mission of shipping 258.5 tons of uranium from Hanford's 300 Area to Portsmouth for permanent storage, according to DOE. Billets are heavy 20-inch-long cylinders that hold uranium.

About half of Hanford's leftover Cold War uranium — used to create plutonium in the site's defunct reactors — is now disposed of.

Some other forms of Hanford's uranium are now permanently stored in the site's 200 Area.

About 1,056 tons of uranium are left in the 300 Area. Of that amount, DOE plans to bury about 149 tons of nonirradiated uranium fuel in central Hanford by June.

DOE expects to decide in September 2002 how to dispose of the remaining 907 tons.

Hanford designated a resource site for ill workers

By the Herald staff

The Department of Labor will open eight resource centers where energy workers can learn more about benefits they may be entitled to under a federal program to help workers who have been exposed to radiation and other toxic chemicals. One will be at Hanford.

The Energy Employees Occupational Illness Compensation Program Act provides compensation and medical benefits to workers who suffered from certain illnesses after being exposed to radiation, beryllium or silica. In all, the government estimates about 3,000 workers at Hanford and other nuclear sites who contracted cancers linked to exposure to radiation or toxic chemicals will qualify for the program. At Hanford, workers could have been exposed to beryllium, plutonium, iodine, solvents and asbestos.

About 550 people attended a hearing in Richland to plead for the government to provide more help to the people who worked at nuclear sites during World War II and the Cold War and later worked to clean up contamination left by weapons production.

The program represents a major reversal for the government, which in the past fought sickened workers when they sought compensation. Under the new legislation, the burden of proof is on the government to prove the worker was not harmed by workplace exposure.

Under the program, workers with radiation-related cancers will be eligible for full medical coverage, reimbursement for 80 percent of lost wages and job retraining. They could alternately request \$100,000, if the benefits package would come to less.

To reach energy workers, the Labor Department will set up the string of resource centers, a toll-free call center and a site on the Internet where workers can download claim forms. For more information, call 877-447-9756.

In addition to Hanford, resource centers will be established at Oak Ridge, Tenn.; Savannah River, S.C.; Los Alamos, N.M.; the Nevada Test Site, Portsmouth, Ohio; Rocky Flats, Colo.; the Idaho National Engineering Laboratory and Paducah, Ky.

Engineering mind

80-year-old Hanford employee can't put his slide rule down

By John Stang
Herald staff writer

Hanford engineer Dick Brown's 21st century office looks like it belongs in the 1940s.

Walls, shelves and desktops are totally plastered with schematic drawings.

A small computer terminal and a small video player are semi-hidden in the paper clutter — the only items in the office that would have looked out of place in Hanford's World War II days.

You'd have to look twice, maybe three times, around the room before you'd spot them. Neither looks like it is used much. They aren't.

Brown works faster without a computer. But he concedes he uses a pocket calculator regularly.

Another schematic drawing is unrolled on an old drafting table. There's no chair because the 80-year-old Brown likes to stand when he thinks, calculates and draws.

If Brown isn't Hanford's oldest full-time employee, he's close to it.

Brown works full time and beyond at Hanford's massive 324 Building — a collection of highly contaminated labs and huge hot cells that have to be cleaned out. A hot cell is a chamber where workers stand on the outside and use remote-control arms to handle radioactive materials inside the cell.

Brown's handiwork can be found in



Building 324's ground floor — a small museum of prototypes stored in huge test chambers and the real things in the hot cells.

These are indescribable metal objects and gizmos. All custom-made. All designed to help robotic arms remove highly radioactive equipment, junk and dust from the almost inaccessible nooks and crannies of Building 324's contaminated hot cells.

Brown does this work because retirement is boring. He has no interest in golf or bowling, and his thin but solid body just can't play basketball anymore.

"I just enjoy doing the job and working with different people," Brown said.

He has retired three times. The last time for five years. That ended in 1989.

Brown then joined a Westinghouse Hanford Co. retirees work program, limited to 1,000 hours a year. That translates to working approximately 20-hour weeks.

After a couple of years, he joined Bat-

telle, ratcheting up to full-time work before Hanford's constant corporate musical chairs sent him to B&W Hanford, then to Fluor Hanford.

Now, he works on the 324 Building's B Cell — a three-story-tall chamber that was filled with vast amounts of highly radioactive junk and dirt. A dozen years ago, the cell — located 1 1/4 miles from Richland — was so radioactive a person in street clothes could walk into it and receive a fatal dose in less than two seconds.

Now, most of the debris has been removed, and B Cell's radioactivity is a fraction of what it used to be.

Right now, Brown is designing equipment to remove pipes beneath the floor of the airlock to B Cell.

He just likes designing, building and testing machines for industrial tasks — the mental challenge of it.

Brown loves huddling with millwrights, welders, machinists, electricians and engineers to solve problems. To tweak a gizmo that's not quite perfect. To create a piece of equipment that functions where a human cannot.

Brown grew up in Swayzee, a small Indiana farm town. Fascinations with airplanes and mechanical engineering sent the 18-year-old Brown on a Greyhound bus to Glendale, Calif., in 1939 when he enrolled in the Aero Industrial Technical Institute. It was a technical college run by the aircraft industry, which Brown liked because it was heavy on engineering and extremely light on humanities. There, Brown earned a technical bachelor's degree in aeronautical engineering.

See **Engineering**, Page A2



Steve Reidel, left front, a geologist for Pacific Northwest National Laboratory, discusses Rattlesnake Mountain with Phil Gutleben, right front, of Pasco High School and a group

of other Mid-Columbia high school teachers. The teachers were on a field trip with PNNL scientists and members of the Fish and Wildlife Service.

Herald photos/Paul T. Erickson

Natural learners

PNNL offers teachers close look at Arid Lands Ecology Reserve

By Terry Hudson
Herald staff writer

When a dozen Mid-Columbia science teachers toured parts of the Arid Lands Ecology Reserve last week, it was just the latest educational opportunity offered by Pacific Northwest National Laboratory.

The Mid-Columbia teachers accompanied scientists on the normally off-limits reserve to observe the effects of last year's wildfire that burned nearly all of ALE's 120 square miles.

A botanist, wildlife biologist, geologist and others gave talks along the way about the native and non-native plants that have grown back, the effects of the loss of sagebrush on the wildlife and natural formations of the land.

Mindy Strong, a spokeswoman with

PNNL, said the field trip grew out of a sense of appreciation for teachers. "We realized they're sending their kids to our programs, and we wanted to say thank you for their support," Strong said. "We wanted to do something meaningful for them and something they can take back to their classrooms."

Some outlying areas of the ALE reserve were stripped bare by the fire, and sand dunes are forming. Climbing in elevation, the teachers saw a variety of plants, including native grasses, the non-native cheatgrass and the purple flowering phlox.



A cluster of long leaf phlox thrives on Rattlesnake Mountain after last year's wildfire.

But the sagebrush that was scorched will take longer to recover, since it drops seeds in such a small area. Sage

See **Natural**, Page A2

HAMMER takes blow in DOE's '02 budget

■ *Hanford training center would lose \$4.9 million in budget*

By John Stang
Herald staff writer

The Department of Energy's proposed 2002 budget would trim Hanford's HAMMER training facility's budget to \$1 million from about \$5.9 million. U.S. Sen. Patty Murray's staff and Sam Volpentest, executive vice president of the Tri-City Industrial Development Council, confirmed the proposed cut Monday.

“When you talk of \$1 million (for a 2002 budget), you'll have to lay most of them off and have no training center, and you might as well put a padlock on it.”

Sam Volpentest, TRIDEC

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The center employs about 40 people. “When you talk of \$1 million (for a 2002 budget), you'll have to lay most of them off and have no training center, and you might as well put a padlock on it,” Volpentest said.

Volpentest was a key figure in creating the \$29 million Hazardous Materials Management and Emergency Response center, or HAMMER, in the 1990s. The 120-acre complex on Hanford's southern border opened in 1997. The nearly \$5 million cut is part of DOE's overall proposal to cut its nationwide environmental cleanup funds to \$5.913 billion in 2002 from \$6.267 billion in 2001. That would reduce Hanford's cleanup budget to \$1.4 billion in 2002 from \$1.456 billion in 2001.

However, Congress proposed raising DOE's nationwide cleanup budget in 2002 to roughly \$6.65 billion. That would add \$5 million to HAMMER's 2002 budget, said Volpentest and

See HAMMER, Page A2

Kennewick to give \$13,865 to study on vit plant impact

■ *Study to help identify how Hanford project will affect demand on public services*

By John Trumbo
Herald staff writer

The city of Kennewick will contribute \$13,865 to a study on how the influx of thousands of workers on the Hanford glassification project will affect use and demand on public services.

The \$65,388 study is being done to help identify the negatives associated with having upward of 3,500 employees moving into the Tri-Cities during the next four to five years while the glassification, sometimes called vitrification, plant is built. Results of the study will be used to try to obtain Department of Energy funds to offset negative effects on schools, police and courts and transportation in the region.

Richland, which stands to receive the most negative impact, will pay \$37,300. Pasco and West Richland will each put in \$4,447, Benton County's share is \$3,400 and the Port of Benton will contribute \$1,700.

In other action, the council:

■ Held a public hearing on a prezone request by Hansen Orchards of Yakima for about 44 acres off Clodfelter Road and West 10th

Avenue. Rick White, economic and community development director for the city, said the owner wants to convert the orchard property from agricultural use to low-density residential housing. State law requires two public hearings, so the council will not vote on the prezone until the first of June.

■ Declared May 25 as Peace Officers Memorial Day and the week of May 13-19 as Police Week.

■ Granted \$800 to the Downtown Kennewick and Columbia Drive Association to support the Classy Chassy Show and Shine Car Show to be held May 12 in downtown Kennewick. The association's budget for the event is \$8,450. About 200 out-of-town participants are expected to attend.

■ Authorized Fire Chief Bob Kirk to apply for a \$97,580 grant from the United States Fire Administration to help replace the department's scuba gear. The city must match the grant with \$41,820.

■ Adjusted the 2001-02 biennial budget upward by \$8.4 million with actual, rather than estimated, beginning balances. The largest increase was \$4.8 million in the capital improvement fund, and the largest decrease was \$3.8 million in the water and sewer fund. The two-year budget is now \$182.4 million.

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

Project faces more delays

■ *Budget likely won't cover starting vit plant in 2002*

By John Stang
Herald staff writer

Hanford's stalled waste glassification project appears likely to be delayed even longer by the Department of Energy's budget for fiscal 2002. How long of a new delay is uncertain.

The current targets of beginning construction in 2002 and converting the first radioactive waste into glass by 2007 appear likely to slip under the budget the Bush administration is sending to Congress.

Much of the budget request also does not meet requirements of the Tri-Party Agreement, which governs Hanford cleanup.

“We have very close to a bogus budget scenario,” said Mike Wilson, nuclear program manager for Washington's Department of Ecology.

DOE already is making overtures to renegotiate the Tri-Party Agreement and similar DOE pacts in other states. A big question is whether the budget request will trigger a state lawsuit because it underfunds many DOE legal obligations, especially the glassification project.

Richland DOE officials briefed Washington's Department of Ecology and the U.S. Environmental Protection Agency on Thursday on Hanford's nearly \$1.4 billion budget request. Depending on the budget scenario used, that amount is either \$469 million or \$527 million short of Tri-Party Agreement milestones.

The budget request almost fully funds removing spent nuclear fuel from the K Basins next to the Columbia River and converting Hanford's plutonium into safer forms. These are Hanford's No. 2 and No. 3 priorities.

The rest of Hanford's projects face cuts. Bechtel Hanford's river shore projects and the 300 Area's cleanup have been slashed.

Also, it's unclear how the budget plan would affect

See Project, Page A2

Hanford corrals tumblin' tumbleweeds

■ *Catching, disposing of contaminated Russian thistle costly*

By The Associated Press

The Cold War may be over, but Hanford nuclear reservation continues to battle Russian invaders — tumbling, radioactive tumbleweeds.

Russian thistle is a dead menace here on the windswept desert of southcentral Washington.

Each winter, the deep tap root on the plant decays, and the spiny brown skeleton above ground breaks off and rolls away.

“Our dream is that we have this place tumbleweed-free,” says Ray Johnson, a biological control manager for radiation protection at Fluor Hanford, the contractor managing the Department of Energy site.

But that's about as likely as a Soviet reunion.

While less than 1 percent of the tumbleweeds corralled and compacted at Hanford are radioactive, the ones that are cost a bundle to clean up.

Hanford is the most contaminated nuclear site in the country, built in 1943 for the top-secret Manhattan Project. For 40 years, Hanford would make plutonium for the nation's nuclear arsenal,

including the atomic bomb that was dropped on Nagasaki, Japan.

Russian thistle, a non-native or invader species, is a particular problem at underground burial sites for radioactive waste, where their tap root reach down as far as 20 feet and suck up such nasty elements as strontium and cesium.

A stiff winter wind can send the tumbleweed as far away as four miles, and then “we've lost control of our contamination,” Johnson says.

But most get hung up within a few hundred yards, usually on sagebrush, fences or in stairwells at the buildings scattered across the site.

Two years ago, uncontrolled contamination spread by fruit flies at the site made Hanford a national laughingstock, spoofed by humor columnist Dave Barry and in the syndicated comic strip *Sylvia*.

The flies had been attracted to a soil fixative with saccharin in the base that was being sprayed on a contaminated site. They flew to a lunch room and spread the taint to nearby Dumpsters, which wound up at the Richland municipal landfill.

Johnson can laugh — a little bit — about it now, recalling attempts to find the source of the contamination. As crews ran radiation detectors around the lunch room, and passed over a fruit fly,

“the contamination flew away,” he recalls. The journeys of a few thousand fruit flies cost \$2.5 million to clean up.

Riding herd on Hanford's tumbleweeds, and its flying insects, is part of an annual \$4 million integrated soil, vegetation and animal control (ISVAC) program, run by DynCorp. for Fluor.

Radiation control specialists survey the tumbleweeds on the 560-square-mile reservation, using Geiger-Mueller counters that click when radioactivity is present. If contaminated tumbleweeds are found, an ISVAC crew is called in for disposal duty.

“The weeds are fairly low danger,” says Todd Ponczoch, a radiation control technician, scanning tumbleweeds along a fence-line with a Geiger counter. None was registering as radioactive on a recent trip.

A large, three-pound radioactive tumbleweed might measure out at 150 millirads, or about 1/100th of the allowable annual dose of radiation per person at Hanford. Radioactive tumbleweeds are pitchforked by specially trained and clothed workers into a regulated garbage truck, compacted and disposed of at an on-site low-level waste dump. A trail of paperwork is required as well.

The sites must be satisfactorily cleaned up and covered with 6 inches of good fill material.

Nonradioactive tumbleweeds are territory for the Teamsters.

“It's an easy job. It gets us outside,” says Joe Aldridge, a Teamster from Richland, as he pitchforks a plant into the garbage truck, which can hold about 1,800 pounds of tumbleweeds. “Digging ditches is a lot worse.”

The uncontaminated tumbleweeds are dumped in an open pit. Up until five or six years ago, the “clean” tumbleweeds were burned and the ash buried. But the state Department of Health put a halt to that practice for fear that some radioactive tumbleweeds might find their way into the mix and disperse contamination into the air.

Preventive measures are also part of the control program, and include backpack, roadside and aerial spraying with herbicide to kill the thistle. Sometimes, a bio-barrier — a costly engineered textile — is laid down to block the formation of thistle roots.

“What you've got to do is make sure your contaminated areas are tumbleweed-free,” Johnson says.

Clearly, this isn't Kansas, where at least two enterprising souls are raising Russian thistles, turning them into tumbleweeds and selling them for home decor. But in the vast, open and uncontaminated portions of the reservation, some areas are simply left to nature.

PNNL official to speak May 15 in Richland

Lura Powell, the director of Pacific Northwest National Laboratory, will discuss the future of the lab at 7:15 p.m. May 15 at the Shilo Inn in Richland.

The public is invited to hear the talk, which will be given at a meeting of the Tri-City-area section of the American Nuclear Society. The lecture is free, but those who would like to attend dinner at 6:30 p.m. will be charged \$15. For reservations, call 735-3581.

Hanford safety expo begins today at TRAC

Auto accident demonstrations and forklift rodeos will be featured at the annual Hanford Health and Safety Exposition today through Thursday at Pasco's Trade, Recreation and Agricultural Center.

The exposition will showcase at least 100 booths on health and safety exhibits — many related to Hanford. Roughly 18,000 people attended last year's exposition, according to Fluor Hanford, one of its sponsors.

The exposition runs from noon to 8 p.m. today and from 7 a.m. to 6 p.m. Wednesday and Thursday.

Demonstrations will be given on what happens when a "drunken driver's" car collides with forklifts, utility poles and other cars at 3 p.m. and 7:15 p.m. today, and at 10 a.m., 1 p.m. and 4 p.m. Wednesday and Thursday.

Forklift rodeos will be held at noon, 4 p.m. and 7:15 p.m. today, and at 7 a.m., 11 a.m. and 2 p.m. Wednesday and Thursday, plus at 5 p.m. Wednesday.

Bush will look at cleanup budget

Administration won't make guarantees about possible increases for Hanford

By John Stang
Herald staff writer

The Bush administration said Monday that it will look at possibly increasing Hanford's environmental cleanup budget for fiscal 2002.

But the administration stopped short of making any actual promises or saying what specific budget figures it might consider.

U.S. Rep. Doc Hastings, R-Wash., met with Mitch Daniels, director of the federal Office of Management and Budget, on Monday to discuss shortfalls in the Department of Energy's 2002 cleanup budget request to Congress. The OMB prepares the president's annual budget requests to Congress.

Hastings and OMB spokesman Chris Ullman said Daniels "acknowledged" Hanford's budget needs and said OMB

will work with Congress on reaching a mutually acceptable nationwide nuclear cleanup budget.

"I think (Daniels) clearly came out of the meeting with a better understanding of the (legal, technical and contractual) complexities of Hanford," Hastings said. Ullman added, "We'll continue to work with Congress."

No solid dollar figures nor specific detailed promises emerged from that meeting, Hastings and Ullman acknowledged.

The basic dilemma is this:

OMB, which sets DOE's budget targets, told DOE to trim its overall budget from \$19.7 billion in 2000 to \$19.2 billion in 2001. That translates to DOE's nationwide cleanup budget dropping from \$6.267 billion to \$5.913 billion. And that would trim Hanford's cleanup budget from \$1.456 billion in 2000 to \$1.4 billion in 2002.

Hanford's budget alone is \$400 million to \$500 million short of meeting the site's legal obligations in 2002, and other DOE sites face similar shortfalls.

The state of Washington has threatened to file a lawsuit against DOE unless the federal government soon makes sure those legal obligations — which DOE agreed to in the contractlike Tri-Party Agreement — are met.

Meanwhile, the U.S. House and Senate have adopted \$6.65 billion as their starting point for the next few months of budget talks with the administration over the nationwide nuclear cleanup program. That's a \$737 million difference between Congress' and the administration's current positions.

Daniels' statement to Hastings on Monday closely resembles what he told U.S. Sen. Patty Murray, D-Wash., on Feb. 13.

Murray met then with Daniels about her concerns over a Wall Street Journal article that stated DOE's \$6.267 billion nationwide cleanup budget was expected to be cut by about \$400 million. She said afterward that Daniels told her Hanford's budget would not be cut, and would actually be increased.

But when DOE revealed April 9 that

its nationwide cleanup budget would be cut by \$354 million and Hanford's budget would be cut by \$56 million, Murray became angry with the OMB.

Ullman and Hastings said they don't know what actually was said between Murray and Daniels on Feb. 13. Hastings speculated Daniels and Murray may have misunderstood each other.

But Murray's press aide, Todd Webster, said Murray specifically asked Daniels about the likelihood of a \$400 million nationwide cleanup budget cut, and Daniels had told her the \$400 million cut would not happen — all in clear language.

However, Webster said the public and Congress should work with the possibility that the administration might increase the nationwide cleanup budget. "The bottom line is as long as the (extra) money gets there, that's what we're working for," he said.

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

Group wants funding for Hanford cleanup

By The Associated Press

WASHINGTON — A Northwest advocacy group is meeting with congressional officials this week to press them to fully fund Hanford Nuclear Reservation cleanup work.

Heart of America Northwest also wants to shut down for good Hanford's Fast Flux Test Facility.

President Bush's budget for 2002 cuts funding for Hanford by almost \$60 million, from \$1.46 billion in 2002, when increases are needed to meet environmental cleanup milestones. Gerald Pollet, executive director of Heart of America Northwest, calculates the cut could be as high as \$180 million.

"The impacts of the Bush budget priorities are unconscionable," Pollet said at a

news conference Monday.

He was also critical of Energy Secretary Spencer Abraham's decision last week to delay for three months the shutdown of FFTF, a research reactor. The delay will be used to review private sector interest in restarting the 20-year-old reactor.

Rep. Doc Hastings, R-Wash., wasn't pleased with the Bush administration's funding proposals for Hanford, either, but has applauded the decision to revisit the Clinton administration's decision to close the FFTF. His spokesman, Todd Young, said finding a mission for the reactor means the federal government won't have to pay to shut it down.

"Shutting down FFTF adds to the cleanup challenge at Hanford," he said.

Officials look to weigh effects of new Hanford jobs

Study may jar loose federal funds to pay for added demands

By John Trumbo
Herald staff writer

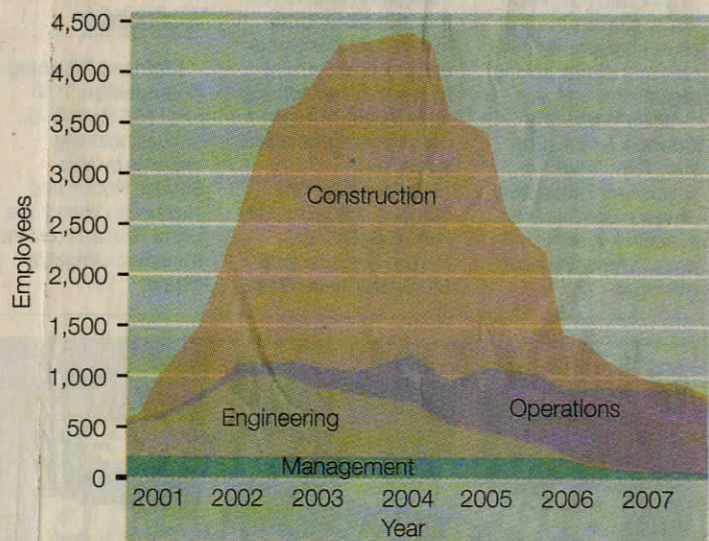
Building a nuclear-age kitchen capable of converting nuclear waste slurry into glass logs will bring as many as 3,500 employees to the Tri-Cities, which is good for the local economy.

But there's a likely downside. The influx of thousands of temporary construction workers during the next five years will strain roads, schools and other public facilities and services. How much? That's what city and county officials want to find out.

Hanford Communities, a coalition of Mid-Columbia governments, is asking members to contribute to a \$65,000 study that would identify how an influx of construction and trades workers could affect the region when construction peaks in 2003 and 2004.

Benton County Commis-

Staffing for glassification plant



SOURCE: Dept. of Energy

Herald/Sherry Emery

sioners agreed to spend about \$3,400, and the Richland City Council is expected to toss in about \$39,000 when it meets Tuesday. The Kennewick City Council may commit \$12,500 to the cause at its Tuesday meeting, and the West Richland Council will consider adding \$3,400 at its May 7 meeting.

Other public entities that may share in the cost of the study are the city of Pasco and the Port of Benton.

Jill Monley, deputy city manager in Richland, said the study will help build a case that municipalities are affected when temporary workers associated with federal projects come to town.

"We have to undertake (the study) because of these unknowns," Monley said.

Pertec Engineering of Everett will analyze how a temporary work force will place demands on schools, police, fire, emergency services, hospitals, criminal justice, water, sewer and land.

Following completion of the two-month study, the partners will use the report to ask the Department of Energy for money to offset the impacts.

"We want to be sure there is no degradation of existing services," Monley said.

Two of the largest concerns are transportation and criminal justice.

Monley said Richland's roads will have to carry virtually all the additional workers, goods, parts and pieces. Additionally, a temporary work force of several thousand people will create more cases for police and courts, she predicted.

"Historically, this has resulted in more police activity," Monley said, suggesting that temporary workers whose families don't live in the community are prone

to getting into trouble.

Abe Greenberg, Kennewick's representative to the Hanford Advisory Board, said now is the time to prepare for the influx of workers.

Even if half of the workers assigned to the Umatilla Chemical Depot commute to the vitrification plant project at Hanford, that still leaves about 1,800 workers who will have to relocate. Perhaps 1,000 of those will be away from their families long-term, he said.

Kennewick City Manager Robert Kelly told his council two weeks ago the \$12,500 would be money well spent. "This is a federal project on federal property that doesn't pay a dime in taxes. DOE thinks we should be fat, dumb and happy, but what is needed is impact assistance," Kelly said.

Results of the \$65,000 study could provide leverage for the federal Office of River Protection to pry assistance dollars out of Washington, D.C., Kelly said.

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Hanford studies 2 possible holes in waste tank

By John Stang
Herald staff writer

Hanford scientists are studying two possible pinholes in the inner steel wall of a double-shell tank that contains highly radioactive wastes.

If the holes are confirmed, it would be the first time the half-inch-thick steel of one of the site's double-shell tanks has failed.

"This could be the first wall failure in a double-shell tank, and those tanks aren't getting any younger," said Mike Wilson, nuclear program manager for Washington's Department of

Ecology. "This makes the point that we can't rely on the double-shell tanks forever, and we have got to get the (waste glassification) plants operating."

In recent years, Hanford insiders and observers have voiced concerns about the lifespans of the double-shell tanks. The tanks were built between 1968 and 1986 with theoretical lifespans of 50 years.

The tank with the possible pinholes is Tank AY-101 in central Hanford's 200 East Area. The suspicious spots are about 28 1/2

See Holes, Page A2

DOE suspends FFTF shutdown

Secretary gives reactor 90-day reprieve, plans to visit

By Annette Cary
Herald staff writer

Energy Secretary Spencer Abraham announced Wednesday that he will give the dormant Fast Flux Test Facility at Hanford a 90-day reprieve.

He also said he hopes to visit the moth-balled nuclear test reactor in the next three months.

The Clinton administration in January

ordered FFTF to be permanently shut down. But Abraham said Wednesday that he will suspend the decision while DOE considers partnerships that might cover costs of operating the reactor and analyzes benefits and difficulties in operating the reactor.

"The status of the FFTF has been an issue for almost a decade, and the years of debate have produced a wealth of information in support of both reactiva-

tion and the deactivation," Abraham wrote in a letter to Rep. Doc Hastings, R-Wash.

"I understand, however, that the perception exists that, to date, the decisions made with respect to the facility have not been open and fully considered public input."

Supporters of restarting the reactor to produce various isotopes — including Hastings — have questioned how the Clinton administration had concluded there was insufficient support from com-

panies and government agencies to restart the reactor, since it did not request proposals.

Earlier this month, Hastings asked Abraham to suspend the decision to allow a review of new information on the reactor's potential uses. Abraham said he was initiating the review of the decision in response to the congressman's request.

"The bottom line is we have always said isotopes are commercially viable, but we have not known to what extent," Hastings said. "The only way to measure

that is to have an open solicitation process."

Citizens for Medical Isotopes and a coalition of government and community agencies led by Benton County also had requested the secretary reconsider the Clinton administration's decision.

"As I understand it," Abraham wrote, "a variety of experts believe the FFTF may yet have the ability to play an important role in nuclear energy research and development, the production of medical

See FFTF, Page A2

Hanford ordered to halt FFTF shutdown

By Annette Cary
Herald staff writer

Hanford officials were told Thursday to stop work on shutdown of the Fast Flux Test Facility in a letter from a Department of Energy director in Washington, D.C.

They in turn notified the state Department of Ecology that the federal agency would not be filing a schedule for shutdown of the nuclear reactor. Notification had been due Thursday.

Under an agreement with the state and the U.S. Environmental Protection Agency, the closure schedule was to be added to Hanford's cleanup timeline three months after January's decision to shut down the reactor.

Attorneys for the state haven't had a chance to study the legal basis for the postponement, said Sheryl Hutchinson, spokeswoman for the Department of Ecology.

Jerry Pollet, director of Heart of America Northwest, a Hanford watchdog group, complained it "is another example of the (energy) secretary and the Department of Energy acting as if they are exempt from their cleanup agreement."

In the final days of the Clinton administration, former Energy Secretary Bill Richardson ordered the Hanford reactor shut down.

But Thursday, Bill Magwood, director of DOE's Office of Nuclear Energy, Science and Technology, notified Richland DOE managers Abraham had suspended Richardson's decision for 90 days.

That time will be used to collect facts and figures on the reactor to be summarized and sent to Abraham, said Joe Davis, a DOE spokesman in Washington, D.C.

DOE will be looking at possible uses of the reactor and preparing an analysis of the benefits and difficulties of operating it, he said.

The report also will take into consideration whether DOE can find significant partnerships that "would decrease the government's costs," Davis said.

A DOE official will be assigned to collect the information, including determining any private interest in the reactor.

Since the January order to shut down the reactor, a drug company and researchers have written letters saying the reactor is needed to ensure a reliable supply of isotopes for new medical treatments.

In addition, a report by an independent advisory committee to DOE in January concluded the nation's nuclear resources are inadequate and called FFTF an irreplaceable asset.

Supporters of FFTF want it restarted to make isotopes for treating cancer and other diseases in new ways and for nuclear energy research and

Fluor names new chief

Keith Thomson to replace Ron Hanson as Hanford president

By John Stang
Herald staff writer

Fluor Hanford President Ron Hanson is headed to a new post in Washington, D.C., with E. Keith Thomson, a senior vice president with Fluor Corp., replacing him, Fluor confirmed Thursday.

"This is a tough, tough job — running (Hanford) as a (chief executive officer). It's as tough a job as there is," said Ron Peterson, Fluor Corp.'s



Thomson

group executive for plant properties and equipment services. Fluor Hanford's president reports to Peterson.

"I'm excited about (the new assignment)," Thomson said. "I've seen a lot of major projects, and this is one of the most complex."

Fluor Hanford is the site's lead contractor. Fluor and its subcontractors employ about 4,200 people, making them Hanford's largest corporate team.

Thomson, 63, has worked in engineering and environmental project management for 35 years — including 22 years with Bechtel and 10 years with Fluor Corp. In his last post, Thomson was based in London and oversaw development of an extensive, worldwide corporate relationship between Fluor Corp. and BP, formerly known as British Petroleum.

A British native, Thomson spent eight years in the Royal Air Force, which included a hitch flying B-52 bombers in the Middle East. He moved to the United States in 1964, where he joined Bechtel National as a mechanical engineer. He later earned business-related degrees at Stanford University, Golden Gate University and the University of California.

After serving as a chief executive officer with URS International Inc. and Sterling Venture

See Fluor, Page A2

18 APR. 01

PNNL, UW team up

■ *Nanoscience, nanotechnology institute will allow joint effort for research, study*

By Annette Cary

Herald staff writer

Pacific Northwest National Laboratory is thinking big about the very small. Tuesday, the lab in Richland and the University of Washington announced they have formed the Joint Institute for Nanoscience and Nanotechnology.

"Nanotechnology will not only be to the 21st century what microelectronics was to the past century, but it will impact all aspects of our lives, from materials to health to communication," said Viola Vogel, director of the UW's Center for Nanotechnology. "Everything we now know of will be lighter, faster and work with less power."

In nanotechnology, scientists work atom by atom on a scale that's a thousand times smaller than microtechnology. Measurements are made in billionths of a meter — the width of about four atoms or 1,000 times smaller than the thickness of a human hair.

"We both bring unique capabilities to the relationship," said Bill Rogers, associate laboratory director of PNNL's fundamental science division and director of its nanoscience and nanotechnology initiative. "Together, we can leverage our research capabilities to assemble a stronger scientific team than either of us would have individually."

UW has a broad range of nanoscience programs in its engineering school and college of arts and sciences, but it's particularly strong in biological nanoscience.

The Richland lab will benefit from the tie to a nationally renowned medical school, Rogers said.

The joint institute also will give the Richland lab access to graduate students, who may do course work in Seattle and then work on their thesis experiments in Richland. PNNL scientists plan to offer classes to graduate students in Richland as UW affiliate professors and also televise them to students in Seattle.

Last summer the UW became the first university in the nation to launch a doctoral degree program in nanotechnology.

The Richland lab will offer the UW some of the most sophisticated scientific equipment in the world for nanoscience research. Later this year it expects to install the world's most powerful nuclear magnetic resonance spectrometer, a 900-megahertz system two and a half stories tall, that can provide molecular-level information about biological materials.

The Richland lab also brings strengths in chemical and materials research to the partnership.

Both institutions will contribute \$500,000 in the first year for administering the joint institute and setting up new programs.

The promise in nanoscience lies in the altered electrical, magnetic, chemical and other properties materials exhibit on the nanoscale — changes that don't show up on the microscale.

For instance, pure gold shows differing optical properties on the nanoscale. At 4 nanometers — a measure of a billionth of a meter — gold has light pink colors but at 30 nanometers appears a deep red.

It's a property 18th century Chinese artists knew enough about to differ the colors used to decorate vases.

Scientists now believe that better understanding of properties of materials on the nanoscale can lead to innovations

See **Team**, Page B2

Hanford budget frustrates Hastings

By John Stang

Herald staff writer

To paraphrase Cool Hand Luke: What the federal budget drafters and Congress have is a failure to communicate, said U.S. Rep. Doc Hastings.

"I'm very frustrated with the OMB (on Hanford's cleanup budget)," Hastings, R-Wash., told the Tri-City Herald's editorial board Friday.

Hastings referred to the OMB cutting the Department of Energy's budget from \$19.7 billion in 2001 to a proposed \$19.2 billion in 2002. That trims DOE's nationwide cleanup budget from \$6.267 billion in 2001 to a proposed \$5.913 billion in 2002. And DOE's cleanup efforts absorbed \$354 million of that \$500 million cut. That means Hanford's budget would shrink from \$1.456 billion in 2001 to \$1.4 billion in 2002 — falling \$400 million to \$500 million short of what the site legally needs.

Hastings characterized Energy Secretary Spencer Abraham as fighting hard for increased cleanup funding. "Frankly, Spence Abraham got rolled by OMB," Hastings said.

The OMB handles the president's annual budget requests to Congress. Hastings said OMB undercut Bush's wishes, with those details lost amongst the \$1.9 trillion budget request to Congress. But U.S. Sen. Patty Murray, D-Wash., told the Herald's editorial board Tuesday that Bush is responsible for the OMB's budget figures.

DOE's top two Hanford managers, Keith Klein and Harry Boston, briefed OMB before the budget's unveiling.

Congressional members interested in nuclear cleanup have formed caucuses in the U.S. House and Senate. They got both chambers to pass nonbinding resolutions to declare DOE's 2002 nationwide cleanup budget to be \$6.65 billion — setting a starting point for months of negotiations as Bush's budget request goes through Congress. Murray speculated that Bush, who's fighting for a massive tax cut and has usually opposed pro-environmental measures, may veto a significant increase in DOE's cleanup budget. But Hastings believes Bush would not veto a major increase.

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DOE's Hanford budget comes up short

■ *Cleanup cut \$56 million instead of being boosted by \$400 million it needed*

By John Stang

Herald staff writer

The Department of Energy plans to cut Hanford's cleanup budget by \$56 million — leaving the site at least \$400 million short of meeting its fiscal

2002 legal obligations.

The proposed cut "just blows a hole" in Hanford's legally mandated long-range cleanup efforts, said Sheryl Hutchison, Washington Department of Ecology spokeswoman. That increases the odds the state will sue DOE for dodging its legal obligations.

"It's a devastating blow ... if we can't

Think tank

Group says Hanford cleanup a waste. **B1.**

get these figures reversed," said Sam Volpentest, executive vice president of the Tri-City Industrial Development Council.

Local DOE officials declined to comment on the budget figures released Monday in Washington, D.C., saying they were trying to figure out what President Bush's budget actually means to Hanford.

On Monday, Energy Secretary Spencer Abraham unveiled the broad strokes of DOE's \$19.2 billion budget

request to Congress. Here are what those figures show:

■ The Bush administration wants to shrink DOE's overall budget to \$19.2 billion in 2001 from \$19.7 billion in 2000.

■ DOE wants to shrink its nationwide environmental cleanup budget to \$5.913 billion in 2002 from \$6.267 billion in 2001. That means DOE's cleanup programs must absorb \$354 million of the \$500 million total budget cut.

■ Hanford's total 2001 budget of \$1.456

billion is supposed to be cut to \$1.4 billion in 2002. The site needs \$1.8 billion to \$1.9 billion in 2002 to meet its legal obligations.

■ DOE's Office of River Protection, which manages Hanford's tank farms, received \$757 million in 2001 but needs roughly \$1.1 billion in 2002. Instead, DOE is requesting \$814 million.

The office's tank waste glassification project received \$377 million in 2001,

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Report criticizes cleanup program

■ *Hanford cleanup called 'boondoggle' of pork-barrel spending*

By John Stang

Herald staff writer

The Department of Energy "should abandon the current nuclear cleanup program as economically wasteful and environmentally counterproductive," a conservative think tank report recommends.

The report characterizes cleaning up radioactive waste at dozens of DOE sites as a lost cause, existing mostly to provide jobs to federal bureaucrats and local communities, including the Tri-Cities.

The document argues contaminated DOE sites should be set aside as isolated wildlife and ecological reserves, citing the Hanford Reach National Monument's lands as an example.

"The DOE nuclear-waste-management program is arguably the biggest boondoggle in all of current pork-barrel spending," said the report, dated this month, titled *From Waste To Wilderness*, written by Robert H. Nelson, a professor at the University of Maryland's School of Public Affairs.

Nelson wrote the 20-page report for the Washington, D.C.-based Competitive Enterprise Institute, which also employs him.

Nelson was an on-call environmental affairs adviser, mostly on forestry and federal lands issues, for President Bush's campaign from April 1999 to October 2000. However, Nelson said he was not in Bush's inner circle of environmental advisers.

Nelson's report came from his interests in federal lands issues, and it was not requested by the Bush administration. But he speculated Monday that the administration might be interested in parts of his proposal.

During Monday's unveiling of DOE's nationwide cleanup budget, Energy Secretary Spencer Abraham talked in general about studying how to overhaul DOE's nationwide cleanup programs.

The Competitive Enterprise Institute generally is against federal taxes, spending and regulations.

The institute downplays concerns about global warming and the nation's loss of wetlands, says its Web site. It also supports Bush's decision not to reduce carbon dioxide emissions from power plants. And the institute backs exploration for oil and gas on federal lands, including the Arctic National Wildlife Refuge in Alaska.

Until this month, neither the institute nor Nelson had publicly addressed any nuclear cleanup

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25 APR 01

Hanford guards riled over lack of security...

■ *Union says lack of 24-hour supervision leaves K Basins at risk for sabotage, attacks*

By The Associated Press and the Herald staff

Hanford's guards union is criticizing a decision not to have a 24-hour security detail stationed at the K Basins.

Earlier this month, the Department of Energy approved a Fluor Hanford plan to rearrange parts of Hanford's security setup, including an end to around-the-clock guards at the storage basins for spent reactor fuel.

The guards union says the move puts the public and the Columbia River at risk of a terrorist attack or internal sabotage rupturing the radioactive pools 400 yards from the river.

"If we drain those basins, it's going to make Chernobyl look like a Girl Scout campfire," said Darryl Sybouts, a former busi-

ness agent for Local 21 of the International Guards Union of America.

The K Basins are two indoor pools of water that hold 2,300 tons of spent uranium reactor fuel from Hanford's Cold War days.

DOE spokesman Mike Talbot said DOE's Washington, D.C., headquarters studied the K Basins' security a year ago, followed by a similar DOE Richland office study earlier this year.

The studies concluded that it is unlikely that someone would try to steal fuel from the K Basins. Such thieves would risk a deadly dose of radiation, and even if they survived, they'd need a huge, complex chemical plant to extract plutonium from the fuel, Talbot said.

K Basins aren't the only part of Hanford to see changes in security after DOE approved Fluor's plan to rearrange much of

See **Security**, Page B2

24 APR. 01

Hanford company faces bankruptcy

■ *ATG owes millions in tardy loan, interest, supplier payments*

By John Stang
Herald staff writer

Allied Technology Group, operator of a high-tech waste treatment complex in Richland, is in a financial squeeze it fears may force it into bankruptcy.

The company notified the Securities and Exchange Commission of that possibility in a Feb. 12 filing.

"Since we do not currently have sufficient funds to repay all of our indebtedness under our credit facilities, we may not be able to continue as a going concern if our lenders elect to accelerate payment," the company told the SEC. "In that case, we would likely become insolvent and subject to voluntary or involuntary bankruptcy proceedings."

ATG has Hanford contractual connections that it is apparently

trying to use to help fight its way back into the black.

Federal and court documents show ATG:

■ Did not make a \$5.75 million payment due June 30, 2000, on a \$45 million bank loan made in 1999.

■ Did not make four monthly interest payments totaling \$1.022 million between Oct. 31, 2000, and Jan. 31, 2001, on the missed \$5.75 million loan payment. The money had not been paid as of Feb. 12 — the latest date for which information is available.

■ Did not repay a \$1.5 million short-term loan from an unnamed individual made Aug. 11, 2000, with a due date of Oct. 5, 2000. The loan repayment was extended to Dec. 15, 2000, but was not extended beyond that, and remained unpaid on Feb. 12.

■ Did not pay Richland-based Hiline Engineering and Fabrication Inc. \$92,119 in 2000 for

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12 APR. 01

Fluor trims 141 workers

By John Stang
Herald staff writer

Fluor Hanford is trimming 141 employees — 82 through involuntary layoffs and 59 through voluntary measures.

The 82 received two-week layoff warning notices Tuesday. The other roughly 4,200 workers in Fluor's team were told Wednesday.

Most of the laid-off employees work for Fluor Hanford, while a few work for Fluor subcontractor DynCorp Tri-Cities Services Inc., said Fluor spokesman Michael Turner. The layoffs have been expected since January, when Fluor announced plans to revamp its work force to shift more people to high-priority projects in the field. Fluor said then that the layoffs could reach up to 300 people. Since January, Fluor tried to find work for some of

the workers with other Hanford companies. And 59 employees took early retirements or volunteered to leave. Turner said layoffs are being spread over a cross-section of job skills and ages.

Age did not determine a worker's likelihood for being laid off, but time of service at Hanford did, he said. That meant when all else was equal in picking between two workers, the senior employee was kept on the job. The layoffs are prompted by Fluor switching from predominantly preparatory work to mostly actual cleanup work.

The Department of Energy now is grading and paying Fluor more based on how it meets specific quantifiable cleanup goals.

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14 APR. 01

FFTF gathers crucial support

■ DOE committee report calls reactor 'irreplaceable'

By Annette Cary
Herald staff writer

The Department of Energy's nuclear technology capabilities have been in "a near free-fall" as reactors and other facilities have been shut down and research dollars have diminished, according to a report prepared for the government.

"The loss of irreplaceable assets such

as the High Flux Beam Reactor at Brookhaven National Laboratory and, potentially, the Fast Flux Test Facility at Hanford has severely eroded the nation's nuclear science and technology capabilities," said a report of the executive committee of DOE's Nuclear Energy Research Advisory Committee, or NERAC.

The nation now has no operating nuclear facilities capable of satisfactorily meeting some needs, such as some testing of nuclear fuels and fast flux material irradiation, the report said.

In the early 1980s, DOE was spending more than \$500 million for nuclear technology research and development. However, that dropped to almost zero in 1998 before increasing to about \$50 million now.

"This is clearly far less than is needed," the report said.

Supporters of restarting FFTF for non-military uses are using the report and new letters of support from industry and researchers to convince the Bush administration to take a fresh look at the reactor.

The Clinton administration decided in

its final days that the dormant Hanford reactor, one of DOE's largest and most modern, should be permanently shut down.

FFTF supporters proposed restarting the reactor to produce isotopes for government, medicine and industry and to do research for nuclear power plants.

"We strongly suggest that you review that decision because of its strong negative impact on life-saving medical treatments," wrote a vice president of DuPont

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16 APR. 01

Lecture to cover ecology after fire

■ *PNNL, Fish and Wildlife study effects of June Hanford fire*

By Annette Cary
Herald staff writer

Life has returned to near normal for elk and many other mammals burned out of their homes by last summer's wildfire at Hanford and the Hanford Reach National Monument.

But some bird species appear to be having a tougher time adapting to the changed landscape of the shrub steppe wilderness.

In June, a fatal automobile accident started a fire that raced across 164,000 acres, destroying sage and grassland and 11 homes in the Benton City area. Ten months later, scientists at Pacific Northwest National Laboratory and the Fish and Wildlife Department are studying the changes to the ecology.

Lab scientist Larry Cadwell, who manages the ecosystem monitoring project for Hanford, will discuss the effects of the fire in the next lecture of the Community Science and Technology Seminar Series on Wednesday.

Some animals may have been killed in the fire.

For instance, a Department of Interior report done last year guessed that fledgling ferruginous hawks in 12 nests within the fire area would not have been able to fly far enough to escape the flames. Burrowing owls also likely died. During their breeding cycle, they would have retreated to their burrows for protection, even though they could have flown away, the report said.

How easily animals that survived adapted has depended somewhat on whether they depend more on the sagebrush or the grass of the shrub steppe ecology.

When much of the bunch grass that elk fed on burned, they walked to the nearest place they could find food — the wheat fields of the nearby ranches.

At night, they fed on wheat, coming back onto the security of Hanford land during the day, Cadwell said.

As the cheat grass came up in December and January in burned areas, the elk began to spend more time there.

"For elk, it was a temporary inconvenience," Cadwell said. "Many other species adapt."

Small mammals, such as pocket mice and pocket gophers that burrow in the ground and create mounds of

See **Ecology**, Page B2

17 APR. 01

Backers battling for FFTF

By Annette Cary
Herald staff writer

Energy Secretary Spencer Abraham has said he needs to see that circumstance or information has changed if he is to reconsider the Clinton administration's decision to shut down Hanford's Fast Flux Test Facility.

Supporters of restarting the reactors say they have that new information — a January report prepared for the Department of Energy by an independent panel appointed to advise the agency on nuclear issues, said Suzanne Heaston of Citizens for Medical Isotopes.

Heaston spoke Monday at a gathering of about 100 Tri-City area leaders in medicine, science, business, local government and labor and cancer patients in Kennewick. They gathered to sign a resolution to Abraham.

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18 APR. 01

Lawmakers focus on Hanford funds

■ *Murray, Cantwell, Hastings visit Tri-Cities*

By John Stang
Herald staff writer

U.S. Sens. Patty Murray and Maria Cantwell and U.S. Rep. Doc Hastings provided clues Tuesday on the political forces that might remold Hanford's 2002 cleanup budget figures during the next four to six months.

"We're now going through (Congress') budget process where we're going to have to fight for those dollars," said Cantwell, who in addition to fellow Democrat Murray and Republican Hastings visited the Tri-Cities on Tuesday.

Department of Energy and Tri-City Industrial Development Council representatives briefed Murray and Cantwell on Tuesday in Pasco on Hanford's budget woes. Hastings discussed the matter at a Pasco news conference. Cantwell and Murray argued

budget cuts will lead to stalled projects and layoffs, which will make restarting and finishing those projects more expensive years later.

The Bush administration has slashed DOE's nationwide and Hanford cleanup funds in its budget request to Congress for fiscal 2002. Congress traditionally takes until early fall to hammer out its appropriations for DOE.

The administration wants to trim DOE's overall budget from \$19.7 billion in 2001 to \$19.2 billion in 2002. For Hanford, this translates to the site's budget dropping from \$1.456 billion in 2001 to \$1.4 billion in 2002.

But the site needs \$1.8 billion to \$1.9 billion in 2002 to meet its legal cleanup obligations — a \$400 million to \$500 million shortfall. The state is threatening to sue the federal government if those obligations are not met.

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3 APR. 01

DOE workers assured of payment

■ *UW sponsors Richland forum for workers seeking compensation*

By Annette Cary

Herald staff writer

The Department of Energy is committed to meeting deadlines for payments to Cold War workers who fell ill after working at Hanford or other DOE nuclear sites, said Kate Kimpan of the Office of Worker Advocacy.

But several of the approximately 400 people who attended a meeting Monday in Richland were skeptical after hearing her comments.

"We need something now, not years from now when I die or don't have no nose left," said Ray Samson, a former lineman at Hanford who lost part of his nose to cancer after inhaling radioactive material.

"How many more of these people won't be here in a year?" asked former worker Ken Staley. "Since October, I've planted three of them with beryllium, cancer or other (diseases)."

There is reason for concern, said Dr. Tim Takaro of the University of Washington's Former Hanford Worker Medical Monitoring Program,

which sponsored Monday's free seminar.

"I think it's going to be an uphill battle — bureaucratically and politically," he said. "This is not the same administration that enacted the bill" to compensate nuclear workers for work-related illnesses.

The Clinton administration legislation requires the federal government to have forms available July 31 for workers to begin filing claims.

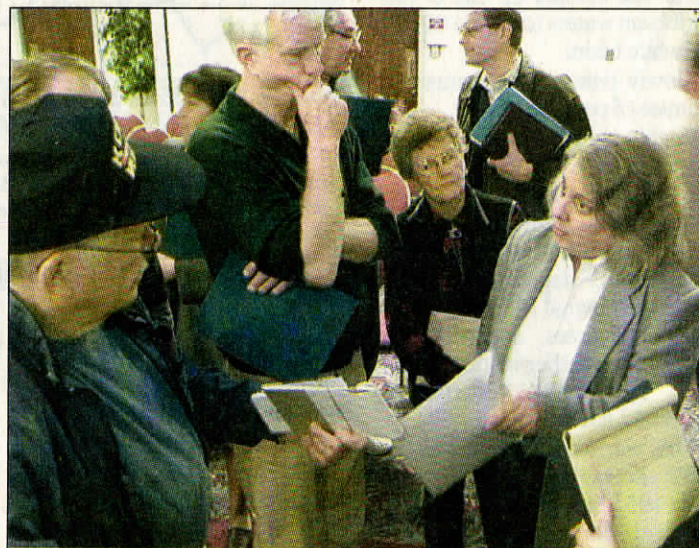
However, the Bush administration is considering switching the program from the Labor Department to the Justice Department, where just 14 people now do similar work.

Union officials and some political leaders — including Sen. Patty Murray, D-Wash., and Rep. Doc Hastings, R-Wash. — believe the switch will cause delays in the program.

Takaro said former workers will have to keep pressure on their elected representatives if they want to benefit from the workers' compensation program.

Plans call for DOE to provide records of workers' radiation dose histories for all the years worked at nuclear facilities. The program is aimed primarily at those exposed to radiation during the Cold War years, but those who worked earlier or more recently at Hanford also are eligible.

See **Payment**, Page B2



Herald/Molly Van Wagner

Frank Jodszuweit of Spokane; Jim Trombold of Mercer Island and Louisa Jahnke of Richland, from left, listen to Kate Kimpan of the Department of Energy's Office of Worker Advocacy as she answers questions Monday in Richland during a seminar on worker health effects from Hanford radiation exposure. The University of Washington's Former Hanford Worker Medical Monitoring Program sponsored the seminar.

Hastings seeks reprieve for FFTF

■ *Congressman asks DOE chief for 1-year suspension of shutdown decision*

By Annette Cary

Herald staff writer

U.S. Rep. Doc Hastings, R-Wash., asked Energy Secretary Spencer Abraham on Wednesday for a one-year suspension of the Clinton administration's decision to dismantle Hanford's Fast Flux Test Facility.

That year would allow a review of new information on the reactor's potential uses and a formal request for proposals for private companies interested in operating the reactor

or purchasing products it produces.

"I also requested that Secretary Abraham personally meet this month with local leaders and national experts on FFTF's potential," Hastings said after he and other members of the House Rules Committee spent an hour with Abraham.

A coalition of Tri-City area government and private agencies led by Benton County is taking a similar tact.

It has spent \$10,000 of \$101,000 committed to the project to hire former U.S. Sen. Slade Gorton to encourage the Bush administration to reconsider the FFTF decision. Gorton served in the Senate with Abraham, also a former Republican senator, before both were defeated in 2000.

The coalition also is concerned the Clinton administration said the reactor

should be shut down because it had not received enough definite commitments from private companies, federal agencies and other countries interested in research to justify restarting the reactor.

"No formal request for proposal was ever issued to judge the worldwide interest in this unique facility," Hastings wrote in a letter he handed to Abraham. "It's not clear to me how the department arrived at such a conclusion without having formally asked for specific proposals to operate the reactor."

Hastings also argued that granting the reactor a reprieve would make financial sense in the short term.

"Moving forward with decommissioning will have severe impacts on the department's budget as additional funds

will be necessary to move forward with deactivation," Hastings wrote.

Supporters would like the reactor, one of the government's largest and most modern, restarted to make isotopes to meet a growing demand in medicine and for other nonmilitary uses, such as testing fuels for new nuclear reactors.

Future energy needs must be met in part by nuclear energy, but to increase nuclear power production, the United States will need to test fuels for new types of nuclear reactors being designed, according to Hastings' office. Other research to support the current generation of commercial nuclear power plants also would be reduced.

In addition, Hastings is arguing that

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5 APR. 01

Ecology, EPA bug DOE on funding

By John Stang

Herald staff writer

Hanford's regulators have fired another warning shot toward the Department of Energy about providing enough money to keep cleanup projects on their legal timetables.

The U.S. Environmental Protection Agency and Washington's Department of Ecology sent a letter last week to DOE, calling for adequate money in fiscal 2002 cleanup budget to meet all of the Tri-Party Agreement's legal obligations.

"Compliance with the (agreement's) requirements is not optional," said the letter signed by Charles Findley, the EPA's acting Northwest regional administrator, and Tom Fitzsimmons, the Ecology Department's director.

The letter is intended as a last-minute warning to DOE before it unveils its 2002 cleanup budget Monday, said Mike Wilson, the Ecology Department's nuclear programs manager.

DOE usually gives its budget request to Congress for the following fiscal year by the end of each February, but this year, the only clue has been the Bush administration's indication that the nationwide cleanup budget might drop from this year's \$6.25 billion to about \$5.8 billion in 2002.

The proposal sparked concerns in the Northwest because Hanford's share of the cleanup budget needs to increase from \$1.5 billion in 2001 to about \$1.85 billion in 2002 to meet all obligations in the Tri-Party Agreement, the legal pact that governs Hanford cleanup.

The consensus in Hanford circles is that additional spending appears unlikely. The state is preparing to sue DOE to force the federal government to meet its deadlines.

The lack of a budget proposal has stalled most Hanford planning for 2002 and 2003.

"This has been the most frustrating year ... for obtaining information," wrote Gerald Pollet of Heart of America-Northwest in a letter to EPA and state officials. Without a budget request, the public has no way of judging whether additional funds are needed, he said.

Regulators voiced similar concerns.

"We agreed in the Tri-Party Agreement to share budget information and to have timely dialogues. We need to know which (projects) are funded and which are not," said Doug Sherwood, the EPA's Hanford site manager.

In late March, DOE in Washington, D.C., forbade its field offices to publicly discuss 2002 budget figures until headquarters releases numbers on Monday.

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

DOE, Fluor Hanford fined for violations

\$57,800 fine accuses workers of improper handling of possibly dangerous chemical

By John Stang
Herald staff writer

The state fined the Department of Energy and Fluor Hanford \$57,800 Monday for not properly labeling and losing track of small amounts of a potentially explosive chemical.

The new violations echo the chemical waste storage troubles that plagued Hanford with an explosion and huge fines in the late 1990s. Those problems supposedly were fixed.

The repeated troubles are why the Washington Department of Ecology levied such a high fine, said Bob Wilson, a state ecology department inspector.

"We've been here before, and we're disappointed to keep seeing the same problems," Wilson said.

Mike Schlender, DOE's deputy manager for site transition at Hanford, said, "In this case, with these chemicals, we were not up to snuff."

A Fluor employee spotted a suspicious solution of the chemical Collodion and reported it up Han-

ford's chain-of-command in mid-January, Schlender said. Hanford's fire department and the Richland police bomb squad then detonated the chemical.

Since then, DOE and Fluor have been working to find out how some potentially explosive Collodion escaped notice for at least a few years. Meanwhile, an overhaul of the site's chemical management system is to be completed by July 1, Schlender said.

Fluor referred questions to DOE.

Collodion is a liquid, usually 75 percent ether or alcohol, commonly used in radiological chemistry. If left alone for a few years, parts of the chemical crystallize and can become "shock sensitive." That means the chemical can explode with at least the intensity of a firecracker — breaking its glass container and shooting shards of glass — if it is bumped or jostled. If the chemical crystallizes in the threads that hold the cap on a vial or bottle, unscrewing that cap could trigger an explosion.

Central Hanford's 222-S laboratory studies numerous types of radioactive wastes and routinely uses Collodion. In mid-January, a 222-S lab employee handled some Collodion and noticed a strong ether smell from it, Wilson said. A strong ether smell indicates something

might be wrong with the chemical liquid.

The state learned of the problem Jan. 18 and inspected the 222-S lab. The investigation expanded to two other central Hanford laboratories — a lab at the Plutonium Finishing Plant and the Waste Sampling and Characterization Facility, or WSCF.

Wilson said the state's investigation found:

- More than two quarts of years-old Collodion should have been labeled and stored as waste at the 222-S lab and were not.

- Slightly more than 2 ounces of Collodion were found in a vial at the WSCF. No one knew the vial was there, and it had apparently been there at least five years.

- About 4½ ounces of Collodion were found improperly stored at the PFP. The last time the PFP used Collodion was in the late 1980s, and this amount was kept as an active chemical for at least 10 more years until it was declared a waste in 1998.

- The labs could not tell whether ether, alcohol or water had been added to the Collodion solutions, which handicaps any attempts to tell how volatile those liquids were.

Hanford had major problems with inventorying and storing chemicals in the late 1990s.

A watery mixture of nitric acid and hydroxy-

lamine sat somewhat forgotten for years in a PFP tank until enough water evaporated to create a volatile 20 gallons of liquid that exploded in 1997 — wrecking the tank and its room, punching a hole in the roof and exposing 10 workers to chemical fumes. About \$200,000 in federal and state fines were levied because of the explosion.

In 1998, the Environmental Protection Agency conducted a site-wide inspection of Hanford's chemical storage activities and found numerous violation resulting in a \$367,078 fine. And in early 1997, the state fined DOE and Fluor \$90,000 for safety violations pertaining to the storage, labeling and control of wastes at the 222-S lab.

Schlender said much of Hanford's remedial work after the PFP explosion and EPA inspection tackled large storage containers, such as tanks, and did not track down all the small vials of chemicals in labs. The state, DOE and Fluor now are working jointly on inventorying all potentially volatile chemicals at Hanford's labs. DOE has 30 days to appeal the fine to the state Ecology Department or to the State Pollution Control Hearing Board. DOE hasn't decided if it will appeal, Schlender said.

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

Fluor extends Duratek work

By the Herald staff

Fluor Hanford has extended the contract of Duratek Federal Services by five years.

Consequently, Duratek's subcontract will run the duration of Fluor's term as Hanford's lead contractor — going to Sept. 30, 2006.

"It is good to see this level of confidence from our Fluor Hanford and Department of Energy customers," said Duratek Federal President Ed Aromi in a news release.

Duratek Federal was originally Rust Federal Services, a subsidiary of Chicago-based waste industry giant Waste Management Inc. Rust was also a subcontractor of Fluor Hanford when Fluor became lead contractor Oct. 1, 1996. Rust's name was later changed to Waste Management Hanford.

Last summer, GTS Duratek Inc. of Maryland bought Waste Management Inc.'s two Richland-based companies, Waste Management Hanford and Waste Management Technical Services.

Duratek Federal Services is in charge of Hanford's studies, temporary storage, burial and shipments of low-level radioactive and transuranic wastes. It also manages some of the site's analytical waste labs, handles some permit matters and tackles other duties.

Duratek declined to say what the dollar value is of the new contract.

25 Mar, 01

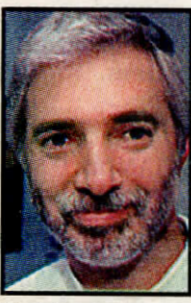
Pollet is man on a mission

By John Stang

Herald staff writer

Gerald Pollet is an Atomic Age Dr. Jekyll and Mr. Hyde. A man of many facets and contradictions. And much controversy.

For more than a decade, Tri-City political and business leaders have often portrayed Pollet, director of Heart of America-Northwest, as the bogeyman haunting the Mid-Columbia's nuclear dreams.



Pollet

But Seattle-based Heart of America also is one of the oldest forces pushing for environmental cleanup of Hanford — tackling the issue long before many Tri-Citians embraced it.

Still, Pollet said, “I don’t expect we’ll ever get a ‘thank you’ from the Tri-City powers. Instead, we get vilified.”

Pollet is the group’s co-founder, its leader and its many public faces.

Put him in front of a Seattle crowd during one of the countless public hearings on Hanford issues, and he comes off like a televangelist.

Fiery. Flamboyant. Feeding off the crowd’s energy. Preaching against the federal Satan that polluted Eastern Washington with radioactivity and now wants to sneak away.

Then put Pollet in an obscure meeting on a Hanford budget or technical matter, and he’s the stereotypical policy wonk.

Master of numbers and details. Knows his history. Often ruthless in argument, and often the winner. The smartest kid in the classroom who doesn’t know or doesn’t care if he rubs his classmates the wrong way.

Pollet is respected in Hanford circles, but sometimes irritates those same people.

He often is on target with his analyses of Hanford issues. For instance, he correctly predicted a “privatized” plan to pay for melting radioactive wastes into glass would fail. He’s politically savvy, and his dedication and hard work bring praise. He tackles lots of unglamorous tasks.

Pollet consequently is highly influential in molding Hanford’s cleanup policies, mostly as a member of the Hanford Advisory Board, where Tri-City members give him credit for often being right.

“I agree a lot with Gerry, but I’m not a fan of his style. ... I believe Gerry wants to be the contrarian,” said Ken Bracken of Kennewick, the board’s co-vice chairman.

Pollet often is confrontational and uncompromising — even when he’s in a small minority. He is quick to theatrically accuse officials of breaking the law, of lying, of hiding secrets, of ignoring the public. He fires accusations like shotgun blasts — some pellets hit the target and some miss. And he can be thin-skinned and quick to take offense when criticized.

See **Pollet**, Page A8

PNNL could aid nuclear test ban treaty, general says

By Annette Cary
Herald staff writer

Technology developed in Richland could help overcome one problem preventing the United States from ratifying the proposed international nuclear test ban treaty, said retired Gen. John Shalikashvili on Tuesday.



Shalikashvili

The general, who was chairman of the Joint Chiefs of Staff under former President Clinton, said critics have had legitimate concerns that the treaty is difficult to verify and enforce. However, he said problems can be overcome with the aid of devices such as those produced in Richland identifying nuclear explosions else-

where on the globe.

"My hope is that the Bush administration will take appropriate action on fixing things that need to be fixed," he said.

Although President Bush has not taken a stand on the treaty since being elected, he had earlier said the treaty would be too difficult to enforce. It would prohibit nuclear testing, which is essential for developing sophisticated nuclear weapons.

Shalikashvili was a guest Tuesday at Pacific Northwest National Laboratory to discuss his work on the treaty and learn about the lab's nuclear nonproliferation and other national security programs.

After the Senate split along party lines to reject verification of the treaty in 1999, Clinton asked Shalikashvili to come out of retirement to investigate ways to build support for the treaty.

In a report finished in the final days of the Clinton administration, the

general said his 10 months of study strengthened his belief that the treaty is essential to prevent the development of more sophisticated nuclear weapons.

Building up the U.S. nuclear stockpile may have deterred the Soviet Union during the Cold War years, but now the United States faces former rogue nations with less rational leadership, such as Iraq and North Korea.

China has yet to ratify the agreement, and North Korea, India and Pakistan have not signed the agreement. Nations that have signed and ratified the pact include Britain, France and Russia. The United States was the first to sign the treaty but is among 13 of 44 countries that have not yet ratified it.

To build support for the treaty, he's recommended that it be reviewed by the Senate and administration every 10 years and has recommended a greater effort to main-

tain the U.S. nuclear arsenal.

Better technology, such as that developed at the Richland lab, also will allow verification that nuclear weapons are not being tested.

Under the treaty, an international organization would have a global system of sensors to detect shaking in the ground, air and water that could mean a bomb had been detonated and other sensors to detect radionuclides released by weapons testing.

Eleven of the stations to be located on U.S. territory would have radionuclide detectors based on designs developed at the Richland lab. Other countries also have asked for information about the systems for the total of 80 monitors planned globally. Germany is operating one of them.

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

3rd firm submits Hanford vit offer

Duke Engineering & Services is the third firm to submit a bid to become the Hanford glassification project's "operability and commissioning" subcontractor, the corporation confirmed Tuesday.

The other two bidders are BNFL Inc. and a team led by CH2M Hill that includes Cogema Engineering Corp. and Duratek Federal Services as major subcontractors.

When Bechtel-Washington took over Hanford's radioactive waste glassification project last December, its team lacked a subcontractor to shepherd and test the project's construction from the future operating company's perspective. No later than 2011, Bechtel-Washington is expected to turn over the new glassification plants to an operating company.

Bechtel-Washington hopes to have the new subcontractor signed up by April.

A subsidiary of Duke Engineering & Services used to be Fluor Hanford's major subcontractor in charge of the K Basins project.

K Basins project source of worries

Federal board concerned over errors, slow pace of work

By John Stang
Herald staff writer

A federal panel is worried about operating errors and the slow pace of moving fuel at Hanford's K Basins project.

However, Hanford officials say the beginner's mistakes will soon go away and fuel movement will speed up to meet the project's deadlines.

Right now, Fluor Hanford is 3½ months into a nearly four-year effort to move 2,300 tons of spent nuclear fuel from two indoor, water-filled pools to a huge underground vault in central Hanford.

So far, the company has moved five special canisters — dubbed Multi-Canister Overpacks, or MCOs — from the K West Basin to the vault. Each MCO holds approximately 5.5 tons of fuel.

So far, 27.5 tons of radioactive fuel have been moved from the basins near the Columbia River to safer storage.

The project has two legal Tri-Party Agreement deadlines. All fuel is to be removed from the K West Basin by December 2002. The other basin is to be empty by July 2004.

The Defense Nuclear Facilities Safety Board in Washington, D.C., and the U.S. Environmental Protection Agency's Hanford office regulate the project.

John Conway, the defense board's

See K Basins, Page A2

Rep. Hastings requests boost in DOE cleanup

\$400 million budget hike still less than current year

By John Stang
Herald staff writer

U.S. Rep. Doc Hastings wants Congress to increase the Department of Energy's nationwide cleanup money by \$400 million above the original budget request for fiscal 2002.

That's no guarantee such an increase would take place. But the move opens the door for discussing recent concerns that DOE has not asked for enough money to meet cleanup obligations.

"Work still must be done to make this a reality," Hastings, R-Wash., said in a news release.

Hastings is asking that at most \$6.65 billion be spent on cleanup work.

So far, DOE submitting a total 2002 budget request of \$19 billion, without giving a specific number on how much will go for cleanup projects nationwide.

However, the overall budget request is \$700 million less than the agency's current year budget.

As a result, it's not clear where those cuts will come.

But Energy Secretary Spencer

Abraham recently told Washington Attorney General Christine Gregoire that possibly \$425 million in cleanup money could be cut. If that happens, DOE's nationwide cleanup budget would hover around \$5.8 billion in 2002.

In the mean time, Hanford officials say they need more money than the current budget to meet state requirements for cleaning up nuclear waste.

In 2001, Hanford's cleanup budget is about \$1.5 billion. DOE officials at Hanford believe that needs to increase to about \$1.85 billion in 2002.

And almost \$1.9 billion is needed for Hanford to accelerate cleanup along the Columbia River.

At the same time, other DOE sites also are seeking more cleanup money.

The bulk of Hanford's sought-after budget increase is an extra \$350 million to keep the site's radioactive waste glassification project on its legal timetable.

DOE in Washington, D.C., expects to unveil how it wants to allocate its \$19 billion request for 2002 during the first week of April.

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

Budget stalls plutonium plant project

By John Stang
Herald staff writer

Budget problems in South Carolina could stall Hanford's long-term efforts to get rid of its plutonium, a newspaper in Georgia reported.

Design work on a plutonium processing plant at DOE's Savannah River site has been put on hold because of budget cuts, according to Tuesday's Augusta Chronicle newspaper.

The newspaper quoted a DOE official saying plans for the \$1.2 billion facility — which would bake surplus plutonium into ceramic pucks for safer storage — could be revived "in possible future budget cycles."

That Savannah River facility was to be the eventual destination of 4.4 tons of Hanford's plutonium that is now at the Plutonium Finishing Plant.

If construction of the South Carolina plant is delayed by more than two years, that could force Hanford to look for other ways to take care of the PFP's plutonium, said Pete Knollmeyer, DOE's assistant manager for nuclear materials and facilities stabilization at Hanford.

Right now, the PFP's workers are converting its 4.4 tons of plutonium mixed within 19.6 tons of scrap into safer forms — mostly powders. That conversion work is supposed to be done in 2004.

Savannah River's plutonium facility was supposed to start functioning between 2008 and 2010, and Hanford was supposed to ship its plutonium to Savannah River between 2010 and 2014, Knollmeyer said.

The PFP is supposed to be cleaned out and demolished by 2016. If delays continue at Savannah River, DOE could build a small vault at Hanford to temporarily store the plutonium.

Another possibility would be to use central Hanford's underground vault in that is accepting the spent nuclear fuel removed from the K Basins.

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Possible crack spotted in Hanford waste tank

By John Stang
Herald staff writer

A possible crack discovered by a video camera on the inside of the dome top of one of Hanford's single-shell underground radioactive waste tanks has officials worried it might collapse.

The worst-case scenario has the concrete dome collapsing into a tank half-filled with radioactive sludge.

Right now, Hanford's experts don't know if this could be the case. This is the first time something looking like a long crack has been spotted in the dome of any of Hanford's 149 old single-shell tanks, said Dana Bryson, director of the operations projects division of the Department of Energy's office of River Protection.

The amount of weight allowed on the ground above the tank has been significantly reduced, while experts examine the foot-thick dome's interior, Bryson said.

"We're treating this very conservatively," he said.

The video camera check found the cracklike feature inside the 200 East Area's Tank C-107. This 530,000-gallon tank's dome is 5 to 10 feet underground. All its pumpable liquids were removed in 1995, and about 257,000 gallons of radioactive sludge remain.

During a routine sampling operation, a video camera was inserted into the tank to inspect its visible

interior. The camera showed a somewhat straight, though slightly wiggly, line stretching 20 to 30 feet from the dome's edge to one of the pipes sticking through the dome to the surface.

Experts cannot tell if that line is a crack, the edge of a block of concrete, a discoloration or something else, Bryson said.

So far, no signs of the dome weakening have been spotted, such as pieces of concrete falling off. Tank C-107 is not one of Hanford's 67 suspected leakers, and no new signs of leaks have been spotted in these latest inspections, Bryson said.

Hanford plans to tackle several inspections, tests and analyses of the dome this month to try to get a better idea of what the line is.

The last video inspection of Tank C-107's dome took place in the 1970s with less sophisticated equipment than is available today, so the old images are not very good, Bryson said. The radiation, the 115-degree heat and moisture in the tank tends to fog up lenses. However, Hanford experts plan to study those old tapes for clues.

Hanford traditionally piggybacks video checks of the tanks' interiors with other work done inside the tanks. Officials are now considering conducting those checks more frequently, Bryson said.

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In praise of shrub steppe

Natural landscape teems with valuable, unseen life

By Annette Cary
Herald staff writer

Janelle Downs is one of the shrub steppe's biggest fans. But here's how she describes what's left of the Mid-Columbia's natural countryside: "A lot of the year it's a fairly harsh landscape — either brown and dreary, or gray and dreary."



Downs

Americans are likely to prefer a pine forest that's green year-round and can be appreciated at 60 mph. To appreciate landscape dominated by sagebrush, you have to get out of the car and look closely.

"In the spring and early summer, it teems with life. It's more subtle than the mountains," said Downs, a plant ecology research scientist at Pacific Northwest National Laboratory.

But because it's not readily appreciated, it's often considered wasteland. "As a result of agriculture, we've taken out thousands and thousands of



Herald/Gary Cook

Janelle Downs, plant ecologist for Pacific Northwest National Laboratory, sets the boundaries for a test plot at Hanford as part of a study to find out why big sagebrush is dying in some areas of the nuclear reservation.

acres," she said. "Sagebrush rangeland has become potato (fields)."

As more people move to the rural West, it's the sage land that makes way for new housing and golf courses.

Of the 14.8 million acres of the Columbia Basin once covered with sage, 60 percent is now green with crops and lawns. "Among the 40 percent left, much is badly degraded," said Larry Cadwell, a biologist at the

national lab in Richland.

That's why sagebrush is taken seriously by Mid-Columbia scientists and federal officials charged with protecting national resources for the public — whether that means going after sagebrush poachers or researching why sage is dying on a part of the Hanford reservation.

See **Steppe**, Page A2

Lawmakers write Bush to stump for Hanford

By John Stang
Herald staff writer

Gov. Gary Locke and Attorney General Christine Gregoire have taken Hanford's funding fears directly to the top.

The two sent a letter to President Bush voicing concerns the Department of Energy's proposed 2002 budget will not have enough money to meet DOE's legal cleanup obligations — and asking for more federal money.

The letter is prompted by the Bush administration announcement that DOE's budget request to Congress seeks \$19 billion in 2002 — a \$700 million drop from 2001.

Meanwhile, Energy Secretary Spencer Abraham told Gregoire last week that DOE's nationwide cleanup budget in 2002 could drop by possibly \$425 million from 2001's approximately \$6.2 billion.

DOE officials at Hanford believe the site's 2001 cleanup budget of about \$1.5 billion needs to increase to about \$1.85 billion in 2002 to meet all the site's legal obligations. Almost \$1.9 billion is needed to accelerate cleanup along the Columbia River.

Other DOE sites besides Hanford also contend they need more money in 2002.

Locke's and Gregoire's letter said if DOE trims Hanford's budget, it "would significantly threaten" the ability to meet legal obligations under the Tri-Party Agreement, the legal pact governing Hanford cleanup.

Allowing no increase would jeopardize Hanford's plants proposal to glassify the site's radioactive tank wastes, which are the site's biggest problem, they wrote.

"You have been quoted as saying that cleaning up nuclear waste is a priority for you — but the budget cuts that your administration is proposing belie your statements," their letter said. "We respectfully request that you demonstrate your unequivocal support for cleaning up Hanford within the agreed-to timelines by requesting and advocating the appropriate level of funding."

So far, DOE in Washington, D.C., has been silent about how it wants to allocate the \$19 billion it is seeking from Congress. The agency expects to unveil detailed proposals — including Hanford's share — in the first week of April.

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

Tuesday, March 20, 2001

3 teams submit bids to handle vit project

Familiar names on at least 2 of teams hoping to make grade

By John Stang
Herald staff writer

Three corporate teams have submitted bids to be hired to test and assure the operability of plants to be built to handle Hanford's most difficult radioactive wastes.

The three teams want the role of "operability and commissioning" contractor for the waste glassification project. The lead contractor for the work, Bechtel-Washington, confirmed it had three bidders but declined to identify them. Its procurement rules forbid releasing bidder identities, said spokesman John Britton.

The Tri-City Herald confirmed the makeup of two of the three teams, which include a list of familiar contractors. One is BNFL Inc., which

managed the overall contract until it was dismissed a year ago. BNFL spokesman David Campbell said his firm has joined with a couple of unnamed small local firms.

The second team is led by CH2M Hill Inc., with Duratek Federal Services and Cogema Engineering Corp. as the major subcontractors, said Mike Rengel, a CH2M Hill spokesman. This team also will contain an unnamed handful of local small firms.

Bechtel-Washington leads the overall project, which is to design, build and test plants to convert the site's radioactive tank wastes into glass. Since Bechtel-Washington took over last December, there has not been an "operability and commissioning" subcontractor on the job.

While partners Bechtel National and Washington Group International design and build the plants, the operability subcontractor's role is to shepherd and test the construction from the operator's perspective.

Hanford's master plan calls for producing the first glass by 2007 and operating at full speed by 2011.

Once the plants are fully functional, the plan is for Bechtel-Washington to step aside, with a new contractor operating them until at least 2018.

Bechtel-Washington hopes to select a partner from the three applicants and recommend it to the Department of Energy by March 28. DOE aims to pick the new contractor by April 9.

DOE fired BNFL late last spring when its cost estimates on the project soared from \$6.9 billion to \$15.2 billion. BNFL is a subsidiary of British Nuclear Fuels Ltd. of the United Kingdom, which operates a glassification plant in England.

BNFL always has wanted to return to the glassification project in a narrower, more focused role — and sees the operability contract as the way to do it, Campbell said.

Meanwhile, the CH2M Hill company leading

the second team is a subsidiary of Denver-based CH2M Hill. It is a separate company from CH2M Hill Hanford Group, which manages the site's tank farms and a third small CH2M Hill subsidiary that is part of Bechtel Hanford's environmental restoration team.

Duratek Federal Services is a subsidiary of Maryland-based Duratek Inc. The parent Duratek has subsidiaries that built glassification plants at DOE sites at Savannah River, S.C., and Fernald, Ohio. Duratek also was the melter specialist of BNFL's original team.

Cogema Engineering is a subsidiary of Cogema, which operates glassification plants near Cherbourg, France. However, Cogema's glassification equipment designs are different from BNFL designs planned for the Hanford project.

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SEE ALSO OVER
Briefly

Compiled by the Herald staff

Energy Northwest board approves bonds

Energy Northwest's executive board approved plans last week for the sale of \$500 million in refunding revenue bonds, refinancing a part of its debt on three of its nuclear power plants.

Partnership pursues new uses for corn

PNNL division aims to create industrial products, textiles and fuels from organic sources

By Mike Lee
Herald staff writer

The National Corn Growers Association is launching a new partnership with the Pacific Northwest National Laboratory this week, extending a relationship that promises to offer new uses for the nation's largest crop.

Richland scientists will attempt to develop corn-based organic acids, which become the building blocks for a wide variety of chemicals that eventually could be used to create polyesterlike textiles.

"There's a lot riding on our work for both of us," said Dennis Stiles, manager of the bio-based products group at PNNL, which is run by Battelle. "The global market for these kinds of things is quite attractive."

For the first time, the corn growers national "action team" is meeting in Richland this week, a sign of just how important PNNL is to the corn lobby.

"They have been able to make some pretty dramatic breakthroughs," said Vic Miller, an Iowa farmer and chairman of the action team. "We are very, very close on a number of products" developed in Richland.

But the lab's efforts go beyond corn, a crop of modest significance to Washington. At the heart of the PNNL's long-running bio-based products division is an effort to create industrial products, textiles and fuels from organic sources.

"In many cases, the use of natural biomass for chemical production replaces the need to use



Herald/Katharine Kimball

Staff scientist Linda Lasure speaks with members of the National Corn Growers Association on Monday during the group's tour of a microbiology lab at the Pacific Northwest National Laboratory in Richland. The corn growers visited the facility to learn more about PNNL's efforts to produce new corn products.

petroleum, thus reducing our nation's reliance on foreign oil markets," said a PNNL news release. "(It) also opens new markets for agricultural products outside of traditional food markets."

For instance, PNNL and Washington State

University on Monday announced that they had received a \$800,000 grant from the Department of Energy to do basic research on the use of animal manure to produce low-cost energy and other value-added products.

But the 17 Midwesterners walking around the

vast PNNL campus Monday weren't there to learn about manure. Instead, they waded through sometimes technical talks about corn chemistry from some of the country's top scientists.

"Sooner or later, some of it sinks in," said Boyd Smith, a Nebraska grower.

Mostly, Smith is interested in the bottom line — how exotic uses of corn can keep him in business. For instance, at his hotel Smith has a shirt made partly of corn-based fiber, the recent result of private industry research and one of the many ways corn can replace traditional products.

"Anything that is made out of petroleum today we can make out of corn," he said. "It's just trying to get the costs ... down to where we can compete" with oil-based products.

PNNL's partnership with corn growers brings the Richland lab about \$3 million a year. Projects in progress include an attempt to convert a corn-derived sweetener to a base for industrial products such as antifreeze and plastics. Also, the lab is trying to reclaim hulls used as chicken feed and turn them into chemicals, an alternative fuel called ethanol and high-value oils.

Like many American farmers, corn growers are faced with more product than demand, which essentially forces them to look for new markets. "If we don't have usage, we are in real trouble," said Miller, noting that 10 years ago, corn groups typically were focused on exports and livestock feed instead of technology.

"We have to come up with new uses," Smith agreed. And, he added, because of efforts at PNNL, "The future looks bright."

Reporter Mike Lee can be reached at 582-1542 or via e-mail at mlee@tri-cityherald.com.

PNNL, pa

Joint institute will study science policy issues of global warm

By Annette Cary
Herald staff writer

Pacific Northwest National Laboratory and the University of Maryland are announcing today that they're joining forces to study the scientific and policy issues of global climate change.

The new Joint Global Change Research Institute is the sort of collaboration the Richland laboratory may be seeing more of under the leadership of lab Director Lura Powell.

"These types of partnerships, particularly substantial partnerships like the Joint Global Change Research Institute, provide a won-

derful opportunity for the Richland lab also is working on partnerships and more informal links closer to home with universities and other national laboratories.

"We're going to see a lot more strong partnerships evolving in the Pacific Northwest," Powell said. "Our strategy is to be more of a visible community and regional resource."

The Richland lab is pursuing a partnership in the field of nanotechnology — the design and fabrication of technology on the atomic scale

cial leverage, Powell said.

Bringing the two groups of researchers together will bring more expertise to the subject of global climate change and attract more government and foundation money to the program, she said.

"This promises to be a major science collaboration to explore climate change and its impact on energy, the environment and society," said Gerald Stokes, who will be director of the new

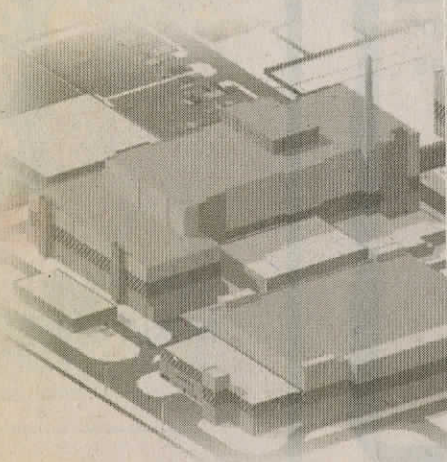
institute has global change research programs at its main lab in Richland and in Washington, D.C., but the researchers in the East concentrate more on national and international climate change policy issues facing congressional and United Nations panels.

"Maryland has strong research interest close to our own, and an understanding of exactly the collaboration we had in mind," Powell said.

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

... breaking up the crust.
Other finalists for the chapter's project of the year were:
■ An industrial building project by Fluor Hanford and Fluor Federal Services.
■ Demolition of an operation and services building by Battelle.
■ Certification of Hanford's transuranic waste project by Fluor Hanford.

Hanford Site Waste Tre



Design...Build...St

Supplier and Subcontractor Forum

Learn about supplier and subcontracting opportunities for the design and construction of the Waste Treatment Plant.

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- Construction Support (Temporary Facilities, Tools, and Consumables)
- ...and much more



Session 1	Session 2	
7:00 - 8:00	1:00 - 1:30	Registration
8:00 - 9:00	1:30 - 2:30	Presentation (Project Overview)
9:00 - 12:00	2:30 - 5:00	Visit Information Tables

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For more information, contact Jeannie Houston at 865-220-2240
or by e-mail at jmhousto@bechtel.com

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DOE grants Hanford access to watchdog scientist

By the Herald staff

The Department of Energy has granted limited access to Hanford to Norm Buske, the tied-up scientist who has made a career out of breaking rules and challenging Hanford doctrine.

DOE's Richland office announced Friday afternoon that it had signed an agreement with the Hanford watchdog group Government Accountability Project to allow Buske access to areas of the site that are not normally open to the public.

Buske, who has an undergraduate degree in physics and master's degrees in physics and oceanology, will be allowed to take independent samples to help assess the nature of radiological contamination at Hanford.

He works as a consultant to GAP, a Washington-based public interest group with a branch office in Seattle.

The DOE said Buske's work and ideas could help it in its efforts to clean up the site.

"We're confident we are doing the right things at Hanford, and we're protecting our workers and the public," Keith Klein, manager of DOE's Richland operations, said in a written statement. "This agreement demonstrates we are open to challenge and scrutiny."

The director of the Government Accountability Project's Nuclear Weapons Oversight Program praised the government's actions, saying the public will benefit from openness.

Buske said he's optimistic the new access agreement will prove more durable than one

reached a year ago, which allowed him to enter Hanford once before the agreement fell apart.

"This is a long time coming," he said, noting he was arrested on the shore of the Columbia River at the Reach a year and a half ago — an area to which he will now have unescorted access.

Buske said he is also interested in the 300 Area and the 618-11 radioactive waste burial area, which is next to the Energy Northwest plant. His primary interest is the Reach, where he has actively studied contamination in an effort to map its effect on salmon.

Buske's unorthodox actions include sneaking onto Hanford land to harvest mulberries, which he made into slightly radioactive

jam and dispatched to then-Gov. Booth Gardner. The jar was labeled radioactive, and Buske gave the state's mail handlers advance notice it was coming.

He's tangled with French marines during a South Pacific investigatory trek with Greenpeace to collect plankton samples in a French nuclear bomb testing area. Here in Washington, he's frustrated Navy officials at the Puget Sound Naval Shipyard by swimming in to collect samples.

He currently lives in the Hood Canal area and devotes most of his time to investigating Hanford.

His Hanford activities have led him to conclude bone cancer-causing strontium is seeping into the river at higher-than-reported levels.

The agreement with DOE allows Buske to sample areas of the nuclear reservation outside of existing radiation control areas and considered buffer zones between facilities being decommissioned.

He also will have unescorted access on the Columbia River up to the high-water mark along the Hanford Reach.

In exchange, he has agreed to follow DOE orders, federal and state laws and written requirements for the state.

When he wants to visit interior sections of Hanford, he will notify DOE in writing and will use a DOE-provided escort.

He will provide sampling and analysis plans and pledged not to interfere with cleanup activities or employee safety measures.

PNNL device going down with Mir

By Annette Cary
Herald staff writer

When the Russian space station Mir crashes to Earth later this month, it will bring a part of Pacific Northwest National Laboratory's history down with it.

Cosmonauts, astronauts and Hanford nuclear workers face one of the same workplace hazards — the potential for exposure to radiation. But while Hanford workers wear dosimeters that tally total radiation exposure, people bombarded by the wide variety of energy in space want to know the radiation activity in any given minute.

Teamwork:

PNNL, University of Maryland to study global climate change issues. Page A3.

The Richland laboratory began working on a radiation measurement device to do that more than 20 years ago. Since then, it's been used not just on Mir, but also on shuttle flights and the international space station. It's also beginning to be used closer to Earth to measure the radiation that flight crews receive on long commercial flights.

"Lots of devices measure radiation," said Tom Conroy, a former chief engineer at the Richland lab and now a scientist for Far West Technology's Richland office. "This measures a wide variety of radiation particles — neutrons, gammas, mu-mesons."

Space travelers don't have Earth's atmosphere to protect them from radioactive particles thrown off by the sun and other stars. Some high-

What goes up ...

Russia's Mir space station is expected to plunge into a remote area of the Pacific Ocean sometime between March 18 and March 20. Here is a look at the Mir's de-orbit plan.



SOURCES: United Nations Office for Outer Space Affairs; Ministry of Education, Culture, Sports, Science and Technology (Japan)

AP

See Mir, Page A2

6 MAR. 01
Inspector far too mar

Sending back cars would save about \$1.7 million

By John Stang
Herald staff writer

Hanford has way too many government-owned cars.

As in hundreds too many.

The Department of Energy's Inspector General's office counted Hanford's government-owned cars, light trucks and heavy trucks. It counted people. It checked mileages.

It crunched all sorts of numbers and applied all sorts of federal government-sanctioned rules of thumb. All this ended up in a January DOE Inspector General's report that concluded this: Get rid of 559 cars and trucks.

"We basically agree with it," said Steve Wisness, DOE's director of site services at Hanford.

This saga of auto overpopulation began in 1994, when another DOE Inspector General's report concluded several DOE sites, including

A4

TRI-CITY HERALD

THURSDAY, MARCH 8, 2001

METRO/NORTHWEST

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Hanford regulators worry about future cleanup budget

By John Stang
Herald staff writer

Hanford's next two annual cleanup budgets might stray a bit from the Tri-Party Agreement.

And that bothers Hanford's regulators and Hanford Advisory Board members.

That concern surfaced in the past two days in Richland at Tuesday's Hanford budget workshop and Wednesday's Hanford Advisory Board financial committee meeting.

These worries are prompted by:

■ The Department of Energy's Washington, D.C., headquarters not releasing any clue on what Hanford's cleanup budget might be in 2002 and 2003. Traditionally by each March, Hanford has detailed budget figures for the next two years. Consequently, no one at Han-

ford should run up each year.
Sedans are to drive 12,000 miles a year.

Light trucks: 10,000 miles. Heavy trucks: 7,500 miles.

The bottom line for DOE's Inspector General's report: 85 per-

cent of cars should run up each year.
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Friday, March 9, 2001

Still no word on Hanford cleanup budget

By John Stang
Herald staff writer

No budget. No public questions. No public feedback.

That sums up a Richland public feedback session Thursday evening on what Hanford's fiscal 2003 cleanup budget should look like.

Right now, the Department of Energy in Washington, D.C., has not provided a clue on what Hanford's fiscal 2002 budget will be, which is needed to make an legitimate guess on the site's fiscal 2003 figures.

On Feb. 28, Energy Secretary Spencer Abraham announced DOE will seek \$19 billion from Congress for all of its programs, ranging from cleanup to research to dealing with oil to stockpiling nuclear weapons. That budget request had no details on how money may be allocated to DOE's cleanup programs nation-

wide. And that \$19 billion request is a \$700 million cut from DOE's 2000 budget.

On Thursday, DOE officials rehashed plans and figures discussed in public meetings on Tuesday and Wednesday. U.S. Environmental Protection Agency and Washington Department of Ecology officials rehashed their initial concerns to about 35 people at the Richland Red Lion hotel. More than half the crowd consisted of federal and state officials waiting to see what the public thought.

No one from the public spoke or asked a question at the session.

DOE officials talked about Hanford's Office of River Protection and Richland office wanting to spend almost \$1.9 billion in fiscal 2002 to kick cleanup efforts into a higher gear. That higher gear consists of starting construction of a waste glassification plant and accelerating

cleanup along the Columbia River.

Right now, no one at Hanford has any idea if those requests will survive, with many observers expecting them to be trimmed. EPA and state officials repeated their concerns about Hanford not getting enough money to meet its legal obligations.

"It's certainly frustrating to trying to figure out what requirements won't get done," said Doug Sherwood, the EPA's Hanford site manager.

DOE's Hanford officials believe anything less than their \$1.9 billion request will violate the Tri-Party Agreement, the legal pact governing Hanford's cleanup.

In fact, DOE has circulated some speculative figures that a \$1.9 billion budget in 2002 could fall \$21 million short of meeting the site's legal obligations, and a \$1.9 billion budget in 2003 could fall short by \$49 million. However, DOE

officials cautioned these estimates are extremely soft and likely will change.

Also, EPA and state officials repeated concerns that DOE recently signed major cleanup contracts that call for some work not covered by the Tri-Party Agreement, which they believe will take money from efforts to meet Hanford's legal obligations.

Federal officials are speculating that DOE in Washington, D.C., will unveil detailed proposed allocations for 2002 in April — maybe. The later these details are revealed, the later that delays will be for nailing down Hanford's plans for fiscal 2002, which begins Oct. 1.

"This has the potential for us to start (planning) work late in the year, and that has the potential to hurt us," Sherwood said.

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

6 MAR. 01
PNNL studies quake potential at Rattlesnake Ridge

Scientists estimate fault shifts every 10,000 years

By Annette Cary
 Herald staff writer

The fault that runs along the base of Rattlesnake Ridge could produce a 7.0-magnitude earthquake that would make what Olympia experienced last week feel like the gentle rocking of a baby.

Pacific Northwest National Laboratory scientists just don't know when — next week, next year or thousands of years from now.

Their best guess, based on incomplete data, is that a major earthquake could shake the Mid-Columbia once in every 10,000 years.

But data being gathered this week using ground-penetrating radar at Rattlesnake Ridge could lead to a more exact estimate.

"We can't predict an earthquake," said Stephen Reidel, a geologist with Pacific Northwest National Laboratory. "Rather than predict, you try to understand the history of a fault — when it last moved and how often — and get a better idea of when it might move again."

Researchers know by dating rock on the ridge that the ridge started growing 15 million to 17 million years ago as rock broke and shifted along the fault line that lies along the base of the present mountain. It's part of a 300-mile stretch of folds



Herald/Bob Brawdy
 Michelle Valenta, right, a student at Washington State University at Tri-Cities, and Mark Sweeney, a research engineer at Pacific Northwest National Laboratory in Richland, move sensors for the ground-penetrating radar system they were working with Monday in a ravine near the base of Rattlesnake Mountain. They were helping map and identify an earthquake fault line in the area. The sensors are connected to a computer being operated by Brian Whiting, far left, of Central Washington University.

See **Quake**, Page A2

7 MAR. 01
Hanford tank fails test; just doesn't hold water

By John Stang
 Herald staff writer

A central Hanford auxiliary tank that Hanford officials hoped to use to hold contaminated water has leaked, failing a test.

The leak has Hanford experts huddling to come up with a backup plan. Late last week, Hanford officials declared the leak an "off-normal occurrence" — the least serious on a three-step scale for measuring Hanford incidents.

The 11,000-gallon auxiliary tank is near the 200 East Area's A Tank Farm's six single-shell, 1 million-gallon radioactive waste tanks. CH2M Hill Hanford Group recently replaced the ventilation systems on those tanks, and will need to drain contaminated water from the old equipment.

The auxiliary tank — dubbed a "catch tank" — is a concrete box with a stainless steel liner designed to hold fluids pumped into it. Hanford picked this tank to capture the water from the old ventilation systems.

Last August, Hanford put 700 gallons of water into the tank to test if

leaks as preparation for draining the ventilation systems, said Dale Allen, CH2M Hill's double-shell tank and waste feed delivery project manager.

After a couple of months, experts were fairly sure the catch tank leaked. Last Thursday, they finished pumping 580 gallons out of the catch tank. Allen guessed about 100 gallons of water leaked and the rest evaporated in the tank.

Experts now are studying if they need to build a new catch tank or if the ventilation systems' contaminated water should be pumped to a double-shell waste tank.

Since draining the ventilation systems is about a year away, Allen said, the problem should not delay any tank farm schedules. But any fix-it measure will likely cost "tens of thousands of dollars," he said.

Noting Hanford's tight budget situation, Allen said, "These days, we regard everything, even tens of thousands of dollars, as crucial."

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

7 MAR. 01
Small fire at Hanford; building evacuated

A building used by Pacific Northwest National Laboratory in Hanford's 300 Area was evacuated after a small fire started at 9:30 a.m. Tuesday.

No radiation or chemical levels high enough to be of concern were detected after the fire, said Greg Koller, spokesman for the lab. The 326 Building is classified as a low-hazard building.

A flash fire started in the exhaust hood of a work area being used to prepare small samples of metal for testing. The testing process uses a solution of methanol and 5 percent perchloric acid, which contained radioactive metal ions from previous tests.

A malfunction caused a spark that ignited the solution, but the fire was immediately put out by an employee with a hand extinguisher.

No contamination was found on the worker, who was examined at Kadlec Medical Center in Richland as a precaution, said PNNL and Department of Energy officials.

7 MAR. 01
Seminar set on health of ex-Hanford workers

The Department of Energy's compensation program for illnesses caused by working at federal nuclear sites will be discussed at a seminar for former Hanford workers from 8:30 a.m. to noon April 2 in Richland.

The University of Washington Former Hanford Worker Medical Monitoring Program is sponsoring the free event called "Health Effects From Radiation Exposure at Hanford: A Discussion With Former Hanford Workers."

Among topics to be discussed are health risks associated with radiation exposure and historical radiation exposure measurement.

To reserve a seat, call 800-419-9691 or 946-4432. The event will be at the Red Lion Hanford House on George Washington Way.

7 MAR. 01
Hanford budget plans still hazy

DOE hasn't indicated what it wants to spend money on

By John Stang
 Herald staff writer

Right now, Hanford's master plan for its budget over the next two years is to cross its fingers and pray.

That's because the Department of Energy in Washington, D.C., has not provided a clue on what it wants to spend on cleanup at Hanford and elsewhere in fiscal 2002 and 2003.

Hanford usually has a detailed breakdown of the cleanup budget submitted to Congress by early March each year, plus a detailed calculation of what DOE might request the following year.

But not this March.

DOE officials did not have any solid figures to discuss Tuesday at a workshop in Richland on Hanford's 2003 cleanup budget.

A public meeting on the fiscal 2003 budget request is scheduled at 7 p.m. Thursday at Richland's Red Lion hotel.

For now, DOE's Richland office and Office of River Protection are gambling that their combined budget wishes — \$1.9 billion each in 2002 and 2003 — will survive intact. That's because any trimmed budget would push Hanford further behind on its legal obligations. So far, Washington, D.C., is silent on the budget requests.

Already, DOE's contracts with its main cleanup companies don't always correspond with the Tri-Party Agreement, the legal pact governing Hanford's cleanup. DOE is gambling it can

See **Hanford**, Page A2

9 firms vie to join Hanford glassification work

Team expected to pick subcontractor in April

By John Stang

Herald staff writer

Nine companies want to join Bechtel-Washington's Hanford waste glassification venture as the project's "operability" subcontractor.

That list includes the Richland-based usual suspects — BNFL Inc., CH2M Hill Hanford Group, Cogema Engineering Corp. and Duratek Federal Services.

The other five companies are General Physics Corp. of Aiken, S.C.,

BXW Technologies of Lynchburg, Va., Technical & Field Engineering Services Inc. of Aiken, Onsite Companies Inc. of San Jose, Calif., and Bartlett Services Inc. of Plymouth, Mass.

Bechtel-Washington expects to pick an operability subcontractor in mid-April and keep it on Hanford's glassification team until sometime between 2007 and 2011.

In December, the team of Bechtel National Inc., and Washington Group International won a contract to design, build and test plants by 2011 to convert 10 percent of Hanford's 53 million gallons of radioactive tank wastes into glass.

Then in 2011, a new team is

expected to take over operating the plants.

December's winning bid was missing one component — an operability subcontractor to look after the interests of that 2011 operating team during the design, construction and test phases.

Earlier this month, nine companies submitted bids for that role. Information was unavailable Monday on if and how the nine propose merging as teams or on the details of their proposals.

Some of the nine have obvious expertise to be the main subcontractor, while some appear capable of only supporting roles.

Some could fill either role.

Here is a rundown of the nine:

■ BNFL led Hanford's original glassification design-and-construction team that included Bechtel. But BNFL's cost estimate skyrocketed from \$6.9 billion to \$15.2 billion in the spring of 2000. That led DOE to fire BNFL. DOE then terminated Bechtel so it would not have an unfair advantage on rebidding on the project.

BNFL always indicated it wanted to rejoin the project and focus solely on operations aspects.

■ CH2M Hill currently manages Hanford's tank farms, including preparing the wastes to send to the glassification project. When BNFL

was fired, CH2M Hill was the glassification project's caretaker until Bechtel-Washington was picked in December.

■ Cogema Engineering is a subsidiary of the French corporate giant Cogema, which manages massive glassification plants in France. Cogema lost out twice in 1998 and 2000 on becoming the lead design-and-construction contractor on this project. Four-year-old Cogema Engineering is one of Hanford's more successful spin-off subcontractors, handling various types of engineering work.

■ Duratek Federal Services is a subsidiary of Duratek Inc., which has

built glassification melters at DOE's sites at Savannah River, S.C., and West Valley, N.Y. Duratek also was the melter subcontractor on the original BNFL-Bechtel team.

■ Technical & Field Engineering Services and General Physics Corp. handle technical training at various DOE sites. Both have Richland offices.

■ No information was available Monday evening on BXW Technologies, Onsite Companies and Bartlett Services.

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

Hanford glass plant partner eyes bankruptcy

Bechtel says contractor's woes won't affect vitrification project

By the Herald staff and news services

One of the main contractors on the multi-billion-dollar project to treat the worst of Hanford's radioactive headaches apparently

is in deep financial trouble.

Dennis Washington, president and chief executive officer of Boise-based Washington Group International Inc., announced Friday that the company may seek protection from creditors in U.S. Bankruptcy Court because of cash flow problems stemming from its acquisition of Raytheon Engineers

and Constructors last summer.

Washington charged that Raytheon had concealed cost overrun problems with some troubled projects — a claim that Raytheon officials denied.

News of Washington Group's financial troubles sent its stock plummeting by 79 percent, and the company said it

is in default with its banks.

Washington Group teamed with Bechtel National Inc. to submit the winning bid to the Department of Energy for the \$4 billion Hanford vitrification contract. DOE awarded the contract to the Bechtel-Washington team in December.

Bechtel officials said Friday that Washington

Group's financial troubles will not affect efforts to build, then operate a vitrification — or glassification — plant to convert Hanford's highly radioactive tank wastes into glass.

Bechtel spokeswoman Sue Kuntz emphasized that Washington Group is a subcontractor

See **Partner**, Page A2

building safe Tuesday, but a state fire marshal and a Grant County fire marshal may be able to enter the building today and begin the investigation.

The building had concrete tilt-up walls with wood truss supports. Many of the packing materials inside were highly flammable, and the fire spread to the ceiling.

Firefighting was complicated by the lack of water at the building. Grant

fire hydrant in Mattawa, about a half-mile round trip. Hargroves estimated firefighters poured more than 60,000 gallons on the flames. The fire investigation could be completed by this weekend, he said. Christensen could not be reached for comment Tuesday.

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

Hanford health foundation contract extended 2 years

By the Herald staff

Hanford Environmental Health Foundation's contract to provide occupational health and medical monitoring services to Hanford workers has been extended two years.

The current contract, which began Oct. 1, 1998, had a three-year base period with an option for the Department of Energy to extend it two years.

The contract now will run through Sept. 30, 2003. Its estimated value over all five years is about \$49 million, according to DOE.

DOE's Richland office exercised its option to extend the contract after reviewing the foundation's performance in the first years of the contract and DOE's anticipated needs in the next two years.

"We concluded that HEHF has provided us with quality health screening and occupational health services during its tenure at Hanford," said Shirley Olinger, assistant manager for safety and engineering.

The foundation provides an occupational health program to assist employees and employers in preventing work-related illness and injury. The foundation's medical monitoring services provide occupational medicine and nursing, medical surveillance and evaluations, health education and wellness promotion,

among other programs.

"HEHF has proven over the years that they have the expertise and talents to provide quality service, and I expect them to continue giving our employees the type of health monitoring and occupational health services they've grown to expect," Olinger said.

The foundation, a private nonprofit corporation, has provided health services at Hanford since 1965. It's the smallest of about six main contractors at Hanford.



PNNL official named engineer of the year

Walter W. Laity was named the Engineer of the Year by the Tri-Cities chapter of the Washington Society of Professional Engineers Friday at the Shilo Inn in Richland.

He manages marketing and the nuclear safety programs for Pacific Northwest National Laboratory.

Laity is also a member of the Accreditation Board for Engineering and Technology and of the board of the Tri-Cities Cancer Center. He was sponsored for the Engineer of the Year award by the Columbia Basin Section of the American Society of Mechanical Engineers.

Congressman offers help in monument challenges

Hanford Reach mentioned in rethinking of monuments

By Les Blumenthal
Herald Washington, D.C. bureau

WASHINGTON — The chairman of the House Resources Committee said he'd be willing to reopen the fight over the Hanford Reach and other national monuments created by the Clinton administration.

Calling Clinton's action's a "flagrant abuse" of a 95-year-old federal law, Rep. James Hansen, R-Utah, said he'd even consider overturning the designations or reducing their size.

Hansen has written 16 members of

Congress whose districts contain the new monuments, including Rep. Doc Hastings, R-Wash., offering to help.

"If, after carefully considering the input and opinions of public and local officials, there is clear opposition to the monument designation or a determination that some modifications are necessary, we are offering our assistance to help resolve those concerns," Hansen wrote.

"This assistance would include

See **Monument**, Page A2

PNNL wins 4 national awards

By Annette Cary
Herald staff writer

Four technologies developed at Pacific Northwest National Laboratory and now in the commercial marketplace helped the national lab continue its winning streak of national technology transfer awards.

The Richland lab won four of the 35 awards the Federal Laboratory Consortium gave out this year, PNNL announced Thursday.

That brings PNNL's total to 48 since the award program began in 1984, which is more than any other federal laboratory.

This year's awards ranged from work on medical isotopes to detection of nuclear explosions. Awards were given for the following projects:

■ The United States and countries around the world will be better able to detect explosions of nuclear bombs with two devices developed at PNNL in Richland — the automated radioxenon sampler analyzer and the radionuclide aerosol sampler analyzer.

Other detection methods depend on catching the movement or sound of an explosion. But the laboratory's machines can confirm explosions that countries tried to mask from those devices.

They detect minute amounts of

radioactive material in the air — even if the explosions are underground.

The two devices were developed to monitor the international Comprehensive Nuclear Test Ban Treaty. DME Corp. in Orlando, Fla., is manufacturing and selling the units.

■ When knives used to cut potatoes into fries on food processing lines break, the problem may not be discovered by employees for up to an hour.

Then, the irregularly cut food has to be sorted from the rest of the product and truckloads of ruined food shipped away for use as animal feed.

However, a 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.

The technology is being used at many Lamb-Weston processing plants worldwide, as well as in other industrial situations.

■ Laboratory researchers have devel-

Cleanup cuts still possible, budget office chief says

By Les Blumenthal
Herald Washington, D.C. bureau

WASHINGTON — The head of the White House budget office testified Thursday that cleanup funding for Hanford and other Department of Energy sites remains a top priority of the new administration, but he did not rule out the possibility of significant budget cuts.

"We recognize it is very high-profile," Mitchell Daniels Jr., director of the Office of Management and Budget, said of the department's cleanup budget during testimony before the House Budget Committee. (Energy Secretary Spencer)

Abraham has been very vocal about it."

The administration's budget blueprint released Wednesday called for a \$700 million cut in overall funding for the department but offered no details about what programs would bear the brunt of the reductions. A more detailed budget will be released in April.

Rep. Doc Hastings, R-Wash., a member of the Budget Committee whose district includes Hanford, said he had heard there could be up to a 6 percent cut in DOE's cleanup budget — or about \$400 million from the

See **Cuts**, Page A2

DOE sets meetings on budget next week

The Department of Energy plans a pair of public meetings to discuss the budget for cleaning up Hanford wastes.

There will be a daylong workshop from 10 a.m. to 5:30 p.m. Tuesday and a public meeting from 7 to 10 p.m. Thursday.

Both events will be at the Richland Red Lion Hotel, 802 George Washington Way.

Representatives from DOE, the Environmental Protection Agency and the state Department of Ecology will be on hand to discuss Hanford budget priorities.

Spent Hanford fuel moved to storage unit

Hanford trucked its third shipment of spent nuclear fuel this week from the K West Basin to the Cold Vacuum Drying Facility, according to Fluor Hanford.

In December, Fluor began the four-year-long process of moving 2,300 tons of fuel from the two K Basins to a central Hanford vault.

The Cold Vacuum Drying Facility is a step between the basins and the storage vault.

At this facility, all moisture is sucked out of the canister holding the fuel, and helium is inserted. This is done to make the fuel safer inside the transportation-and-storage canister.

Bechtel Hanford gives to community center

Bechtel Hanford Inc. donated \$13,000 Thursday to the Richland Seniors Association, helping the group reach a fund-raising goal for the city's new community center.

Nearly two years ago, the association pledged to contribute \$100,000 to the city for the construction of the center.

The estimated project cost is \$5.2 million. The 22,000-square-foot center is expected to open in October. It is being built at the south end of Howard Amon Park.

Voters approved a \$3.9 million general obligation bond for the construction in May 1999.

The remaining \$1.3 million needed to complete the center would be made up by the city's general fund, the sale of community house, the park reserve and capital improvement funds, utility services and from the association.

The association raised \$87,000 from selling ornaments and sponsoring chili feeds, dances and bazaars.

When Bechtel Hanford President Mike Hughes saw a Herald article about the seniors' efforts, he decided to donate the remaining \$13,000.

Hanford might 'baby-sit' Ohio wastes on way to cavern

Columbus site can't wait 2 years for approval from New Mexico

By John Stang
Herald staff writer

The Department of Energy is mulling whether to send about 100 barrels of transuranic wastes from Columbus, Ohio, to Hanford later this year.

The proposal is in a preliminary stage, said Tom Baillieul, DOE's on-site project manager for cleaning up a Battelle Memorial Institute lab area at West Jefferson, which is 15 miles west of Columbus.

DOE's Ohio office has to get the OK from DOE's Richland office and DOE headquarters in Washington, D.C., he said. And DOE still has to approach the state of Washington about the matter.

Transuranic waste is essentially highly radioactive junk — such as tools and metal debris — that Hanford and other DOE sites are packing into 55-gallon barrels to eventually ship to a huge man-made, half-mile-deep cavern near Carlsbad, N.M., for permanent storage. Transuranic materials, which include plutonium, can take thousands of years to decay to benign levels.

Battelle Memorial Institute began researching nuclear fuels and materials at the West Jefferson lab in the 1940s — producing transuranic wastes. Now, DOE is trying to demolish and clean up that site by 2006 at an estimated cost of \$120 million.

Shipping wastes to the New Mexico site — the Waste Isolation Pilot Plant, or WIPP — is a complicated undertaking involving extensive inventories, double-checking and packing. Each individual DOE site has to pass a

detailed review before WIPP will accept its wastes.

The Ohio site does not have adequate facilities to store transuranic wastes for the 18 to 24 months it is expected to take to get approval from WIPP. The Battelle project can ship its transuranic waste to two DOE sites equipped to temporarily store the material — Oak Ridge, Tenn., and Hanford, which already is approved to prepare wastes to send to WIPP.

Last week, Tennessee Gov. Don Sundquist said his state refuses to be an interim storage site for DOE's Ohio transuranic wastes.

In Washington, Mike Wilson, manager of the state's nuclear waste management program, said he is unfamiliar with any specifics on the DOE Ohio office's proposal to ship transuranic wastes to Hanford.

He said he is concerned about how 100

extra barrels of transuranic wastes will affect Hanford shipping its own transuranic wastes to WIPP. Hanford began shipping barrels at a slow pace last summer.

Baillieul said Ohio's 100 barrels "is a drop" compared with the 80,000 barrels that Hanford expects to send to WIPP between now and 2032.

Baillieul said DOE's Ohio office hopes to resolve where it will ship its transuranic wastes within a couple of months, expecting to actually start trucking the material this summer. The actual shipping is expected to take nine to 12 months, he said.

Hanford currently accepts low-level radioactive wastes and mixed wastes — radioactive wastes containing hazardous chemicals — from other DOE sites, including Ohio's sites. Several weeks ago, DOE declared it would not ship low-level wastes nor

mixed wastes from any new sites until at least next fall.

That's because the state of Washington and DOE expect to haggle over whether Hanford's acceptance of new wastes should be legally linked to Hanford's progress on building a waste glassification plant. Wilson was unsure how Ohio's transuranic wastes would fit into the existing political picture of what the state would find acceptable. Right now, the state has legal jurisdiction over mixed wastes but not over radioactive wastes.

Baillieul noted that DOE's Portsmouth, Ohio, site accepted 737 tons of Hanford's left-over uranium trioxide powder last year and is scheduled to take in another 258 tons of uranium-filled cylinders from Hanford this year.

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

Reach's 1st policy test on line

BPA's proposed power line could cross through national monument

By Mike Lee
Herald staff writer

The Hanford Reach National Monument faces its first real public policy test this spring with the possibility of new power lines crossing the protected land.

The Bonneville Power Administration is evaluating four paths for a new 500-kilovolt transmission line from near Hanford to a regional power hub north of Ellensburg.

A new line, according to BPA, would widen a regional power transmission bottleneck and help BPA import power when water is spilled for fish at hydropower dams.

"The main purpose of the line is to beef up the system," said Lou Driessen, BPA project manager. "There is a weak link."

If BPA proceeds, construction likely would start in

2004, take about a year and cost about \$80 million.

But the agency will face challenges. Two of four possible paths cross the national monument, which was created last summer.

Conservationists are alarmed by the project and what they perceive as a quiet public process that hasn't included a meeting in the Tri-Cities.

"This is an important challenge and strikes at the entire concept of what the monument was designed to protect," said Rick Leumont, conservation chairman for the Lower Columbia Basin Audubon Society.

"If we allow this project to enlarge or designate new utility corridors, we have opened the door to the gradual destruction to the monument through piecemeal development," Leumont said in the society's February newsletter.

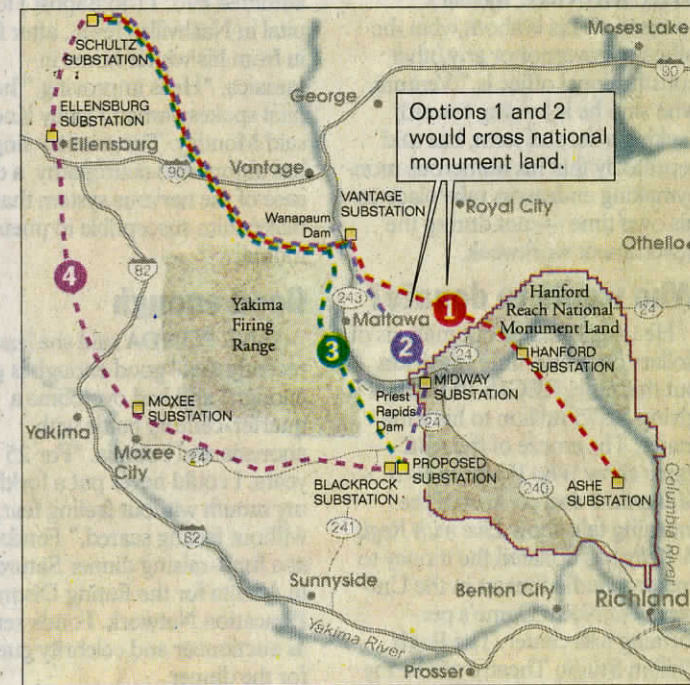
The Audubon Society is mounting a letter-writing campaign to keep monument transmission corridors from expanding.

Leumont said he's fine with new lines within existing corridors — but because space is limited, he says BPA should use one of the two other routes. "Save that (monument) capacity for a project when you don't have an alternative," he said.

But the Fish and Wildlife Service, the federal agency that manages the monument, isn't expecting a big problem with BPA proposals after a meeting with other federal and state agencies last week in Yakima.

When President Clinton created the monument, his official proclamation said Columbia River transmission facilities in the monument could be "replaced, modified and expanded and new facilities constructed ... in a manner consistent with proper care and management."

At the meeting, "I didn't throw up my hands and say this is not something we would allow," said Jeff Haas, deputy manager at the Fish and Wildlife Service in



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Fluor looking at possible layoffs

Company memo says that attempts will be made to transfer workers elsewhere

By John Stang
Herald staff writer

Fluor Hanford has identified potential jobs that could be trimmed in an upcoming round of layoffs, but not the actual people who would be affected.

The company "has not yet determined who will be laid off," said a Fluor memo distributed to all of its and its subcontractors' employees.

The memo addressed various layoff-related rumors the Tri-City Herald had collected in the past couple of weeks, and recently questioned Fluor about.

The overall effects of these anticipated layoffs are fuzzy. Earlier, Fluor said up to 300 core Fluor team employees and an undetermined number of auxiliary subcontractors' employees could be removed by April.

These upcoming layoffs have spooked some Hanford workers. Consequently, many concerns, speculations and rumors have circulated in recent weeks.

The proposed layoffs are prompted by changes in how the Department of Energy will grade and pay Fluor through 2006. The changes came when DOE extended Fluor's five-year contract by another five years.

The new contractual setup pressures Fluor to focus more on high-priority projects such as the K Basins and the Plutonium Finishing Plant. Most of Fluor's annual fees — meaning its profits — will be determined by quantifiable amounts of cleanup work actually done.

Consequently, Fluor wants to trim workers at the low-priority projects so it can shift more attention, money and people to the high-priority projects.

The memo said Fluor will review targeted employees to see if they can be transferred elsewhere at Hanford instead of being terminated.

Fluor wrote "the main driving force behind this move is dealing with fluctuating budgets and an increasing need to get the most out of every cleanup dollar spent. ... The move is more to align us with future operations, than it is to compensate for overspending in the past."

However, the K Basins project contributed to the upcoming layoffs by

exceeding its budget to begin moving spent nuclear fuel somewhat on time in December, the memo said.

That project did \$12 million worth of fiscal 2000 work in fiscal 2001, which began last Oct. 1. That led to Fluor having to do \$183 million worth of work at the basins this fiscal year with only \$171 million. Consequently, Fluor has to trim and adjust to keep the project on schedule.

With its contract extension, Fluor agreed to bring in more of its commercial practices from elsewhere, which brought in about 30 new managers. No correlation exists between these managers arriving and certain rank-and-file workers facing layoffs, said Fluor spokesman Michael Turner.

Also, the memo noted a recent corporate retreat of Fluor managers, said the retreat was paid for with Fluor Corp. funds and not with any Hanford money.

Fluor Hanford's team has about 4,300 employees, plus about 800 additional temporary and short-term workers with auxiliary subcontractors.

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Hastings, others urge Bush to maintain DOE cleanup funds

By John Stang

Herald staff writer

Ten congressmen, including U.S. Rep. Doc Hastings, R-Wash., pushed the Bush administration Wednesday to seek enough money to keep the Department of Energy's nationwide cleanup programs on track.

A letter with their concerns was sent to Energy Secretary Spencer Abraham and Mitchell Daniels Jr., director of the Office of Management and Budget. The congressmen represent states with DOE cleanup projects.

"We are concerned by recent press reports

that this program may receive a funding cut or level funding that will not move the program forward, threaten the environmental health of our region, and subject (DOE) to lawsuits from our states," the letter said.

The letter noted DOE's nationwide cleanup program needs a budget increase in order to meet its many legal obligations.

"Without adequate funding, these dramatic environmental problems will only become more difficult to address as waste leaks and equipment fails," the letter said.

The Wall Street Journal reported Tuesday that DOE's nationwide cleanup budget for

fiscal 2002 could face \$400 million in cuts. Congressional aides told the Tri-City Herald the possibility exists of cuts of up to \$1 billion. DOE's nationwide cleanup budget normally hovers around \$5.8 billion to \$6 billion a year.

Hanford's total cleanup budget for fiscal 2001 is about \$1.5 billion.

And the site's two DOE agencies want to increase that to about \$1.9 billion for fiscal 2002.

Most of that \$400 million proposed increase is needed to keep Hanford's legal timetable on track to build plants to glassify the site's radioactive tank wastes.

The rest of the proposed increase is to accelerate cleanup along Hanford's Columbia River shore.

Other DOE sites also want cleanup budget increases.

Hastings, earlier indicated he has received assurances that Abraham would fight for fully funding Hanford's obligations. And Daniels told U.S. Sen. Patty Murray, D-Wash., that Hanford's cleanup funds would increase.

DOE in Washington, D.C., has been mum on its budget calculations, of which at least broad general figures are expected to be unveiled later this month or in early March.

Abraham himself has been publicly quiet on cleanup matters since he was appointed by President George Bush in January.

Besides Hastings, the other nine representatives signing Wednesday's letter are Zach Wamp, R-Tenn.; Ed Whitfield, R-Ky.; Rob Portman, R-Ohio; Lindsey Graham, R-S.C.; Mark Udall, D-Colo.; Mike Simpson, R-Idaho; Amo Houghton, R-New York; Tony Hall, D-Ohio, and Ted Strickland, D-Ohio.

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Ecology can enforce deadlines if compliance threatened

By John Stang

Herald staff writer

Washington's Department of Ecology can enforce Hanford's radioactive waste treatment deadlines as soon as those milestones appear to be in jeopardy, a state board ruled Wednesday.

That ruling marks a major change in how the state can enforce legal deadlines at Hanford.

This issue has been a major dispute between the state and the Department of Energy in negotiating legal deadlines for building and operating plants to convert Hanford's radioactive wastes into glass.

Washington's Pollution Control Hearings Board announced the summary judgment in

the state's favor on the issue. Until the ruling, DOE and the Ecology Department had been scheduled to argue the issue before the board next week in Olympia.

The dispute surfaced publicly in early 2000 when Tri-Party Agreement negotiations deadlocked on the glassification timetable. The agreement is a pact between the state, DOE and federal Environmental Protection Agency that governs Hanford cleanup.

At that point, the talks had run about 18 months.

Both sides agreed on the basic schedule of waste treatment plant construction to begin in 2001, glassification to begin by December 2007 and glassification to be at full speed by

December 2009.

DOE has since set a new January 2011 deadline for full-speed glassification — a move that irked the state.

Last year's deadlock materialized over whether the state can declare that a future deadline is likely to be missed and can then take legal action before the deadline actually arrives.

With the deadlines being few in number and years apart, the state argued that waiting until an actual milestone is missed would cost the state precious time in forcing DOE to fix a foreseeable problem.

DOE countered that it should be penalized only when a deadline is missed, and said early enforcement could penalize it for predictions

that might not materialize.

Under the Tri-Party Agreement, the state Ecology Department's director has the power to make a "final determination" on deadlocked negotiations without DOE's consent. Tom Fitzsimmons, Ecology Department director, made such a decision in March 2000 on the enforcement issue.

DOE then appealed that decision to the State Pollution Control Hearings Board, which ruled in the state's favor Wednesday.

Gov. Gary Locke said the decision "demonstrates the Tri-Party Agreement ... is legally binding, and it upholds the state's role in making sure the Hanford cleanup is finished in a timely matter."

"I encourage (DOE) to focus its time, money and energy on getting the treatment facility funded and built, as well as getting the nuclear wastes out of the underground tanks before more of them leak," Locke said.

State Attorney General Christine Gregoire echoed that the ruling solidifies the state's powers under the Tri-Party Agreement. "(DOE) should move quickly to comply with the new deadlines and get this plant built," she said.

If DOE wants to continue to contest the issue, it could appeal to federal court.

DOE spokesman Erik Olds said the agency was evaluating the judgment.

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Improve 300 Area cleanup, EPA report says

By John Stang

Herald staff writer

A plan for dealing with 1,500 barrels of oil-soaked uranium chips less than three miles from Richland is among the Hanford cleanup measures the U.S. Environmental Protection Agency wants pinned down soon.

The barrels are partly buried and partly exposed in a trench just north of the 300 Area, where last summer's giant Hanford fire came the closest to running amok in a major radioactive waste site.

The call for concrete plans for the wastes was part of EPA's first five-year report card on

Hanford's compliance with Superfund goals, a category that excludes many cleanup projects.

No surprises surfaced in the document, according to the Department of Energy.

"We agree with the vast majority of the report," said Beth Bilson, DOE's assistant manager for environmental restoration and waste management at Hanford.

The EPA concluded Hanford is doing a good job moving contaminated soil away from the Columbia River.

But improvements are needed in verifying cleanup in the 300 Area near Richland.

The 200 Area's soil studies appear on track

to be completed by a 2008 deadline, the report said. Good marks went to a huge central Hanford landfill for radioactive rubble and to the cleanout of the contaminated 233-S Building.

However, the review echoed previous criticism of Hanford's ongoing troubles dealing with the site's worst plumes of contaminated ground water.

Pump-and-treat operations have not been adequate to deal with three plumes of non-radioactive chromium seeping from the D, K and H reactors' areas into the Columbia River, where it threatens baby salmon.

Hanford needs to expand on a new, more effective technique of neutralizing chromium

with chemical injected into the ground water that has tested well near the DR Reactor, according to the EPA and DOE.

Meanwhile, a pump-and-treat operation is not making much of a dent in a radioactive strontium plume near N Reactor and other options need to be explored, the report said.

Also, operations to remove carbon tetrachloride in central Hanford are not enough to stop the solvent from spreading.

And Hanford has had mixed results in dealing with a uranium-technetium plume in the 200 West area.

Technetium is being removed; uranium is not, the report said.

The EPA's report recommends deadlines for tackling 15 to 20 goals in the next two years. DOE and the EPA still have to meet to discuss and agree on those deadlines, officials said.

These include a plan on what to finally do with Hanford's so-called "canyons" — its huge monster-sized defunct chemical processing plants where plutonium was extracted from spent reactor fuel.

The EPA is pitching a Sept. 31 deadline for a feasibility study and a Sept. 31, 2002 deadline to have the plan ready.

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Friday, Feb. 9, 2001

Hanford's 'burping tank' off federal watch list

By John Stang
Herald staff writer

Hanford's most famous radioactive waste tank is no longer on a federal watch list, and the remaining 24 tanks on that list are supposed to be removed by Sept. 30.

Tank SY-101 — the notorious "burping tank" — formally came off Hanford's flammable gas watch list in January, the Department of Energy's Office of River Protection and contractor CH2M Hill Hanford Group announced Thursday. Tanks on the watch list require extra monitoring and longer-term study.

Actually, CH2M Hill had removed enough wastes from the tank almost a year ago to fix its long-running hydrogen gas problems. But several months of observations and follow-up studies were needed before the tank could be formally removed from the list, said Richard Raymond, a senior vice president at CH2M Hill.

Tank SY-101 has been Hanford's most troublesome underground waste tank.

In the late 1980s, Hanford's experts noticed volatile hydrogen gas would build up near the bottom of the almost filled 1.12-million-gallon, double-shell tank. Every few weeks, a huge

amount of gas would "burp" up to the waste's surface. That hydrogen burp increased the danger of flames or an explosion erupting in the tank and spurting through its vents.

In 1993, Hanford installed a giant mixer pump in the tank to constantly churn the wastes to prevent big hydrogen bubbles from forming. But the churning caused another major problem by creating tiny microbubbles of gas to get caught in the waste's surface crust.

That caused the crust to thicken, moving the waste's surface level higher and higher. And that increased the chances of a leak occurring or of wastes seeping into the gap between the double-shell tank's inner and outer walls.

Ultimately, Hanford pumped out about 520,000 gallons of waste out of Tank SY-101, and added about 434,000 gallons of water to dilute the remaining wastes. So today, Tank SY-101 holds almost 900,000 gallons of diluted waste with no crust on top of it, Raymond said.

When Tank SY-101 left the flammable gas watch list in January, that left 24 tanks remaining.

When U.S. Sen. Ron Wyden, D-Ore., was a congressman, he legislated special Hanford watch lists in the early 1990s to mark the waste

tanks that might pose extra dangers from gases or potentially volatile chemicals in them.

Sixty tanks were put on the so-called Wyden watch lists. In the past several years, tanks with potential dangers from organic chemicals, ferrocyanide and spontaneous heating up were removed because those problems were either fixed, or proven not to exist.

The remaining 24 tanks are listed because of suspicions they have flammable gas build-ups — although to a much lesser extent than Tank SY-101. DOE and CH2M Hill have studied those tanks, expecting to have reports and recommendations ready in the near future, said Craig Groendyke, the Office of River Protection's flammable gas project manager. He tentatively expects those tanks to be removed from the Wyden list without Hanford having to take extra remedial measures.

"We believe we have enough objective data and evidence to show (the 24 tanks) are not as hazardous as we once thought they were," Groendyke said.

Under the Tri-Party Agreement, DOE has a legal deadline of Sept. 30 to remove all tanks from the Wyden list.

In a DOE news release, Wyden said he is

"glad to cross this extremely dangerous tank (SY-101) tanks off the watch list. ... Now, we need to finish the job."

Hanford has 53 million gallons of wastes in 177 tanks. The site is moving all pumpable liquids from the 149 older, more leak-prone, single-shell tanks to 28 newer and safer double-shell tanks. Twenty-five double-shell tanks are in the 200 East Area where they are to hold wastes for eventual conversion into glass.

Three other double-shell tanks are clustered in the SY Tank Farm in the 200 West Area. Double-shell Tank SY-102 is the jump-off point to move waste from the 200 West Area to the 200 East Area. Now that it is off the watch list, the neighboring Tank SY-101 can receive wastes from the 200 West Area's single-shell tanks to eventually send to Tank SY-102 and then the 200 East Area.

Of the 24 flammable gas tanks, five are double-shell tanks — four in the 200 East Area and the fifth being the three-quarters-filled Tank SY-103. Watch list tanks are not allowed to receive wastes. When it leaves the watch list, SY-103 can also be a feeder tank to Tank SY-102.

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Accidental find yields sweet smell of success

By the Herald staff

A Tri-City professor has discovered metal molecules with properties seen before only in organic compounds — a discovery that could eventually lead to the development of a new class of materials.

Organic molecules of a type that are unusually stable — and also have a sweet smell — are called aromatics.

Now, Lai-Sheng Wang, a physics professor at Washington State University at Tri-Cities, and other researchers on the project have found experimental and theoretical evidence of aromaticity in purely metal molecules.

"We're expanding the borders of chemistry by building new molecules, called clusters, atom by atom with equipment made specifically for this scientific pursuit," Wang said.

He and several postdoctoral students built a photoelectron spectroscopy system at the W.R. Wiley Environmental Molecular Sciences Laboratory at Pacific Northwest National Laboratory in Richland. Wang also is an affiliate chief scientist at PNNL.

The system measures a molecule's electronic signature, or energy spectrum.

The new aromatic molecule was discovered by accident during work on alloy clusters of aluminum and copper. Wang used his photoelectron spectroscopy system to break down the aluminum and copper, cluster them together into new molecules, then measure their electronic signature.

Collaborators at Utah State University in Logan, Utah, provided calculations that helped prove the measurements made at PNNL met the structural and electronic criteria for aromatic compounds.

"We hope to extend this concept to find aromatic molecules in other metals," Wang said. "Now, the question is whether we can create new materials from these new molecules."

An article co-authored by Wang on the discovery was published in the Feb. 2 edition of Science Magazine.

Technical assistant Xi Li and physics post-doctoral student Hai-Feng Zhang, both from WSU, also worked on the project.

Hanford cleanup funding expected to increase

Sen. Murray gets assurances Bush administration will not cut DOE's cleanup budget

By Les Blumenthal and John Stang
Herald staff writers

WASHINGTON — As reports circulated Tuesday that the Bush administration is considering up to a \$1 billion cut in its fiscal 2002 budget request for cleaning up Hanford and other contaminated Department of Energy sites, U.S. Sen. Patty Murray, D-Wash., said she had received assurances the White House will increase funding.

Murray said she had spoken to Mitch Daniels,

director of the White House budget office, who denied the reports about a major cut in funding for DOE's cleanup program that have been circulating on Capitol Hill for weeks.

"Mr. Daniels assured me that the Bush administration plans to increase, not cut, funding for the Hanford cleanup," Murray said in a statement.

"As the budget process moves forward, I intend to hold the administration to its word."

DOE officials in Washington, D.C., declined

comment on the cleanup budget for fiscal 2002, which starts Oct. 1.

"We are in the middle of the budget process," said Joe Davis, a DOE spokesman. "We are not commenting."

If Hanford's fiscal 2002 budget falls below the approximately \$1.5 billion being spent in 2001, it would torpedo the site's current cleanup plans and legal obligations.

In fact, DOE's two Hanford agencies — the Richland office and the Office of River Protection

— want about \$1.9 billion appropriated to Hanford in 2002.

Most of the extra \$400 million is needed to keep Hanford's radioactive waste glassification venture on track to meet its Tri-Party Agreement legal obligations. The rest is needed for a plan to accelerate cleanup along the Columbia River shore.

The bottom line is Hanford needs an extra \$350 million to \$400 million just to meet its

See Hanford, Page A2

K Basins work behind schedule, short funds

By John Stang

Herald staff writer

Hanford's K Basins cleanup project is facing a funding shortage and is behind schedule.

Fluor Hanford, the contractor in charge of moving highly radioactive spent nuclear fuel from the water-filled basins to a dry storage area, is supposed to give the Department of Energy a plan on how to catch up in a couple of weeks.

The problem is caused by a combination of some late testing which brought about a budget shortage and work to move the fuel underwater going slower than expected.

"We're significantly behind the schedule that the (Tri-Party Agreement) has envisioned," said Doug Sherwood, the Environmental Protection Agency's Hanford site manager.

Sherwood and Phil Loscoe, DOE's K Basins

project director, discussed the project's status Friday in Kennewick with the Hanford Advisory Board.

The K Basins are two indoor water-filled, leak-prone pools near the Columbia River that hold 2,300 tons of highly radioactive spent nuclear fuel.

Plans call for the fuel to be moved underwater into special canisters for transportation and storage that are called Multi-Canister Overpacks, or MCOs. The MCOs are sent to the Cold Vacuum Drying Facility, where all moisture is sucked out and harmless helium gas is inserted. Then, the MCOs go to central Hanford to be stored in a huge underground vault.

DOE and Fluor moved the first MCO from the K West Basin to the vault in December. The second reached the Cold Vacuum Drying Facility on Thursday.

The Tri-Party Agreement, the legal pact governing Hanford's cleanup, calls for all the K West Basin's 1,210 tons of fuel to be moved by Dec. 31, 2002, and the rest to be moved by mid-2004.

The immediate legal deadline is to move 51 MCOs from K West Basin by Sept. 30. But Loscoe and Sherwood said the work is not on pace to meet that deadline.

Loscoe said Fluor is still determining how far behind schedule it is.

One problem is that moving and processing fuel underwater by remote control is going slower than planned.

Another problem is that DOE and Fluor spent \$12 million between Oct. 1 — the beginning of fiscal 2001 — and early December doing final tests and evaluations before moving the fuel. That work was not in the K Basins' \$183 million

budget for fiscal 2001, so Fluor faces doing \$183 million worth of work with only \$171 million, Loscoe said.

Fluor is supposed to submit a plan to DOE by the middle of this month on how it will meet the 51-MCO target while dealing with the financial shortfall, Loscoe said.

Possible actions include adding more shifts of workers at the K Basins or adding a third vacuuming bay at the Cold Vacuum Drying Facility. But the big question is what those actions would cost.

Fluor also is looking at possibly moving fuel from the K East Basin to the K West Basin to avoid the costly duplication of the MCO loading operation already set up at K West.

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PNNL official receives honors by industry

Technical group leader Stephen M. Bruemmer of Pacific Northwest National Laboratory has been named a Fellow of the Society by ASM International, the Material Information Society, for his outstanding contributions to the understanding of interfacial phenomena in materials processing and stress corrosion cracking.

The award was established in 1969 and recognizes and honors members for distinguished contributions in the field of materials science and engineering.

ASM is the largest society of professionals in application and research of metals and materials.

263 tons of uranium slated to be gone in weeks

By John Stang

Herald staff writer

Hanford plans to remove or dispose of roughly 263 tons of left-over uranium by March 31.

That means almost half of the stockpile of uranium Hanford had at the beginning of 2000 will be disposed of in about seven weeks.

The uranium was originally intended to be used for reactor fuel in Hanford's Cold War plutonium production days. Since the Cold War, it had been stored in various forms in the 200 Area and 300 Area.

The 200 Area's uranium — actually 734 tons of uranium trioxide powder — was shipped to the Department of Energy's Portsmouth, Ohio, site for permanent storage last year.

Over the next two months, DOE plans to:

- Ship 258 tons of uranium billets from the 300 Area to Portsmouth. Billets are heavy 20-inch-long cylinders that hold uranium.

- Ship another 2.6 tons of uranium dioxide pellets to Portsmouth.

- Ship another 0.44 tons of uranium dioxide to DOE's Sandia National Laboratory in New Mexico for research purposes.

- Bury another 1.76 tons of uranium dioxide — which is not wanted elsewhere — in central Hanford.

That will leave 1,056 tons of uranium in billetlike cylinders ranging from 1 foot to slightly more than 2 feet long. Out of that amount, DOE plans to bury roughly 149 tons of nonirradiated uranium fuel in central Hanford by June, said Leo Guillen, DOE's project manager for uranium disposal.

The remaining 907 tons will stay in the 300 Area until DOE reaches a formal decision on what to do with a major amount of Hanford's solid wastes.

That decision is scheduled for September 2002 after an environmental impact study is completed.

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Hanford Advisory Board wants Fluor to aid those facing layoffs

By the Herald staff

The Hanford Advisory Board wants the Department of Energy to swiftly help Fluor Hanford workers facing layoffs.

The board members agreed Friday to send DOE a letter asking the agency to urge Fluor to immediately identify low-priority projects to be affected and to give those workers chances to sign up with the high-priority projects.

The letter was prompted by Fluor

recently saying it might lay off up to 300 core employees and an undetermined number of workers from small subcontractors by April. The proposed layoffs come from Fluor wanting to shift people to focus on high-priority projects and to save money by trimming low-priority projects.

The board noted that Hanford's massive layoffs and reorganizing in the mid-1990s seriously demoralized its workers, so steps should be taken to lessen the effect.

DynCorp's safety record wins it shining Star rank

By John Stang

Herald staff writer

DynCorp Tri-Cities Services is the first Hanford company to achieve a top ranking in a nationwide safety program.

The company is scheduled to formally receive the federal Voluntary Protection Program's Star designation on Wednesday. Protection Technology Hanford also is expected to soon receive the same award.

Both firms are subcontractors of Fluor Hanford. DynCorp manages Hanford's landlord functions such as maintaining roads and utilities and running the fire department. Protection Technology is in charge of Hanford's security.

"This (award) is pretty much sought after," said Bob Frix, DynCorp's president.

The Voluntary Protection Program, commonly called VPP at Hanford, was conceived by the Occupational Safety and Health Administration and was later adopted by the Department of

Energy. It stresses cooperation between managers and workers to improve safety habits and records.

Several Hanford companies have been working toward earning a Star rating, which is the highest designation in the program. Besides the prestige, Star status cuts down on the number of safety inspections a company is required to go through. A few hundred companies in numerous industries have achieved this designation nationwide.

A Star rating means DOE has examined and approved dozens of a company's programs, procedures and activities to improve safety.

Frix praised heavy participation by DynCorp's union workers in mapping and installing the safety programs. DynCorp employs about 800 people, predominantly union workers.

"It was a team effort. It was a bottom-up thing," he said.

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

Waste tank rust at Hanford has experts puzzled

Amount of rust unusually high; scientists trying to see if walls are getting weaker

By John Stang

Herald staff writer

Experts are scratching their heads over an unusually high amount of rust found within one of Hanford's huge underground radioactive waste tanks.

"What we are doing is trying to get more information on it," said Dana Bryson, director of the operations projects division of the Department of Energy's Office of River Protection.

That includes trying to find out if the double-shell tank's half-inch steel walls are getting thinner or weaker.

The tank puzzling scientists is Tank

AY-101 on the eastern side of the 200 East Area.

DOE and its tank farms contractor CH2M Hill Hanford Group have been inserting tiny robot vehicles equipped with video cameras and magnetic treads into the 2-foot-wide gaps between the inner and outer walls of the site's 28 double-shell tanks.

Hanford has 53 million gallons of highly radioactive wastes, which it wants to eventually move from 149 older, leak-prone single-shell tanks to 28 newer and theoretically safer double-shell tanks.

Meanwhile, the state of Washington has pressured Hanford to closely monitor how safe the double-shell tanks really are.

See **Rust**, Page A2

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9 FEB 01

Benton County vows to fight on for FFTF

Commissioners also approve lease agreement with fair board

By Kristin M. Kraemer
Herald staff writer

Benton County commissioners decided Monday not to give up their fight against the dismantling of Hanford's Fast Flux Test Facility.

"We're staying the course and moving ahead," Commissioner Claude Oliver said.

Commissioners met Monday morning with Richland council members Wanda Munn and Larry Haler to discuss their next steps toward a potential lawsuit.

Former Energy Secretary Bill Richardson signed the paperwork Jan. 19 to permanently shut down and dismantle the dormant research reactor. Despite reports last week that new Energy Secretary Spencer Abraham doesn't plan to reverse his predecessor's deci-

sion, Tri-City officials believe they still have a shot at overturning the order.

"As far as we can tell, they're still open to new information coming in, to a challenge to this action and to review it based on that challenge," said Gary Ballew, Benton County's sustainable development manager. He said political allies in the fight include U.S. Rep. Doc Hastings.

Oliver said he expects the commission next Monday to sign an agreement with the four cities, the ports of Benton, Kennewick and Pasco and the Tri-City Industrial Development Council. The Tri-City agencies and governments each have offered different amounts of financial support for a potential lawsuit.

"Our communities are united," Oliver said.

A delegation of Tri-City representatives will make a five-day trip to Washington, D.C., next week to meet with political leaders on various issues, including FFTF. The group will include Pam Brown, executive director of the Hanford

Communities, Mayor Jerry Peltier of West Richland and Harold Heacock of TRIDEC.

They will meet with the committee staff for the House and Senate authorization and appropriations committees, staff of the Washington and Oregon delegations dealing with Hanford, Department of Energy officials and representatives of the Hanford contractor companies, Brown said.

"We have done this each year for the past four years and, basically, it's to present the position of the local elected officials regarding Hanford cleanup and the budget for the Hanford cleanup," Brown said. "This year we'll be particularly focusing on funding necessary to build the vitrification plant, as well as funding to support Hanford 2012."

The delegation also will cover funding to support the newly extended contracts for Fluor and CH2M Hill, she said.

"According to staff in DOE headquarters, our efforts have made a difference, so

we will continue," Brown said.

Also on Monday:

Commissioners unanimously approved a lease agreement for the Benton-Franklin Fair Association.

The contract was signed by the commissioners and hand-delivered Monday afternoon to the association, said commission chairman Leo Bowman.

Under the new agreement, the fair board will pay the county \$25,000 for use of the Kennewick fairgrounds for August. The rent will be due after the Aug. 21-25 run of the Benton-Franklin Fair & Rodeo, Bowman said.

"We just needed to get them folks moving," he said.

The association has delayed commitments to vendors, carnival and entertainment acts until a contract was in place. Now, it must be reviewed and signed by the board, he said.

"I think this is very, very exciting," Bowman said. "It gets government out of the way and

lets the fair association, which has had 52 years of fairs, do the job that they know how to do in a more effective and efficient manner."

The Benton commissioners will meet in Prosser at 8 a.m. Thursday to discuss operation and management of the fairgrounds for the remaining 11 months of the year.

Bowman said the commissioners will discuss a job description and salary level for the fairgrounds manager position, currently held by Ann Steiger.

The board also will cover the annual budget, which includes necessary improvements to the restrooms and other safety issues and the purchase of maintenance equipment.

The fairgrounds currently are operating under a 60-day emergency budget that expires Feb. 28.

■ Reporter Kristin M. Kraemer can be reached at 582-1531 or via e-mail at kkraemer@tricityherald.com.

Glassification plant hiring expected to pick up

By John Stang
Herald staff writer

Hanford's waste glassification project has begun its predicted hiring boom.

Today, glassification contractor Bechtel-Washington has 156 employees. By mid-2003, it expects to employ about 4,400 people until heavy layoffs are expected to begin in mid-2004.

But:

■ The Department of Energy's Office of River Protection does not have enough staff members to adequately supervise and check everything Bechtel-Washington must do in the next several months. The Office of River Protection is 40 to 50 people short of what it needs.

■ DOE's new leadership in Washington, D.C., has given no sign if it will ask Congress for the extra \$313 million for fiscal 2002 that the glassification project needs to stay on schedule. To accomplish this, DOE will have to abandon its past doctrine of requesting no major budget increases.

DOE and Bechtel-Washington leaders briefed the Hanford Advisory Board on Thursday in Kennewick on how the glassification project is supposed to ramp up.

Hanford has 177 underground tanks filled

with 53 million gallons of highly radioactive wastes. DOE is legally obligated to have plants built by 2007 to begin converting those wastes into a benign glass. The federal agency wants glassification at full speed by 2011.

DOE fired the project's original lead contractor, BNFL Inc., last May 2000 and hired Bechtel-Washington in December to take over. CH2M Hill Hanford Group was the project's caretaker until December.

Right now, Bechtel-Washington has 156 employees and wants to reach about 700 by March 9. The new contractor is looking at importing its own specialists, absorbing some BNFL team members and possibly hiring some people facing layoffs by Fluor Hanford, said Bechtel-Washington's project manager Ron Naventi.

Bechtel-Washington's figures show it expects to grow to about 1,000 to 1,100 management and engineering employees by 2002. That number is predicted to remain roughly level until 2008 when those employees gradually will decrease to 500 to 700 by 2011.

Meanwhile, Bechtel-Washington expects to begin some preliminary construction work — installing fences and access roads — this September, Naventi said. The first concrete is

scheduled to be poured for a permanent glassification structure in April 2002, he said.

Bechtel-Washington's figures show some construction job hirings this year, followed by a huge boom starting in 2002. Possibly 3,300 to 3,400 construction employees are expected to be working by mid-2003. But starting in mid-2004, construction jobs are expected to drop to a handful by 2007, according to Bechtel-Washington's figures.

By mid-April, Bechtel-Washington is supposed to map out a detailed, long-term construction and testing plan and budget for the Office of River Protection.

But doubts exist on whether the Office of River Protection might have enough staff members to supervise, check and approve Bechtel-Washington's work in a timely matter.

In November, DOE in Washington, D.C., authorized the Office of River Protection to grow from 90 people to 150 people to handle the upcoming extra work.

The problem is that DOE in Washington, D.C., did not provide the Office of River Protection with the money to hire those extra people, said Harry Boston, manager of the Office of River Protection. Boston said the office needs an extra \$5 million annually to

hire the additional staff. Right now, the office has about 110 people and needs 40 to 50 more, he said.

Boston and his superiors have chewed over this matter for two months, according to DOE letters sent between Hanford and Washington, D.C. On Jan. 18, DOE's cleanup czar Carolyn Huntoon wrote that only \$461,000 could be scraped up at this time, and DOE will try to get the money appropriated for fiscal 2002, which starts in September.

A major question engulfing Hanford circles is the new Energy Secretary Spencer Abraham, a President Bush appointee who has almost no DOE-related experience. Abraham has not made any significant public statement on his approach to cleaning up DOE's contaminated Cold War production sites, including Hanford.

For cleanup projects at Hanford and other sites to stay on their current schedules, significant budget increases will be needed for fiscal 2002.

DOE is expected to unveil at least a generalized version of its fiscal 2002 budget request to Congress in late February or March.

Right now, Hanford's two DOE agencies want to increase their combined cleanup

budgets from slightly more than \$1.5 billion in fiscal 2001 to almost \$1.9 billion in fiscal 2002.

The glassification project accounts for most of that sought-after increase. The Office of River Protection has budgeted \$376 million for tank-farm operations and \$377 million for glassification work in 2001. It wants to keep the tank-farm budget steady but wants to boost the glassification budget to \$690 million annually, starting in 2002.

If the Bush administration or Congress don't approve that \$313 million boost, the Office of River Protection will have to come up with a backup plan acceptable to what will likely be an angry group of Hanford constituencies plus a Washington state government already upset over delays.

"We have to know if that \$690 million will be real," said Mike Wilson, the state Ecology Department's nuclear waste program manager.

Naventi said Bechtel-Washington's master plan due in April will include some scenarios for possible annual budgets of less than \$690 million.

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

CH2M Hill steps up for the arts

By Dori O'Neal
Herald staff writer

It appears Tri-City arts groups will get the entire amount of money originally promised by Tri-Cities Corporate Council for the Arts.

CH2M Hill Hanford Group donated \$26,000 to the council this week after the organization learned a \$50,000 Intel Corp. stock certificate donated to the council had dropped in value.

The donation means the council can honor the initial grant promises made to each of the Tri-City arts groups the council's fund-raising supports. Earlier this week, the council met with representatives from the arts organizations to work out a solution to the shortfall.

The stock certificate, which was donated by a private individual, dropped to \$30,000 in value after the stock market took a nosedive last December.

The CH2M Hill donation was made in two parts, with \$16,000 to go toward the stock loss and \$10,000 as the company's early donation to the corporate council's 2001 fund-raising campaign, said Fran DeLozier, presi-

"We have always taken our role here seriously, and we believe it's important to give back to this community."

Fran DeLozier,
president, CH2M Hill Hanford Group

dent and general manager for CH2M Hill Hanford Group.

"We have always taken our role here seriously, and we believe it's important to give back to this community," DeLozier said. "The only way we can do that is by earning it, and (last year) we had a very good year."

DeLozier also said the donation was in part "just good business" because a vital arts community adds a quality of life that is imperative when businesses attempt to entice high-caliber personnel to the area.

"I have always been amazed there are so many little arts groups here, offering so much entertainment," she

said. "The Tri-Cities is like a United Way for the arts. And that's unique for a relatively small community. We should be proud of that."

Ed Allen, president of the corporate council, said the donation makes a strong statement from CH2M Hill for the arts community.

"Once again, the influence of Fran DeLozier has come to our rescue," Allen said. "I hope this donation will inspire other businesses, both small and large, to follow suit and keep this arts community healthy and active."

Karen Sullivan-Schwebke, executive director of the Mid-Columbia Symphony, said she was ecstatic about the donation but would continue to seek ways to conserve money without hurting the symphony's concert season.

The symphony and the Mid-Columbia Regional Ballet would have been hit hardest by the reduction in grant money.

"I salute Fran DeLozier and CH2M Hill for their continued support of the arts," Sullivan-Schwebke said.

■ Reporter Dori O'Neal can be reached at 582-1514 or via e-mail at doneal@tricityherald.com.

Fluor Hanford set to cut 300 jobs; shifting possible

Other contractors may pick up laid-off workers

By John Stang
Herald staff writer

Fluor Hanford plans to lay off up to 300 of its core employees and an undetermined number of auxiliary workers by April.

Effects of the move on the site's overall employment picture are not clear yet because some laid-off workers might find jobs with other Hanford prime contractors.

The proposed layoffs are prompted by changes in how the Department of Energy will grade and pay Fluor through 2006. The changes came when DOE extended Fluor's five-year contract which was due to expire next Sept. 30, by five years.

Fluor Hanford President Ron Hanson sent a memo to Fluor's employees Monday about the proposed layoffs. "I am hopeful the actual number of employee reductions necessary will be less than 300," he wrote. Fluor's team has about 4,300

employees, plus an additional 800 or so temporary and short-term workers with auxiliary subcontractors. Hanford's work force is a complicated mix of four primary cleanup contractor teams, four predominantly Hanford-related "enterprise" companies, Pacific Northwest National Laboratory and the Hanford Environmental Health Foundation — totaling almost 15,000 people.

The four primary cleanup contractors are Fluor's team, Bechtel Hanford's team, CH2M Hill Hanford Group, plus the brand-new Bechtel-Washington venture — which employ 7,000 to 7,500 people between them. Estimates are fuzzy because Bechtel-Washington is in a major growth spurt, and CH2M Hill expects some of its people to go to Bechtel-Washington as well.

Laid-off workers would get sever-

See Fluor, Page A2

U.S. Environmental Protection Agency's

Hanford Review

Your comments are invited on...

Five Year Review of Hanford's National Priorities List Sites

Region 10 of the Environmental Protection Agency has conducted the first five-year reviews of the cleanup actions implemented at four National Priorities List sites located on the Hanford Site in Benton County, Washington.

- Reviews were conducted to determine whether the selected cleanup remedies are protective of human health and the environment.
- The reviews consisted of comparing actual cleanup performance data and results to the expectations set forth in the cleanup decision documents.
- Methods, findings, and conclusions of the reviews are documented in the five-year review reports.
- These reports are available for public comment from January 29 through February 27, 2001. No public meetings are scheduled at this time.

To obtain a copy of the reports, to submit comments or for further information, please contact:

Larry Gadbois
U.S. Environmental Protection Agency
712 Swift Blvd, Suite 5
Richland, WA 99352
(509) 376-9884
E-mail: Gadbois.Larry@epa.gov

The reports are available for review at:

U.S. Department of Energy Reading Room
Washington State University, Tri-Cities
Consolidated Information Center,
Room 101L
2770 University Drive
Richland, WA 99352
(509) 372-7443
Attn: Terri Traub

Or on the EPA Internet site at
<http://yosemite.epa.gov/R10/CLEANUP.NSF/webpage/Hanford,+Washington>



Iodine levels OK, project concludes

Hanford downwinders' levels safe for thyroid

By Annette Cary
Herald staff writer

More than 99 percent of the median radiation doses that were estimated for Hanford downwinders in a \$3.8 million government project were within ranges that are considered acceptable for a thyroid medical test.

The just-completed Hanford Individual Dose Assessment Project estimated the amount of radioactive iodine that may have been absorbed in the thyroid glands of people living downwind from the nuclear reservation from 1944 to 1957, the height of Cold War production of plutonium for nuclear weapons. Those were the years of heaviest releases of iodine 131, which concentrates in the thyroid.

Although the estimates were prepared as a public service rather than a study, the project's final report does summarize dose estimates.

22 JAN. 01

Auto innovations subject of PNNL talk

Laboratory researching fuel cells to power cars' auxiliary needs

By the Herald staff

With U.S. industry churning out about 42 cars a minute, researchers at Pacific Northwest National Laboratory in Richland are working to reduce exhaust pollution and our dependence on foreign oil.

On Wednesday at 7 p.m., Jud Virden, scientist and manager of Automotive and Transportation Technology at PNNL, will discuss what to expect in the next generation of automobiles. Virden will speak in the Columbia Basin College Theatre on the Pasco campus.

It's the latest talk in PNNL's and Columbia Basin College's free Community Science and Technology Seminar Series. The lectures offer a chance to hear from local scientists with national reputations.

Of the fuel in a gas tank, about 13 percent gets used to move the car.

"The rest of the energy is lost due to engine and drivetrain inefficiencies, idling and accessories," Virden said.

Researchers at PNNL are developing solid oxide fuel cells for auxiliary power that use fuel more efficiently.

"That's important because in all vehicles, we're starting to use more and more electrical power," he said. Now, that may be for accessories such as heated seats and global positioning systems, but

there's also interest among car manufacturers in electrical control of steering and suspension.

Other PNNL researchers are developing ways to clean up exhaust emissions.

A third program is working to improve fuel efficiency by reducing the weight of vehicles from family cars to the truck-tractors pulling semitrailers.

Materials such as aluminum, magnesium and polymer composites are lighter than steel, but their use isn't practical unless parts can be manufactured at low cost in high volumes.

Because aluminum, for example, is more expensive than steel, auto makers have to save money in the manufacturing process to make aluminum affordable.

22 JAN. 01

PNNL project to help gauge planes' braking temperatures

From Herald news services

"Too hot to handle" is no mere cliché for Air Force pilots and ground crews when an F-16 fighter jet comes in for a landing. Heavy braking stops the plane but produces high temperatures that risk rupturing tires or igniting fuel during refueling for a quick turnaround.

Early warning of such risks soon will be possible with a sensor system under development at the Pacific Northwest National Laboratory in Richland.

The prototype sensor system will allow ground crews to measure an F-16's brake temperature as it lands and help the crew and pilot prepare for the worst if brakes approach 1,800 degrees, which could produce a hot-brake emergency.

"Pilots need to know the level of risk they face during a landing so they can determine if they should taxi away from other aircraft," said Jim Skorpik, PNNL chief engineer. "And once a fighter plane is safely down, if ground crews need to refuel for the next mission, they can check the sensor system to see if the brakes have cooled sufficiently."

The sensor system addresses these risks by coupling a temperature sensor that can detect temperatures

up to 2,000 degrees with a radio-frequency tag. The sensor will be inserted into an existing wear pin the size of a large nail that is used to monitor brake pad wear on the F-16. The wheel-mounted tag consists of a tiny silicon chip and an antenna connected to the sensor.

When the plane lands, ground crews will use a wireless hand-held device called an interrogator that beams radio waves to the tag from up to 100 feet away. The radio waves activate the tag, which collects a temperature reading. Then, the tag sends back its information to the device, which can read information from numerous tags simultaneously.

The military has been seeking better safety systems as new weapons systems, and fuel pods for greater range have boosted the F-16's weight. The added weight can mean pilots need to brake harder to stop in the same runway distance.

Commercial airlines also are interested in the project.

PNNL engineers have ground tested the sensor system to ensure the wheel-mounted tag can communicate with the interrogator. They now are seeking money for the next step of the project: Making the sensor rugged enough to withstand atmospheric conditions and the shock of landing.

23 JAN 00

Benton official wrestling against Reach monument

Benitz wants management done under earlier proposal

By Genoa Sibold-Cohn
Herald staff writer

PROSSER — Benton County Commissioner Max Benitz Jr. wants the new Interior secretary to drop the Hanford Reach from a list of national monuments.

Instead, he thinks the Reach should be managed under a plan that was proposed before former President Clinton named it a monument.

The plan called for establishing a Hanford Reach commission and a process to develop a protection and management plan for the 195,000 acres and the Columbia River between Richland and Priest Rapids Dam.

Under this plan, Benton, Franklin and Grant counties would have shared control with federal and state managers rather than having one voice on an advisory committee — like they do now.

Benitz said there are not enough ordinary Benton County citizens selected by former Interior Secretary Bruce Babbitt for the 13-member advisory committee.

The advisory committee includes two elected officials, Commissioner Leo Bowman and Pasco Councilman Chris Jensen.

The committee also includes two longtime conservation advocates, a research scientist, a historian, a university campus dean, a longtime labor leader, a manager for the state Department of Fish and Wildlife, a tribal leader, a public utility district representative, a science education specialist and director of the visitor and convention bureau.

Bowman missed Monday's commission meeting because he was attending a training session on improving communications. When contacted by phone Monday afternoon, Bowman said he didn't understand Benitz's frustrations with the committee's makeup.

"There's an awful lot of Benton County residents on there," he said.

Benitz suggested Monday that the county send a letter to Interior Secretary nominee Gale A. Norton, asking her to reverse the monument designation and to go back to the proposed plan for shared control.

Commissioner Claude Oliver said he wanted to wait until Jan. 29 to discuss the issue because Bowman, the commission chairman, was not present. No vote was taken on sending a letter to Norton.

■ Reporter Genoa Sibold-Cohn can be reached at 582-1539 or via e-mail at gsibold@tri-cityherald.com.

ORTHWEST

WEDNESDAY, JANUARY 24, 2001

TRI-CITY HERALD

A7

Hearing to address radiation-related illnesses

By the Herald staff

Opportunities for public comment are planned at a meeting of the Hanford Health Effects Subcommittee this week in Kennewick, including a Thursday night forum.

At the forum, Dr. Tim Takaro of the University of Washington will discuss diseases in communities near nuclear reservations, and Dr. Sara Cate of the University of Washington will discuss infant mortality and radiation. The public also will be invited to discuss possible exposures to radiation or hazardous materials caused by living near Hanford and related illnesses.

The forum will start at 7 p.m. at the WestCoast Tri-

Cities Hotel on Columbia Center Boulevard.

The subcommittee also plans brief public comment periods during its daylong sessions Thursday and Friday at the same hotel. They're planned at noon Thursday and at 11:30 a.m. and 2 p.m. Friday. Topics to be discussed at the meeting include the Hanford Community Health Project and the Individual Dose Assessment report.

Public comments from people with health concerns about living near the Hanford nuclear reservation also may be mailed to: French Bell, Designated Federal Official, ATSDR Hanford Health Effects Subcommittee, Mailstop E-56, 1600 Clifton Road N.E., Atlanta, Ga., 30333.

Saturday, Jan. 27, 2001

DOE chief firm on decision to close FFTF

By Les Blumenthal

Washington, D.C., bureau

WASHINGTON — Secretary of Energy Spencer Abraham has decided not to reverse a decision by his predecessor to close down the Fast Flux Test Facility at Hanford, a spokesman for the Department of Energy said this week.

"We reviewed it, we took a look at," Joe Davis, Abraham's lead spokesman, said of former Energy Secretary Bill Richardson's decision to close the experimental reactor for good.

"Richardson's order stands," Davis said. Hanford supporters had hoped to convince

Abraham to overturn the Richardson order and keep the reactor open to produce medical isotopes. But some west-side congressmen drafted a letter telling Abraham that would be a mistake.

The letter was never sent as they, too, received assurances that Richardson's decision stood.

Abraham had indicated at his confirmation hearing he saw no reason to reconsider.

Under questioning from Sen. Ron Wyden, D-Ore., Abraham said in the "absence of any demonstration of inappropriateness" in reaching the record of decision, there would be no reason to overturn Richardson.

Richardson announced in late November his

decision to close the plant but had to wait until a 30-day public comment period expired before signing the final order.

He finally signed it Jan. 19, the day before he left office.

The reactor was built in 1978 as part of the nation's breeder reactor program and operated for 10 years before being shut down in 1993.

The reactor had been on standby since then while the department struggled to decide what to do with it.

FFTF is a sodium-cooled reactor and once the sodium is drained, it cannot be restarted. Shutting the reactor permanently will cost \$281

million, money that will have to be approved by Congress.

Rep. Doc Hastings, R-Wash., had asked Abraham to reverse the Richardson decision, saying it was aimed at satisfying anti-nuclear radicals.

But DOE officials said it made more sense to use existing reactors in Tennessee and Idaho to produce medical isotopes and to start developing plans for an accelerator to be used in the long run.

■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at lblumenthal@mcclatchydc.com.

Tri-City Herald

Saturday, Jan. 20, 2001

Committee chosen for Hanford Reach

By Mike Lee
Herald staff writer

Interior Secretary Bruce Babbitt selected a 13-member committee to chart the future of the Hanford Reach National Monument just before his term in office expired Friday.

Many committee members have close ties to the Reach or the 195,000 acres also encompassed by the monument. Longtime conservation advocates Rick Leumont of Pasco and Rich Steele of Richland, for instance, were instrumental in convincing President Clinton to create the monument last summer.

Counties are represented by Benton Commission Chairman Leo Bowman, while Chris Jensen of the Pasco City Council represents cities.

"It's a very well-balanced group," said Jeff Haas, deputy project leader for the agency in Richland. "We wanted somebody who is familiar with the area and somebody who is used to dealing with complex situations — because this is going to be very complex."

Eventually, the committee's task will be to create a use plan for lands that have generated substantial controversy in the last two decades as development and environmental interests battled over the correct amount of federal control and public use.

But on Friday, the new committee's members talked mostly about finding consensus and working together.

"We all need to keep an open mind and try to leave the baggage that we ...

all bring outside and sit down and really listen," said Dave Geist, senior research scientist at Pacific Northwest National Laboratory in Richland.

Geist was one of three chosen to represent the scientific community. The others are Hanford historian Michelle Gerber and Gene Schreckhise, associate campus dean for Washington State University at Tri-Cities.

Scientific alternates are Dennis Dauble, natural resources manager at PNNL; Eric Gerber of Mid-Columbia Engineering; and Ed Rykiel, associate professor in the Environmental Science and Regional Planning Program at WSU-TC.

The committee is to advise the Fish and Wildlife Service on creation of the land-use plan for the monument, but the agency retains final authority.

The 13 members and 13 alternates are expected to serve about two years — or as long as it takes to finish a monument plan. The first meeting is planned this spring.

"It's going to take some time, but it's going to be worth it," Schreckhise said. "And I think it can be done in a way that satisfies the concerns of all the people involved."

Jim Watts, longtime Tri-City labor leader and board member on the Tri-City Industrial Development Council, said he'll continue to play peacemaker between environmentalists and county leaders — a role he adopted a few years ago to try to broker a compromise that eventually failed.

"I think we have a real valuable

Bush may make changes

By Herald news services

WASHINGTON — The Bush administration will consider altering national monuments created by President Clinton, Interior Secretary nominee Gale A. Norton told a Senate committee Friday.

"We will be looking at what needs to be changed," she said under questioning by members of the Senate Energy and Natural Resources Committee.

In the second and final day of her confirmation hearings, she said the new administration:

- Will consider revoking special government protections to 18 new national monuments, including the Hanford Reach Monument, established by Clinton.
- Will seek opportunities to turn over maintenance or management of some public lands to private groups or companies.
- Will pursue new legislation or programs to "offer compensation

resource if it's used right," said Watts, representing the local economic perspective. "I want to see it so that it is usable — so that people can enjoy it ... so that they just don't lock it up and throw away the key."

Harold Heacock, Hanford programs manager for TRIDEC, is

or help in some other way" to landowners whose property is affected by federal environmental regulations.

Norton, a former two-term attorney general in Colorado, outlined an agenda closer to the views of Western conservatives than to the policies of Clinton Interior Secretary Bruce Babbitt.

Westerners are "angry," she said, "because the current Secretary of the Interior has not listened." If she is confirmed, Norton said, "the voices of ranchers, the voices of environmentalists, the voices of everyone who is concerned in the decisions will be heard as part of the process."

Meanwhile, she reassured Democratic senators that although she has in the past challenged the constitutionality of the Endangered Species Act and other federal laws, she will "enforce the laws as written and as interpreted by the U.S. Supreme Court."

Watts' alternate.

Bowman said he would wait to form opinions about the plan until he hears from the rest of the committee. "If I can't understand someone else and appreciate (their needs), we are going to be deadlocked on issues," Bowman said. Commissioner Frank Brock of

Franklin County was selected as the county government alternate.

Jeff Tayer, south-central regional manager for the state Department of Fish and Wildlife, is the state representative. Ron Skinnarland of the Department of Ecology is his alternate.

Richland Mayor Bob Thompson is Jensen's backup for the city sector.

The tribes are represented first by Robert Tomanawash and by alternate Rex Buck, both of the Wanapum Band.

Doug Ancona of Grant Public Utility District is the utility-irrigation voice, supported by Nancy Craig, also of Grant PUD.

PNNL science education specialist Karen Wieda represents K-12 education interests. Her alternate is Royace Aikin, who oversees PNNL programs to bring together students, teachers and scientists on research projects.

Mike Lilga, a leader in the Tapteal Greenway river preservation campaign, backs up Leumont in the conservation community. And Mike Weimers of Richland is Steele's alternate for outdoor recreation.

The at-large representative is Kris Watkins, executive director of the Tri-Cities Visitor and Convention Bureau. Valoria Loveland, former state senator from Pasco, is the alternate.

Seventy people applied for the committee.

■ Reporter Mike Lee can be reached at 582-1542 or via e-mail at mlee@tricityherald.com.

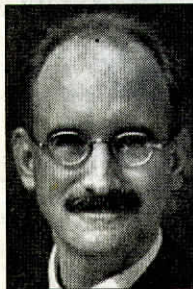
Expert on chronic beryllium disease sees 'good news' for Hanford workers

Number of diagnosed cases looks smaller than expected

By Annette Cary

Herald staff writer

The number of cases of chronic beryllium disease diagnosed among Hanford workers appears smaller than expected compared with the number of workers found to have the potential for developing the disease.



Newman

"That is good news," said Dr. Lee Newman, an international expert on the disease who spent the week lecturing in the Tri-Cities.

"They are not out of the woods, but I think they should be guardedly optimistic."

The first step in diagnosing the disease is a blood test that shows whether a worker has had an allergy-like reaction to the metal.

About half of those who test positive would be expected to have chronic beryllium disease, Newman said.

However, just three of 22 current Hanford workers who showed a sensitivity to beryllium in that blood test have developed the chronic respiratory illness. In addition, more than 50 former workers have tested positive for sensitization.

While the number of sensitized people is small to be drawing conclusions, Newman said several possibilities might play a factor in explaining the potentially low rate.

Perhaps ventilation systems were better at Hanford than other nuclear sites, or work processes generated dust particles too large to be easily breathed in, he theorized.

A good deal of what is known about chronic beryllium disease at nuclear sites is because of Newman's research at National Jewish Medical and Research Center in Denver.

Workers at nearby Rocky Flats nuclear reservation who show a sensitivity to beryllium have developed chronic beryllium disease at a much higher rate than Hanford workers.

Newman said some jobs in the nuclear industry are known to produce greater numbers of workers who are either sensitized to beryllium or who develop chronic beryllium disease. They include metal machining, research and development jobs and chemical operators who worked with a lot of dust and powder.

Both the total amount of beryllium dust and possibly smaller particle sizes that are easier to breathe in increase the risk of disease, Newman said.

However, "in every work force where we've found beryllium disease, it's in not only the most heavily exposed workers but a few people who seemingly have very low exposures," Newman said.

That may include people such as janitors, who would be likely to disturb dust, and others who should have little exposure to the dust such as secretaries and security guards.

At Hanford, the metal was used until 1986 in an alloy developed to close the ends of uranium fuel rods. The metal is strong, lightweight and resistant to corrosion. Hanford officials have identified 55 buildings where beryllium work may have been done.

Newman praised the Hanford Environmental Health Foundation's program to identify workers who may develop chronic beryllium disease, calling it state of the art.

The foundation brought Newman

to the Tri-Cities to speak with Hanford workers and management and doctors in the community.

Before the blood test was developed that indicates beryllium sensitivity, the disease could have been misdiagnosed as lung fibrosis, asbestosis or sarcoidosis, he said.

Because the disease is not common and may be mistaken for other respiratory illnesses, people who have been exposed to beryllium should tell their doctors they're at risk if they have respiratory problems, Newman said.

In the 1950s, about 30 percent of people diagnosed with chronic beryllium disease died from the illness, Newman said.

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Dr. Lee Newman,
international expert on
chronic beryllium disease

But now that the diagnosis is usually made fairly early, the disease is not often fatal. Doctors can use low doses of steroids to control symptoms such as shortness of breath, coughing and fatigue, Newman said.

Past and present workers concerned about chronic beryllium disease have several resources:

■ Current Hanford workers may call the HEHF beryllium hot line at 372-0137.

■ Former Hanford production workers may call 946-4716.

■ Former Hanford construction workers may call 543-2090.

■ Information is available through the Beryllium Awareness Group. Call 376-6005. More information is available at www.njc.org/medfacts/beryllium_medfact.html on the Internet.

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

DOE revises contract to manage tank farms

CH2M Hill gets extension through Sept. 30, 2006

By John Stang
Herald staff writer

A revamped contract to manage Hanford's tank farms has won approval from the Department of Energy.

CH2M Hill Hanford Group's contract has been extended through Sept. 30, 2006.

"They've done excellent work in the last few years," said Harry Boston, manager of DOE's Office of River Protection.

CH2M Hill takes care of central Hanford's 177 underground tanks, which hold 53 million gallons of highly radioactive wastes — arguably the nation's single worst environmental problem. The company is preparing to start sending wastes by 2007 to a glassification plant to be built by the newly hired Bechtel-Washington.

This contract began on Oct. 1, 1996, under

Lockheed Martin Hanford Corp., a subcontractor of Fluor Hanford. DOE later reorganized Hanford to make Lockheed a prime contractor, and Denver-based CH2M Hill subsequently bought the Hanford company from Lockheed. The original contract was scheduled to expire Sept. 30.

A major reason for the contract modifications is that Boston's office estimates CH2M Hill will have to do about \$2.5 billion worth of work between now and 2006. However, his office expects to get only \$2.2 billion from Congress during that period, Boston said.

Consequently, the extended contract contains incentives for CH2M Hill to do \$2.5 billion worth of work through 2006 with \$2.2 billion, Boston said.

CH2M Hill will have six to nine major contractual milestones each year. At the end of each fiscal year, the Office of River Protection will pay CH2M Hill for each milestone met and not pay any money for each one missed — essentially paying on a pass-fail system. Also, the office will

grade CH2M Hill's safety and administrative efforts.

If CH2M Hill makes all its milestones and scores perfectly on its administrative and safety efforts, it can earn \$106 million in profit during the contract, or almost \$17 million a year.

Meanwhile, CH2M Hill will also be graded and paid on whether it saves \$300 million to do the \$2.5 billion worth of work. The company can earn almost \$50 million by saving the entire \$300 million.

The bottom line is that CH2M Hill can earn up to \$166 million, but its risks increase because almost making a milestone translates to earning no pay.

"We've significantly raised the bar," Boston said.

Fran DeLozier, president of CH2M Hill Hanford Group, said: "It's going to be tough to clear 100 percent. But we earn more profit if we're able to do it."

CH2M Hill's graded work includes pumping wastes from the old, leak-prone 149 single-shell

tanks to the 28 newer and safer double-shell tanks. So far, pumpable liquids have been removed from 129 single-shell tanks, with nine more being pumped. Since late 1999, CH2M Hill has transferred 1.2 million gallons of an estimated 3.5 million to 4 million gallons required to be moved by 2004.

Other graded work includes checking the sturdiness of the double-shell tanks, analyzing wastes, figuring what to do with the glassified wastes and ensuring all tanks remain safe. And CH2M Hill must ensure enough space remains in the double-shell tanks to hold all the wastes pumped from single-shell tanks.

Lockheed and later CH2M Hill consistently have earned good annual grades — 89 percent to 91 percent — since 1996. The company earned 89 percent of what it could have earned for fiscal 2000, which ended Sept. 30. That translated to \$13 million to \$14 million in awarded fees.

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

Richardson signs paperwork for FFTF shutdown

Departing DOE secretary signs decision as tenure draws to close

By Annette Cary
Herald staff writer

Outgoing Energy Secretary Bill Richardson signed the paperwork Friday ordering Hanford's Fast Flux Test Facility permanently shut down and dismantled.

He'd said for months he planned to make the decision before the end of the Clinton administration and met that deadline with about 24 hours to spare.

It came as no surprise.

Richardson announced in late November

that he had decided to order the reactor closed, but then had to wait 30 days for public comment after notice was published in December.

Earlier this week, his spokesman announced that public comment hadn't swayed Richardson, and he planned to sign the decision before leaving office.

The government invested \$1 billion in the reactor, but building a similar facility today would cost more than \$2.5 billion, according to the Department of Energy.

However, Richardson has said DOE officials have been unable to find enough uses to justify operating the facility, although it's one of DOE's largest and most modern reactors.

It was built in 1978 as part of a program

to test plant equipment and fuel for new breeder reactors. A predicted increase in the need for electrical power had generated interest in those reactors, which can produce power and nuclear fuel to supply other reactors.

FFTF was started in 1982 and operated for 10 years, testing advanced nuclear fuels, materials and safety designs, until DOE decided to discontinue its liquid metal reactor development program. FFTF also made isotopes for medicine.

Since then, several uses have been considered for the reactor.

Most popular has been making more medical isotopes, as demand for their use in nuclear medicines has increased. The United

States imports 90 percent of the medical isotopes it uses.

The isotopes are widely used to diagnose illnesses now but are increasingly being used to treat cancer. Clinical trials have successfully paired radioactive isotopes with proteins that seek out cancer cells within the body. As the proteins latch onto the cancer cells, the isotopes bombard the cells with deadly radiation with minimal harm to healthy nearby cells and minimal unpleasant side effects for the patient.

DOE had been considering using the reactor not just to produce medical isotopes, but also for research and to produce isotopes for the space program.

Shutting down the reactor will cost about

\$281 million. How quickly that occurs will depend upon how much money Congress allocates for the project, but the timeline has been estimated at five years.

Once the liquid sodium is drained from its cooling system, the reactor cannot be restarted.

However, until that happens, supporters, including U.S. Rep. Doc Hastings, R-Wash., plan to appeal to the Bush administration to reverse Richardson's decision. Several Tri-City agencies and governments, led by Benton County, also are considering filing a lawsuit to keep the government from dismantling the plant.

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

B Cell cleanup expected to be done by July 31

By John Stang

Herald staff writer

The radioactive junk and dirt in Hanford's B Cell is expected to be gone by July 31 — more or less neutralizing the site's most contaminated spot within sight of Richland.

B Cell is a three-story-tall room with 4-foot-thick concrete walls inside Hanford's 324 Building where scientists used to conduct remote-control studies of nuclear fuel and glassifying radioactive wastes.

That work left a huge amount of contaminated metal racks, equipment, containers and debris inside the cell.

Several years ago, B Cell was so radioactive that an unprotected person stepping inside it would receive a fatal dose within a couple of

seconds. It is 1 1/4 miles north of Richland.

Now, about 90 percent of the equipment has been removed and the radioactivity inside the cell is a fraction of what is used to be, said Mal Wright, Fluor Hanford's manager for cleaning out the 324 Building in southern Hanford's 300 Area.

Wright praised the crews who have steadily worked overtime to try to make the July deadline.

"It's been hard for them. We've work them to the bone," he said.

A few years ago, B Cell and the smaller neighboring A Cell, which held a significant amount of spent nuclear fuel, had about 13 million curies of radiation in them. Today, they contain about 100,000 curies with the fuel.

B Cell's radioactive waste can be divided

into three general types. These are:

■ Radioactive equipment and storage racks.

With manipulator arms and remote-control blow torches, workers cut the equipment into small pieces and pack them in containers. Workers have to look through video cameras or 4-foot-thick windows to see what they are doing.

So far, about half of the radioactive equipment has been shipped to a storage site in the 200 West Area. This work is scheduled to be done by July 31.

■ Radioactive dirt, which is several inches deep on the floor.

Fluor expects to tackle that dirt in the next couple of months with a pair of crawling robots. One will be equipped with a clam-shell device to scoop up dirt in hard-to-reach

crevices and corners. The other robot will be essentially a vacuum cleaner.

This work is supposed to be done by March 31.

■ Mixed waste, which consists of radioactive items with chemicals trapped inside or smeared on them that cannot be removed.

This segment of the project was originally supposed to be done by last November but is behind schedule.

Wright said the delay is because of a combination of no cushion built into the cleanup schedule, the awkwardness of exclusively working with manipulator arms, radiation breaking down the cameras and equipment and the impracticality of doing preventative maintenance on items inside a highly radioactive chamber.

Fluor now aims to remove all the mixed wastes to the 200 West Area by March 31.

After all the debris is removed from B Cell, the cleanup efforts there won't be done.

The 324 Building still will need cleanup work. And B Cell is the biggest and most contaminated of a small cluster of chambers in the building where remote-control work was done on radioactive materials.

Those other chambers will need to be cleaned.

Also, the surfaces of B Cell's walls will still be contaminated after July. Hanford is pondering how to decontaminate them, Wright said.

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

Thursday, Jan. 18, 2001

DOE revises contract to manage tank farms

CH2M Hill gets extension through Sept. 30, 2006

By John Stang

Herald staff writer

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Land-mine detection beckons scientists

PNNL researchers' new device detects presence of hydrogen, not metal

By Annette Cary
Herald staff writer

One of the most economical weapons of civil war is the land mine — a device that can be built for \$5 but requires up to \$1,000 to detect and destroy.

As a result, the United Nations estimates 110 million land mines are buried in the fields and roads of 70 countries, ranging from Bosnia to Angola.

"They're put out to prevent people from making a living or living there," said Richard Craig of Pacific Northwest National Laboratory in Richland. And they work. Entire communities are forced to leave their homes and farms. Of those who stay behind, about 26,000 people, a third of them children, are killed or maimed each year.

It's a problem that's drawn the attention of researchers around the globe, particularly as land mines increasingly are made with plastic casings that cannot be found with metal detectors.

But PNNL researchers Anthony Peurung and Craig believe they've come up with one of the most practical ideas for finding land mines — one that's not only reliable in many conditions but also reasonably economical.

"If a detection system is easy to use and affordable, there's a greater chance Third World countries will use it," Craig said. "We have focused on building a system that meets the requirements of those countries, because they have the greatest need for clearing mines."

Researchers elsewhere are looking at technology similar to hospital magnetic resonance imaging systems that use radio waves to obtain pictures of bone and tissue inside the body. But that

American Nuclear Society chief suggests FFTF role

Idaho nuclear official says reactor could be involved in testing for future plants

By Annette Cary
Herald staff writer

Hanford's Fast Flux Test Facility could play an important testing role in developing the next generation of nuclear power plants, said James Lake, president of the American Nuclear Society.

Lake, the director of the Advanced Nuclear Energy Program at the Idaho National Engineering and Environmental Laboratory, spoke Tuesday night at a meeting of the society's

Eastern Washington Chapter in Richland.

The American Nuclear Society initially had some concerns that money to restart the reactor could drain funds from other Department of Energy nuclear programs. But this fall, it gave its unqualified support to restarting the reactor, saying members were concerned about the nation's diminishing research reactor capabilities as other reactors have been shut down.

More recently, the society appealed to President-elect Bush's transition team to ask the outgoing Clinton administration to defer a decision until Bush becomes president.

However, Lake said DOE sources expect Energy Secretary Bill Richardson to announce his decision on the Hanford reactor late this week before leaving office. Richardson has

said he plans to order the permanent shutdown of the idle reactor.

Supporters want it restarted for research, including a role in developing the next generation of nuclear power plants and to make isotopes for medicine and the space program.

If Richardson orders it shut down, supporters plan to appeal to the Bush administration to reverse the decision.

Although there's no way to predict what the Bush administration's decision would be, the energy emergency in California makes the case for a restart stronger, said Rep. Doc Hastings, R-Wash., who also spoke at the meeting.

Lake said he expected Bush to be strongly interested in nuclear energy.

World use of electricity is expected to

double in the next 20 years, Lake said, and "nuclear power can go away or play a major role."

In nuclear power's favor are the excellent recent performance of nuclear power plants, he said.

They produced 20 percent of the electricity in the United States in 1999, and generation rose 8 percent a year for the last 20 years.

They also had an excellent safety record, with plant worker radiation exposures down 80 percent from 1980, he said.

There is growing recognition among the public that nuclear energy comes with the benefit of clean air, Lake said. In fact, he believes the majority of the public favors nuclear power.

He characterizes 15 percent of people as strongly supportive and 15 percent as strongly

opposed to nuclear energy, with the middle 70 percent supportive because the energy is cheap and "because it's not in the paper every day because of accidents."

But their support is fragile, he said.

Among the challenges in moving to the next generation of nuclear power designs is allaying public fears by making the new reactors even safer than existing reactors, he said.

One way to do that is by designing reactors that minimize the operator's opportunities to make mistakes, particularly as Third World nations look to build nuclear reactors.

The high construction costs — \$5 billion to \$9 billion now for some reactors — also will have to come down, he said.

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

Richardson orders final FFTF shutdown

Supporters vow to appeal to Bush administration for restart

By Annette Cary
Herald staff writer

Energy Secretary Bill Richardson decided to permanently shut down Hanford's Fast Flux Test Facility as one of his last acts before leaving office, his spokesman, Matt Nerzig, said Wednesday afternoon.

A month ago, Richardson picked closing the dormant reactor as the best option presented in an extensive environmental study but then had to wait 30 days for public comment on the plan before signing the final decision.

Supporters of the reactor appealed to the incoming administration to ask Richardson to delay the decision until after Saturday, when it would fall to George W. Bush's Energy secretary.

However, Nerzig said Richardson would sign the order this week. No time has been set.

"This is a cynical, blatantly political act calculated to occur after the (November) election in order to satisfy anti-nuclear radicals without alienating voters in Central Washington," said U.S. Rep. Doc Hastings, R-Wash. "Since the moment the presidential election was decided, DOE shifted its effort to deactivate FFTF into high gear."

FFTF is one of the Department of Energy's largest and most modern reactors, but DOE has not had a use for it since 1993. It had been used for 10 years as a test site for nuclear fuel and components.

Once sodium is drained from its cooling system, which could require months of preparation, it

cannot be restarted. That would end the potential for any nuclear production at Hanford.

But supporters of restarting the reactor have been preparing for the possibility of a shutdown order.

"I think we have a chance with the new administration," said Sam Volpentest, executive vice president of the Tri-City Industrial Development Council. "With the energy crisis, hopefully (the Bush administration) will take a look at it before it can't be restarted."

"I am hopeful that Secretary-designee (Spencer) Abraham will work with me to reverse this, although today's formal decision makes the job of saving FFTF far more difficult," Hastings said.

Several local governments, led by the Benton

County Commission, also are preparing to file a lawsuit, if necessary, to reverse the decision.

"The Eastern Washington Section of the American Nuclear Society is extremely disappointed in this short-sighted decision that runs counter to the Department of Energy's own documentation," said Jerry Woodcock, a spokesman for both the society and a coalition of community groups and cancer patients trying to save the reactor.

"We view it as a political decision having no basis in scientific fact or morality," Woodcock said.

DOE had been considering restarting the reactor to make isotopes for medicine, particularly for new ways of treating cancer, to make isotopes for the

See FFTF, Page A2

Mid-Columbia briefs

Compiled by the Herald staff

PNNL director named to committee position

Lura Powell, the director of Pacific Northwest National Laboratory in Richland, has been appointed to a Department of Energy committee, which advises the department on nuclear energy issues.

The Nuclear Energy Research Advisory Committee, or NERAC, provides advice and recommendations on long-range plans and strategies to address scientific and engineering aspects of research and development efforts.

For instance, NERAC has advised DOE on Hanford's Fast Flux Test Facility, voting 19-2 to urge the Energy secretary to take steps to make a final decision on the reactor. Committee members also have played a role in determining long-term plans for supplying the nation's isotopes.

Powell will serve a two-year term.

Hanford workers honored for cleanup work

Hanford has received a Hammer Award from Vice President Al Gore for finding ways to trim time and costs to clean up the site's huge defunct processing plants.

The award went to a team of employees from Hanford's contractors and the Department of Energy.

The new techniques and approaches completed the "decommissioning" clean out of the Plutonium-Uranium Extraction Plant (PUREX) in June 1997 — 17 months ahead of schedule.

That means places in PUREX used by humans have been cleaned up. But PUREX's huge "canyon" chamber and the chemical processing cells beneath it are still highly contaminated.

And workers finished decommissioning B Plant in October 1998 — four years ahead of schedule.

The early clean up of both plants saved at least \$100 million in long-term cleanup costs, according to a DOE news release.

Similar advanced cleanup methods are being used at Hanford's Plutonium Finishing Plant and at DOE sites elsewhere, the news release said. This is Hanford's eighth Hammer Award in five years.

Pasco pledges to back legal fight for FFTF

City council joins Kennewick, Richland in court challenge

By Kristin M. Kraemer
Herald staff writer

Pasco City Council members decided Monday to join the fight to revive Hanford's Fast Flux Test Facility.

Though formal action won't be taken until next Monday, the council directed City Manager Gary Crutchfield to notify Benton County that Pasco wants to become a plaintiff in a future suit against the Department of Energy.

"That project has been a good neighbor for Pasco," Councilman Carl Strode said, and Pasco needs to be a good neighbor by supporting FFTF.

A decision to permanently shut down the dormant reactor could be made next week by Energy Secretary Bill Richardson, just before he leaves office.

Benton County and the Tri-City Industrial Development Council want to delay the decision until Spencer Abraham, President-elect Bush's nominee for energy secretary, can take office.

The Pasco City Council agreed to pay up to

\$3,000 for the first phase of the legal challenge.

Richland said it will pay up to \$7,500 for the first phase, and Kennewick has pledged up to \$8,000.

"While Pasco is probably the least affected by the shutdown of FFTF, I would maintain that our economy is influenced by such major employment actions at Hanford," Crutchfield said in a memo to the council. "And, to the extent we can actually minimize negative impacts, we should do so."

Supporters of the facility say restarting the reactor is the best option for producing iso-

topes for medicine and other uses. Reactors currently are in operation in Idaho Falls and Tennessee.

Isotopes have been shown to treat cancer with fewer side effects than surgery, chemotherapy or traditional radiation.

Councilman Dan Lathim, a 30-year testicular cancer survivor, recalls how terrible his six weeks of radiation treatments were and would like to see other people have an alternative to that experience.

"Today's methods and the possibilities of isotopes are just a wonderful, wonderful thing," Lathim said. "And I don't know how

anybody couldn't support it.

"It's a beautiful facility. There's absolutely no reason for it not to be utilized."

Councilwoman Rebecca Francik said she is willing to join the challenge against the FFTF closure but wonders if it's the best option.

"I think we've been fighting to keep FFTF open for a long, long time," she said. With the economy going down and Bush talking tax cuts, "there probably has to be some sacrifices made."

■ Reporter Kristin M. Kraemer can be reached at 582-1531 or via e-mail at kkraemer@tri-cityherald.com.

Liquid combats Hanford tank corrosion risk

By the Herald staff

Hanford workers expect this week to finish adding a caustic liquid to the first of four underground waste tanks to reduce the risk of corrosion.

The acidity of the highly radioactive liquids inside each tank is high enough to increase the risk of corrosion, although no significant damage has show up in so far, said Dale Allen, senior vice president at CH2M Hill Hanford Group, which manages the tank farms.

Three of the double-shell steel tanks — AY-101, AN-102 and AN-107 — have been on a list of tanks that did not meet the safety criteria set by then-U.S. Rep. Ron Wyden, D-Ore., in a 1984 bill.

The major safety problems — such as the potential to produce flammable gases — have been taken care of.

The acidity level problems were a

lower priority in the Wyden bill's criteria.

Allen said analyses of the wastes of Hanford's other 24 double-shell tanks show no signs of this acidity problem.

Last month, CH2M Hill began

pouring 40,000 gallons of caustic sodium hydroxide solution into Tank AY-101 to reduce its acidity level.

Workers plan to begin adding sodium hydroxide into the other three tanks later this year.

Beryllium disease expert to lecture in Mid-Columbia

Denver doctor to visit with health care providers, nuclear workers groups

By Annette Cary
Herald staff writer

Mid-Columbia doctors should be better prepared to treat chronic beryllium disease after this week.

It's a respiratory illness caused by exposure to the exotic metal beryllium — making nuclear sites such as Hanford one of the relatively few places in the world where it's seen.

Consequently, few doctors know much about the disease.

However, the Hanford Environmental Health Foundation is bringing the doctor who has written much of the medical literature on the disease to the Tri-Cities this week.

"Our goal is to provide as much current information as possible and to establish resources for the local providers," said Dr. William Brady, Hanford medical director.

Dr. Lee Newman of Denver will meet with the Benton-Franklin County Medical Society, other health groups, Hanford management, Hanford's Beryllium Awareness Group and concerned Hanford workers and their families Tuesday through Friday. He'll be discussing detection, diagnosis and prevention.

In the early stages of the illness, patients may not have symptoms, and as it progresses, symptoms may be similar to those of other respiratory illnesses, Brady said. But early diagnosis and treatment may help patients preserve their health.

DOE cleanup figures irk EPA officials

Agency upset Hanford revised amount of fuel it plans to move by Sept. 30

By John Stang
Herald staff writer

Hanford's latest figures on moving fuel-filled canisters out of the K Basins by Sept. 30 are 40 percent of what the Department of Energy earlier said it would do.

And the U.S. Environmental Protection Agency is really peeved about that.

That's because DOE announced on Jan. 2 how much spent nuclear fuel it expects to haul from the K Basins to an underground storage vault in 2001.

Those projections indicated 21 "Multi-Canister Overpacks," or MCOs, are to be moved by Sept. 30. An MCO is a special transportation-and-storage container that holds spent nuclear fuel as it is removed from the K Basins and moved to the central Hanford vault.

Doug Sherwood, the EPA's Hanford site manager, said DOE and the EPA agreed last spring on a technical schedule in which the project would move 51 MCOs from the K West Basin by Sept. 30.

Sherwood said DOE did not consult with the EPA before announcing the 21-MCO figure when DOE Hanford Manager Keith Klein unveiled a public "scorecard" on Jan. 2 of

See Cleanup, Page A2

Doc still fighting for FFTF restart

By Annette Cary
Herald staff writer

Rep. Doc Hastings, R-Wash., is turning to President-elect Bush's proposed energy secretary for help to save Hanford's dormant Fast Flux Test Facility.

The Department of Energy's decision to shut down the reactor fails to offer realistic alternatives to produce isotopes and to perform nuclear research as required by law, Hastings wrote in a letter to Spencer Abraham on Monday.

DOE's plan to use two other reactors is a "no growth, no vision, no reserve, no contingency alternative," Hastings wrote.

Outgoing Energy Secretary Bill Richardson has said he plans to issue a decision calling for FFTF to be shut down next week.

Hastings is asking Abraham to appeal to Richardson not to sign the decision.

Abraham also could be faced with questions about FFTF when he goes before the Senate Energy and Natural Resources Committee, which will report to the Senate on Abraham's nomination. Sen. Ron Wyden, R-Ore., an opponent of restarting FFTF, has been a member of that committee.

DOE did not receive enough firm commitments for isotopes to justify restarting the reactor, officials said in November.

"It is not clear to me how (DOE) can arrive at such a conclusion without having formally asked for specific proposals to operate the reactor," Hastings wrote.

Hastings also pointed out the market for therapeutic isotopes in 1999 already has outstripped by as much as 300 percent the annual projections made by an independent panel advising DOE.

Hastings is calling for DOE to formally request proposals for using the reactor, which would take 60 days, before a decision is issued to shut down or restart FFTF.

Top stories: Hanford Reach, FFTF, Kennewick Man major stories

Continued from A1

2. Hanford Reach

On June 9, Vice President Al Gore ended years of conflict over protection of the Hanford Reach when he announced that President Clinton had made it a national monument.

The Reach is the 51-mile stretch of the Columbia River above Richland, known for its chinook salmon and majestic White Bluffs. Also included in the deal was about 200,000 acres of Hanford lands.

Local officials favored a management plan that included them in decision-making. But Sen. Patty Murray, D-Wash., and a host of Mid-Columbia conservationists convinced the president that a federal monument designation was the best way to protect the area.

A management advisory team comprised of representatives from several interest groups starts a two-year planning process in 2001.

3. FFTF decision

Hanford's Fast Flux Test Facility seemed to have the nine lives of a cat, but in 2000, its luck appeared to run out.

Energy Secretary Bill Richardson announced in November that a decision to permanently shut down the idle reactor would be issued in the final days of the Clinton administration. That would end the potential for any nuclear production at Hanford, sealing the nuclear reservation's mission as strictly cleanup.

The reactor is large, modern, safe and unique in its capabilities, DOE officials said. However, DOE



Herald file photos

Secretary of the Interior Bruce Babbitt, shown during a tour of the Hanford Reach, played a key role in the Clinton administration's decision to name the 51-mile stretch of river as a national monument.

couldn't get enough commitments from industry, U.S. government agencies and other governments to justify continued operations, officials said.

Supporters had most recently wanted to restart the reactor to make isotopes for space missions, to make isotopes for new ways of treating cancer and other illnesses, and for nuclear research.

Once sodium coolant is drained from the reactor it cannot be

restarted. That could happen mid-2001. But until then, supporters say they will work to change the DOE decision, appealing to the Bush administration and possibly filing a lawsuit.

4. Political spotlight

The Tri-Cities received unprecedented attention in 2000 from politicians as part of a remarkable campaign year that had pundits pre-

dicting Washington would play a pivotal role in the presidential race.

Most noteworthy, Republican presidential candidate George W. Bush visited Pasco in February, followed by Democrat Al Gore in June.

Republican vice presidential nominee Dick Cheney then paid one last visit on the eve of the election.

A handful of governors from various states made the Tri-Cities their only campaign stop in Washington throughout the campaign.

Election Day, highlighted by a series of tight races, ultimately proved to be one of great upheaval. U.S. Sen. Slade Gorton, the dean of the Northwest congressional delegation, was upended by dot-com millionaire Maria Cantwell, who spent more than \$10 million of her own money in a race that was decided by a mere 2,229 votes.

Closer to home, powerful state Sen. Valoria Loveland, a Democrat, was beaten by Walla Walla Republican Mike Hewitt in what was considered the election's biggest upset in Washington.

Doc Hastings, R-Wash. — fought dam breaching at every turn.

However, NMFS also made it clear that Northwesterners would have to do quite a bit of other work to improve salmon runs or they will face the possibility of breaching again in five years.

6. Tank waste troubles

About every major Hanford project has gotten into big-time trouble at least once. In 2000, it was the tank waste glassification project's turn.

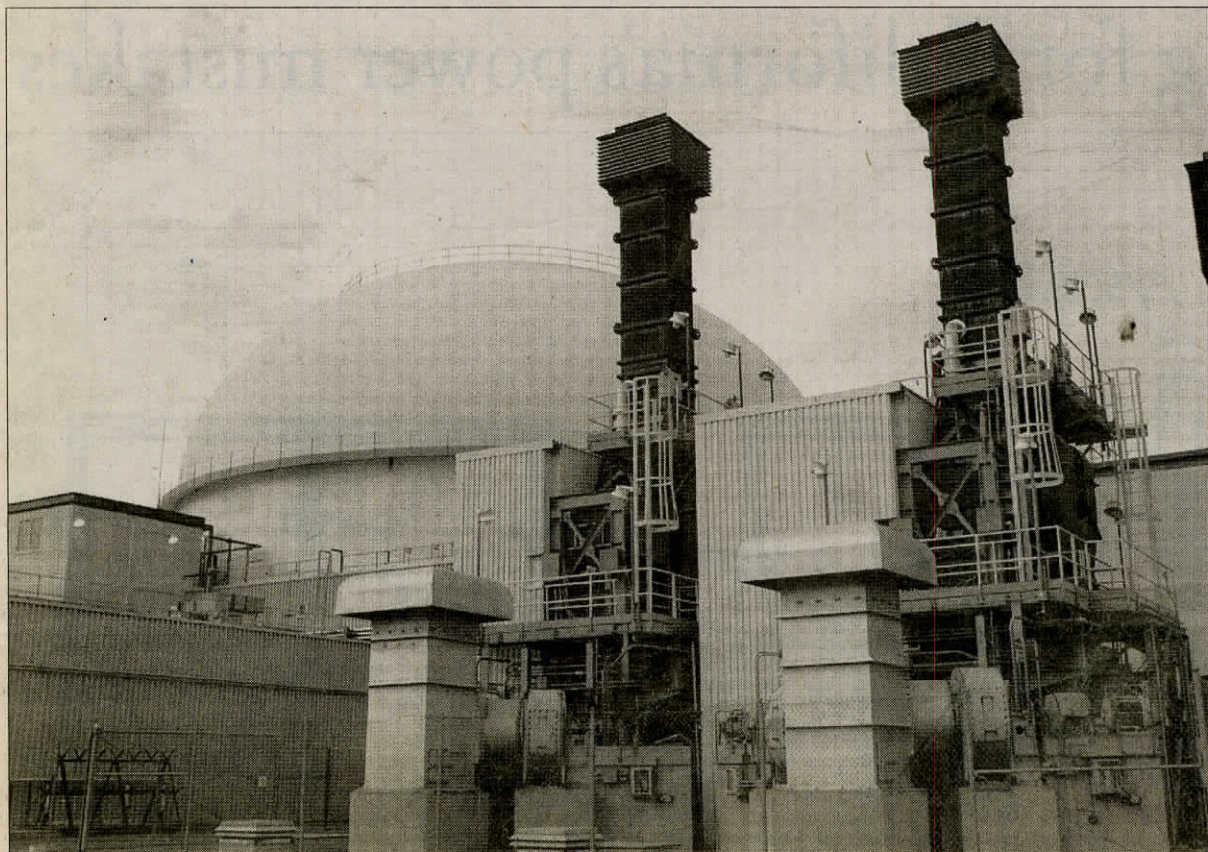
This was, and still is, the biggest, most complicated effort in Hanford's cleanup — converting 53 million gallons of radioactive wastes in 177 underground tanks into relatively benign glass.

Entering 2000, the project appeared to be going well under a team led by BNFL Inc. and Bechtel National. But last spring, DOE and the public were shocked when BNFL announced the project would cost \$15.2 billion, instead of the originally estimated \$6.9 billion.

DOE quickly fired BNFL, and Hanford was without a potential glassification contractor.

In the scrambling to put out a request for proposals to find a replacement for BNFL, DOE's headquarters clashed with Dick French, the head of DOE's Office of River Protection. DOE removed the widely respected French as head of its tank farms operations — sparking a new round of public cynicism about the project.

In December, DOE picked a team led by Bechtel and Washington Group International to take over the glassification project. The new master plan calls for the first wastes to be glassified by 2007.



Hanford's Fast Flux Test Facility appeared to run out of luck in 2000, when Energy Secretary Bill Richardson announced plans to permanently shut down the idle reactor.

Benton sees hope in challenge to FFTF's end

By Genoa Sibold-Cohn

Herald staff writer

A Seattle law firm believes Benton County can legally challenge the Department of Energy's plans to shut down Hanford's Fast Flux Test Facility.

Now, the county is looking for other cities, organizations and cancer survivors who may want to join such a lawsuit.

Benton County commissioners plan to meet at 2 p.m. Wednesday at the Fowler Building in Richland with anyone interested.

"Benton County has had a long-standing position in the restart of FFTF, and we're going to continue that," said Max Benitz Jr., Benton County commission chairman. "It's extremely important we look at our strategy."

The county likely wouldn't file a complaint until Jan. 15 — 30 days after an environmental study on FFTF was published in the federal register, Deputy Prosecutor Ryan Brown told commissioners during a special meeting Friday.

In November, Energy Secretary Bill Richardson said the nation could meet its foreseeable needs for isotopes for years to come

without the Hanford reactor. The preferred alternative is to shut down FFTF and produce isotopes in existing reactors in Idaho Falls and Tennessee.

But an attorney with Foster, Pepper & Sheffelman says there are problems with DOE's environmental study that can be challenged, Brown said. Benton County hired the firm to review possible legal avenues for challenging DOE's decision.

Some of the city officials and cancer survivors who attended Friday's special meeting said they were concerned DOE used old, inconsistent

information in the environmental study.

"There's an inconsistency in the reactor volume to make medical isotopes," said Larry Haler, a Richland councilman and chairman of the Hanford Communities. "I think this report is severely flawed."

Mike Fox, a Tri-City scientist, said the environmental study also fails to address the increase in demands for isotopes, which has increased 30 percent to 32 percent this year.

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PNNL ventures into new science

Richland lab moves to fuel cells, nanoscience

By Annette Cary

Herald staff writer

If scientists produced a list of what's hot and what's not, some projects that built Pacific Northwest National Laboratory's reputation would land in the "what's not" column.

Nationally, there's diminishing interest in research on nuclear energy or on the biological effects of radiation, for instance.

But take a look at the research areas that would make it into the "what's hot" column — nanoscience, fuel cells, computational science — and you'll find the Richland lab is developing new departments or shifting the focus of existing programs there.

"Over time, we think this will lead to real growth in the laboratory in both basic research and in technology that will have important implications," said Erik Pearson, director of strategic planning.

In the short term, that means the

laboratory should be able to tap into rich pools of research money. And it could have longer-term economic benefits for the Tri-City economy.

New emphasis on "computing, life science and nanoscience in addition to great scientific potential have great commercial potential," Pearson said. "There are opportunities for spin-offs in the community."

The lab is building new focus areas, in part, by continuing a program of grooming staff researchers for advancement, then promoting from within.

But over the last year, the lab also has launched an aggressive recruitment program to attract scientists with national and international reputations to lead new or growing programs.

Those scientists have the knowledge to decide which research is most promising and to set the direction of the programs, Pearson said.

They also bring other benefits, such as attracting other top scientists, attracting research funding and having the clout to influence the national scientific agenda and build the influence of the Richland lab, he said.

Fuel cells:

PNNL works to make fuel cells affordable, practical. **Page A3.**

See PNNL, Page A2

28 Dec 00

PNNL fires up new research on fuel cells

By Annette Cary
Herald staff writer

For 150 years, scientists have been experimenting with fuel cells, while consumers saw few practical uses.

But researchers at Pacific Northwest National Laboratory think all that will change within the next decade.

The Richland laboratory and the National Energy Technology Laboratory are managing a national alliance with the goal of having practical, affordable fuel cells on the market within 10 years.

Congress is expected to spend up to \$550 million in that time, coupled with industry money, on the Solid State Energy Conversion Alliance, a coalition of government agencies, commercial developers, universities and national laboratories.

Since amateur physicist Sir William Grove constructed the first fuel cell in 1839, several types have been developed based on the concept of using a chemical reaction to produce electricity.

"It's more or less like a battery," said Subhash Singhal, fuel cells director for the Energy Science and Technology Division of the Richland lab.

"In batteries, the amount of energy is limited by the amount of chemical in the battery. A fuel cell is a continuous battery, because it keeps supplying fuel all the time."

Most versions of fuel cells use pure hydrogen. But the United States lacks an infrastructure for widespread production of hydrogen for fuel cells.

Instead, the Richland program is focusing on solid oxide fuel cells — a type that converts widely available natural gas to hydrogen and carbon monoxide within the fuel cell.

However, solid oxide fuel cells have other challenges — such as high temperatures.

"That can be a problem or it can be an advantage," Singhal said.

It can be useful for heating a home or producing more electricity in a generator. But it also requires expensive materials to withstand the heat,



Herald/Katharine Kimball

Subhash Singhal, fuel cells director for the Energy Science and Technology Division at Pacific Northwest National Laboratory, holds a single ceramic solid oxide fuel cell. Fuel cell components and a model of a fuel cell system are displayed on the table. The Richland lab hired Singhal as part of its new focus on the promising technology.

and it causes wear and tear on the cell.

"The emphasis at the lab is to lower the operating temperature ... so we can utilize cheaper materials to construct them," Singhal said. "The main issue of any fuel cell is cost. It needs to be brought down to current technologies."

If the lab can get temperatures

down to around 1,400 degrees, cheaper materials such as stainless steel could be used in the cells. At higher temperatures, more expensive nickel-based alloys are required.

Researchers are experimenting both with new heat-resistant materials that are less expensive and new, cooler designs.

The Richland lab brings a history

of materials research to the project, but work also is progressing to design the complete systems.

The alliance is focusing on producing about 5-kilowatt fuel cells that can be stacked together in minipower plants to produce more electricity.

A stack of three fuel cells could be smaller than a deck of playing cards. Eventually, stacks of fuel cells about the size of a dishwasher could provide the electricity for households.

The first use of fuel cells developed by the alliance may be for auxiliary power systems in vehicles by 2005.

For instance, cells might power a fax machine or other accessories in a luxury automobile or run the air conditioner overnight in a semi-truck's cab while the trucker sleeps, allowing the motor to be turned off.

But for such uses to be practical, researchers need to design models that are less expensive and smaller than existing units produced elsewhere, which would fill the trunk of a car. The lab also is using computer models to come up with designs that can be started more quickly.

The alliance sees other uses for the fuel cells within the next decade, particularly for the military.

Internal combustion engines have a fuel efficiency of 17 percent to 20 percent. With fuel cheap, that inefficiency isn't a problem.

But the military is interested in more efficient systems even if they are more costly because less fuel would need to be hauled to battle zones.

Fuel cells are about three times as efficient as an internal combustion engine.

Initially, the military could use them to power equipment carried by soldiers, such as global positioning systems. But eventually they could be used to power ships and submarines.

The Richland laboratory has about 25 people working on the fuel cells project now, but that could double within the next few years, Singhal said.

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29 Dec 00

DOE halts outside waste shipments to Hanford

By John Stang
Herald staff writer

The Department of Energy plans to hold off sending outside federal low-level radioactive wastes to Hanford until probably next fall.

That is several months later than DOE's previous commitment to delay these waste shipments.

For many years, Hanford has accepted and buried some low-level radioactive wastes from other DOE sites. Low-level wastes are mildly contaminated items such as clothes, rubble, tools and chopped-up equipment.

Then, last February, DOE announced that Hanford and the Nevada Test Site would accept and store all low-level radioactive wastes produced at other DOE sites.

At the same time, Hanford was picked to accept and store much of the mixed low-level wastes produced at other DOE sites — which it officially has not done before. There has been speculation some mixed wastes have ended up in west-central Hanford's low-level waste burial trenches. Mixed wastes are low-level radioactive wastes that also contain hazardous chemicals.

The idea of Hanford accepting other sites' wastes while dealing with its own overwhelming cleanup problems has irked the state and many Hanford constituencies.

The state Department of Ecology and Attorney

General Christine Gregoire are exploring somehow legally linking Hanford's acceptance of other federal wastes to DOE's progress in building and operating plants to convert the site's highly radioactive tank wastes into glass.

That attempt is still unresolved.

The state cannot legally regulate federal low-level radioactive wastes. But it can do so if hazardous chemicals are present in those wastes.

Several months ago, DOE agreed not to send any outside federal wastes from any new sites to Hanford until it had selected a corporate team to build the glassification plants. DOE picked a team led by Bechtel National and Washington International Group earlier this month — meeting the agency's commitment.

But on Dec. 8, DOE's cleanup czar, Carolyn Huntoon, sent a letter to Tom Fitzsimmons, director of Washington's Department of Ecology, that said the agency does not plan to ship any new low-level or mixed wastes to Hanford until an environmental study on all the site's solid radioactive and mixed wastes is completed. No new wastes will be shipped until a formal decision dealing with all of Hanford's solid wastes — meaning predominantly mixed, low-level and transuranic — is filed in the Federal Registry, the letter said.

The state expects that to happen next fall, said Ecology Department spokeswoman Sheryl Hutchison.

Huntoon wrote: "This commitment is intended to show the department's good faith in addressing the state's concerns and to increase the state's confidence in the department's efforts to demonstrate real progress in cleaning up the Hanford site."

However, Huntoon's letter elsewhere said: "Should any unexpected circumstances arise that might cause our plans to change in this regard, the department commits to consult with the state of Washington before proceeding with any such shipment."

While all these agreements address shipping wastes to Hanford from new federal sites, they have never addressed the volumes shipped from DOE sites that currently send wastes to Hanford. Traditionally, one-third to one-half of the 5,000 to 6,600 cubic meters of low-level wastes buried annually at Hanford have come from other DOE sites.

But in early 1999, DOE began shipping slightly contaminated uranium-containing rubble to Hanford from a Pennsylvania uranium fuel processing site cleanup project.

That ballooned the amount of low-level wastes that Hanford buried in fiscal 2000 to 7,408 cubic meters, with 84 percent coming from outside of Hanford. However, the Pennsylvania shipments are expected to end in the near future.

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Bechtel Hanford receives 'outstanding' rating

By Wendy Culverwell

Herald staff writer

The Department of Energy has awarded Bechtel Hanford Inc. \$10.8 million for its environmental restoration work in 2000.

It is the 11th consecutive year the Bechtel-led team, which also includes CH2M Hill Hanford and Thermal Hanford, has received an "outstanding" rating for its work to secure defunct reactors and protect the Columbia River from contaminated water and soil.

The fee and rating reflect progress the Bechtel team made toward meeting goals DOE set out for the current fiscal year, said Bob Rosselli, DOE's deputy manager for business services.

"This is excellent news for them," Rosselli said.

Keith Klein, DOE manager for Hanford, cited Bechtel for achieving some of the most visible cleanup progress to date.

Bechtel Hanford President Mike Hughes said he was pleased by the rating. He credited the subcontractors and Bechtel employees for being knowledgeable and innovative as they went about their jobs.

"It was an outstanding effort on the part of our team," he said.

For example, Bechtel removed nearly two times as much contaminated soil from the river shore as was set out in the goals.

Hughes said that was possible in part because workers found more soil than expected and also because they found better ways to deal with it.

"They kept coming up with better ways to move the material," he said.

Key accomplishments included:

■ Removing more than 639,000 tons of contaminated soil from six cleanup sites along the river. That's almost double the amount specified in the goals laid down for the year. In related work, the team expanded the Environmental Restoration Disposal Facility.

■ Significant progress toward cleanup of several Cold War relics — the F and DR reactors and the 233-S plutonium processing facility.

The reactor project involves removing ancillary buildings at each reactor and sealing off the reactor buildings to prevent water and rodents from getting in. Sealing the reactors reduces the need for monitoring and oversight.

The work is 75 percent complete at F Reactor and 80 percent complete at DR Reactor, according to DOE.

■ Deploying new technology to treat chromium-contaminated ground water in places. The new technology permits water to be treated in the ground, which is less expensive than standard pump-and-treat methods.

■ Helping develop the Family Fishing Pond recreation area at the east end of Kennewick's Columbia Park and working on a project to expand the Tri-Cities Chaplaincy Hospice, a residential facility for terminally ill patients.

Bechtel's goals for the coming year include completing work on the F and DR reactors, getting started on the D and H reactors, removing 490,000 tons of contaminated soil and expanding the ground water treatment technology to other chromium-contaminated sites.

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Department of Energy recognizes PNNL work

By the Herald staff

The Department of Energy has ended 2000 by putting together a list of its top 100 scientific and technological accomplishments since it was created, including work at its Richland laboratory.

The department is honoring Pacific Northwest National Laboratory for its work, often with other agencies, on the following projects:

■ In 1999, new energy standards for commercial buildings were completed. Commercial buildings spend more than \$100 billion annually on energy. The new standards could lead to cost savings of as much as \$20 billion a year — more than DOE's annual budget — and a decrease in greenhouse gas emissions. Scientists worked with a national committee to reach consensus among a broad range of interests, including building contractors, code officials and utilities.

■ In 1995, the Wide Area Measurement System was launched to determine the information needs of the emerging power system and to develop guidelines for deploying the technology to meet those needs. The resulting technologies have been instrumental in maintaining the reliability of the electrical infrastructure, even during deregulation and growing demand, according to DOE.

■ In 1994, the Richland lab worked to make the Council of American Building Official's Model Energy Code more

understandable to users. It turned the complex requirements into a simple but comprehensive set of tools called MECcheck. It's supported by a hot line, a Web site as well as computer and other training. Simplifying the code's use has led to more states adopting the code, leading to lower power use, according to DOE.

■ In 1990, an efficient method of retrieving the medical isotope yttrium 90 from nuclear waste was developed. The isotope can be attached to proteins that seek out cancer cells throughout the body. When the proteins latch onto a cancer cell, the isotope bombards it with a deadly dose of radiation, with minimal damage to healthy cells. Yttrium 90 had been demonstrated to be effective for treating advanced cases of lymphoma, leukemia and tumors of the breast, brain and other organs.

■ In 1988, a new technique was developed to improve the ability to analyze and characterize biological samples that have paved the way for medical advances. When the capillary zone electrophoresis-mass spectrometry was developed, many saw only narrow research applications. Now, however, it's being sold by most major manufacturers of mass spectrometers. Its applications include metabolite characterization, drug and protein identification, and evaluation of new candidates for drug development.

DOE extends Fluor contract to 2006

6-year, \$3.8 billion deal laden with incentives

By Wendy Culverwell

Herald staff writer

The Department of Energy has extended Fluor Hanford's contract to manage a major part of the site's cleanup through 2006.

The six-year contract is worth approximately \$3.8 billion, with incentives for Fluor to

earn up to about \$168 million in profit. The company earned nearly \$20 million this year under its existing contract, which was set to expire in 2001.

Keith Klein, manager of DOE's Hanford operations, and Ron Hanson, president of Fluor Hanford, signed the contract extension Thursday morning.

Klein said the new contract signals DOE's satisfaction with Fluor's work.

The firm handles overall management of the Hanford site and manages several cleanup projects. Its largest projects include removing spent nuclear fuel from the leaky K Basins and converting plutonium at the Plutonium Finishing Plant into safer forms.

The company replaced Westinghouse Hanford Co. as the primary contractor Oct. 1,

1996. Fluor and its main subcontractors employ about 4,200 people.

"Fluor has earned \$20 million this year — that's a reflection of good work," Klein said.

Hanson was pleased with the contract extension.

"We've had a banner year in terms of the work that's been done," he said.

That work includes removing fuel at the K Basins, accelerating by a factor of four the rate

of plutonium stabilization, shipping the first batch of transuranic waste to New Mexico and dispatching 667 metric tons of uranium trioxide to DOE's facility in Ohio.

The new contract contains a series of cash incentives for Fluor to meet goals related to deadlines and volumes of wastes handled.

For example, Fluor must move spent fuel

See **Contract**, Page A2

Replacing pump called step toward glassification

By Wendy Culverwell

Herald staff writer

By replacing a large pump in a radioactive waste storage tank at Hanford, workers moved one step closer toward eventually moving millions of gallons of deadly waste from the tank farm to a glassification facility.

The Department of Energy's Office of River Protection and its tank farm contractor, CH2M Hill Hanford Group, successfully replaced a 50-foot transfer pump in Tank AW-104 last week.

The million-gallon tank is one of the tanks that eventually will serve as a staging point after the glassification plant is built and ready to start accepting the highly radioactive wastes stored at the tank farm.

Replacing the old broken pump was perhaps the most challenging work on a Hanford tank in a decade and was significant because it's a major step toward showing how existing double-shelled tanks and underground transfer lines can be upgraded for future cleanup programs.

DOE previously showed it can move waste

across the site in a special pipeline, and last spring CH2M Hill showed it could mix up layers of settled waste at the bottom of the underground tanks.

The replacement pump is part of a system for transferring waste through the staging tanks to the glassification plant.

Replacing the pump in Tank AW-104 is part of \$1.4 billion in upgrades to prepare the tank farm to transfer approximately 53 million gallons of highly radioactive and hazardous wastes stored at Hanford's 177 underground tanks to the glassification plant.

The waste is mostly stored in 149 old leak-prone single-shell tanks, 67 of which are suspected of leaking more than 1 million gallons of radioactive liquids.

The goal is to move all the waste into 228 of the safer double-shell tanks for eventual conversion to glass logs.

In the immediate future, the newly working pump means some can be transferred from the underground tanks to an evaporation facility, reducing overall volume.

The successful pump replacement comes on

the heels of the announcement that DOE has awarded a lucrative contract to the team of Bechtel National Inc. and Washington Group International to continue development of the glassification facility.

DOE fired its original contractor after costs mushroomed to \$15.2 billion, in part because of the way that contract was structured.

The plan is to start treating waste by 2007.

Reporter Wendy Culverwell can be reached at 582-1537 or via e-mail at wculverwell@tricityherald.com.

dry storage

By The Associated Press

The first canister containing spent nuclear fuel has been moved from a leaky pool near the Columbia River to a dry storage plant near the center of the Hanford nuclear facility.

The cask containing vacuum-dried nuclear fuel from the K-West Basin was transported about nine miles Monday to a new canister storage building, where it will be placed in one of 220 underground tubes inside a concrete vault, Energy Department spokeswoman Andrea Powell said.

The placement of the canister in the tube for permanent storage is the third and final step in the Energy Department's plan to remove about 2,100 tons of spent fuel, including 4 tons of plutonium, from the K Basins.

The fuel, from Hanford's defunct N Reactor, has been stored underwater in the K Basins, which are large pools built in the 1950s with a planned use life of 20 years.

Between now and July 31, 2004, contractors plan to move 105,000 fuel assemblies from the pools. They will be cleaned, dried and stored in canisters in 40-foot-deep underground stainless steel vaults below a 5-foot-thick concrete floor.

The new canister storage building is intended to be an interim storage site for as long as 40 years, with the waste eventually headed for permanent disposal at a national repository, possibly in Nevada's Yucca Mountain.

Once the basins are emptied, radioactive sludge and water also must be cleaned out of the pools, and then they will be demolished. The completion target date is 2007.

Battelle gets top DOE mark for 3rd straight year

Operators of PNNL also receive \$7 million award

By Jason Hagey

Herald staff writer

For the third straight year, the Department of Energy has awarded the Pacific Northwest National Laboratory an "outstanding" rating, the highest possible evaluation.

The top grade comes with a \$7 million reward for Battelle, which operates the Richland-based lab for the federal government, as well as harder to measure plums such as morale boosts for the staff of scientists and administrators and an improved public image.

Lura Powell, PNNL director, praised the Battelle staff for man-

aging to win three outstanding ratings in a row and expressed optimism the lab will achieve the same rating again next year.

"I think this gives a lot of credit to our staff," Powell said. "For me, having the money is nice, but the really important thing is this shows we really do run an outstanding workplace, and it shows broadly to the community how well this lab is run."

Keith Klein, DOE's Hanford manager, congratulated Battelle for the recognition.

"Since 1965, PNNL has used experience, innovation and forward thinking to create one of the premier multipurpose national laboratories

See **Battelle**, Page A2

Hanford board seeks public representative

The Hanford Advisory Board is looking for a member to represent the public.

Four of the 32 seats on the board, which gives advice on Hanford policy issues, are filled by members of the public. In making appointments to the board, state and federal officials may consider the diversity of members and such expertise as leadership skills or technical, economic or agricultural knowledge.

The Department of Energy pays travel expenses, but warns that members are required to spend a significant amount of time at meetings and studying materials.

Nomination and application forms are available by calling 800-321-2008. They are due Jan. 12.

PNNL, Southridge team up for success

By Terry Hudson

Herald staff writer

A program that allows a Pacific Northwest National Laboratory scientist to work with teachers and students has allowed some Southridge High School students to fill a need at the Richland lab.

Bradon Kanyid, Gabe Guillen and Evan Comben are working on a system that allows scientists to monitor extreme cold temperatures deep inside the lab's mass spectrometers — high-tech, multimillion-dollar instruments the lab is using to study animal proteins.

The project has the student computer enthusiasts enthralled.

"Sometimes, we'll be working on it over our lunch time," Kanyid said. "It's not boring."

"It's not the kind of work you like to put off," Guillen added.

With teacher Jim Hendricks and PNNL mentor and electrical engineer Gordon Anderson, the team has created four microprocessor-controlled electronic devices to allow scientists to monitor temperatures.

Data is collected every five minutes and is logged remotely over the Internet at Southridge High.

Before the project, scientists were using a cumbersome and less accurate method to read the internal temperatures. Sensors inside the instruments provide temperature readings as electrical resistance.

Scientists would note the resistance reading and compare the reading with a number on a printed chart taped to the wall to determine temperature.

From the classroom, the student can check the data and convert it into graphs, allowing researchers to spot trends in temperature change related with time.

Hanford looking for new technology to speed cleanup

Planning begins for developing tools for highly polluted sites

By John Stang

Herald staff writer

Hanford expects to map out how it will develop new cleanup technologies in the next few months, which could determine how quickly one of the most radioactive river shore areas may be addressed.

The Department of Energy's Richland office expects to send a technology development plan to its Washington, D.C., headquarters in February or March, said DOE's Hanford Manager Keith Klein.

He discussed that plan after a Monday public forum on DOE's plan to accelerate cleanup along Hanford's Columbia River shore so it can show significant progress by 2012.

New technologies will be a key to how fast DOE can tackle burial sites 618-10 and 618-11 — possibly the most troublesome spots along the river.

About 80 people attended the forum in Richland. DOE officials outlined the plan to speed the removal of contaminated river-side soil plus the demolition and sealing of old reactor complexes. DOE also wants to accelerate cleanup of the 300 Area.

How this plan materializes will greatly depend on what the new presidential administration and new Congress will agree to appropriate for fiscal 2002. DOE's 2002 budget request will be unveiled in February or maybe a little later.

For 2001, DOE's Richland office is getting \$755 million, while the Office of River Protection is getting \$780 million for a total of \$1.535 billion.

But starting in 2002, DOE's Richland office will need about \$800 million annually to pay for its accelerated river shore cleanup.

That proposed increase will come as the Office of River Protection asks for about \$1.075 billion for 2002 as the tank waste glassification project cranks up. That means Hanford needs roughly \$1.875 billion in 2002 —

about \$340 million more than in 2001 — to accomplish DOE's plans.

Klein is optimistic extra money will materialize because the federal government is benefiting from a good economy, plus he believes Washington, D.C., power brokers realize spending cleanup money now will head off bigger cleanup bills later.

Six audience members spoke Monday, mostly supporting the plan or asking technical questions. Gene Weisskopf of the B Reactor Museum Association pushed for early cleanup around B Reactor to boost efforts to create a museum there.

Ken Bracken, co-vice chairman of the Hanford Advisory Board, said a public workshop is needed to hammer out what standards a cleaned-up river shore should meet.

Sources of tension regarding this acceleration plan are the highly radioactive 610-10 and the bigger and more radioactive 618-11 burial sites. These wastes can be removed only with yet-to-be-invented remote-control handling equipment.

Last week, the Hanford Advisory Board voted to support DOE's plan if it speeds up developing technologies to handle sites 618-10 and 618-11. Board members also worry that the 618-11 site, possibly the most radioactive near the river, and how to deal with its contaminant plumes, are being short-changed in this plan.

Klein said the accelerated river shore cleanup is supposed to tackle projects doable by 2012. Questions exist on what is technically feasible now and later regarding 618-11 and the plumes, he said.

"We're not trying to kid anyone that we can fix the 618-10 or 11 situation or the plumes in that (2012) time frame. We're trying to tell Congress what we can do in that time," Klein said.

He said 618-10 and 618-11 are being closely watched but have not shown signs that their actual cleanup needs to be accelerated from DOE's tentative plans to start about a decade from now.

However, he said coming up with ways to

clean out 618-10 and 618-11 likely will be high priorities in the upcoming technology development plan.

But he cautioned that ground water fix-it measures, finding better and cheaper ways to determine contents inside of transuranic waste barrels, and other sampling and analysis needs will also be high priorities.

Doug Sherwood, the EPA's Hanford site manager, agreed tackling 618-10 and 618-11 need to wait for the right technologies to be developed. He also noted the high costs — at least \$300 million for 618-11 — will require extra increases on DOE's strained cleanup budgets. Plus Hanford has not figured out how to process and store wastes after they are removed from 618-10 and 618-11.

However, Sherwood said the EPA has not seen DOE make "a very big investment" so far in developing technologies to deal with 618-10 and 618-11.

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

Bechtel team wins vit plant contract

Bechtel, Washington Group enter 10-year, \$4 billion agreement

By John Stang

Herald staff writer

The two-company team of Bechtel National Inc. and Washington Group International Inc. is now Hanford's radioactive waste glassification contractor.

The companies signed a 10-year contract with the Department of Energy on Monday — about five weeks before the legal deadline for DOE to replace fired contractor BNFL Inc.

The two companies could earn up to \$600 million in profits during those 10 years.

"This keeps us on track for Hanford's cleanup," said Harry Boston, acting manager of DOE's Office of River Protection, which supervises Hanford's 177 underground waste tanks and the project to convert the tanks' highly radioactive wastes into glass.

"(DOE) should be congratulated for selecting a contractor a month ahead of schedule," said U.S. Rep. Doc Hastings, R-Wash.

The project is supposed to convert the first wastes into glass in 2007 and have the plants fully running by 2011, when a new contractor is to take over.

The waste storage tanks are the site's biggest and most complicated problem. The 53 million gallons of wastes are mostly in 149 old leak-prone, single-shell tanks, 67 of which are suspected of leaking more than 1 million gallons. Hanford is moving all the wastes into 28 safer double-shell tanks for eventual vitrification.

METRO/NORTHWEST

WEDNESDAY, DECEMBER 13, 2000

TRI-CITY HERALD

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Nez Perce want DOE to reclean 2 sites

DOE to look into concerns of contamination at traditional Indian root gathering areas

By John Stang

Herald staff writer

The Nez Perce Tribe is flexing some untried regulatory muscle to try to get the Department of Energy to reclean two sites that were traditional American Indian root gathering spots.

Nez Perce and DOE officials discussed the tribe's concerns Friday.

And DOE said it would look into those concerns with the two parties expecting to meet again in January, said Kevin Clarke, manager of DOE's Indian nations program at Hanford, and Rob Smith, a policy analyst for the Nez Perce.

That meeting came after the Nez Perce formally requested that Hanford's Natural Resources Trustees Council sponsor a look into the tribe's concerns about hazardous contaminants at two closed-down Cold War-era landfills in southern Hanford.

The tribe contends contaminants remain at those sites after DOE declared them cleaned. Under federal law, the tribe can request an investigation into damages caused by those contaminants and possibly force DOE to pay for cleaning them up.

The tribe does not want to receive any money from DOE, seeking only that DOE pay for any needed cleanup, Smith said.

One of the two sites is Horseshoe Landfill, which is about a half-mile somewhat northwest of the old Nike missile bunker at the bottom of Rattlesnake Ridge. The Army used it from 1950 to 1961, and the pesticide DDT was deposited there. Excessive DDT showed up at the landfill in 1998 and 1999 samplings after the site was cleaned up, according to the Nez Perce.

The other site is the Horn Rapids Landfill on Hanford's southern border, located across Horn Rapids Road from Siemens Power Corp.'s plant's north side. The tribe said elevated levels of trichloroethylene — a commonly used degreasing chemical — are in the ground water near that landfill.

The tribe believes the chemical has oozed from Hanford's former 1100 Area to the south. But DOE has not found a source for trichloroethylene in the 1100 Area, and there are some beliefs that the chemical could have come from Siemens, Clarke said. Meanwhile, Siemens spokesman Wayne Baker said the company's studies could not verify nor dispute the claim.

Both sites are in areas DOE officially considers clean.

Before the arrival of white settlers, Hanford was a crossroads in the migratory lives of several tribes

that fished, hunted and gathered roots for food in this area. Those roots include wapato, desert parsley, balsam root, yampah and others.

Three Indian nations — the Nez Perce, the Yakama Indian Nation and the Confederated Tribes of the Umatilla Indian Reservation — kept the right to hunt, fish and gather roots at Hanford under treaties in 1855 with the United States.

The Nez Perce tribe contends contamination at those two landfills stops its people from safely gathering roots for food at those locations.

The Nez Perce are represented on Hanford's Natural Resources Trustees Council, which provides cleanup-related input to DOE pertaining to plants, birds, animals, insects, water, ground water and habitat.

The seven-member council includes representatives from DOE, the U.S. Department of Interior, Washington, Oregon, the Nez Perce, the Umatillas and the Yakamas.

Under federal law, the Nez Perce filed their request for a damages assessment with the trustees council, which will supervise the investigation. In the future, if the Nez Perce believe DOE is not adequately addressing these concerns, they can file a lawsuit in federal court.

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

HAB seeks 'united' goal on river shore cleanup funding

By John Stang
Herald staff writer

PORTLAND — Hanford Advisory Board members will continue work today toward reaching a united stance on a Department of Energy proposal to shift money and resources to accelerate efforts to clean up Hanford's river shore areas.

DOE wants a united position from the Hanford Advisory Board — which represents most Hanford public interests — to give the agency extra clout in selling the concept to Congress. DOE wants to convince Congress to provide extra funding for the plan to clean up the old reactor areas and the 300 Area along the Columbia River's shore by 2012.

But on Thursday, board members meeting in Portland could not agree on a united stance on the proposal. They plan to continue discussions today.

Most board members voiced some support for speeding up cleanup along the river shore to show tangible progress to Congress and the world. But stumbling blocks include:

- Some environmental group representatives object to part of the proposal that would clean up the 300 Area to industrial use standards, with the possibility of additional cleanup later to reach unrestricted use standards. Instead, they want the more expensive unrestricted use standards locked in immediately.

- A near consensus that DOE's accelerated

cleanup plan would not do enough to fix ground water contamination problems along the river shore.

- Questions of how best to voice solid positive support for accelerated river shore cleanup while emphasizing that the board believes some projects should retain higher priorities.

The board believes ground water cleanup, removing nuclear fuel from the K Basins and converting plutonium into safer forms should be higher funding priorities than river shore cleanup.

The board also wants DOE to accelerate developing technology needed to clean out the highly radioactive 618-11 burial site next to the Energy Northwest complex.

- A belief that DOE is not asking for enough money for Hanford's overall cleanup.

Hanford's cleanup budget — minus the tank farms and waste glassification project — would have to be about \$800 million annually through 2012 for the accelerated cleanup to be accomplished, according to DOE's estimates.

This budget is \$755 million for 2001, and DOE wants the Hanford Advisory Board's backing to ask Congress to bump that up to \$800 million for 2002.

But Hanford's annual cleanup budgets have traditionally fallen short, forcing much of the soil studies and cleanup in the 200 Area continually being put off.

Figures on the budget shortfall for 2001 were not available Thursday.

And the cleanup budget and shortfalls for 2002 have not been determined yet.

However, some board members speculated the budget shortfall in 2002 could reach \$200 million.

"My experience is that the existence of a vision we can get behind will cause things to happen," said Mike Gearhard, Northwest regional administrator for the U.S. Environmental Protection Agency.

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HAB endorses plan by DOE to speed river shore cleanup

By John Stang
Herald staff writer

PORTLAND — The Hanford Advisory Board sorted out the nuances it needed Friday to formally voice support for the Department of Energy's proposal to accelerate Hanford's river shore cleanup.

The board's endorsement extends to DOE asking for extra river shore cleanup money from Congress — as long as DOE also requests enough to meet all its annual legal cleanup obligations.

DOE wants to shift extra money and resources to efforts to clean up most of the Columbia River area in Hanford by 2012.

That covers the old reactor areas and the 300 Area near north Richland, where reactor fuel was fabricated. DOE wants approximately an extra \$50 million from Congress annually from 2002 through 2012 to pay for accelerating river shore cleanup.

The "2012 vision activities represent a priority of the (Hanford Advisory Board), although not the highest priority," said a written statement adopted by the board Friday in Portland.

The board believes higher priorities should be given to dealing with radioactive tank wastes, contaminated ground water, spent nuclear fuel in the K Basins and leftover plu-

tonium. DOE already isn't seeking enough money for ground water cleanup, according to the board.

Members also want DOE to step up efforts to develop the technology needed to clean out the highly radioactive 618-11 burial site next to the Energy Northwest complex.

Most board members have generally supported the idea of speeding up cleanup along the river so Hanford can show tangible progress in the near future to Congress and the public.

But board members got stalled Thursday on numerous details and nuances that prevented them from agreeing on a united stance. Those disagreements were resolved enough by Friday for the board to feel comfortable in voicing general support of DOE's proposal.

Hanford officials will discuss the plan, dubbed "Hanford 2012," at a town hall meeting at 6:30 p.m. Monday in the main ballroom of the Richland Red Lion, 802 George Washington Way.

Keith Klein, the Department of Energy's Hanford manager, and Harry Boston, acting manager of the Office of River Protection, along with various state and federal officials plan to speak.

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Wednesday, Dec. 13, 2000

Glassification team expects to start by April

Bechtel-Washington leaders hunker down to map out plan

By John Stang
Herald staff writer

The new Bechtel-Washington glassification project team expects to take four months to crank up to full steam at Hanford.

By April, Bechtel-Washington is scheduled to employ about 700 people, fully control the design work and hire a subcontractor to handle operations matters. Also, Bechtel-Washington is supposed to have a master design-and-construction plan plus cost figures mapped out by April.



Naventi

Today, this joint venture of Bechtel National Inc. and Washington Group International has a dozen people in a north Richland office tackling the third day of a \$4 billion effort to design, build and test plants in central Hanford to convert radioactive wastes into glass by 2011. Then, a long-term operating company is supposed to take over.

"We're starting to mobilize our team," said Ron Naventi, Bechtel-Washington's project manager. Naventi, 56, has been a senior vice president and manager of operations for Bechtel

National and has 21 years with the multinational engineering giant.

Todd Martin, chairman-elect of the Hanford Advisory Board, said: "My concern is that getting a contractor on board is only one small step in this project."

The plants still have to be built, and Congress still has to appropriate the needed \$4 billion over the next 10 years, he noted.

Hanford has 53 million gallons of radioactive wastes in 177 underground tanks the Department of Energy wants to convert into glass — the most radioactive 10 percent by 2018 and the rest by 2028.

Bechtel-Washington replaces a former team led by BNFL Inc. and Bechtel that spent two years designing those plants with the intention of building and operating them.

But DOE fired BNFL, the lead contractor, last May when the project's overall cost estimate zoomed from \$6.9 billion to \$15.2 billion. Much of that skyrocketing price came from DOE's and BNFL's plans for private investors to sink billions of dollars up front while waiting several years for DOE to pay them back. That resulted in extraordinarily high financing costs.

Then, DOE removed Bechtel from the project to avoid a conflict of interest when the federal agency sought new bidders for the project. CH2M Hill Hanford group became the interim

caretaker — absorbing 189 Bechtel and BNFL employees and 278 of that team's subcontractors' workers.

Two teams submitted bids. Bechtel led a team of itself and Northwest construction behemoth Washington Group. Fluor Corp. led a team of itself, Cogema Inc. and Foster Wheeler Corp. DOE selected Bechtel-Washington on Monday with many Hanford observers, including Martin and Gov. Gary Locke, praising it for quickly picking a replacement.

DOE officials said measures were taken to ensure Bechtel did not have an unfair advantage because of its previous experience in the project. Martin said DOE tried to level the playing field, but Bechtel's history with this project gave it "a home court advantage" on winning the contract.

Naventi said Bechtel-Washington plans to issue a request for proposals from potential operations companies around Feb. 1. BNFL and Cogema are interested in that contract.

Then, Bechtel-Washington expects to sift through and hire most of the original glassification team's workers from CH2M Hill by April. Then, it hopes to start hiring construction trades workers and begin some limited construction by November 2001. The construction work force should peak at 2,000 to 2,500 people a couple of years later.

Meanwhile, the contract says 60 percent of the work's dollar value is supposed to be subcontracted beyond the core team. A few small contracts should go out for bids soon, with sev-

eral major ones materializing in the latter half of 2001, Naventi said. Two area radioactive waste processing companies, GTS Duratek and Allied Technology Group, have already voiced interest in some of that work.

Bechtel-Washington is required to convert the first wastes into glass by 2007, having until 2011 to get fully operational.

Meanwhile, DOE has hired Bechtel-Washington under an incentive-oriented contract, which is drastically different from what was proposed for BNFL-Bechtel.

DOE will reimburse Bechtel-Washington frequently for the project's costs. But Bechtel-Washington's fees — meaning profits — will be tied to whether the team can trim costs and move ahead of schedule.

If the project is completed on time for \$4 billion, Bechtel-Washington would earn \$275 million in profits through 2011. That would go up to \$475 million if the project's costs end up at \$3 billion. The team could earn a top amount of \$600 million if the project costs \$3 billion, finishes more than a year early and significantly improves the original designs.

However, if the price tag zooms up to \$5 billion, Bechtel-Washington would earn only \$75 million in profits by 2011. Also, DOE can fire Bechtel-Washington if costs skyrocket beyond what the agency can accept.

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Hanford plumes bigger than solutions

Underground contaminants spreading beyond scope of pump-and-treat plan

By John Stang

Herald staff writer

Remember the little Dutch boy who put his finger in a hole in a dike?

Hanford's plan for some of its trickiest contamination is suppose to work a bit like that, except the threat isn't from the sea.

In this case, the Dutch boy's fingers are Hanford's five pump-and-treat operations, where ground water laced with contaminants is sucked out of the soil, purified and returned to the ground.

The efforts are aimed at slowing down the huge slow-motion flood of radioactive and hazardous contami-

nants oozing underground toward the Columbia River.

But now, the five pump-and-treat facilities are overwhelmed and inadequate.

The underground contaminants — a legacy of Hanford's Cold War plutonium production — are winning.

"Now's the time to look for more effective proposals," said Mike Thompson, the Department of Energy's point man on this problem.

But Hanford's experts have only a vague idea what those new proposals could be, and an equally vague idea how fast most substitutes for pump-and-treat operations can be put into effect.

Hanford installed pump-and-treat operations at the fronts of the most dangerous plumes in the mid-1990s — knowing upfront these were just stop-gap measures.

"When we decided to take action initially, we knew these were interim actions," said Doug Sherwood, the U.S. Environmental Protection Agency's Hanford site manager

No one thought pumping and treating would significantly shrink the plumes. Instead, they hoped the facilities would keep the worst contamination from spreading — until someone thought of something better.

Some subterranean spreading has slowed. But the problem of underground contaminants is as big as it was five years ago. The sources and bulks of these plumes remain untouched.

"I think it is high time ... we should do something. There's no point in con-

tinuing the same things," said Dib Goswami, Hanford ground water coordinator for Washington's Department of Ecology. Sherwood and Thompson agree.

Subterranean Hanford is a crazy-quilt patchwork of more than 100 radioactive and other contaminants spreading beneath roughly 200 square miles of the 560-square-mile reservation. About 100 square miles of the reservation's aquifer is polluted above federal drinking water standards.

Not much is understood about the volumes and flows of these contaminants.

Several dozen plumes flow separately or mingle — stretching from central Hanford's 200 Area to most of Hanford's Columbia River shore.

A few are considered the most dangerous, posing potential threats to human health and the Columbia River.

Two are in the 200 West Area — one of non-radioactive carbon tetrachloride and one that is a mix of radioactive uranium and technetium.

Along the river shore, the worst plumes are one of radioactive strontium near N Reactor and three of nonradioactive chromium at the defunct K, D and H reactor complexes.

By now, Hanford has studied the plumes enough to know that more needs to be done, yet no one is sure what might work.

A widespread Hanford problem — finding money — haunts efforts to shrink those plumes. Numerous cleanup projects are competing for a limited amount of cash at the site.

Today's five pump-and-treat operations cost roughly \$4 million to \$4.5 million a year to run.

See **Hanford**, Page A2

5 Dec 00
Benton County mulls lawsuit over FFTF

PROSSER — Benton County is considering whether a lawsuit could prevent the Department of Energy from shutting down Hanford's Fast Flux Test Facility.

Wanda Munn, a former Richland councilwoman and retired Hanford engineer, asked the commission Monday to let DOE know dismantling the reactor is not acceptable. She also recommended the county investigate whether legal action could ensure a decision is not made that's contrary to information in an environmental study.

Energy Secretary Bill Richardson said in November that the nation could meet its foreseeable needs for isotopes for years to come without the Hanford reactor. He's expected to make his decision to close down the reactor final in January.

However, an environmental study of the reactor said existing reactors cannot meet the nation's long-term needs for research, for isotopes for medicine and isotopes for space missions.

The board plans to ask Benton County Prosecutor Andy Miller to review the issue and determine if there is a possible legal avenue. The commissioners plan to discuss their options at their meeting Monday.

5 Dec 00
PNNL names new associate laboratory director

Pacific Northwest National Laboratory in Richland has appointed a new associate laboratory director to manage research at the lab and oversee a staff of 500.

J.W. "Bill" Rogers Jr. has been named associate laboratory director for the Environmental and Health Sciences Division at the Department of Energy lab. That includes the Environmental Molecular Sciences Laboratory and departments focused on molecular biology sciences, chemical sciences and earth systems sciences.

Rogers came to PNNL last year from the University of Washington, where he was a professor and chairman of the university's Department of Chemical Engineering. He worked at Sandia National Laboratory in New Mexico before moving to the university in 1991.

Rogers replaces Gerry Stokes, who will be the director of a new institute on global climate change on the East Coast. The institute will be a joint project of PNNL and a research university built around the lab's Global Change Research Group, currently in Washington, D.C.

7 Dec 00

Hanford to begin K Basins cleanup

By John Stang

Herald staff writer

Actual cleanup of Hanford's second-worst environmental problem is scheduled to begin today.

On Wednesday, the Department of Energy told Fluor Hanford to move the first spent nuclear fuel from the K Basins today.

Fluor didn't get a full-fledged driver's license. It's more like a radioactive learner's permit.

DOE observers will watch closely as workers move the fuel for at least a couple of months. That's because the Defense Nuclear Facilities Safety Board and DOE believe project operators showed some shortcomings in final evaluations.

Consequently, DOE supervision will be tight. Fuel movement will be deliberately slow to work out the kinks. And only solid spent fuel — no broken pieces — will be removed.

But today is a major benchmark. One of Hanford's biggest projects is moving from planning to operations. Cleanup will actually occur.

The basins are two huge indoor, water-filled pools 400 yards from the Columbia River that hold 2,300 tons of spent nuclear fuel, much of it corroding into flaky chips and chunks.

Only Hanford's leaky underground radioactive waste tanks are worse.

Hanford's master plan is to move the fuel under water into special transportation-and-storage containers. Then, the containers will be removed from the basins and taken to the Cold Vacuum Drying Facility, which will suck all moisture from them and pump helium inside to prevent radioactive combustion problems. Then, the containers will go into storage in a huge underground vault in central Hanford.

The Hanford cleanup timetable calls for the first fuel to leave the K West Basin a week ago. All 2,300 tons of fuel are to be moved by July 31, 2004.

The U.S. Environmental Protection Agency — which regulates K Basins cleanup — is not worried about the week's delay. Instead, it is concerned about having the system operating smoothly for the next 3½ years.

Fluor employees have worked long hours and weekends for the past few months to start moving fuel today. DOE completed its final evaluation earlier this week.

Some problems still remain, stated a Tuesday letter from the Defense Nuclear Facilities Safety Board to DOE. The highly influential adviser on DOE environmental cleanup said operators made procedural mistakes in handling the containers at the Cold Vacuum Drying Facility in the last review. Consequently, the board requested "continuous oversight" until a follow-up DOE evaluation shows problems are corrected.

DOE agreed with the findings, said Phil Loscoe, DOE K Basins project director. The problems need to be corrected but are not serious enough to stop fuel movement from starting today, he said, but DOE will provide the closer-than-normal supervision.

Also Fluor will fill and move only one or two containers in the next couple of months, he said. Only intact nuclear fuel pieces will be moved at first to decrease the risk of something going wrong until operators have more practice.

Shutdown of FFTF may hurt cleanup

By Annette Cary

Herald staff writer

Shutting down the Fast Flux Test Facility could divert money from critical cleanup projects at Hanford, supporters of restarting the reactor said Thursday.

"It diverts funds from important projects like the waste tanks for premature cleanup of FFTF," said Ken Dobbin, a West Richland councilman. Hanford's underground tanks, which hold 53 million gallons of highly radioactive waste, are considered Hanford's most serious problem.

The Department of Energy announced last week that it had concluded from an environmental study the Hanford reactor should be permanently shut down. The final decision will come in January at least 30 days after the final version of the environmental study is published in early December.

DOE officials haven't said where the \$381 million will come from to shut down and clean up the Hanford reactor, but supporters of the reactor suspect it will come from Hanford's already strained cleanup budget.

Restarting the reactor would cost \$314 million, plus annual operating costs of \$59 million.

Shutting down FFTF would be "a national shame" and shows DOE as "insensitive to the pain and suffering of cancer patients," said Larry Haler, a Richland councilman.

DOE was considering restarting the reactor for research, to make isotopes for space missions and to make medical isotopes. Medical isotopes are being used in new ways, some still experimental, to kill cancer cells with fewer side effects than conventional treatments.

However, last week Bill Magwood, the head of DOE's Office of Nuclear Energy, Science and Technology, said not enough companies and government agencies had made concrete commitments to justify restarting the reactor.

Twenty-two companies, including Johnson & Johnson, Syncor and Siemens and the countries of Korea, Japan and France have all expressed interest in using FFTF, countered Jerry Woodcock, of Richland and vice president of the information committee for the American Nuclear Society.

Advanced Nuclear & Medical Systems, a private company that once proposed operating FFTF for DOE, also said it had investors with \$200 million in capital interested in restarting the reactor.

DOE is accepting comments on its recommendation to shut down FFTF via e-mail at nuclear.infrastructure-peis@hq.doe.gov or comments may be mailed to Colette E. Brown, document manager, Attn: NI PEIS, Office of Nuclear Energy, Science and Technology, U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874.

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DOE begins final test for K Basins project

Next step is moving fuel away from river

By John Stang
Herald staff writer

The Department of Energy began its last evaluation of Hanford's K Basins project Monday — the last hurdle before workers can actually remove fuel from the basins.

That final review began three days later than DOE had hoped. And it is still a question whether the project will make its Thursday deadline, or miss it by a few days.

However, the U.S. Environmental Protection Agency does not view a late start of a few days as a problem. The project would have to have serious problems as 2001 arrives before the EPA would start consid-

ering enforcement actions, said Doug Sherwood, the EPA's Hanford site manager.

The EPA's top priority is to have a well-established system in place to move fuel continuously until July 31, 2004, Sherwood said. That date is the legal deadline to finish moving fuel.

The K Basins are two indoor, water-filled, leak-prone pools that hold 2,300 tons of spent nuclear fuel 400 yards from the Columbia River.

Hanford's master plan is to put the fuel inside special containers, move them from the basins, suck all moisture from the containers, fill them with helium to prevent radioactive combustion problems, then put the fuel in a huge underground vault in central Hanford.

See **Test**, Page A2

Hanford nearly set to move nuclear fuel

By John Stang
Herald staff writer

Hanford expects to start moving spent nuclear fuel from the K West Basin next week — a few days late — if a final pair of hurdles can be cleared.

One hurdle is if the state will approve a temporary fix-it measure at the project's central Hanford vault, correcting a problem that the state believes should have been fixed months ago.

Another hurdle is the Department of Energy's final evaluation of the project's Cold Vacuum Drying Facility, a review expected to finish late today.

Hanford officials hope to start moving fuel by the middle of next week. The Tri-Party Agreement's deadline to begin fuel removal was Thursday.

However, the U.S. Environmental Protection Agency is not worried about a slightly late start. Instead, the EPA is concerned about the fuel moving steadily, efficiently and safely through mid-2004 — and is willing to delay a few days to achieve that.

The K Basins are two indoor, water-filled,

leak-prone pools that hold 2,300 tons of spent nuclear fuel 400 yards from the Columbia River. The cleanup is one of Hanford's top priorities.

Hanford's master plan is to put the fuel inside special containers, move them from the basins, suck all moisture from the containers, fill them with helium to prevent radioactive combustion problems, and then put the fuel in an underground vault in central Hanford. All this is supposed to be done by July 31, 2004.

A potential pitfall exists at the underground vault. The wrong dampers, which help control air flow, were installed in the vault's ventilation system. That handicaps the vault's and its covering building's capabilities to keep the indoor air pressure less than the outdoor air pressure — a standard way to keep radioactive particles from floating outside.

Fluor Hanford does not expect to get the replacement dampers until late this month, said Jim Wicks, Fluor's spent fuel project director.

Al Conklin, the Washington Department of Health's radioactive emissions manager, is unhappy that the damper system was not built to the right specifications, that Fluor knew of this problem last June and the state was not told until

Oct. 24. The state Health Department regulates air emissions at Hanford.

Conklin believes the situation puts the state health department into a position of becoming a villain if it does not allow this high-profile project to proceed because of the damper situation.

"The (startup) milestone is not as important to me as the quality of the system," Conklin said.

Phil Loscoe, DOE's spent nuclear fuel project director, agrees the damper situation puts unfair pressure on the health department. Some miscommunications led to Hanford's lateness in tackling it, he said, adding DOE is still sorting out what happened.

Fluor mistakenly thought it had the state's informal approval on the dampers last summer, and DOE did not realize this would be a problem until September, Loscoe said. Conklin and Loscoe said Fluor then reacted slowly to fix the problem. "(Fluor) didn't realize the seriousness of this issue to the Department of Health," Loscoe said.

Fluor agrees it should have acted quicker on this issue and will try to work closer with the state Health Department, said Fluor spokeswoman Michele Gerber.

The state, DOE and Fluor are close to agreeing on a temporary solution involving manually controlling the dampers, Loscoe and Conklin said. Loscoe speculated this might be resolved today or Monday.

Conklin said the state is willing to give Hanford until Feb. 13 to permanently fix the dampers situation, allowing the site to move only two canisters of fuel to the vault until then.

Meanwhile, DOE has given a green light to all of the K Basins' operations except the Cold Vacuum Drying Facility, which is where moisture is sucked out of the containers and the helium is inserted. DOE's final review of that facility began last Monday and is expected to be done today with a report ready next Monday. After that, Fluor will correct any deficiencies noted in the report before moving fuel. Loscoe and Wicks said the evaluation seems to be going well so far.

Fluor expects to move 20 to 25 canisters of fuel by Sept. 30, 2001, gradually ramping up to 12 canisters a month by 2003. The K Basins' 140 member work force is expected to increase to 210 to 230 during that time.

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22 NOV. 00

Fluor team wins contract to finish Ohio site cleanup

By the Herald staff

A team led by Fluor Fernald has won a 10-year contract to finish cleaning up the Ohio site for the Department of Energy.

The subsidiary of Fluor Corp. has been the Fernald site's prime contractor since 1992, managing the environmental cleanup of DOE's 1.6-square-mile former uranium processing plant near Cincinnati.

Fluor Fernald is a corporate cousin of Fluor Hanford, which is currently negotiating a possible extension of its Hanford contract that is scheduled to expire Sept. 30.

The new Fernald contract is a cost-plus-incentive contract — a type that DOE is considering trying at Hanford.

Under this type of contract, a corporate team works on a project until it is done. It is reimbursed for its costs, but any profit is tied to meeting or beating deadlines and budgets. In other words, finishing ahead of schedule or under budget translates to a bigger profit.

The Fluor Fernald contract is for 10 years, with the project's costs estimated at \$2.4 billion, according to DOE and Fluor. But DOE wants to finish cleanup at Fernald by Dec. 31, 2006. So, Fluor Fernald could earn a profit of \$120 million if it finishes by 2006, instead of 2010.

DOE is considering trying this approach for Hanford's environmental restoration contract currently held by Bechtel Hanford, which is scheduled to expire in 2002. Bechtel is in charge of removing contaminated soil from near the Columbia River, demolishing and sealing the old reactor complexes and managing efforts to study and fix ground water contamination.

22 NOV 00

DOE to permanently shut down FFTF

Agency decides against restart, will use other reactors to make isotopes

By Annette Cary
Herald staff writer

The Department of Energy plans to permanently shut down the Fast Flux Test Facility. DOE announced Tuesday, ending the potential for any nuclear production at Hanford.

DOE was considering whether to restart the reactor, which is one of DOE's largest and most modern, to make isotopes for new ways of treating cancer, to make plutonium 238 for the nation's space program and for research.

"The missions are not concrete enough to proceed at this moment" with restarting FFTF, said Bill Magwood, head of DOE's Office of Nuclear Energy, Science and Technology.

"We did not receive hard and fast commitments" from private companies, federal agencies and other countries interested in research to justify restarting the reactor, he said.

"Using our current facilities, we expect to meet the nation's foreseeable needs for years to come," said Energy Secretary Bill Richardson.

However, a draft of the environmental report to be published in December said existing reactors "cannot fully meet the projected long-term need for medical isotope production and nuclear research and development, with or without the plutonium 238 production mission."

Under the plan announced Tuesday, isotopes to power deep-space missions will be produced at the Advanced Test Reactor in Idaho and the High Flux Isotope Reactor in Tennessee.

DOE also will spend the next two years devel-

oping a conceptual design and a research program for an Advanced Accelerator Applications facility. No location has been chosen for the proposed program, but \$68 million has been set aside for planning.

T.J. Glauthier, deputy energy secretary, said Hanford could compete for the facility.

The recommendation to shut down the Hanford reactor will be published in December as part of a

See **FFTF**, Page A2

22 NOV. 00

Last K Basins test scheduled to start Friday

By John Stang
Herald staff writer

The second-to-last test is now done on Hanford's K Basins project, and the last one is scheduled to begin Friday.

Fluor Hanford finished its final review of the project's Cold Vacuum Drying Facility on Monday evening, said Fluor spokeswoman Michele Gerber. The only required corrections were fixing some paperwork.

The Department of Energy is scheduled to begin its final review of the Cold Vacuum Drying Facility on Friday. That DOE evaluation could last up to five days, with any corrective work to follow.

DOE and Fluor are trying to meet a Nov. 30 deadline to move the first spent nuclear fuel from the K West Basin.

The K Basins are two water-filled, leak-prone indoor pools holding

2,300 tons of spent nuclear fuel near the Columbia River.

Hanford's master plan is to put the fuel inside special containers, move them from the basins, suck all moisture from the containers, fill the containers with helium to prevent radioactive combustion problems and, finally, put the fuel in a huge underground vault in central Hanford.

Fluor and DOE have tested and given green lights to getting fuel out of the basins, transporting it and storing the fuel in the underground vault.

Between the basins and the vault is the Cold Vacuum Drying Facility. That's where the moisture is sucked out of the special con-

tainers, and the helium is inserted. And this is the last segment to be evaluated before fuel movement can begin.

The Tri-Party Agreement, the legal pact governing Hanford's cleanup, calls for fuel removal at the K West Basin to begin Nov. 30. Hanford officials are cautiously optimistic they can make that deadline, adding if it is missed, it will only be by a few days.

The first fuel is supposed to be removed from the K East Basin on Dec. 31, 2002. All the fuel is supposed to be in the underground vault by July 31, 2004.

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23 NOV. 00

Panel to study DOE firefighting tactics

By Annette Cary
Herald staff writer

3 nuclear site fires prompt independent review

An independent advisory commission will look at ways the Department of Energy can prevent and be better prepared to fight wildfires, after fires swept across three of its nuclear sites this summer.

"You don't experience events like this without learning things," said Keith Klein, DOE's Hanford manager. "We want to be ready for next summer. ... I think we're prepared, but we can always do better."

The 16-member panel will review the department's fire safety program and capabilities and make recommendations about the department's long-term approach to preventing and

fighting wildfires, Energy Secretary Bill Richardson said Wednesday. That could include studying new technology, procedures and training methods for firefighting and doing risk-vs.-cost analyses.

DOE is the nation's fifth-largest landowner, he said.

The commission also will work on agreements with the departments of Agriculture and Interior on preventing and responding to fires. The Hanford fire spread across DOE's nuclear site and the new Hanford Reach National Monument, managed by Interior's Fish and Wildlife Service, then private and state land.

"We need to be better prepared in

See **DOE**, Page A2

Negotiations begin on Fluor Hanford contract

By John Stang

Herald staff writer

Talks are under way on possibly extending Fluor Hanford's contract to manage a major part of the site's cleanup efforts.

Other than saying negotiations have begun, Fluor and the Department of Energy declined Friday to comment on the details. However, DOE said the fact that talks are under way does not guarantee Fluor's contract will be extended.

Fluor's 5-year contract expires Sept. 30. Fluor and its core subcontractors employ about 4,200 people who take care of the site's overall management, plus handle several cleanup projects. Fluor's biggest projects are removing spent nuclear fuel from the K Basins and converting plutonium at the Plutonium Finishing Plant into safer forms.

DOE has the option of extending Fluor's contract by one to five years. Normally, DOE would make an extension decision 12 to 18 months prior to a contract's expiration.

However, DOE wants to look at Fluor's K Basins performance before deciding on an extension. DOE's Hanford Manager Keith Klein said the K

Basins' outcome will be a significant factor but not the sole factor on the extension decision.

Right now, Fluor appears to be on track to make its Nov. 30 deadline to start moving the K Basins' fuel or to miss that deadline by only a few days.

The contract talks are occurring simultaneously with DOE evaluating Fluor's overall performance. If DOE decides to rebid Fluor's contract, it will have less than 10 months to do so.

Fluor replaced Westinghouse Hanford Co. on Oct. 1, 1996, as a so-called "maintenance-and-integration" contractor, essentially being the "brains" of a network of itself and six core subcontractors employing about 6,000 people.

Fluor's first two years were very rough with management and technical troubles leading to delays and cost increases. Since then, Fluor has streamlined tremendously, gotten stalled projects back on track and has received significantly better annual evaluations from DOE.

The fates of Hanford's four major cleanup contracts will be decided within the next two years. Besides Fluor's contract, DOE is:

- Conducting similar contract extension talks with CH2M Hill Hanford Group, which manages Han-

ford's tank farms. CH2M Hill's contract also expires next Sept. 30 with DOE having the option of extending it one to five years.

- Studying two bids to take over design and construction of Hanford's tank waste glassification project. This follows last May's firing of BNFL Inc. for skyrocketing cost estimates. The new contract is supposed to be awarded by Jan. 15.

One bidder is a team led by Fluor Corp., Cogema Inc. and Foster Wheeler Corp. The other team is led by Bechtel National Inc. and Washington Group International.

- Studying what to do when Bechtel Hanford Inc.'s contract expires June 30, 2002. Bechtel is in charge of moving contaminated soils, demolishing and sealing old reactor complexes, and leading ground water studies and fix-it measures.

Bechtel's contract began July 1, 1994, and the company later obtained a 3-year extension. Now DOE is looking at possibly installing a "closure" contract in 2002, which would last until a major amount of river shore cleanup would be completed, supposedly in 2012.

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Feds: Hanford trains too many controlled workers

By John Stang

Herald staff writer

Hanford trains more employees than are needed to enter radiologically controlled areas, according to a recent federal report.

By keeping a tighter watch on who receives this training, Hanford could save almost \$1.2 million a year, according to a September report issued by the Department of Energy's Inspector General's Office.

At Hanford, DOE agrees with this conclusion, said Colleen Meyers, DOE's contractor training oversight manager.

The Inspector General's audit concluded 1,630 Hanford employees over the past two years have received some radiological or hazardous materials training that they did not need. The report said those 1,630 people either had no reason to enter a controlled area, or were escorted by trained people on the rare occasions they went into such areas.

The report said Hanford needs to save money and stretch resources, which means cutting back on unnecessary training.

The Inspector General's Office concluded the unnecessary training cost roughly \$550,000 in tuition and expenses, and about \$610,000 in time the trainees could have worked on something else, the report said.

Meyers said DOE's Hanford operations began studying this matter in early 1999, and have already started trimming training for people who never or rarely went unescorted into restricted areas.

She said when the Inspector General's Office estimated an extra \$1.2 million was spent annually on unneeded training, it did not account for the time taken by the trained employees to escort untrained people in special areas.

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Monday, Nov. 20, 2000

Beryllium screening program making progress

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

By Annette Cary

Herald staff writer

A third case of chronic beryllium disease has been diagnosed in a Hanford worker, according to the Beryllium Awareness Group of past and present workers at Hanford.

However, cases of the illness may not be developing as quickly as expected based on data from the Department of Energy's Rocky Flats Complex in Colorado. **Monday update** About 10 percent of people sensitized to the metal develop chronic beryllium disease within a year, doctors concluded after studying workers there.

In three screening programs for past and present Hanford workers, 67 people have tested positive for a sensitization to the metal.

Beryllium, an exotic metal, was used in an alloy to close the ends of nuclear reactor fuel rods at Hanford between 1960 and 1986. Although it's no longer used, beryllium may still be present in some buildings in places such as fume hoods and exhaust ducts.

The majority of people aren't bothered by the

metal, but some people who breathe in small particles of the metal develop an allergylike sensitivity that can be detected with a blood test.

Those with the sensitivity may develop chronic beryllium disease, an often disabling disease marked by scarring of the lungs. Symptoms can include shortness of breath, coughing, fatigue, weight loss and excessive phlegm.

The illness can be fatal if not treated. But if it is caught early, steroids and other therapies can be used to improve breathing and slow its progression.

At Rocky Flats, more machining of the metal was done, which could account for the apparent higher rate of conversion of beryllium sensitivity to beryllium disease.

"But we've only looked at (beryllium disease at) Hanford for four or five years," said Dr. Tim Takaro, a researcher at the University of Washington. "We haven't characterized it as well as at Rocky Flats. There, the first case was in 1988, so they've had 12 years to work on it."

More research needs to be done to look at possible differences in the disease at Hanford and Rocky Flats, he said.

Researchers know that even slight contamination can result in a sensitivity. People diagnosed with the sensitivity have included electricians,

secretaries, people who have worked with equipment removed from contaminated areas and others who didn't work directly with the metal.

A new federal compensation program for ill nuclear workers gives added incentive for workers to be tested, Takaro said. Although the program could be revised before it takes effect, it now calls for coverage of medical care and a lump sum payment of \$150,000.

The Beryllium Awareness Group also is encouraging workers to find out if they should be tested for beryllium sensitivity.

Workers may talk to their supervisor or, if they don't want their manager to know of their concern, may contact the Hanford Environmental Health Foundation directly for help.

A health care professional at the foundation will discuss with workers the pros and cons of being tested. If blood tests show a sensitivity to beryllium, the individual may not be allowed to work in areas where he or she could come into contact with more particles of the metal. The employee also would be entered into a medical monitoring program.

The foundation has tested 420 workers for beryllium sensitivity and found 20 who were sensitized.

Former workers are being tested for beryllium

sensitivity and other health problems through the Hanford Building Trades Medical Screening Program and the University of Washington Former Hanford Worker Medical Monitoring Program for production workers.

The building trades program has provided medical screenings to more than 800 workers. Of the more than 400 checked for beryllium sensitization, 32 have tested positive.

The Seattle program has checked 308 former production workers since the beginning of the summer and identified 15 with beryllium sensitivity.

Those who want more information may call Craig E. Hall with the Beryllium Awareness Group at 373-6161 or attend meetings at 1 p.m. the first Wednesday of each month at HAMMER.

To contact the screening program for former building trade workers, call 543-2090. To contact the program for former production workers, call 800-419-9691.

For more information about the compensation program for ill nuclear workers or their survivors, call the Workers Compensation Advocacy Office at 877-447-9756.

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Answers few as tritium leaks continue at Hanford

By John Stang

Herald staff writer

Questions are growing faster than answers about Hanford's 618-11 burial site, which is leaking a super-high concentration of radioactive tritium toward the nearby Columbia River.

The biggest questions focus on the small subterranean plume's horizontal and vertical speeds and directions. But right now, there are no answers or even really good guesses.

Eventually, answers or educated guesses will determine:

■ How fast the Department of Energy starts cleaning out the highly radioactive 618-11 site.

■ If neighboring Energy Northwest should worry about highly concentrated tritium seeping into two wells that provide drinking water for 50 employees working at the partly-built Reactor No. 1.

■ The speed and potency in which this underground glob of tritium will reach the river.

On Thursday, DOE and CH2M Hill Hanford Inc. officials updated reporters on the latest findings about the 618-11 burial site, which is 3½ miles from the river.

The officials said Hanford has become more sure that the super-high tritium concentrations just outside of 618-11 actually are from the site's northeastern section and not from a much weaker massive tritium plume flowing through the same area. And experts believe the apparently narrow tritium plume has seeped about 260 feet east of 618-11 in an unknown period of time.

In the 1960s, highly radioactive wastes from the 300 Area — including 11 to 22 pounds of plutonium — were buried at 618-11 just northwest of Energy Northwest's complex. The wastes are in a variety of large containers, with many bottomless for unknown reasons. Hanford's records are incomplete on the wastes buried there.

In 1999 and early 2000, a monitoring well just east of 618-11 showed a previously unsuspected tritium concentration whose radioactivity was 8 million picocuries per liter. The federal drinking water standard for tritium — based on cancer risks due to steady ingestion — is 20,000 picocuries.

DOE and CH2M Hill then collected numerous soil gas samples, looking for helium

created by decaying tritium. Plus, two new wells were drilled 60 feet down to the aquifer to collect ground water samples.

In October, these samples showed a short, narrow plume of excessively radioactive tritium oozing east. In October, a tritium concentration of 7 million picocuries was found where the earlier 8-million-picocurie reading was found just east of 618-11. And a reading of 1.5 million picocuries was found in another new well 260 feet further east — putting it where Hanford's existing maps had shown very low and benign tritium levels.

Now, the questions of speed, direction and other unknowns come in.

Tritium is Hanford's fastest-moving subterranean radioactive liquid — moving at the same speed as ground water. The ground water around 618-11 area takes five to 30 years to reach the Columbia, said Jane Borghese, CH2M Hill's ground water monitoring task leader. Meanwhile, tritium's radioactivity decays by half every 12.3 years.

But this area's geology is tricky. Plus questions exist on how a small, highly concentrated tritium plume from 618-11 interacts with a

huge plume of weakly concentrated tritium flowing from the 200 Area. Those factors influence the 618-11 tritium's speed and direction, Hanford officials said.

Energy Northwest is also in path of 618-11's plume, noted Mike Goldstein, a U.S. Environmental Protection Agency official. Most of Energy Northwest's drinking water comes from the Columbia.

But two wells reaching 400 feet deep at the never-finished Reactor No. 1 — two miles southeast — provide drinking water to about 50 people working there.

Those two wells are also the backups for about 1,000 Energy Northwest workers if the river supply system fails. There is one other deep backup well near Reactor No. 2 — unused for many years.

Energy Northwest spokesman John Britton said Reactor No. 1's wells are frequently tested with all tritium samples showing less than 200 picocuries so far.

But the aquifer stretches vertically from 60 feet to 450 feet, which means extra tritium could seep into the 400-foot wells at Reactor No. 1.

"We don't see an immediate threat at No. 1. But it is a threat, and we're keeping an eye on it," Britton said.

DOE does not plan to start cleaning out 618-11 until 2010. The site's heavy radioactivity means equipment must be invented to handle the wastes by remote control. And the estimated cost is \$530 million.

Meanwhile, DOE wants to start up a plan early next year to clean up most of the riverside areas by 2012.

Many Hanford groups are not happy that 618-11 is not in that planned acceleration, and they are pushing DOE to speed up tackling 618-11 to that plan.

But Hanford's unions have indicated they would oppose adding 618-11 to an accelerated cleanup if it means working within the highly radioactive area before sufficient safety measures can be developed.

Hanford experts expect to know enough in about six months to be able to plan the next move on 618-11.

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Hanford cleanup topic of lecture

Progress on environmental restoration at Hanford will be discussed at 7:30 p.m. Tuesday by Mike Hughes, president of Bechtel Hanford, at a meeting of the Eastern Washington Section of the American Nuclear Society.

The public is invited to hear him speak at the Tower Inn, Richland. Dinner is available an hour before the talk. The cost is \$15. For dinner reservations, call 735-3581.

Hanford expanding River Protection office

No timeline set for when 60 employees will be hired

By John Stang
Herald staff writer

Hanford's Office of River Protection is expected to soon grow from 90 employees to 150 as it expands and regroups.

The Department of Energy's Washington, D.C., headquarters has approved expanding and reorganizing the Hanford office, DOE announced Thursday.

The Office of River Protection is in charge of maintaining Hanford's 177

radioactive waste tanks and of eventually converting the 53 million gallons of radioactive wastes in the tanks into glass.

No timeline has been set for how fast the Office of River Protection will add employees, said DOE spokesman Erik Olds. Much of the reorganization is still being planned.

While DOE's headquarters has approved the expansion, it has yet to identify where the money will come from and how much will be needed to pay for the extra 60 employees.

These extra hirings come at a time when DOE also expects to soon ask

for an extra few hundred million dollars a year in Hanford cleanup money from Congress.

The extra employees will fill some current job vacancies at the Office of River Protection. And they will help handle an increased workload as Hanford's waste glassification project cranks up, Olds said.

Also, the Office of River Protection will be reorganized into a more traditional DOE site office — with more subdepartments, more top managers and more employees.

Until last summer, the agency had expected a corporate team led by

BNFL Inc. to build and operate the glassification plants under a proposed contract based on huge private investments up-front with little federal expense for several years.

That concept fell apart last summer when the cost estimates skyrocketed and BNFL was fired. DOE is now going with a more traditional approach to hire a new glassification contractor in January — an arrangement that requires additional DOE employees to manage the work.

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Mid-Columbia briefs

Compiled by Herald staff

CH2M Hill donates money for school computers

CH2M Hill Hanford Group has donated \$25,000 to upgrade computer hardware and software at Columbia Industries' Certified Private School.

The school helps youths who dropped out of school, at-risk students and those who need to upgrade computer skills or prepare for a general equivalency diploma.

Battelle chief retires

By **Annette Cary**

Herald staff writer

Pacific Northwest National Laboratory in Richland will lose an important advocate at its contractor's headquarters next year when Douglas Olesen retires.

Olesen, president and chief executive of Battelle Memorial Institute, announced Wednesday that he plans to retire in the fourth quarter of 2001. He has been chief executive since 1987.

Battelle, based in Columbus, Ohio, has held the Department of Energy contract to manage its national laboratory in Richland since the lab opened in 1965. The lab accounts for about 30 percent of Battelle's business.

"In January 2001, I will reach the age of 62," Olesen said. "As I've approached that personal milestone, I've begun to consider an appropriate retirement date and the very high priority of starting the transition to a successor as president and CEO."

Battelle's board of trustees, with Olesen and Senior Vice President Robert Smith, will pick a new president from a pool of candidates drawn from inside and outside Battelle.

Olesen, a former head of the Rich-

land lab, brought an understanding of Pacific Northwest National Laboratory and other DOE labs to corporate offices, said Tom McClain, vice president of corporate communications.

Olesen was born in Wenatchee and earned bachelor's, master's and doctoral degrees at the University of Washington. He joined what is now Pacific Northwest National Laboratory in 1967.

He started his career there directing research in water treatment, then moved up to department manager positions and then director of research. He became director of the lab in 1979.

Since moving to corporate headquarters, he's led Battelle to expand its leadership of DOE labs to Brookhaven National Laboratory in New York, the National Renewable Energy Laboratory in Golden, Colo., and Oakridge National Laboratory in Oakridge, Tenn.

Battelle, under Olesen, also has become more focused on entrepreneurial activities and marketing and has established new commercial spin-offs and subsidiaries, said John McCoy, chairman of the Battelle board.

"This past year has been a record-breaking year for Battelle in the financial performance," McCoy said. "Filling his shoes will be a big task."

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Olesen

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Cleanup of tanks ahead of schedule

Hanford has removed 1 million gallons of waste

By John Stang

Herald staff writer

Hanford appears on track to finish pumping liquid radioactive wastes from its leak-prone, single-shell tanks at least nine months ahead of schedule.

Hanford officials announced Wednesday that 1 million gallons of Hanford liquid wastes have been removed from the site's single-shell tanks since 1998.

"Each gallon (of pumped wastes) reduces the risk to the environment and Columbia River," said Ami Sidpara, the federal Office of River Pro-

tection's assistant manager for operations.

And if the work continues to stay ahead of schedule, that would be one less item the state might sue the federal government over when it comes to cleaning up Hanford.

In 1998, Gov. Gary Locke, state Attorney General Christine Gregoire and Washington's Department of Ecology were angry about Hanford falling behind on pumping the liquids from the 149 single-shell tanks into the 28 double-shell tanks. So, they threatened to sue the Department of Energy.

That led to the state and DOE signing an agreement outlining a timetable for transferring the liquids

See **Cleanup**, Page A2

2 tests remain for K Basins plan to begin

Hanford hopes to finish by Nov. 30 deadline under Tri-Party Agreement

By John Stang

Herald staff writer

Two tests remain before Hanford's K Basins project will likely begin to move fuel.

They are expected to take 1½ weeks, probably ending Thanksgiving weekend.

If few problems surface, Hanford likely will meet a Nov. 30 deadline of starting to move spent nuclear fuel from the K West Basin.

That would mean cleanup actually would begin on Hanford's second-worst environmental mess. Hanford's worst problem is 53 million gallons of radioactive wastes in aging and sometimes leaky underground tanks.

The K Basins are two water-filled, leak-prone indoor pools holding 2,300 tons of spent nuclear fuel 400 yards from the Columbia River.

Hanford's master plan is to put the fuel inside special containers, move them from the basins, suck all moisture from them, fill them with helium to prevent radioactive combustion problems and finally put the fuel into a huge underground vault in central Hanford.

Before the fuel can be moved, Fluor Hanford and then the Department of Energy must test each procedure, the equipment used and operators' training. All problems must be fixed before Fluor, and later DOE, can approve moving the fuel.

Fluor and DOE have tested and approved most steps, said Dave Van Leuven, Fluor executive vice president, and Phil Loscoe, DOE K Basins project director.

One piece of the project — the Cold Vacuum Drying Facility — has not been formally tested. At this facility between the K Basins and the underground vault, every speck of moisture is to be sucked from each canister. Then the empty spaces around the fuel inside the canisters are to be filled with helium.

Radioactive fuel breaks down water into hydrogen and oxygen, a potentially combustible combination inside a closed container. Helium, an inert gas, does not react with the fuel.

The drying facility was finished after completion of the rest of the K Basins project, which delayed training there, Van Leuven said.

Consequently, Fluor's formal evaluation of the facility is scheduled to begin late this week and to take three days, he said. Assuming no significant problems surface, DOE's follow-up evaluation is to begin Monday and last up to five days, Loscoe said.

If the two evaluations show little fix-it work is needed, the project has a good chance of making the Tri-Party Agreement deadline of moving the first fuel on Nov. 30, Van Leuven said. "Nov. 30 is very tough, but it is achievable," he said. The Tri-Party Agreement is Hanford's legal cleanup timetable.

Van Leuven and Loscoe believe if the deadline is missed, it will be by only a few days.

Once fuel movement begins, its speed is expected to be slow as procedures are fine-tuned, and extra inspections are conducted, Van Leuven said. Almost all the work will be done with remote-control equipment, and much of it under water. DOE and Fluor expect to move 20 to 25 canisters by Sept. 30, gradually ramping up to 12 canisters a month by 2003, Van Leuven said.

Fluor is also doing preparation work at the K East Basin — where fuel is much more corroded and handling problems are greater. The first K East fuel is supposed to be moved by Dec. 31, 2002. All 2,300 tons are supposed to be removed from both basins by July 31, 2004.

In a related matter, project employees recently finished working 2 million hours without having an accident resulting in someone losing a day on the job.

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15 Nov. 00

Hanford fire report finds 'no smoking gun'

Better fire breaks, maps among list of recommended changes

By Annette Cary

Herald staff writer

A lack of fire breaks along state highways allowed the Hanford fire in June to spread quickly, burning across nearly 300 square miles, according to the Department of Energy's investigation of the fire.

The report, released Tuesday, detailed a

long list of recommended changes to allow Hanford employees to better respond to future fires. They ranged from improving fire breaks to better maps available to track the fire to better crowd control after people on Highway 240 waved instruments and told firefighters they were exposed to radiation.

However, the report found "no smoking gun," said Keith Benguiat, division director of engineering, safety and standards at DOE's Richland office.

"There were no findings that concern lack

of performance of the organization," he said. "There were no incidents of misdirecting people. As fast as you could get people, we deployed them. We did what we could with the resources that were available."

Changes and improvements recommended in the report likely wouldn't have altered the outcome of the fire, said Paul Kruger, acting deputy Hanford manager for site transition.

Even better firebreaks along highways might not have stopped the fire, Benguiat said. The fire, which began after a fatal accident

June 27 on Highway 24, sent flying debris across the far side of the roadway, lighting fires on both sides of the road.

Once the fire reached full force, it was powerful enough to jump the Yakima River. Even with larger fire breaks, the highways likely wouldn't have held the fire, Hanford officials said.

However, in the past, fire breaks along the highways have been maintained. After a 1984 Hanford lightning fire burned 200,000 acres, firebreaks were cut until 1995 by disking along

highways 24 and 240 rights of way.

After a complaint about blowing dust that year, DOE stopped disking. Instead, tumbleweeds that piled up nearly as high as the fences along the highways were burned. Tighter restrictions on open burning stopped that practice before the June fire.

The report also detailed potential problems caused by fear of radiation contamination on the Hanford nuclear reservation and called for

See **Report**, Page A2

HAB's exiting chairwoman was linchpin

"If the Bill of Rights contains no guarantee that a citizen shall be secure against lethal poisons distributed either by private individuals or by public officials, it is surely only because our forefathers, ... could conceive of no such problem."

— *Silent Spring* by Rachel Carlson

By John Stang

Herald staff writer

Rachel Carlson's landmark book *Silent Spring* said something to Marilyn Reeves when it first came out in 1962.

Back then, environmentalism hadn't really entered the national consciousness.

Reeves, who quit her teaching job in South Dakota to become a full-time mother, had joined the League of Women Voters because it was one of the few groups interested in ecological issues on the Missouri River.

She had a half-formed, gut interest in water quality. *Silent Spring* began crystallizing her thoughts.

The book focused on pesticides and their effects on nature, contending chemical pesticides could be used carefully and intelligently — but not indiscriminately and not without with public's knowledge and consent.

Reeves believes those ideas are still relevant to Hanford's nuclear cleanup.

That view served her during her six years as chairwoman of the Hanford Advisory Board — a rambunctious 30-member panel of almost every constituency in Hanford's wide political spectrum.

Reeves, 69, lives with her husband Mike in the Oregon hamlet of Amity, about 30 miles southwest of Portland. A few handfuls of Tri-Citians are likely to recognize her on sight.

But, Reeves has been one of the greatest influences in molding today's regional participation



Reeves

and political cooperation in Hanford affairs.

During her stint as chairwoman, environmentalists and Tri-Citians — vehement enemies a few years ago — have become wary, but functioning allies on most Hanford cleanup issues.

There is now a clumsy, sometimes strained, but united Northwest voice on

many Hanford matters.

Reeves plans to step down as chairwoman and leave the Hanford Advisory Board in February.

The board's charter puts a six-year limit on the job. To Reeves, that means it's also time to leave the board, so she won't be looking over the shoulder of her successor, environmental consultant Todd Martin.

"She held the Hanford Advisory Board together. I'm convinced if she wasn't chair, few could have held it together," said board member Tom Carpenter of the Government Accountability Project's Seattle office.

Board member Gordon Rogers of Pasco, representing the public-at-large and who is often in an opposite faction from Carpenter, said: "Whatever the board has accomplished is due to her."

Reeves didn't give Hanford much thought at all until 1993. She grew up in Idaho, and met her husband while attending Utah State University. Mike Reeves was a waterfowl biologist, and the couple lived in several states and Canada as he pursued his career.

While in South Dakota, she became active in community affairs, which blossomed into a strong interest in the Missouri River and the

League of Women Voters. She worked her way up into the league's leadership, eventually working on water issues at a national level.

Merilyn and Mike Reeves moved to Amity in 1982 to build their retirement home, and she stayed active in the league and in environmental issues.

When the Department of Energy created the Hanford Advisory Board in late 1993 as a regional panel to provide feedback on cleanup issues, Reeves was a natural to represent Oregon interests. The 30 voting board members included pro-nuclear Tri-Citians, anti-nuclear environmentalists, tribal interests, Oregonians, health officials and others. Federal and state officials were skeptical the board could do anything constructive.

Suspicion ran rampant — especially between the Tri-Citians and environmentalists. Those two adversarial factions argued for hours to make sure one side did not get some perceived minor advantage over the other.

And since the HAB's charter called for any board action to have unanimous consent, the debates were long and frustrating.

"I hated the first year of the board. At one point, I concluded that I would quit," Reeves said. But then Pasco's board member, Charles Kilbury, sent her a note asking her not to resign — and she didn't.

"One reason I stuck with it is that I have an extremely strong belief that when you're dealing with environmental cleanup, it can't be done in secret. You need strong public involvement," Reeves said.

Another reason Reeves stayed: Hanford's complexities began to fascinate her.

When the board needed a new chairman in 1995, members spontaneously picked Reeves as their interim chairwoman. She proved to be fair,

smart, unflappable and someone with a wry sense of humor who made an effort to know everyone. The interim post soon became a permanent one that Reeves volunteered to fill without pay.

At first, Reeves fretted about uniting the board's bickering factions but they soon found common ground in a universal desire to ensure adequate cleanup budgets.

Another uniting factor was DOE.

"There was a common enemy. The common enemy was the instability within DOE," Reeves said. Managers throughout DOE's chain-of-command kept changing, along with constantly shifting plans for cleanup.

Eventually, DOE began seeking the board's advice when it brainstormed plans and budgets.

HAB members point to Reeves' decades with the League of Women Voters as the key to her success in leading the board. She was comfortable with long debates, and members knew she would be neutral.

"She's fair — sometimes more than fair in that all perspectives will be discussed," said board member Pam Brown, representing Richland.

Reeves talked about some of the tactics in leading the board. One was to introduce topics on the first day of the board's two-days meetings, and not taking any action until the second day.

That gave board members time to talk and think and do some backroom compromises before the board officially took any action.

Another was to give board members a lot of leeway when they talk.

"I learned if you cut someone off, they'll start arguing about being cut off, instead of arguing about the issues," she said.

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

HAB chairman-elect has hard task ahead

Survey looks at ways
advisory board can
improve effectiveness

By John Stang

Herald staff writer

Hanford Advisory Board members agree the group must evolve to be effective in influencing cleanup efforts at the nuclear site.

They just aren't sure how to do it.

Next February, Todd Martin, an environmental consultant from Northport, is scheduled to replace Marilyn Reeves of Amity, Ore., as the board's chairman.

The change has been accompanied by some serious navel-gazing on ways to improve the board's effectiveness.

Martin's election came just after 36 people — board members plus state

and federal officials who deal with the board — completed a survey that showed they believe the HAB is only moderately successful in providing good advice to the Department of Energy, the Environmental Protection Agency and the Washington Department of Ecology.

Survey results showed most of the respondents believe the board greatly influences the EPA and state Ecology Department, the two leading regulatory agencies at Hanford.

But they expressed mixed feelings on how much the board influences DOE decisions, and most said they believe the board has little or no effect on Congress, which controls Hanford's budget.

Right now, the HAB is a prime example of how public participation in

See **Task**, Page A2

9 NOV 00

BNFL looks to role as subcontractor

Company wants to come back to Hanford glassification project providing technical help, more

By John Stang

Herald staff writer

BNFL Inc. wants to return to Hanford's tank waste glassification project — as a subcontractor.

After a yearlong reorganization, the company has decided to stay out of construction, instead concentrating on providing technical help and operating plants in the nuclear industry — where BNFL believes its expertise is greatest.

BNFL leaders — including the company's No. 2 man in the United States — discussed the company's intentions Wednesday with the Tri-City Herald's editorial board.

Until May, Virginia-based BNFL — an American subsidiary of British Nuclear Fuels Ltd. of Great Britain — was lead contractor to design, build and operate plants at Hanford to convert radioactive tank wastes into glass.

However, last spring's suddenly skyrocketing cost estimates — from \$6.9 billion to \$15.2 billion — led the Department of Energy to fire BNFL. And DOE is now studying two proposals — from a

team of Bechtel National and Washington Group International and a team of segments of Fluor Corp. and Cogema Group — to take over designing and building the plants on Jan. 15.

Despite sharing ownership with Washington Group of glassification veteran Westinghouse Governmental Services, BNFL decided not to join either bidding team.

"The timing wasn't right," said Philip Strawbridge, BNFL executive vice president, to explain why BNFL didn't join either team slightly more than four months after it was fired.

However, BNFL hopes to hook up with the winning team as a subcontractor, he said.

One chance will be in April, which is when the design-and-construction team is supposed to select an operations subcontractor to provide advice and eventually conduct test runs on the new plants. Strawbridge noted BNFL operates a glassification complex at Sellafield, England, and sees the company as a prime candidate for a Hanford role.

Also, BNFL was lead designer of the partly done glassification plant blueprints that DOE is using. BNFL believes that should help it win some technical support roles. DOE has said it is satisfied with BNFL's designs.

DOE wants the new glassification team to subcontract out 60 percent of the work from 2001 to

2011, which is when the new contract is supposed to end. Consequently, there should be plenty of chances for BNFL to bid.

Strawbridge noted BNFL retains a Hanford office and has done nonglassification work at Hanford and work elsewhere. BNFL designed Hanford's so-called "WRAP" facility where barrels of radioactive and hazardous wastes are examined and repacked if necessary.

BNFL and its parent corporation spent much of 1999 and part of 2000 dealing with several cost estimation and management problems. Both the British and American corporations have gone through extensive leadership changes. And the American BNFL announced major changes in its internal structure in September.

Alan Dobson and Maurice Bullock, former key figures in BNFL's Hanford operation, head the two major divisions within the reorganized BNFL. Meanwhile, Strawbridge said BNFL is still trying to improve its cost forecasting.

Last spring, BNFL had at least 700 employees at Hanford, with most transferring to CH2M Hill Hanford Group until a new glassification team is selected. BNFL retains about 50 employees in Richland.

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HEHF chief Matheson leaving, ready for change

By Annette Cary

Herald staff writer

Sandy Matheson announced Friday she is resigning as chief executive officer of Hanford Environmental Health Foundation at the end of the month.

She is ready for a career change, she said, after working for HEHF for 8½ years, most of that time as CEO and president.

"She has led HEHF through extraordinary and challenging times, and created the changes we needed to become the strong organization that we are today," said Dr. John Lein, chairman of the HEHF board. "This is a real loss for HEHF, but we also understand and support Sandy's desire for change."

HEHF holds the Hanford contract to provide health services such as medical monitoring and surveillance, work conditioning, behavioral health, health education and infection control at the site.

The HEHF board plans to name Lee Ashjian, who joined the foundation as president in April, as president and CEO. The foundation also has recently named a new medical director, Dr. Bill Brady, who previously owned an occupational health business in Utah.

She's had inquiries about working as a consultant or on other projects. She plans to combine work on some new projects and some time off over the next few months as she considers her next career step.

"I'm open to new possibilities," she said.

She plans to remain in the Tri-



Matheson

Cities, where she's heavily involved in community activities, including the Tri-City Industrial Development Council.

Matheson managed HEHF through

significant changes at Hanford. In recent years, with the government under pressure to operate more efficiently, HEHF has reduced costs by a third and dropped the number of employees from 135 to about 89.

HEHF has held the Hanford contract for health services since the 1960s.

Under Matheson's leadership, HEHF has consistently won excellent and outstanding performance ratings from the Department of Energy. HEHF also has led other DOE sites in some improvements in recent years, implementing a sophisticated database that measures, records and stores information on health risk exposures for workers.

The information can be used to determine medical monitoring needed for individual workers to prevent health problems.

Most of HEHF's work is for the Hanford site, but in recent months Matheson has started looking for opportunities to expand.

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12 NOV. 00

Denver group mounts fight against monument

By the Herald staff

While the U.S. Fish and Wildlife Service begins planning how to manage its new Hanford Reach National Monument, the Mountain States Legal Foundation is pushing to get the designation overturned.

The Denver foundation, which defends property rights, has sued President Clinton in federal court in Washington, D.C., on the grounds the monuments are "unnecessary, undertaken without consultation with local citizens and unconstitutional."

Earlier this year, Clinton created national monuments in Washington, Oregon, Colorado and Arizona. They covered about 540,000 acres, nearly half of which are Mid-Columbia lands surrounding the Hanford Reach of the Columbia River.

But Clinton's executive order sparked anti-federal sentiment across the West, including the talk of a lawsuit by Mid-Columbia counties.

The legal foundation and the Blue Ribbon Coalition, a recreation advocacy group based in Idaho, filed their first complaint in late August. "These designations affect

a broad spectrum of interests, including recreation," said Adena Cook, public lands director for the coalition.

The suit was contested recently by a handful of environmental groups including The Wilderness Society, the Sierra Club, the National Wildlife Defense Fund and the Natural Resources Defense Council. They are seeking legal standing to defend the Antiquities Act of 1906, which the president used to create this summer's monuments.

Environmental groups argue the president's use of the act was justified. "These are really important lands, and they deserve the protection they have got," said Pam Eaton, with The Wilderness Society in Denver.

While the suit focuses on four monuments, many more could hang in the balance. There have been other challenges to specific national monuments, but the current case is about the ability of a president to use the act.

"The law provides needed flexibility and for the president to respond quickly to impending threats to resource protection," Eaton said.

12 NOV. 00

Engineering company gives \$25,000 to school

CH2M Hill has donated \$25,000 to upgrade computer hardware and software at Columbia Industries' Certified Private School.

The school helps people with basic academic skills, computer skills, and preparation for general equivalency diploma acquisition. Students are those who have dropped out of school, are at-risk kindergarten through eighth-grade students who have been suspended from school and individuals who need to learn or upgrade computer skills to find a job.

Last year, there were 140 students in the basic education skills program.

Tri-City Herald

Saturday, Nov. 4, 2000

Environmental consultant to head up HAB

By John Stang

Herald staff writer

The Hanford Advisory Board picked environmental consultant Todd Martin of Northport, Wash., as its nominee to become the board's new chairman.

Martin's selection still needs approval from the Department of Energy, which provides the board's funding.

On Friday, board members picked Martin, 32, as their choice to succeed Marilyn Reeves, 69, of Amity, Ore., who is stepping down in February as chairwoman after serving six years in the post.

Martin's selection came after six hours of procedural wrangling and six ballots spread across Thursday and Friday in Pasco.

The Hanford Advisory Board consists of 30 voting members and some nonvoting members who represent the entire Hanford political spectrum from environmentalists, tribes and Oregon to academics, Tri-City interests and Hanford workers.

Its job is to advise DOE, the U.S. Environmental Protection Agency and the Washington Department of Ecology on Hanford issues.

The 7-year-old board is a rambunctious,



Martin

sometimes unwieldy coalition that derives its political strength from the fact that any positions it officially takes require the nearly unanimous support of about 30 different Northwest constituencies.

Board members universally have respected Reeves and her ability to keep such a large, diverse and opinionated group

focused on issues, enabling it to take united stands. Martin has emerged as the board's leader on Hanford's tank farms issues, including glasification — also earning respect.

The six hours of wrangling came from board members wanting someone with Reeves' ability to command respect from all its factions. That led to hours of parliamentary discussions so everyone would agree the selection was fair and thorough.

A major wrinkle is that any board decision requires virtual unanimity, or two-thirds approval in isolated cases — such as an election — if consensus appears impossible.

On Thursday, the board had two nominees acceptable to all members — Shelley Cimon of La Grande, Ore., and Leon Swenson of Richland. A combination of confusion, unanswered questions and some ambivalence caused Martin not to seek the post until after the Oct. 15 nominating deadline had passed.

With 26 voting members present Thursday and Friday, neither Cimon nor Swenson could collect the 18 votes needed for two-thirds approval on four ballots, even though both came close. Then on Friday, board members put Martin on the fifth ballot. He subsequently got 19 votes on the sixth ballot.

Then, the board members unanimously voiced their support for Martin to present a united front to DOE.

A Montana native, Martin earned a bachelor's degree in biology from Whitworth College in Spokane. While in college, he joined the Spokane-based watchdog group Hanford Education Action League as a researcher in 1990. This was when HEAL shifted its focus from access and radioactive releases issues to Hanford's cleanup.

Martin saw cleanup as an environmental niche with few people studying or participating.

"Few outside of Hanford's fences knew about cleanup matters," he said.

Plus, he got hooked on the subject. "I guess I'm just a Hanford junkie," Martin said.

Hanford inspired him to get a master's degree in environmental science at Bard College at Annandale-on-Hudson, N.Y.

At the same time, he sometimes flew back to Washington, D.C., to participate in a public task force on Hanford radioactive waste tanks issues.

Returning to HEAL, Martin built up expertise on the site's waste tanks issues, which eventually led to the Hanford Advisory Board appointing him chairman of its tank farms committee.

In March 1999, HEAL disbanded as the Spokane area's interest in Hanford fizzled out. Martin set himself up as an independent environmental consultant.

He has two contracts addressing DOE sites. At Fernald, Ohio, he works on issues pertaining to that site's radioactive waste silos — a sort of miniature version of Hanford's tank farms. He also works on ground water matters at DOE's Pantex, Texas, site.

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Meeting set Dec. 4 to discuss cleanup

By John Stang

Herald staff writer

A "town hall" meeting is scheduled for Dec. 4 in Richland to get public feedback on the Department of Energy's proposal to speed cleanup efforts along Hanford's Columbia River shore.

That meeting is to start with a briefing on the concept at 6:30 p.m., followed by public input at 7:15 at the Richland Red Lion Inn.

This will be part of a public comment period of at least 30 days to begin Monday.

DOE wants to shift extra money and efforts to the old reactor areas and the 300 Area along the Columbia River, hoping to clean up most of the shore area by 2012. The idea is to show major tangible progress at Hanford by 2012 to a Congress and public that have been skeptical whether the site is accomplishing much.

To work, DOE believes that plan needs Congress to increase the site's non tank farm budget from \$755 million in fiscal 2001 to about \$800 million in fiscal 2002, and to stay at that annual \$800 million level through 2016.

Congress wants DOE to send it a report — outlining how DOE wants to clean up the 100 square miles of Hanford closest to the river — in January. At that time, a new Congress and a new presidential administration will be tackling Hanford's cleanup.

DOE wants the green light soon from Washington, D.C., because it is scheduled to send its fiscal 2002 Hanford non tank farm cleanup budget request — the one needing the \$800 million — to Congress February.

The Hanford Advisory Board plans to provide formal input into

the concept on Dec. 7-8. This input could be a formal stance or a list of pros and cons the board wants Washington, D.C., to consider.

On Tuesday and Wednesday, board members came up with some aspects that it believes DOE should mull over. These included:

- The 618-10 and 618-11 burial sites a few miles north of the 300 Area. These are probably the most contaminated sites in the river shore area and were not in DOE's original accelerated cleanup proposal.

- Site 618-7, about a half-mile northwest of the 300 Area. Little is known about this site, except it is filled with "hundreds" of barrels of zircaloy metal, which was used in old reactor fuel casings.

- Disposing of 1,200 to 1,500 barrels partly buried just north of the 300 Area that are filled with uranium chips plus oil to prevent the uranium from catching fire.

DOE has already dug up 338 barrels, and about 150 of those leak.

In a few weeks, DOE hopes to have a rough plan lined up on disposing of the barrels, which will likely include incineration or glassification, or both.

- Figuring out how "clean" a cleaned-up river area should be and what are the cost implications among different levels of clean.

- What are the contaminated ground water aspects of an accelerated cleanup?

- What federal and state laws must be taken into account, especially requirements for environmental studies and public input?

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K Basins project may just miss Nov. 30 deadline

By John Stang

Herald staff writer

Hanford's K Basins project might miss its Nov. 30 deadline by a few days.

But that sparked no objections from regulators and Hanford Advisory Board members Thursday when they were briefed in Pasco on the project's status.

Phil Loscoe, the Department of Energy's K Basins project director, said the project's pre-operational tests and reviews are more or less on schedule. But some last-minute fix-it work might delay the removal of spent nuclear fuel from the K West Basin beyond the Nov. 30 deadline.

"If we miss it, it won't be by months. It won't be by weeks. It'll be by days," Loscoe said.

The K Basins are two indoor water-filled, leak-prone pools holding 2,300 tons of corroding spent nuclear fuel. The basins are about 400 yards from the Columbia River.

Hanford's master plan is to insert the fuel in special transportation containers, remove the containers from the pools, suck the moisture out of the containers, and store the fuel in a huge underground vault in central Hanford.

The K Basins and glassifying Hanford's radioactive tank wastes are considered the site's two most important projects.

But the K Basins project ran into numerous technical, management and budget troubles in the late 1990s that approximately doubled its price tag to \$1.6 billion and moved the completion date from 2001 to 2004.

Nov. 30 is the Tri-Party Agreement's dead-

line to remove the first fuel from K West Basin. The Tri-Party Agreement is the legal pact governing Hanford's cleanup.

One reason for possibly missing the Nov. 30 date is that DOE and Fluor Hanford are stressing moving fuel safely. "We're taking safety over the schedule," Loscoe said.

Larry Gadbois, an U.S. Environmental Protection Agency official, and Hanford board member Bill Smith, representing Hanford's union worker, agreed with Loscoe. "It's not wise to compromise safety to make a milestone," Gadbois said.

Another potential delay could come from the underground vault. A state health department inspection recently found the wrong dampers, which help control air flow, in the vault's ventilation system.

That handicaps the vault's and its covering building's capabilities to keep the indoor air pressure less than the outdoor air pressure — a standard way to keep radioactive particles from floating outside. The vault's crew is awaiting replacement parts to fix that problem.

The segment of the overall project that is lagging behind the others on the tests is the Cold Vacuum Drying Facility. That's a midway station between the basins and the underground vault where the moisture is sucked out of the transportation container holding the fuel.

Much of the operators' training at that facility consisted of discussions and simulations with little hands-on training. Those workers are now undergoing hands-on training with the facility's tests to start up again

when DOE and Fluor feel comfortable with the training.

Meanwhile, DOE and Fluor have begun brainstorming to see if it is possible to speed up some K Basins work that will have to be done after the fuel is removed. That work consists of removing contaminated water and loose debris from the site. DOE and Fluor are looking at moving that completion date from 2007 to 2005, Loscoe said, cautioning that is still in the speculative stage.

In a related matter, a fire broke out in a transformer near the fuel's underground vault in the 200 East Area at about 5:45 a.m. Thursday. The fire knocked out power to part of the 200 East Area for 1½ hours.

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Children aiding children



Hanford board set to discuss accelerating cleanup of river

By John Stang

Herald staff writer

The Hanford Advisory Board plans to spend Wednesday chewing over a Department of Energy proposal to accelerate cleanup efforts along the Columbia River at Hanford.

While that concept is scheduled to be talked about a little today at the Pasco Doubletree Hotel, a more in-depth discussion is set from 8 a.m. to 4:15 p.m. Wednesday at the Washington State University at Tri-Cities campus in Richland.

DOE's Richland office proposed speeding up cleanup along the Hanford river shore to get most of it done by 2012. And the Hanford board wants to study the concept next week to make formal recommendations to DOE in December.

If DOE goes ahead with this concept, it will have to increase Hanford's cleanup budget — excluding the waste tank farms — from \$755 million for the current fiscal 2001 to about \$800 million for fiscal 2002.

DOE — under a new presidential administration and a new secretary of energy — is expected to unveil its fiscal 2002 budget request to Congress in February 2001.

Part of the Hanford Advisory Board recently discussed some pros and cons of DOE's proposal.

So far, many board members support the idea if the extra money materializes.

But board members also worry about some 200 Area soil studies and cleanup being delayed to help the river shore work.

Also they want the 618-10 and 618-11 burial sites near the river to be included in the accelerated cleanup. Site 618-11, potentially the most radioactive spot near the rivers is not in DOE's proposal, with DOE planning not to start tackling that site until 2010.

Meanwhile, board members are somewhat split on

whether public relations should drive cleanup plans. The reason to speed river shore cleanup is to finish work on a major chunk of Hanford, which includes easier projects, in 10 years to show tangible progress to a skeptical and cynical Congress that controls Hanford's purse strings.

Also, there is no consensus on what the final state of a cleaned-up river shore area should look like. And board members want to know more about DOE's plan to award a "closure" contract in 2002 for this project. Such a contract would leave that company in charge until the work is finished — essentially becoming a 10-year contract.

Also Thursday, the Hanford Advisory Board:

■ Interviewed board members Shelley Cimon and Leon Swenson as the two candidates to replace Marilyn Reeves in February as the board's chairperson.

Reeves, a public-at-large representative from Oregon, plans to step down in February when she finishes six years as chairwoman. The overall board plans to select her successor today.

Cimon is a state of Oregon representative from La Grande. Swenson is a public-at-large representative from Richland.

■ Learned the state has not decided yet how to deal with DOE's plan to slip the deadline for a fully operational waste glassification plant by 13 months from December 2009 to January 2011. DOE unveiled the 2011 date when it advertised for companies to bid for the glassification project. Officially, the deadline for a fully operational glassification plant is December 2009 under the Tri-Party Agreement, the legal pact governing Hanford's cleanup.

The state is waiting until Jan. 15, to decide if it will contest the delay. That is when DOE is expected to announce the new glassification contractor, and make public that company's plan of attack.

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Whistleblower's lawsuit goes to jury

Inez Austin's case against Westinghouse to be about credibility, attorney says

By John Stang
Herald staff writer

It's a case of "he said, she said." Inez Austin's lawsuit against Westinghouse Hanford Co. — alleging the company allowed a manager to fire her in 1996 for reporting safety problems — went to a jury Wednesday in Benton County Superior Court.

"This whole case is going to be about credibility. We've got one person vs. another saying what happened," Austin's attorney, Kim Rendish of Tacoma, said during closing arguments.

Although both sides battered each other on several matters, the main clash focused on Austin's relations with Dave Reber, her immediate superior in 1996 who is now Westinghouse's No. 2 man at a waste repository in New Mexico.

Austin, a former 200 West Area environmental compliance officer, charges Reber repeatedly became angry with her for reporting problems — with Westinghouse backing up his retaliation in firing her. The Richland resident alleges Reber privately told her she would be fired while masking his intentions with a paper trail saying otherwise.

Westinghouse contends Austin just didn't want to follow the same rules as everyone else when a massive 1996 reorganization occurred, and she used Reber as a scapegoat. Austin's last day on the job was March 1, 1996.

Wednesday, Rendish portrayed Reber as an ex-Navy officer used to giving unquestioned orders and fretting about what his superiors thought

of him. She accused Reber of "playing Dr. Jekyll and Mr. Hyde mind games," verbally harassing Austin when he knew no witnesses were around.

Rendish argued Reber did this because Austin made him look bad by reporting safety and regulatory problems, sometimes going around him to get action.

"He hates this woman because he's accountable to management, and things are not going well," Rendish said.

Meanwhile, Westinghouse's attorneys, Bergitta Trelstad and Holly Hearn of Seattle, portrayed Austin as someone used to getting her way. They said 275 other employees reapplied for jobs in the reorganization without protesting.

They accused Austin of "distorting, embellishing and making stuff up" in outlining her charges against Reber and Westinghouse — going through those "embellishments" point by point.

Trelstad said: "There is no evidence of (Reber being) a Jekyll and Hyde person except the self-serving testimony of the plaintiff herself."

Trelstad contended Austin might have been afraid she could not win her old job in a competition with other employees. Hearn said: "We may never know why Ms. Austin walked away from her job. ... My guess is it was pride. ... She often got her way because she pitched a fit. She wasn't used to being treated like everyone else."

Meanwhile, Rendish based much of her case on what Westinghouse did not do. Westinghouse never contested witnesses universally saying Austin was a hard-working, knowledgeable and trusted employee. Although numerous e-mails were submitted in this case, Rendish said Westinghouse never provided documents showing

Reber ever gave Austin major assignments — an omission she claimed bolstered Austin's contention Westinghouse did not want her to work. Instead, Austin drummed up her own work with other contractors.

Rendish said Austin obtained a draft job description for environmental compliance officer in February 1996 and noted it required a bachelor's degree in science or engineering. Austin had only a two-year degree. "She was the only employee whose job requirements changed. ... This was how Westinghouse was re-engineering her out of a job."

And as e-mails zipped between Austin and her superiors — Austin saying she was fired and her superiors saying she was not — no one personally came to Austin to discuss and resolve the dispute, Rendish said.

Meanwhile, Trelstad and Hearn said Austin never went personally to the company's human resources department to resolve the matter. Austin ignored several Westinghouse e-mails saying she was not fired, they said. And Austin, not Reber, intentionally built a misleading paper trail, they said.

"She was so insistent that she had been fired that nothing anyone could say would've changed her mind," Trelstad said.

Trelstad and Hearn said Austin's e-mails from January to March 1996 kept saying she was fired — and Austin still came to work. "It defies logic that she came to work," Hearn said.

The defense contended Reber's job did not include sending "work packages" directly to subordinates. And Austin was already overloaded with non-Westinghouse work, they said.

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3 NOV 00

Jury says Hanford didn't fire employee

**Whistleblower filed suit against
Westinghouse Electric Corp.**

By Jason Hagey

Herald staff writer

A jury sided against one of Hanford's earliest whistleblowers Thursday, saying Westinghouse Hanford Co. did not fire Inez Austin during a reorganization in 1996.

The company's documentation of its handling of Austin was more convincing than Austin's memory of the how she finally left the company, one juror said.

Austin became a whistleblower in the late 1980s when she started reporting problems at Hanford's radioactive waste tanks. She was harassed at work and reached a settlement with Westinghouse over her treatment in 1990.

In the new case, attorneys for Austin argued her immediate supervisor, Dave Reber, privately told Austin she would be fired for reporting problems while he simultaneously constructed a paper trail that said otherwise.

Westinghouse attorneys countered by saying Austin was not fired but rather she simply refused to follow the same rules as everyone else during a massive restructuring.

The trial in Benton County Superior Court lasted about 1½ weeks, but the jury needed less than a day to reach a decision.

It wasn't hard, one juror said.

"Was she fired or not? Plain and simple," he said.

In the end, the company's documents were more persuasive than Austin's memory of events from four years ago, he said. It's the Herald policy not to name jurors who do not want to be identified.

"It was the paper trail more than anything," he said. "It wasn't really difficult."

Austin could not be reached Thursday afternoon for comment. Her Richland phone number is unlisted and a woman who answered the door at her house said Austin wasn't home.

The lawsuit named Westinghouse Electric Corp., the corporate parent of the old Westinghouse Hanford Co.

Fluor Hanford replaced Westinghouse as the nuclear reservation's lead contractor in October 1996.

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29 Oct. 00

Reach board faces monumental task

Management of new national monument includes winning over skeptical neighbors

By Mike Lee

Herald staff writer

Six months after Vice President Al Gore claimed the Hanford Reach as a national monument, the U.S. Fish and Wildlife Service is preparing to form an advisory board to shape the future of the controversial stretch of the Columbia River.



Call

The agency has a monumental task — not only to plan and manage a national landmark but also to overcome hard feelings by many Mid-Columbians about the Clinton administration protecting the Reach by executive order rather than letting Congress do the job.

The planning effort alone is expected to cost more than \$1 million.

“We think we have some nationally significant resources, and we want to do a first-class job of taking care of them,” said Paula Call, outdoor recreation planner for the Fish and Wildlife Service.

Opposition, however, lingers. Grant County, for instance, has sought legal advice on how to fight the monument designation.

Surprisingly, however, animosity seems to be abating in some quarters.

Benton County Commissioner Max Benitz Jr., while not ruling out a legal challenge to the national monument, said Friday that he has “a good working relationship” with Greg Hughes, project leader for the Fish and Wildlife Service office in Richland.

“He assures us that there will be local representation in the development of the management plan,” Benitz said. “That’s what we have advocated for all the way.”

The monument already has generated widespread interest in what is perhaps the healthiest stretch of the Columbia River, the free-flowing 51 miles above Richland. National monument advo-



Herald/file

The Hanford Reach is one of the Northwest’s environmental treasures and home to one of the Columbia River’s few healthy runs of wild salmon. The U.S. Fish and Wildlife Service is preparing to start a two-year process to determine how the new national monument should be managed.

cates have long said a well-known federal designation would boost the region’s appeal.

“We’re seeing activity as a result of travel writers that are calling us and environmentalists that are calling us,” said Kris Watkins, executive director of the Tri-City Visitor and Convention Bureau. “We are definitely seeing movement and inquiries about the national monument.”

So is the Fish and Wildlife Service’s Richland office.

“There’s a lot of interest,” Call said. “I have heard from many members of the general public and these are lands they are attached to.”

The agency will hold several public hearings and meetings over the next few years to get input from a broader spectrum of residents. During the planning stages for the Grand Staircase-Escalante National Monument in Utah, public meetings were held in New York and California because the monument

was considered a national treasure.

It’s too early to tell if the Reach monument will get that type of exposure — but it’s not too early to know what major issues will be. Those include public access, emergency and police services, irrigation and power rights of way, hunting and fishing rules, irrigation water seepage in the White Bluffs, elk management and boating rules.

A key part of the plan’s formation will be done by an advisory committee. Call said Thursday the Richland office was recently given \$90,000 to start the committee, but governing regulations have not yet been approved.

The panel is likely to include about 15 people, including state, county and tribal delegates along with representatives of local economic interests, recreation groups and conservationists.

Audit finds some worker idleness at Fluor Hanford

Fluor, DOE studying inspection report, say it's somewhat skewed

By John Stang

Herald staff writer

A draft federal audit said Fluor Hanford's employees were not working 25 percent of the time inspectors observed them in July and August.

The draft report concluded 25 percent of the observed employees were doing activities obviously not work-oriented.

These included sleeping, nonbusiness Internet use, watching TV, reading nonbusiness materials such as newspapers and maga-

zines, balancing checkbooks, playing ping-pong and putting on makeup. If there were any doubts on an employee's activity, it was counted as work-related.

But Fluor, in conducting its own follow-up observations, checked out the situation and found a much smaller percentage of people not working.

In late September, the federal Defense Con-

tract Audit Agency concluded that Fluor could save about \$56.6 million a year by decreasing nonwork activities at the 200 Area and the K Basins.

Right now, the Department of Energy and Fluor are studying the DCAA's final report — issued Sept. 29 — to scrub the numbers and pinpoint where the problems are.

DOE declined to release the DCAA's report

Wednesday, pending it and Fluor completing their studies of the DCAA's conclusions and figures. A late September draft was leaked to the Herald.

The report's findings worry DOE and Fluor, said Jeanie Schwier, DOE's chief financial officer at Hanford. But the report has

See **Audit**, Page A2

Four hunters cited for killing Hanford elk

2 NOV
2000

Four hunters were ticketed Saturday for allegedly shooting five bull elk on the northern part of the Fitzner-Eberhardt Arid Lands Ecology Reserve.

The 120-square-mile ALE, dominated by Rattlesnake Ridge, is part of the Hanford nuclear reservation and part of the Hanford Reach National Monument.

The ALE is closed to hunting and to unescorted public access. The names of the four ticketed people were unavailable Wednesday. They also were cited for trespassing and for firing guns on federal land, according to the U.S. Fish and Wildlife Service.

The four were caught through a combined effort of the U.S. Fish and Wildlife Service, the Washington Fish and Wildlife Service, the Benton County Sheriff's Department and the Hanford Patrol. If they contest the citations, they will face charges in U.S. District Court.

Hanford plutonium worse than thought, report says

By The Associated Press and the Herald staff

Plutonium waste buried underground at Hanford and five other Energy Department sites is 10 times more radioactive than previously thought, an agency study says.

The finding has prompted DOE officials to ask the National Academy of Sciences to review the department's approach to managing the wastes, an energy spokesman said Friday.

"What we do know is that no sites have identified buried ... waste as an immediate risk," said Carolyn L. Huntoon, assistant energy secretary for environmental management.

"We also know that the risks from digging up the waste with currently available technologies far exceed the benefits," she said in a statement.

DOE officials at Hanford were unfamiliar

with this latest report on Friday, and could not comment on it.

Most of Hanford's plutonium is stored aboveground in vaults at the Plutonium Finishing Plant. There, the scrap plutonium is being converted into less dangerous forms for eventual shipment to Savannah River, S.C.

Some plutonium-laced items — clothes, equipment and junk — are buried at Hanford, mostly in barrels as part of the site's "transuranic" wastes. Hanford has been digging up these barrels, checking them and then repacking the flawed barrels for eventual shipment to a man-made, half-mile-deep storage cavern in New Mexico.

Hanford's most troublesome plutonium-laced burial site is 618-11 near Energy Northwest's complex site. This site is so contaminated that new remote-control equipment has to be invented to move the wastes. DOE does not plan to start removing wastes from 618-11

until 2010 — a project expected to cost more than \$300 million. Because this site is 3½ miles from the Columbia River, some public pressure is mounting to speed up that project.

Meanwhile, on a nationwide basis, DOE should dig up the wastes, treat them, seal them in containers and store them in buildings, said Arjun Makhijani, president of an environmental group called the Institute for Energy and Environmental Research in Takoma Park, Md.

"The water resources under (the waste) are a lot more at risk," Makhijani said.

In 1987, the Energy Department reported that 97 percent of U.S. radioactivity from waste containing a high concentration of plutonium and similar radioactive elements was stored at retrievable sites such as buildings. That waste is destined for the Waste Isolation Pilot Plant near Carlsbad, N.M.

Waste representing just 3 percent of the

radioactivity was dumped in landfills or buried before 1970, the department said 13 years ago.

The new study found 30 percent of the nation's radioactivity from such waste is buried.

The amount of radioactivity from buried waste at Hanford was measured at 67,800 curies — the second-highest level among the six sites examined.

A curie is the amount of radiation emitted in one second by 1,400 pounds of enriched uranium.

Hanford produced plutonium for the nation's nuclear arsenal for 40 years, until the late 1980s.

Makhijani said previous estimates of curies at Hanford have ranged from 29,230 in 1984 and 1990 to 114,500 in 1996.

The study estimated that 126,000 cubic meters of nuclear waste were buried or

dumped into the soil before 1970 at the six sites.

That estimate, which includes 75,800 cubic meters at Hanford, is little changed from past estimates, the Energy Department said.

The department's two-year inventory was completed this summer in response to a complaint from Makhijani's group that DOE had no idea how much material had been dumped into landfills or buried in flimsy containers near nuclear sites.

Other sites examined were the Idaho National Engineering Laboratory near Idaho Falls, the Los Alamos National Laboratory in New Mexico, the Nevada Test Site near Las Vegas, the Oak Ridge National Laboratory in Tennessee, and the Savannah River Site near Aiken, S.C.

On the Net: Energy Department: www.energy.gov/

Ex-boss says he and Austin worked well together

Change came when company decided to reorganize its tank farms operations in 1996

By John Stang

Herald staff writer

Inez Austin's former superior contends he had a good working relationship with her until Westinghouse Hanford Co. decided to reorganize its tank farms operations in early 1996.

Dave Reber testified Thursday afternoon and is expected continue to do so today in Benton County Superior Court in Kennewick.

Austin, a former Hanford whistleblower and Westinghouse environmental compliance officer, is suing Westinghouse, claiming that Reber got angry with her when she brought up safety concerns and that Westinghouse fired her on March 1, 1996.

Westinghouse claims Austin mistakenly thought a 1990 legal settlement — between her and the company over her being harassed because of late 1980s whistleblower activities — guaranteed that she did not have to re-apply for her tank farms job during the reorganization. Westinghouse contends that Austin was not fired but actually quit on March 1, 1996. Central Hanford's tank farms are 177 huge underground tanks that hold 53 million gallons of radioactive waste.

Reber is now Westinghouse's No. 2 man at the Waste Isolation Pilot Plant in New Mexico — a huge manmade cavern designed to hold the Department of Energy's transuranic wastes. In November 1994, Westinghouse put Reber in charge of operations and later additional aspects of the 200 West Area's tanks. He was Austin's immediate superior.

On Thursday, Reber testified he and Austin worked well together "until near the end,"

when Westinghouse began reorganizing the tank farms. "Inez did good work," he said.

Westinghouse's attorney introduced to the court a 1994 evaluation of Austin by Reber and his predecessor. And they introduced several e-mails — dated from December 1994 to July 1995 — to and from Reber regarding Austin. All praised Austin's work or agreed with concerns or suggestions she raised.

"Inez has done an outstanding job in the (west tank farms operations), meeting or exceeding all requirements," Reber wrote on her evaluation for 1994.

Reber testified he approved Austin's promotion from senior engineer to environmental compliance officer.

Also, he testified that Austin said she would not hesitate to call then-Energy Secretary Hazel O'Leary or DOE in Washington, D.C., with her concerns. Because he knew of her past as a whistleblower, Reber said he gave

extra consideration to Austin's concerns. However, he said Austin worked well with other tank farms managers and workers and never actually called Washington, D.C.

Earlier this week, Austin testified that Reber would not report a mapping problem with an underground waste transfer line. Reber testified Thursday that he was driving off-site and talking with another manager by car phone about Austin's concern at the end of the day she reported it. They thought the mapping concern was "borderline" and decided to report it to DOE.

When he learned Austin already had reported the mapping problem to DOE, he told her to talk with him before she did something similar again, he testified. Reber said Austin then apologized.

Earlier this week, Austin testified that Reber frequently got angry with her for reporting problems to him or for bypassing him to report

to DOE and the state. She testified that he verbally chastised her when others were not around.

Also Thursday, several former co-workers testified that Austin was knowledgeable, respected and trusted in the 200 West Area. "Everyone I knew ... used her at the go-to person to get an answer," said Dale Geer, a nuclear chemical operator, formerly with Westinghouse and now with CH2M Hill Hanford Group.

Meanwhile, Austin's husband, Gary Maupin, testified about family stresses because of Austin having to commute from Richland to Pendleton to work for lesser pay — taking time from her home life and adding wear and tear to her car.

The jury trial is expected to last until late next week.

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

Hanford observatory gets first lock on success

By John Stang

Herald staff writer

Laser beams get in sync at LIGO facility

Two good-sized white dots shimmered against a black background. Fuzzy. Wobbly. Jiggly.

Then, the dots got sort of sharper. The jiggles somewhat quit.

The white two dots now pulsed.

"Lock."

The word says both laser beams at a Hanford observatory are bouncing back and forth in sync, meaning the installation can "catch" gravity waves rippling through space.

The Laser Interferometer Gravitational-Wave Observatory achieved "first lock" about three weeks ago, the LIGO staff announced Friday to about 60 people watching the white dots on a projector screen at the complex.

"I'm already bragging at school," said Melinda Menke, a crowd member and Kamiakin High School senior who worked as a LIGO summer intern.

Perpetuating the absent-minded professor

stereotype, the LIGO's scientists have the first lock logged in their records but couldn't remember Friday which day it occurred.

First lock doesn't mean the LIGO is ready yet to study gravity waves.

"This event is akin to the Wright brothers' first flight at Kitty Hawk. (The airplane) didn't stay up very long. It wasn't very far off the ground. But it does fly," said Stan Whitcomb, the project's detector group leader.

Right now, the LIGO is capable of a two-minute lock. The LIGO's scientists are shooting for a 40-hour lock.

Also, the LIGO's readings are filled with lots of static, vibrations and noise to filter out. And lots of precision controls have to become ultra-precise.

LIGO's purpose is to capture gravity waves, which currently can be found 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 a microphone catches sound waves.

A small LIGO recently cranked up in Japan, and a half-dozen more are in various stages of development around the world.

At Hanford, the LIGO looks like a monster "L" from the air — two concrete aboveground tunnels that each stretch four kilometers, or about 2½ miles and meet in a 90-degree angle. Each tunnel holds a long, 4-foot-diameter tube that contains the most perfect vacuum possible. Inside each tube, a laser beam bounces back and forth between ultrapolished quartz mirrors.

The idea is gravity waves striking the LIGO will move the mirrors an infinitesimally small amount — one-thousandth the diameter of an atom's nucleus. That gravity-wave induced wobble is to be measured by the lasers, then analyzed.

Theoretically, a LIGO can "see" a black hole, where gravity is so powerful even light cannot escape. And it is supposed to be tailored to examine the quick, violent stuff in outer space — collisions, explosions such as supernovas

See **Lock**, Page A2



Nergis Navalvala, a staff scientist at the California Institute of Technology, monitors the laser stabilization system Friday at Hanford's Laser Interferometer Gravitational-Wave Observatory. LIGO staff achieved the facility's first lock about three weeks ago, where laser beams bounced back and forth in sync in the complex's two 2½-mile long vacuum tubes.

Herald/André Ranieri

2 bidders seek vit contract

Corporate teams vie for job

By John Stang

Herald staff writer

Two corporate teams submitted bids Friday to become Hanford's new radioactive waste glassification contractor.

One bidder is a team consisting of Bechtel National Inc. and Washington Group International. The second bidder is a team consisting of various parts of Fluor Corp., Cogema Inc. and Foster Wheeler Corp.

"Two (bidders) is at least competitive," said Mike Wilson, nuclear program manager for the Washington Department of Ecology. There had been fears in Hanford circles that only one bidder might materialize.

Friday was the Department of Energy's deadline to receive bids on a predicted 10-year, \$4 billion project to be awarded by Jan. 15. This will be the largest single cleanup contract in Hanford's history.

DOE's Office of River Protection would not release any information on the bids, including how many teams

24 OCT 2000

State, feds reach cleanup agreement

The waste burial sites around nine defunct plutonium-production reactors now are legally part of Hanford's master cleanup plan.

The Department of Energy, the U.S. Environmental Protection Agency and the Washington Department of Ecology recently signed an agreement for cleaning up 45 burial sites around the reactors.

This does not actually change any current environmental cleanup plans. The three agencies have been tying up legal loose ends on individual segments of the river shore cleanup efforts. This most recent agreement is the last one needed for Hanford's river shore area, DOE said.

1500700

Hanford Patrol trainees save 'hostages' in drill



Herald/Bob Brawdy

Ed "Ty" Tynnismaa, left, coordinates trainees for the Hanford Patrol's Special Response Team during a recent training exercise. The exercise, an effort to save two "hostages" being held in a trailer, was the

teams' final training exam for the elite security force. Here, they practice on a life-size model of the trailer, which is sketched in the gravel. **For story and more photos, see Pages A6-7.**

14 Oct. 00

Growers fret Hanford elk hungry for crops

Displaced by fire, herd may look at wheat, other crops to get through lean winter

By Mike Lee
Herald staff writer

WHITSTRAN — Orchardist Scott Roberts hopes he doesn't see many elk this winter. But should the season hit hard, he wouldn't be surprised to find the fire-displaced

Hanford herd eating young wood from his apple trees.

"If they get down into the orchards, they will tear them up bad," said Roberts, while nearby crews harvested fruit. "Something will have to be done."

That possibility isn't lost on the state Department of Fish and Wildlife, though the federal agency responsible for the animals said fears about winter relocation of the herd are overblown.

"The short-term impact of the fire will prob-

ably be quickly alleviated," said Heidi Brunkal, wildlife biologist with the U.S. Fish and Wildlife Service in Richland. "I don't know if these elk will be going back onto private lands."

Already this year, wheat farmers north of Roberts' orchard have sustained significant elk damage after the Hanford fire forced the 650-head herd off federal land in June. Because it faces few shortages during most winters, the herd is among the healthiest in the Northwest.

"The lack of range now because of the fire

very much concerns us," said Doug Flohr, the state Fish and Wildlife enforcement officer watching the herd. "If we experience a very hard winter this year, that could shift all these elk on to private lands 24 hours a day, seven days a week."

Flohr, who talked with many landowners on the west side of the Rattlesnake Hills, said the state is considering a winter feeding program if weather conditions and elk forage patterns demand one.

"We are trying to manage these elk

the best way we can," Flohr said.

For some farmers, that concern is belated. Four or five farmers in the Lower Yakima Valley have filed claims with the state for about \$200,000, said Capt. Robert Schafer, state game officer in Yakima.

In 1999, the first year of the state's damage claim program for the Rattlesnake Hills, farmers submitted less than \$20,000 in claims.

"I don't think you can attribute (the

See **Elk**, Page A2

18 OCT. 00

Gregoire fed up with DOE

Attorney general says
relationship with agency
strained over vit decisions

By Chris Mulick

Herald staff writer

Washington Attorney General Christine Gregoire said Tuesday that the recent termination of a contract to turn Hanford's most hazardous tank wastes to glass has pushed the state's troubled relationship with the Department of Energy to new depths.

"I think our relationship is as strained as it's ever been," she said during a visit to the Tri-Cities to meet with DOE officials. "It is amazing to me the relationship has come to what it has."

Gregoire said she's exhausted all leniency in stretching project milestones and accuses DOE of not negotiating in good faith. Any more, Gregoire said, DOE can negotiate with a judge.

"Unless we get a judge involved, we're not getting the kind of cooperation we need."

DOE dumped BNFL Inc. as the lead contractor on the vitrification project after it revealed cost estimates earlier this year that were twice what had been projected. Now, the agency has a Jan. 15 deadline to award a new contract.

Last month, DOE enraged Gregoire when it introduced a new request for a proposal to potential bidders that delayed the deadline for full-speed waste glassification from December 2009 to January 2011. The earlier deadline is part of the Tri-Party agreement, the legal pact governing Hanford cleanup.

Another key deadline is the first waste must be turned to glass by 2007.

Bids for the project are due Friday.

At the root of the problem, Gregoire says, is that entrenched bureaucrats are micromanaging the agency from Washington, D.C.

Normally, Gregoire said, she's not quick to go to court but sees little choice if DOE lets cleanup deadlines slip.

"You spend a lot of money," she said. "You spend a lot of time. You don't clean up squat," she said.

"We have got to get this vit plant going," Gregoire said. "I think delay means we're not going to get it."

Hanford board members back speeding up river shore cleanup

Some members say change in plan is too significant, too soon

By John Stang

Herald staff writer

A group of Hanford Advisory Board members tentatively supports a federal plan to speed up Hanford's cleanup along the Columbia River, possibly at the expense of some central Hanford projects.

"Overall, I think it's a sound plan. But more details need to be developed," said HAB member Harold Heacock, representing the Tri-City Industrial Development Council.

Board member Greg DeBruler, representing Columbia Riverkeeper, said: "I think this is a good start. ... But we have a lot of issues to flesh out."

Most of the 13 board members discussing this concept with Department of Energy officials Wednesday in Richland somewhat agreed with Heacock and DeBruler. Most took a stance that the idea should be pursued, if numerous details and concerns are addressed.

The 32-member board will meet to discuss

the issues Nov. 2-3 in Pasco.

DOE's Hanford Manager Keith Klein has proposed shifting more money and resources to cleaning up Hanford's river shore zone — including the old reactors' areas and the built-up 300 Area — by 2012, which would be way ahead of schedule.

In general, that concept depends on whether DOE can persuade Congress to agree to an annual Hanford budget of \$800 million — which does not include tank waste projects — from fiscal 2002 through 2012.

That's an increase from the \$726 million budget DOE requested for fiscal 2001, which

the Senate boosted to \$755 million.

Plus, there is a trade-off. Efforts to study and address contaminated soils in central Hanford would be significantly delayed.

The idea's roots are political. Faster river shore cleanup would show tangible progress by 2012 to convince Congress and the public that Hanford is not a black hole sucking in money with nothing to show for it.

Klein and his superiors in Washington, D.C., support the concept. And they want to design Hanford's fiscal 2002 budget to put that plan

See **River shore**, Page A2

Tri-City Herald

Wednesday, Oct. 11, 2000

Briefly

Compiled by the Herald staff

Crash victim leaves hospital Tuesday

One of two girls hospitalized in a traffic accident that killed two others Sunday night was released Tuesday.

Joselyn Martinez, 2, was released from Kennewick General Hospital, while her sister, 7-year-old Evelyn Martinez, remained in satisfactory condition.

Their father, Faustino Martinez-Soriano, 34, remained in guarded but stable condition at Lourdes Medical Center in Pasco on Tuesday night. His 5-year-old daughter Samantha Martinez and

Carlson critical of Locke on Hanford issues

Gubernatorial hopeful says governor did little for vetoed Hanford bill

By Chris Mulick

Herald staff writer

Republican John Carlson on Tuesday accused Gov. Gary Locke of not doing enough to head off last week's presidential veto of a bill that would have provided \$1.6 billion for Hanford cleanup.

In his battle to earn the perception of being the greater advocate for Hanford cleanup, Carlson instigated an exchange of news releases in hopes of getting free ink and air time. It's part of an effort to make up ground on Locke after last month's primary indicated the former radio talk show host was trailing by 20 percentage points.

Carlson said Locke should have made a

bigger fuss when President Clinton rejected the \$23.6 billion spending bill because it did not provide enough money for a variety of environmental causes. Despite Carlson's criticism, the bill is expected to be retooled and sent back to Clinton this week.

But Carlson says there's no guarantee the Hanford money, which lawmakers are not disputing and had nothing to do with the veto, will remain in the version Clinton signs.

"As of now, the Hanford money does not exist," Carlson said Tuesday after touring Pasco's Robert Frost Elementary School and the Ben Franklin Transit facilities in Richland. "There is no guarantee the money is forth-

coming. The governor needed to keep the heat on starting yesterday."

Ironically, Locke spent the afternoon at Hanford talking with officials about getting the government to maintain its cleanup commitments and was later scheduled to fly out of the Tri-Cities on the same flight as Carlson. Locke said he's been tracking progress in Congress and was pleased it appears more money will be dedicated for cleanup than last year.

"I don't know what he's talking about," Locke said of Carlson from the Tri-Cities Airport on Tuesday night. "It makes absolutely no sense."

Though both candidates have expressed support for Hanford cleanup as well as the restart of the Fast Flux Test Facility, Carlson has made a concerted effort to appear the stronger advocate.

He said Locke hasn't gone far enough to advocate an FFTF restart and has gone so far as to recommend changing the name of the facility to the Cancer Treatment Test Facility, even though it has no mission as yet to produce medical isotopes.

In Carlson's eyes, the presidential veto illustrated Locke's shortcomings on Hanford issues. "This is an example of where a governor can show leadership," he said. "It's clear the (Clinton) administration is treating Hanford like a second-class citizen."

But Locke eagerly defended his activities, believing increased budgets will ultimately illustrate a record of success.

"It's happening," he said.

■ Reporter Chris Mulick can be reached at 582-1521 or via e-mail at cmulick@tri-cityherald.com.

7 Oct 00

Hanford probes why radioactive dirt flew

Release 'nuisance' only, DOE official says

By John Stang

Herald staff writer

Hanford experts are investigating why radioactive particles apparently drifted up to 300 feet from a work tent designed to prevent that from happening.

The incident occurred late Tuesday evening in central Hanford's 200 East Area. As of Friday, experts were fairly certain radioactive dirt and dust wafted out of the work tent, with some settling in a neighboring work area.

The major question is how this could occur, said Larry McKay, radiological control manager for the Department of Energy's Office of River Protection.

The amounts of radioactivity involved were small "nuisance levels," McKay said. No one's health was threatened, he added.

CH2M Hill Hanford Group, which did the work at the tent, offered to do whole body counts — a thorough type of check for

See **Hanford**, Page A2

9 Oct 07

Comments to be taken regarding vit plant plans

By the Herald staff

A 30-day public comment period begins Monday on whether to have a federal judge enforce a Jan. 15 deadline for naming a contractor to build glassification plant for Hanford's tank wastes.

The Washington Department of Ecology is seeking comments on plans to add a pair of deadlines to an existing consent decree on pumping radioactive wastes out of Hanford's single-shell tanks.

The proposed deadlines for the glassification plant are the same ones that are in the Tri-Party Agreement, which is the legal pact governing Hanford's cleanup. However, the state wants the extra clout to be able to go immediately go to a federal judge to enforce the timetable.

Hanford has 53 million gallons of wastes in 149 single-shell tanks and 28 newer and safer double-shell tanks.

The Department of Energy's master plan is to hire a new contractor by Jan. 15 to design and build a factory to turn the wastes into glass. That plan calls for 10 percent of the most radioactive of the wastes to be glassified by 2018.

DOE and the state want to add those two key dates in the cleanup plan to an consent decree created in 1999. That earlier agreement calls for pumping all the liquid wastes out of Hanford's leak-prone single-shell tanks by 2004.

A consent decree allows the state to immediately seek an enforcement order from a federal judge if the conditions aren't meet.

Comments on the proposal must be submitted by 5 p.m. Nov. 9 to Roger Stanley, Washington Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. His phone number is 360-407-7108. His e-mail address is rost461@ecy.wa.gov.

11 067.00

NW delegation expects Clinton to sign Hanford budget

By John Stang
Herald staff writer

Hanford's stalled fiscal 2001 budget is expected to be signed by President Clinton within the next few days, say Northwest congressional staff members.

On Saturday, Clinton vetoed Congress' \$23.6 billion energy and water appropriations bill for 2001 because of a section blocking his administration's plan to let the Missouri River return to a seasonal ebb and flow. The bill included \$1.61 billion for Hanford's cleanup in fiscal 2001, which began Oct. 1.

The Senate expects to remove the Missouri River

section and resubmit the bill to Clinton in the next few days, said staff members for U.S. Sens. Patty Murray, D-Wash., and Slade Gorton, R-Wash.

Meanwhile, the House might look into trying to override Clinton's veto, said Jennifer Scott, aide to U.S. Rep. Doc Hastings, R-Wash. If the House does not override the veto, it plans to remove the Missouri River plank, she said.

The Senate voted 57-37 for the original appropriations bill, making it unlikely to override a veto with the necessary two-thirds majority. Murray and Gorton voted for the bill, citing the Hanford appropriation as their reasons for doing so.

The House voted 301-118 for the original bill, making an override vote more feasible there. Hastings also voted for the original appropriations bill because of Hanford.

The appropriation 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 other Hanford programs supervised by the Department of Energy's Washington, D.C., headquarters.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at istang@tri-cityherald.com

11 OCT 00

Bechtel, Washington Group to bid for vit plant, report says

By John Stang

Herald staff writer

Bechtel Group Inc. has teamed with Washington Group International to bid for the long-term contract to design and build Hanford's radioactive waste glassification plants, according to a recent Washington, D.C., newsletter.

The Weapons Complex Monitor reported it "had determined" that Bechtel has joined Washington Group in the venture. The newsletter, which serves nuclear and environmental corporate officials and inside-the-Beltway federal officials, did not elaborate.

If the report is accurate, it means:

■ Only one or two corporate teams appear likely to submit bids for the contract by the Oct. 20 deadline.

■ Washington Group's team appears likely to include BNFL Inc. and Bechtel. The two companies designed the partly done plans for the project the Department of Energy is using to seek bidders. But the two companies also were fired by DOE after proposing a huge price tag for the project.

Bechtel declined to comment on the Monitor's report. In fact, all com-

panies that are potential members of a glassification team have been mum about their plans.

Hanford has 53 million gallons of highly radioactive wastes in 177 underground tanks. Plans call for hiring a corporate team to design, build and operate plants to convert 10 percent of those wastes into glass by 2018 and to later expand upon that plan.

BNFL had led a team including Bechtel that was supposed to get that contract. But BNFL's original \$6.9 billion cost estimate zoomed to \$15.2 billion, and DOE fired BNFL. Then it also terminated Bechtel as the project's caretaker to ensure Bechtel did not have an unfair advantage in bidding for the replacement contract.

CH2M Hill Hanford Group, which promised not to bid on the new contract, is the project caretaker until a new team is selected by Jan. 15.

The proposed new contract calls for designing, building and testing the plants by 2011 before turning the complex over to another corporate team. DOE contends the revised project should cost roughly \$4 billion.

Only four companies worldwide

have ever successfully operated a radioactive waste glassification plant. One, GTS Duratek, is working for CH2M Hill Hanford Group and is covered by CH2M Hill's promise not to compete.

That leaves Cogema Group of France, BNFL and Westinghouse Electric Co.

BNFL and Boise-based Washington Group are co-owners of Westinghouse. Washington Group bought Morrison Knudsen construction firm in 1996

and bought Raytheon Engineers & Constructors in July. Raytheon helped DOE prepare its latest \$4 billion cost estimate for this project.

So a Washington Group glassification team would likely include or have access to the former Morrison Knudsen and Raytheon, plus Bechtel and BNFL.

Meanwhile, Cogema has talked with Richland-based Fluor Federal Services about teaming up to submit a bid to compete with the Washington Group.



13 NOV. 00

Herald/Katharine Kimball

Bison Kill Site painting by Rick Muir from the Columbia River Exhibition of History, Science and Technology in Richland. The Hanford area sand dune is the westernmost mass bison kill site yet discovered in the United States.