

Hanford: The danger below

8-30-98

“What we have is a slow-motion disaster.”

Dirk Dunning, nuclear waste specialist with the Oregon Department of Energy



U.S. Department of Energy photo

Fishermen try their luck along the Columbia River just offshore of Hanford, where underground contaminants are seeping into the river.

17-6-98

Richland reflects remarkable past

City still emerging from Hanford's shadow

By the Herald staff

Remarkable Richland — that's what the city calls itself. It's remarkable, perhaps, simply because it sticks around trying to thrive on its own. Richland was never expected to do more than reflect the government's presence.

In the old days, that presence couldn't be missed. The government owned everything, even the homes Richlanders lived in. It wielded a heavy hand in limiting commerce. And its "Loose lips sink ships" mantra left over from World War II defined social norms by keeping people in line in the Hanford Engineer Works Village.

But all that changed Dec. 10, 1958, when Richland incorporated, opening the doors for such novelties as self-governance and home ownership.

Richland is still not over the hump. The state's youngest city of 25,000 or more outside the Puget Sound area remains knee-high to its Tri-City siblings.

And as it weans itself away from Mother Hanford, Richland is learning all about the brutal realities of the outside

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world — the same realities that other cities have faced for years.

A Tri-City prodigal son of sorts, Richland is learning not everyone can be a nuclear engineer, that government handouts don't last forever.

Richland, a "Lilly White" town originally, says Battelle historian Dave Harvey, also is welcoming international neighbors to broaden its ethnic base.

And as it seeks to move past its secretive past, Richland is trying to do away with the images of elitism and assumed entitlement to government aid that have dogged it for years.

Clearly, this isn't fortress Richland of World War II and the Cold War.

But it remains remarkable, a unique city with an intriguing, war-focused past still striving to build its own peacetime economy.



Herald/Bob Brawdy

One of the benefits of being a government-owned town is the fringe benefits. Richland has about 6,000 acres of land it can use for development. This sign on the edge of the city limits welcomes motorists to Richland on Highway 240, even though there is no city in sight.

employment Security Department regional labor economist.

For the first 35 years of Richland's independence from the government, the economy thrived on Hanford jobs.

Census data from 1990 indicates Richlanders were actually making slightly more money per household than they were in 1960.

But all that has changed in the past four years, with the loss of about 6,000 Hanford-related jobs.

For the most part, those former Hanford workers don't appear to be leaving Richland, Schau said.

Some displaced workers still have a spouse at Hanford, and one Hanford paycheck is often better than two from outside the fence.

Others appear to be trying to wait out the current downturn. "A lot of people think they'll put Humpty Dumpty back together again," Schau said.

Maybe, but Richland is feeling the impacts of Hanford downsizing. In 1994, Richland brought in \$4.2 million in sales tax revenue from city businesses.

Since Hanford cutbacks began in late 1994, that revenue has dropped every year. Last year, the city brought in only \$3.3 million in sales tax — an inflation-adjusted drop of 27 percent from 1994.

That decline is reflected in the struggles of city business owners. Damon Har-

ris, longtime owner of Frank Elliot's Interiors & Accessories furniture store on Lee Boulevard, said business planning has been a nightmare in recent years.

"They looked like a heart monitor," he said after reviewing post-1994 sales charts. "We're talking about Mount Everest and Death Valley. The economic conditions are so volatile. For business people, it's very difficult to make long-range plans."

Impacts are being felt in Richland schools, too. The percent of needy students participating in the Richland School District's free and reduced lunch program hit double digits for the first time in 1992. This year, participation hit a record high for the second year in a row at 14.3 percent of the students.

The highest participation is at Jefferson Elementary on Hunt Avenue, where 41 percent of all students take part.

Those numbers still are small compared with Pasco but are sky-high by Richland standards.

"What it says is that it's not as affluent a community as it once was," said LeAnn Bridges, the district's food services director. "(Hanford) was a very steady source of income that wasn't affected by agriculture and weather. Now we're tied to the factors that influence any other city."

Jeanie Welch has seen this coming. As director of Goodwill Industries of the Columbia, Welch just opened a 12,000-square-foot store in Richland last year. Since the move from a smaller building, business has increased by as much as 70 percent.

Though part of that is simply because of the store's ability to offer a greater selection, Welch said there is a growing need for secondhand clothing in Richland at discount prices.

That's a far cry from Richland's boom years. "There was no need," Welch said. "No one would think of putting a used-goods store in Richland."

But the store doesn't seem so out of place now. "It's been a whole new flavor," Welch said.

To reverse the trend, Richland needs jobs — high-paying ones that will keep money flowing through city homes and businesses. It also needs a commercial presence the likes of which the city has never seen.

Richland is hanging its hopes on the north and south ends of town for industrial and commercial development.

To the north is the industrial park, waiting to attract big business. So far, the city's biggest catch has been the International Hearth Melting titanium plant, formerly known as Oremet.

tive for development.

"South Richland is amazingly strong demographically," Miller said. "It really speaks well for the area and for retail use."

The area is so close to Kennewick that it will benefit from Columbia Center traffic. A bank, tire store, home improvement center and an auto parts store already are going up on Tapteal Drive. Plans for an office supplies store and fast-foot and Italian restaurants also are being made.

A new overpass to better channel traffic onto the road is to open in March.

All that will help build up the city's sales tax base. But for all the economic development efforts being made, it's going to be a long time before Richland can fully recover from losing Hanford jobs, said Bob Young, the developer responsible for the Tapteal Business Park.

"It's a struggle," he said. "I don't think they can replace those jobs in the short term."

For years, Richlanders were content to let Hanford carry the community, forgetting the bad times during boom times. But Schau hopes they now will continue the push for new business even if more Hanford jobs come back.

"My biggest fear is if we go through another boom, people will forget what goes up will come down," he said.

Richland at 40: Emerging from Hanford's shadow



Herald/Bob Brawdy

Richland isn't the same city that was incorporated Dec. 10, 1958. Built up when the federal government took over in 1943, Richland now is trying to change to face the same challenges any other independent city does.

But too much change, including anything that brings more traffic onto George Washington Way, frightens some longtime residents, who want to preserve Richland's small-town feel.

to resume dumping in Richland

By Chris Mulick
Herald staff writer

Hanford garbage again will be dumped in Richland, but probably not until January.

That's because the Department of Energy and the city still have to hammer out changes to their contract in the wake of the 35 tons of garbage contaminated with radiation that was dumped in the Richland landfill in September.

The low-level radiation — less than a chest X-ray — was spread from contaminated areas by gnats and flies to food trash items and waste bins.

Since then, Hanford garbage has been dumped either in low-level waste trenches or trucked to a landfill in Roosevelt.

Late Monday, the Richland City Council approved an agreement to allow dumping to resume. The agreement requires DOE to build a transfer station on the nuclear reservation to inspect garbage at highest risk of being contaminated.

"We really shouldn't let anything leave Hanford that is contaminated," Jim Mecca, the DOE's assistant manager for facility transition.

All of Hanford's garbage now is being checked inside an empty warehouse at the Fuel Materials Examination Facility.

That includes all of Hanford's garbage, even from facilities that don't generate radiation such as the Hazardous Materials Management and Emergency Response training center, also known as HAMMER.

"For the moment, it fits the bill," Mecca said of the makeshift transfer station.

The DOE is developing guidelines to classify different types of garbage. After two more weeks of inspecting all Hanford refuse, garbage from lower risk sites will be checked only periodically.

Numatec e-mail violated regulations, Fluor claims

By John Stang
Herald staff writer

Numatec Hanford Corp. apparently violated Hanford regulations recently when it sent an e-mail to its employees encouraging them to support restart of the Fast Flux Test Facility.

Fluor Daniel Hanford's legal office is investigating the matter, said Fluor spokesman Craig Kuhlman. He said Fluor considers the incident a violation of corporate policy and federal regulations.

Numatec, which handles much of Hanford's engineering work, is a Fluor sub-

contractor. Under that contract, Fluor handles Numatec's public-relations functions.

Kuhlman said Fluor's investigation likely will be treated as an internal personnel matter.

The FFTF is a dormant experimental reactor the government is considering restarting for several possible missions — creating medical isotopes, making tritium for atomic weapons, producing plutonium 238 to power space probes or other research purposes.

Tri-City interests and Washington state's political leaders support restart, particu-

larly for the medical isotopes mission. But environmental groups and Oregon political leaders oppose the plan, contending it would detract from cleaning up Hanford's contaminated sites.

Energy Secretary Bill Richardson is to decide this month whether to permanently shut down the reactor or to begin an environmental impact study to analyze whether the FFTF should be resurrected.

On Dec. 1, Dale Dutt, a Numatec director, sent e-mail to all of the company's roughly 150 employees, noting the company could play "a significant role" in the production of medical isotopes and in assembling the

outer space power systems that would use the plutonium 238.

"To show our support, and if you are interested... send comments to Secretary Richardson with copies to (Undersecretary Ernest) Moniz and (William) Magwood (acting director of the Department of Energy's Office of Nuclear Energy, Science and Technology)," the message said.

"On Monday, Fluor sent e-mail to all its employees and subcontractor employees saying Numatec's message "not only violates company policy and government regulations, but borders on lobbying activities which are strictly prohibited by law."

The Fluor e-mail said Fluor has sent numerous employee messages in the past two years "regarding the prohibition of using government-owned equipment and resources to personal use or other uses not approved in our contract with the government."

Gerald Pollet, director of Heart of America Northwest and an opponent of reviving the FFTF, unveiled the Numatec e-mail matter late last week, charging that Numatec was illegally using federal computers for a nongovernment purpose.

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Downwinders thyroid study to be released in January

By Annette Cary
Herald staff writer

The results of a thyroid disease study of Hanford downwinders that was authorized by Congress a decade ago are set to be released next month — two months earlier than expected.

A final draft of the Hanford Thyroid Disease Study has been submitted to the Centers For Disease Control in Atlanta and is being reviewed by scientists there.

Project manager Peggy Adams Myers in Seattle expects the evaluation to be finished and the study made public in late January.

Because of the high interest in the

report, it will be released to the public before publication in a scientific journal, she said.

A press conference will be scheduled in the Tri-Cities, with participants in the study mailed a copy of the results a day earlier. In addition, doctors will receive information on screening for thyroid disease and follow-up.

The study checked the thyroid health of 3,441 people born in Eastern and Northcentral Washington between 1940 and 1946. In the 1940s and 1950s, substantial amounts of radioactive iodine were released into the air around Hanford and were carried by the wind toward the northeast.

The study estimated the thyroid exposure of each participant, in part, by interviewing their mothers about childhood activities.

The study was planned to compare the thyroids of those believed to have the most exposure to radioactive iodine to those who had little or no exposure. Scientists hypothesized if radioactive iodine from Hanford has caused increased disease, then the percentage of damaged thyroids should increase with higher radiation doses.

The study was conducted by scientists from the Fred Hutchinson Cancer Research Center and the University of Washington in Seattle. Participants were randomly

selected from the four counties closest to the Hanford nuclear reservation, Benton, Franklin, Adams and Walla Walla. Other subjects were selected from Okanogan, Ferry and Steyens counties where low or no doses would be expected.

Participants have undergone ultrasounds and physical exams and provided blood samples. When nodules, or lumps, were found, scientists asked for samples of cells. People found to have thyroid disease were advised during the testing to seek more medical help.

The study looked at people born from 1940 to 1946, because they would have been young during the times of the largest releases of

radioactive iodine. Previous studies have shown the risk of thyroid disease after exposure to radiation is greater in young children.

Radioactive iodine, in sufficient doses, may be especially harmful to the thyroid, because iodine concentrates in the gland. Radiation may affect cells in the thyroid gland, causing them to grow abnormally or stop functioning properly.

Scientists are looking for underactive thyroids, benign lumps and thyroid cancer. The thyroid controls metabolism and growth rate.

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12-11-98
Hanford
cleanup
funds meet
obligations

By John Stang
Herald staff writer

Hanford's cleanup budget for fiscal 1999 is \$1.104 billion, enough to meet the site's Tri-Party Agreement obligations for the year, Department of Energy officials said Thursday.

The spending package puts some legal obligations beyond 1999 at risk, although those problems could be tackled later, said Lloyd Piper, DOE's deputy Hanford manager.

Congress approved appropriations of \$5.6 billion for DOE's nationwide cleanup programs about two months ago.

But DOE recently finish dividing that money among its sites, and the Richland office just completed spending plans for individual Hanford programs.

About \$990 million of Hanford's cleanup money goes to programs controlled by DOE's Richland office. Another \$109 million earmarked for Hanford cleanup is controlled by DOE's Washington, D.C., headquarters.

Cleanup money at Hanford also includes \$5 million from leftover money at other DOE sites last year.

Fiscal 1999 began Oct. 1, but DOE usually does not nail down figures for specific programs until later. Managers at Hanford and other DOE sites usually start October with educated guesses on the budget.

The fiscal 1999 budget is roughly equal to the \$1.093 billion spent at Hanford in fiscal 1998. DOE originally requested \$1.114 billion from Congress in February for Hanford cleanup in 1999.

Although DOE expects to meet its Tri-Party Agreement obligations in 1999, Piper said some deadlines beyond 1999 are jeopardized by this year's final budget. The Tri-Party Agreement is a legal pact between DOE, Washington state and the U.S. Envi-

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(ALSO OVER)
FFTF's fate could hinge on Tennessee reactor decision

By John Stang
Herald staff writer

Energy Secretary Bill Richardson's request that two commercial reactors in Tennessee be offered up for tritium production could decrease chances for reviving a mothballed Hanford reactor.

Richardson's request involving the two Tennessee Valley Authority reactors is an indication he is looking seriously at converting commercial reactors to produce tritium for nuclear weapons.

Hanford's Fast Flux Test Facility remains a possible backup or interim source of tritium. Richardson is to decide this month whether to study that option.

DOE is considering FFTF for at least three missions.

But production of tritium — used to boost the explosive power of atomic bombs — is currently on the front burner.

The United States has not produced any new tritium since it closed facilities at Savannah River, S.C., in 1988. Meanwhile, the nation's stockpile has been decaying.

Consequently, the federal government is looking at two primary sources — converting a commercial

TVA reactor or building an accelerator at Savannah River.

The FFTF has been proposed as an interim source until one of the primary sources cranks up, and as a backup if a primary source shuts down.

The TVA had put only one partly built reactor into its proposal to modify a reactor to make tritium. That was the unfinished Bellefonte plant in Alabama.

Richardson's request involves two operating TVA reactors in southern Tennessee, said TVA spokeswoman Barbara Martocci. The TVA complied with his request.

One reactor is the Watts Bar plant where tritium production experiments are being conducted. The other is the Sequoyah plant. Modifying either would be relatively easy, Martocci said.

An accelerator is more likely to need the FFTF as a backup than a TVA reactor, said Walt Apley of Pacific Northwest National Laboratory in Richland, who is director of the FFTF Standby Project Office.

The accelerator would take years to build, which would increase the need for an interim tritium source. And the accelerator would need a backup if it went off line.

A commercial reactor can be converted much faster than building an

accelerator — decreasing the need for an interim source.

And the TVA has a cluster of reactors that could be backups if the tritium-producing reactor goes off line, Apley noted.

He also said the key issue in the commercial reactor option is whether the United States is willing to end a longstanding policy of not using commercial reactors for military purposes.

Richardson is scheduled to decide this month whether to shut down FFTF permanently or to order an environmental impact study on reviving it.

Other political and technical forces are also factors in the matter, including:

■ The FFTF also is being considered to produce medical isotopes and plutonium 238 for the space program. Neither of these two missions alone is enough to justify resurrecting the reactor. Both need a partner mission to be economically viable at FFTF.

Also, other Department of Energy sites are being considered for the plutonium 238 mission.

■ The TVA prefers to finish the Bellefonte reactor, instead of modifying Watts Bar or Sequoyah for tritium production. That is because TVA believes the extra electricity

NW lawmakers push FFTF restart

By the Herald staff

Sen. Slade Gorton and Rep. Doc Hastings, both R-Wash., and Rep. Norm Dicks, D-Wash., on Thursday urged Secretary of Energy Bill Richardson to take the next step needed to restart Hanford's Fast Flux Test Facility.

Their action came after Sen. Ron Wyden, D-Ore., threatened legislation to strip the Department of Energy of its cleanup responsibility at Hanford if Richardson does not order the dormant FFTF permanently shut down.

Richardson is expected to make a decision on the reactor before the end of the month.

The letter from the three Washington leaders emphasized the potential medical uses of the FFTF.

"The latest reports show a growing need for research and treatment quantities of isotopes, a need that cannot be filled without the FFTF," they wrote. "Cutting-edge cancer treatments such as 'smart bullet' therapies using short-lived medical isotopes will simply not be available to the numbers of patients requiring them if the FFTF is not restarted."

FFTF is being considered as an option for making tritium for nuclear bombs, isotopes for treating cancer and other diseases, and plutonium 238 to power batteries for outer space probes.

The next step would be for Richardson to order an environmental impact statement on the reactor. But Oregon political

leaders and environmental groups have opposed that, saying that would lead to a restart and more waste being produced.

Tri-City interests have joined the push to convince Richardson to call for an environmental study. Stamped postcards addressed to Richardson have been passed out at health and other community meetings. They're left blank for residents to write their own messages to the energy secretary.

They'll also be available Tuesday at the meeting of the Eastern Washington Section of the American Nuclear Society at the Tower Inn, Richland. John Wagoner, the retiring manager of the U.S. Department of Energy Richland office, will discuss "Protecting the Columbia River" at 7:30 p.m.

and revenue from Bellefonte would benefit TVA ratepayers and U.S. taxpayers, Martocci said.

■ Members of Congress from Alabama and Tennessee have

squared off against South Carolina delegates on whether DOE should go with a TVA reactor or an accelerator.

■ The Northwest is politically split

on the reviving FFTF.

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User's request is computer's command

By Annette Cary
Herald staff writer

Thirty years after the mouse was introduced, researchers at Pacific Northwest National Laboratory believe it's time to move on to a better way of telling computers what to do.

They're developing systems that allow computers to understand methods of communication that come naturally to humans. Instead of clicking a mouse on an icon, a point of the finger would retrieve information. And instead of typing commands into a keyboard, the user could talk to the computer.

"This is getting the computer to understand much more sensory input," said senior research scientist Richard May. It's teaching them to understand "the physical techniques we learned as a baby — pointing, talking, reaching and grabbing objects."

The key to the project is developing software that will recognize those physical cues and transfer them into mathematical equations for the computer.

The hardware scientists are using for a prototype system is fairly simple. Information is transmitted between an overhead camera, an ordinary personal computer and a horizontal, desktop-sized screen with images from a simple projector.

Now, the scientists can play a simple game of Pong, bouncing a ball around the screen as it responds to a ruler held above the screen or objects placed on the screen.

But they envision displaying graphics, maps, pictures and text on monitors as large as a conference table. It would recognize people as they enter the room, identify a person's voice or command, and track a person's hand gestures.

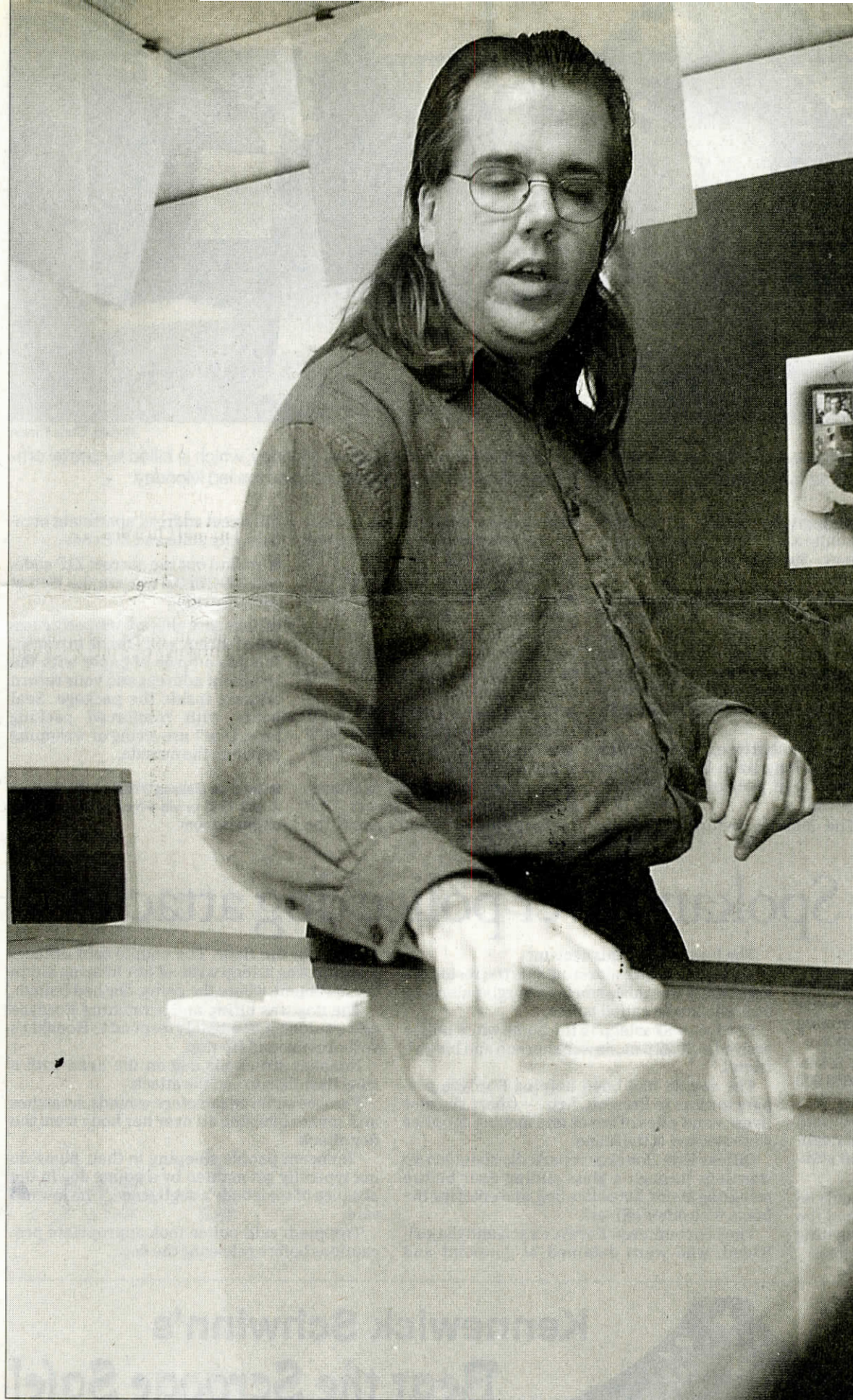
Picture icons that now are used most computer programs could be replaced by physical icons — or "phicons" — that could be picked up and moved around the screen or put away when not needed. Researchers like the idea of using radio-frequency tags that can hold information as phicons.

For instance, if the computer was being used to plan battlefield strategies, the phicon could be given the properties of an aircraft carrier, such as fuel needs and plane capacity.

"This moves beyond the single individual sitting at a screen," May said.

Though such technology is many years from the mass market, May does expect to see the technology put to some specialized uses in the next few years.

Military war games may be one of the first applications, he said. Or the systems could be used by emergency response agencies to train for emergencies and coordinate resources in large, complicated



Herald/Chris Thelen

Richard May, a senior research scientist at Pacific Northwest National Laboratories, demonstrates computer technology that replaces picture icons with physical icons, called phicons, to manipulate data and programs.

disasters. The technology also may appeal to museums that have started using virtual reality equipment. That's not practical now since each person needs to be individually hooked up to the equipment, and some exhibits in the nation's largest museums are seen by millions of people a year.

But using the interactive systems

May's developing, several people at once could manipulate an exhibit.

"It becomes an interactive play station," he said.

Ultimately, entertainment may be the first large-scale use of the technology, he said.

Now Battelle, which operates the Richland laboratory, is paying

for the research. But the entertainment industry could afford to sink millions of dollars into the technology to develop computer video games that several kids could play together, he said.

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Hanford workers keeping close eye on tank levels

By John Stang
Herald staff writer

Hanford experts remain uncertain about what caused the level of radioactive wastes in an underground storage tank to drop 1.5 inches in September.

The waste level in Tank B-111 has not dropped since.

And Hanford workers have increased their monitoring efforts to keep a closer eye on where the surface is, said Dana Bryson,

director of the Department of Energy's waste storage division.

"We're evaluating it daily," he said.

Scientists suspected either a collapsing gas bubble within the sludge or a tank leak could have caused the drop.

But neither scenario could be proved or disproved. A panel of experts reviewed the information and could not reach a conclusion, Bryson said.

Hanford has 177 underground tanks holding 54 million gallons of wastes. And 67, including Tank B-111, are suspected of leaking.

Most of Tank B-111's liquid wastes were pumped out in 1985, leaving 236,000 gallons of sludge and about 1,000 gallons of liquids the pump could not suck out. The sludge contains about 21,000 gallons of fluid — spread out and absorbed within the gunk.

Tank farm officials are not sure if

pumping would be effective because it is likely to remove only a small amount of liquid.

Hanford is pumping liquid wastes from its 149 single-shell tanks into 28 safer, double-shell tanks. Radioactive solids and sludges remain in the pumped-out tanks. So far, 119 of the 149 single-shell tanks have been pumped.

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Tri-City panel on Hanford health issues filled again

By Annette Cary
Herald staff writer

The Tri-Cities has regained some say on federal research and policies related to Hanford health issues.

A federal subcommittee criticized for ending the terms of all its Tri-City members earlier this year has found four new Tri-Citians to help advise the federal government on Hanford health issues.

Those joining the Hanford Health Effects Subcommittee include Dr. Larry Jecha, scientist Darrell Fisher, minority advocate Daniel Carter and Marlene Nesary, a journalist and teacher.

Subcommittee Chairwoman Lynne Stembbridge said only the paperwork must be completed on their appointments.

The federal government was "first and foremost looking to rebalance Tri-City representation and have strong ties into the community," Stembbridge said.

That will be particularly important as the government starts to provide services such as thyroid monitoring to those who may have been harmed by past releases of radioactive iodine into the air around Hanford.

Gerald Woodcock, who represented the Eastern Washington Section of the American Nuclear Society on the subcommittee until he was removed in January, said he generally was satisfied with the new appointments.

He said he was particularly pleased Fisher was named to the subcommittee.

"He's been involved in the health physics society for a long time and on the cutting edge of cancer research," Woodcock said.

In January, Woodcock and five other members from the Tri-Cities on the 19-member subcommittee were told their terms would not be renewed. Two others not living in the Tri-Cities also were asked to step down. Of the new members appointed, just one was from the Tri-Cities.

The dismissals "were inappropriate and insensitive," the six dismissed members wrote in a letter of protest to the federal agencies making the appointments — the Centers for Disease Control and the Agency for Toxic Substances and Disease Registry.

They were particularly upset that though Tri-City members were dismissed, three people with what they saw as conflicts of interest had their terms on the subcommittee extended four years.

The members to be appointed to the board should fill some of those gaps on the board:

■ Fisher of Pacific Northwest National Laboratory received the Tri-City Engineer of the Year Award in 1997 for his pioneering work with medical isotopes.

■ Carter, a former Hanford manager, received the Tri-City's Dr. Martin Luther King Jr. Spirit Award in 1997.

■ Jecha is the health officer of the Benton Franklin District Health Department.

■ Nesary grew up in the Tri-Cities and recently has returned after living in California and Montana. She has worked on health care issues.

More people are expected to be appointed to the subcommittee in 1999.

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Fluor Daniel consolidating Richland office

By the Herald staff

Fluor Daniel Northwest expects to finish consolidating its Richland office at 1200 Jadwin Ave. by the end of January.

That will finish office shuffling that began in October involving two Hanford enterprise companies — Cogema Engineering Corp. and Fluor Daniel Northwest.

Cogema has been growing steadily, and its quarters at the 1200 Jadwin Ave. office building it shared with Fluor Daniel Northwest and some other tenants were cramped, said company President Bruce Morson.

So Cogema moved in late October and early November to the Stevens Center complex to occupy the second floor of 2425 Stevens Drive. Eventually, Cogema hopes to expand to the first floor as well, Morson said.

Meanwhile, Fluor Daniel Northwest — which occupied most of the 1100 Jadwin Ave. building and a substantial portion of the 1200 Jadwin building — has shrunk some in the past two years.

The key factor is that with the new empty space at 1200 Jadwin, Fluor saw a way to reduce its overhead costs by consolidating in that building, said Jerry Holloway, Fluor Daniel Northwest spokesman.

That move began a few weeks ago. Fluor Daniel Northwest also is moving some construction-related offices across the street to 1135 Jadwin Ave.

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Tri-City Herald

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Early campaign on for cleanup funds

By John Stang

Herald staff writer

Several Tri-City groups are launching an early lobbying campaign that aims to bolster Hanford's fiscal 2000 cleanup budget.

They want to boost the Department of Energy's customary February budget proposal as high as possible to obtain a good position in the annual budget battle before Congress, said Pam Brown, Richland's Hanford analyst.

The groups decided to start now because they fear if they wait until February, the amount already will be pegged too low.

Their targets are the White House and the federal Office of Management and Budget — before it finishes calculating how much the Clinton administration will request for environmental cleanup nationwide.

The Tri-City Industrial Development Council, the Hanford Communities coalition and Hanford labor unions have joined in the campaign.

They have enlisted U.S. Sens. Patty Murray, D-Wash., and Slade Gorton, R-Wash., and U.S. Reps. Doc Hastings, R-Wash., and Norm

Dicks, D-Wash., said Harold Heacock, TRIDEC's representative on the Hanford Advisory Board.

And the Tri-City groups want to enlist other Northwest interests and other DOE cities, Brown said.

Here's the anticipated evolution of Hanford's cleanup budget for fiscal 2000:

■ Last spring, OMB gave DOE a tentative nationwide cleanup budget target for fiscal 2000 of about \$5.4 billion, about \$200 million less than Congress approved for fiscal 1999.

DOE's Richland office figured it should get roughly 20 percent of that \$5.4 billion. And in public meetings, DOE's Richland office estimated Hanford would end up \$222 million short of what it needs to meet its legal cleanup obligations in 2000.

■ These preliminary calculations then went to DOE's Washington, D.C., headquarters, which crunched figures that it is not releasing. DOE sent those numbers to OMB in September.

■ In November, OMB sent revised figures back to DOE in Washington, D.C. These numbers were not shared with DOE field sites. Then DOE headquarters sent its reply back to

OMB. DOE officials in Richland declined to comment this week on the latest proposed numbers and the appropriate OMB official could not be reached for comment Friday.

■ Now, OMB is doing its final calculations to tell DOE how much it can request. DOE will then work out the details to be unveiled in early 1999.

At this point, Tri-City interests want to step in and apply pressure to OMB.

But a basic problem is no one — outside of some inner Washington, D.C., bureaucratic circles — has a firm idea what OMB's current figures are.

"We're operating almost entirely on rumors and suppositions," Heacock said.

Doug Riggs, a former Hastings aide who now works with a Portland communications firm and is helping the Tri-City effort, said, "It's hard to get factual data."

The Tri-City campaign has a handout paper that says the Clinton administration is considering trimming the nationwide cleanup budget from \$5.8 billion to \$5.5 billion or \$5.4 billion.

The \$5.8 billion figure is speculative. It is based on taking fiscal 1999's budget of \$5.6 bil-

lion, adding about \$94 million in carryover from 1998, and sorting through some rumor and speculation, said Riggs, who came up with the figure. Neither DOE nor OMB provided the figure to Riggs.

Another concern is a separate set of funds — independent of the regular cleanup budget — that is being set aside each year to pay BNFL Inc. to convert Hanford's tank wastes into glass for long-term storage. That contract calls for BNFL not to get paid until it starts producing glass, which is scheduled in 2007.

At that time, the potential annual price tag could be hundreds millions of dollars or more.

So far, DOE has asked Congress for \$300 million to \$400 million annually to build up a pool to pay BNFL. So far, Congress has drastically slashed those requests each year — setting aside a total of \$385 million through 1999.

OMB reportedly is looking at setting a limit of \$80 million for DOE's set-aside request for 2000, Riggs said, adding no one has been able to confirm this.

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Russian town, PNNL forging economic bond

By John Stang
Herald staff writer

A Russian nuclear city and Pacific Northwest National Laboratory began forging some economic development ties this past week.

Leaders from Zheleznogorsk visited PNNL to discuss how the city can diversify after Cold War plutonium production ended.

PNNL is trying to build economic development ties with three of Russia's 10 "closed" cities, where scientists researched, created and built nuclear materials and weapons.

Zheleznogorsk's delegation was the last of the three to meet with PNNL's experts.

The three cities are Sarov, formerly Arzamas-16; Snezhinsk, formerly Chelyabinsk-70; and Zheleznogorsk, formerly Krasnoyarsk-26.

Russia's closed cities used to be referred

to by special post office codes to disguise their locations. In 1994, Russia dropped that practice and gave the cities new names.

The Department of Energy plans to spend \$15 million in 1999 on its Nuclear Cities Initiative. This is a 3-month-old pact for the United States to help Russia revive the slumping economies of its nuclear cities.

One reason for this program is to prevent highly skilled, but jobless Russian nuclear scientists and technicians from seeking work in nations such as North Korea or Iraq.

PNNL wants to position itself to take a lead role in developing business enterprise centers in the three cities, said Jim Fuller, PNNL's manager for arms controls and non-proliferation.

A business enterprise center might differ from city to city, but it would include some kind of incubator for new small businesses

and a clearinghouse for business-related information.

Other DOE national laboratories are also exploring how to participate in the Nuclear Cities Initiative.

Zheleznogorsk, with a population of 100,000, is in south central Siberia. The city and the production site are somewhat meshed together in a secure site — similar to Richland and Hanford prior to Richland becoming independent in 1958.

About 9,500 people work at the government site, which used to operate three plutonium production reactors. Only one reactor is still functions to provide electricity to the area.

The site wants to replace the reactor and finish constructing a stalled spent fuel storage facility, said Valery Lebedev, director general of the Ministry of Atomic Energy's Mining and Chemical Combine at the site — the equivalent of DOE's Hanford

manager. However, Russia's economic woes makes those job-producing plans shaky, Lebedev said through an interpreter.

Meanwhile, Russia's troubled economy also makes the city leery of chasing big projects, and it is looking at nurturing new small and medium-sized businesses, said Andrey Katargin, the city's administrative head — the equivalent of a mayor.

Through an interpreter, Katargin said the city needs to create 2,000 to 3,000 new jobs in the next two to three years.

The city has several new small and medium-sized businesses, but it also expects 50 percent of them to fail.

Katargin said the region is grappling with a lack of experienced managers and a lack of know-how on marketing.

"We were trained to produce and not trained to sell, and this is where we expect to get help," Katargin said.

The Zheleznogorsk delegation discussed

several business ideas that it hopes will interest PNNL or some other company or agency. PNNL asked for more details on the ideas, which range from small to large.

PNNL is more likely to participate in smaller projects. It would likely defer bigger projects to commercial firms, although it might act as a mediator, said PNNL spokeswoman Staci West.

Zheleznogorsk's ideas ranged from building an aluminum can production facility, to producing radioactive isotopes used in medical treatments, to developing its natural resource of rare earths such as niobium and scandium.

Niobium has superconductive properties that can be used in the electrical power industry. Scandium has been used in making metal baseball bats.

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Metro/Northwest

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Tri-City Herald

Monday, Dec. 21, 1998

PNNL assists Russia with nuclear catalog

By John Stang
Herald staff writer

Your country was split into 15 new nations. Four of those new nations ended up with some of your atomic bombs, although those now have been collected by one country — you think and you hope.

All 15 new nations have some of the old mother country's nuclear materials and still are using them for research, commercial purposes and electrical production.

How do you keep track of all of that?

Especially when much of the records are handwritten — some in 40-year-old, smudgy scrawls.

What's worse, most were tabulated in an era when mistakes could lead to exile or executions — prompting a reluctance to admit any errors or make corrections.

And some records still may be tucked

away in dusty, top-secret archives.

That's the dilemma facing Russia, which is trying to track down and keep track of all the former Soviet Union nuclear materials after the breakup of the superpower.

"The older we are getting, the more information we are losing," said Gennady Pshakin, manager of the Russian Methodological and Training Center.

Russia set up a center in Obninsk — about 100 miles southwest of Moscow — to train workers in the accounting of nuclear materials.

Pacific Northwest National Laboratory is providing advice for the 3-year-old center.

The Obninsk center has blossomed from teaching 10 courses to 185 students in 1995 to teaching 36 courses in inspections, operating measuring instruments and statistical and accounting methods to 730 people in 1998.

PNNL coordinated gathering experts from the Department of Energy's national laboratories to help the Obninsk center develop its courses and technical materials, said Debbie Dickman, PNNL's manager for the project.

An example of something new that the United States has provided to the Obninsk center is a barcode system — like those found in supermarket checkout lines.

Lots of vital information can be encrypted on a barcode, which can be read instantly into a computer system that can crunch the data, Dickman and Pshakin said.

Russia's and the other former Soviet republics' inventories of weapons-grade and other nuclear materials are staggering.

"Plenty ... A lot," Pshakin said when asked how much nuclear material his government has to track.

According to The Associated Press, at least

30 thefts of nonweapons-grade radioactive materials occurred in Russia from 1992 to 1995.

Russia began its nuclear accountability program in 1992, figuring the task would take 10 years.

But the effort is proving more difficult than Russia originally thought.

"How long now? Some people say it will take 10 to 15 years more. Some people say it will take forever," Pshakin said.

PNNL's advisory role is expected to remain steady for a few years, then taper off.

Dickman talked about how people in the nuclear nonproliferation and safeguards fields pick up an extra passion about successfully doing their work.

"All the U.S. people coming into this job hope to put ourselves out a job," Dickman said.

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Waste focus of FFTF concern

By John Stang
Herald staff writer

How much and what kinds of nuclear wastes would be generated if a dormant Hanford reactor is revived by the federal government?

Opponents and proponents of restarting the Fast Flux Test Facility for up to three possible missions agree they want answers to that question, raised the latest time at a Dec. 4 Hanford Advisory Board meeting by FFTF opponents.

Now, both sides involved in the Hanford Advisory Board debate would like to know what wastes FFTF would produce and how its operation would affect Hanford's overall cleanup.

"We do need to address the issue of additional wastes. ... If a new waste stream comes from the FFTF, where will it go?" asked board member Norma Jean Germond of Oregon, representing the public at large.

The issue is supposed to be tackled by a Department of Energy

See FFTF, Page A2

Ex-Westinghouse workers to get benefits

By Annette Cary
Herald staff writer

The state has agreed to pay unemployment benefits to settle a legal dispute with former Westinghouse Hanford Co. employees who participated in a voluntary reduction in force in 1995.

An estimated \$180,000 to \$200,000 will be paid to 72 former employees. Attorney William Knowles of Seattle said the payments will range from \$131 to about \$10,500.

"It is over," he said. Money will be paid after forms already mailed out are returned by claimants.

The dispute centered on whether the so-called "special voluntary reductions in force" were really voluntary or if the threat of

massive layoffs entitled employees who participated to receive unemployment benefits.

The disagreement dates back to late 1994 and 1995, when Westinghouse was the site's lead contractor and Hanford began to make huge cuts in its work force. The Department of Energy and Westinghouse announced they would trim about 4,800 people in three or four rounds of early retirements, involuntary layoffs and what they called "special voluntary reductions in force."

Along with the first round of early retirements, Westinghouse identified sections and kinds of jobs where cuts were expected and offered people up to \$15,000 if they volunteered to leave.

Many people received about \$5,000 and also were counting on unemployment benefits to

tide them over until they found jobs, Knowles said.

The state initially paid those benefits, then changed its mind and demanded the money back.

Former employees filed lawsuits, which ended up in four counties. Cases reached the Division I and Division III Court of Appeals, which came up with conflicting opinions.

The state Supreme Court had agreed to hear an appeal on the Division I case when the state agreed to settle. The Division III Court of Appeals already had decided that in the case of three employees, the "voluntary" reductions were not really voluntary because of the threat of layoffs.

The commissioner of the Employment

Security Department agreed with the Division III ruling, said Pat DeMarco, assistant attorney general.

"These workers participated in the program because Westinghouse mandated that 4,800 employees would be fired in short order if enough of them did not agree to go. This is compulsive," the court ruling stated.

Just three people repaid benefits the state earlier had demanded be returned, Knowles said. Some \$300,000 to \$400,000 of the other overpayments demanded returned already have been forgiven, Knowles said. "This got all the overpayments waived," he said.

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Hanford contractors, scouts help needy

Hanford contractors and employees joined with the Boy Scouts, Department of Energy and Hanford Metal Trades Council to collect 35,000 pounds of food, toys and clothing this year.

About 407 frozen turkeys and 160 chickens were donated by Fluor Daniel at Hanford.

The donations were distributed Tuesday to families in the Tri-Cities and the Yakima Valley.

Battelle earns 'outstanding' rating at PNNL

By Annette Cary
Herald staff writer

Battelle has received its first "outstanding" annual rating from the Department of Energy for its performance in operating Pacific Northwest National Laboratory for the fiscal year 1998.

"We're all smiling here," said lab director Bill Madia on Monday afternoon.

Going strictly by the numbers, the Richland national laboratory scored at the top of the "excellent" range. Out of a possible high score of 5, it rated 4.3 — 0.2 from an "outstanding" rating.

But John Wagoner, manager of the DOE's Richland office, bumped the rating up a notch because of "Battelle's ongoing efforts to strengthen the partnership with DOE and extraordinary

effort" in other key areas, Wagoner wrote in a letter to Madia.

Wagoner praised the lab's scientific research achievements. And he pointed out the success of the inaugural year of the Environmental Molecular Sciences Laboratory and the Richland lab's progress in developing and using an integrated safety management system.

It was the first DOE lab to use the system, which considers all risks and allows workers to be involved in developing safety procedures for each project, then passing that information on to other workers.

This is the third year DOE has tracked the laboratory's performance based on scores in six areas. Scores for four areas were in the excellent range this year and two were in the outstanding range.

A quarter of the score is based on scientific excellence, for which Battelle received an excellent rating. The rating would have been higher, but the lab's number of publications in professional journals was down from previous years.

However, the impact of its scientific work was higher than the numerical score would indicate, officials decided. It was awarded 10 R&D 100 and Federal Laboratory Consortium awards. Wagoner cited its "outstanding peer reviews and excellent customer feedback from the scientific community."

Madia said work on global climate change, stabilization of the Chernobyl reactor and nonproliferation of nuclear weapons were among the year's highlights.

"The work scientists did in grow-

ing research money in a tight market has been impressive," he said. The laboratory added 111 workers and continues to work to fill job openings, while elsewhere the scientific community has struggled.

The lab's outstanding rankings came in the areas of environmental technology and community relations.

The laboratory demonstrated 14 new environmental technologies and put 13 new environmental technologies into use, according to Wagoner. While pleased with that record, Wagoner said none of the technologies was deployed at Hanford, a concern that deserves further study.

The community relations ranking — which received a perfect score — was boosted by staff

See **Battelle**, Page A2

FFTF supporters look for new uses to promote to DOE

By Annette Cary
Herald staff writer

Mid-Columbia supporters of restarting the Fast Flux Test Facility prepared Tuesday to face another wait with a mixture of immediate disappointment and cautious optimism.

Without a tritium mission to tide the reactor operations over until demand for medical uses grows, another patchwork of possible uses will have to be pieced together.

But they're likely to be more palatable to some opponents of a restart than was the possibility of using the reactor to produce tritium for nuclear weapons, said some supporters of the reactor.

"In general, we consider it a positive decision because it removes the tritium mission from consideration for FFTF," said Harold Heacock of the Tri-City Industrial Development Council. "The possibility generated a lot of opposition."

On Tuesday, Energy Secretary Bill Richardson announced the Hanford test reactor would not be used for tritium production. He said he would make a decision on whether or not to begin an environmental impact statement — a necessary step toward restarting the reactor for other uses — in the spring.

The decision will follow a report by the Nuclear Energy Research Advisory Committee looking at the energy department's nuclear needs and the facilities, including the FFTF, it has to meet those needs.

"Secretary Richardson has assured me, as recently as today, that any future role for the FFTF would be fairly and impartially judged," said Sen. Slade Gorton, R-Wash. "I trust that Richardson

PNNL involved in tritium production

By Annette Cary
Herald staff writer

Using commercial light water reactors to meet the nation's demand for tritium will depend on the technical support of Pacific Northwest National Laboratory in Richland.

Though tritium needed for nuclear weapons will not be produced at Hanford, the Tri-Cities still will be the part of the nation's tritium mission as the Richland laboratory continues a 10-year, \$167.5 million project to help develop a commercial light water reactor program.

The laboratory will design the first load of tritium-producing rods scheduled to be placed in the reactors in 2003. Irradiation must begin in 2003 to have rods available for tritium gas extraction by 2005.

It will have a lead role in the transition from testing the technology in the reactors on a small scale to going to large-scale production. It also will play a main role in the transfer of technology to the commercial manufacturer the Department of Energy will select to make the rods in production-level quantities.

The Richland laboratory originally looked at producing tritium in a commercial light water reactor as part of a DOE program from 1988 to 1992. It then was picked to work on the DOE's Commercial Light Water Reactor Program started in 1996.

As part of that program, the laboratory designed a prototype and built 32 tritium-producing rods for irradiation in the Tennessee Valley Authority's Watts Bar Nuclear Plant 1. They were placed in the plant in October

1997 and will remain there during its 18-month fuel cycle.

The rods absorb neutrons in the reactor similar to conventional control rods and also produce tritium that is captured in the rod.

When the rods are removed from the Watts Bar plant, they will be transferred to Argonne National Laboratory-West for evaluation and testing. Several of the rods then will be cut into 4-foot lengths and sent to the Richland lab for analysis and confirmation that they performed as expected.

Information will be used to provide technical support as the TVA applies for a license from the Nuclear Regulatory Commission to operate the first tritium production core.

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will make good on his promise to allow science — and the wise use of taxpayer dollars — rule over politics."

But he said the delay in making a decision on restarting the reactor "means more missed opportunities of allowing the FFTF to provide the nation with new medical breakthroughs and cancer therapies through medical isotopes."

The isotopes are showing promise in medicines that seek out cancer cells in the body and selectively kill them with radiation.

Despite optimism among supporters of a medical isotope mission, a medical mission still would

need other programs to support it in its initial years, Heacock said.

But there still could be a package put together that would make operating the reactor cost-effective without producing tritium, said a spokesman for Rep. Norm Dicks, D-Wash. He said in addition to medical isotopes, that could include plutonium 238 production for space mission batteries, research and classified defense uses.

However, Tom Carpenter, director of the Government Accountability Project, said Tuesday that "no new mission involving production of radioactive and toxic wastes is acceptable at

FFTF or anywhere else on the Hanford site. We urge a quick decision by Secretary Richardson putting an end to speculative future missions at FFTF."

Sen. Ron Wyden, D-Ore., who vigorously had opposed the tritium mission, said it was time for other regions of the country to carry some of the load on national defense issues and allow the Northwest to focus on environmental cleanup, according to a spokesman.

His Democratic counterpart in Washington, Sen. Patty Murray, said she realized the tritium decision came as a disappointment to many in the Mid-Columbia.

Medical isotopes offer "real hope to victims of cancer and other life-threatening illnesses," she said. The DOE needs to make production of the isotopes a priority, whether they're produced at FFTF or another research facility, she said.

Dave Jones, co-chairman of the Nuclear Medicine Research Council, said he was encouraged that the DOE committee looking into nuclear needs has been gathering information from doctors and others on the demand for medical isotopes.

As medical isotopes move from use in research to mainstream medicine, the nation will not be able to meet demand with facilities now operating, he said.

The decision to use commercial reactors to produce tritium came as no surprise to some. It was the least expensive choice, said Pam Brown, Hanford analyst for the city of Richland.

"Secretary Richardson's announcement was very encouraging because it showed a willingness not only to make a decision but also to make that decision based on clear technical and economic arguments," said Walter Apley, director of the FFTF Standby Project Office.

It appears FFTF was kept in the running for tritium to strengthen DOE's negotiating position as it sought to get a commercial reactor operator to sell irradiation services from an existing reactor at a reasonable rate, Apley said.

Now, FFTF supporters need to continue working together to promote the strengths of the reactor, said Rep. Doc Hastings, R-Wash.

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FFTF



Herald/Chris Thelen

U.S. Rep. Doc Hastings, R-Wash., speaks Tuesday in Pasco on the future of the Fast Flux Test Facility.

By Les Blumenthal and Annette Cary

Herald staff writers

WASHINGTON — Hanford's Fast Flux Test Facility won't be used to make tritium for nuclear weapons, but the Department of Energy is continuing to consider a role for the reactor.

The department will decide in April whether there are enough other missions to justify keeping FFTF open, Energy Secretary Bill Richardson announced Tuesday. That could include making medical isotopes to treat cancer and other diseases.

Richardson selected the Tennessee Valley Authority's Watts Bar reactor, with its

It was the cheapest alternative, Richardson said.

Under the plan, the FFTF would not be needed as an interim or backup source of tritium for the TVA's reactors.

"After looking at all the options, I have decided FFTF will not play a role in producing tritium," Richardson said at a news conference. "I will decide on any civilian missions for FFTF by spring."

Supporters of restarting the FFTF for a tritium mission in combination with a medical isotope or other mission said they were disappointed Tuesday.

U.S. Rep. Doc Hastings, R-Wash., said he hoped the decision would make "a small

group of people on the fringes" consider how the reactor could be used to save lives with a mission of producing medical isotopes.

for FFTF's restart. Page A3.
Tritium:
PNNL's role in tritium production to continue. Page A3.

It's Your Call:
Did DOE make the right decision on the tritium mission? Page A3.

"This opens the door to use of the FFTF for the production of medical isotopes with-

technically, it could be done, but there seemed to be a lot of political opposition," he said.

The next step for restarting the FFTF, now on standby, would be a decision this spring to prepare an environmental impact statement.

Among the possibilities for its future are producing plutonium 238, which would be used to power the engines of spacecraft, and producing medical isotopes used to diagnose and treat some diseases. FFTF also could play a research role in the development of fusion reactors, next-generation light water reactors and space reactors.

Hanford plans new gate to bat living quarters

By Annette Cary
Herald staff writer

When bats migrate back to Hanford this spring, those that live in the 1950s-era 105DR nuclear reactor will find some improvements to their quarters, thanks to the Department of Energy.

It's one facility on the nuclear reservation where various environmental interests conflict.

On one side are the possibly hundreds of bats that have found cracks and openings in the reactor and use them to get into a system of dank, dark underground pipes.

Scientists believe most of them are from a tiny brown bat species called small-footed myotis. The state considers it a priority species, meaning it should be protected, if possible.

On the other side is DOE's mission to seal up the defunct plutonium producer, remove all structures around it and put on a new roof to entomb any radioactive contamination within it.

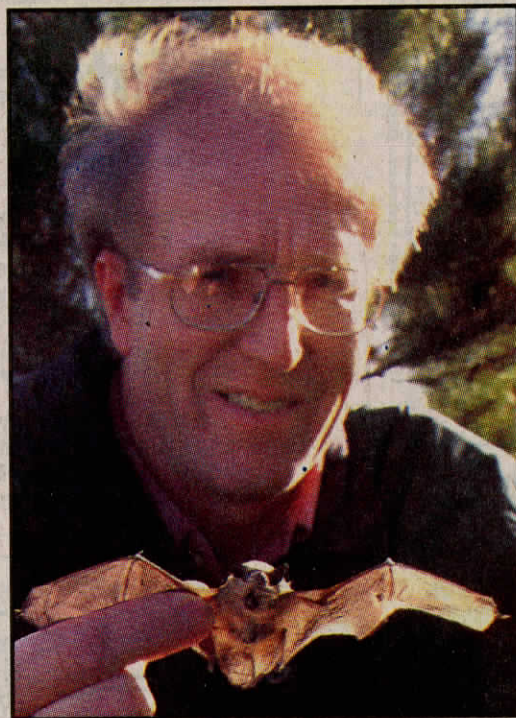
"The project was to start with the underground tunnels," said Ken Gano, senior scientist for Bechtel Hanford. "We were going to seal off the pipes right at the building."

That's still the plan. But Bechtel also is putting in a new entrance to the pipes, an 8-foot-tall "bat gate" that will rise over the sagebrush closer to the other end of the pipes. Bats will be able to fly between the bars of the tower into the tunnel below, which is not contaminated.

Bechtel will put up the gate in the next few weeks, expecting that by the time the entrance to the pipe from the reactor is sealed in the year 2000, the bats will have gotten used to the new route.

"In this situation, we don't have to create another habitat — just open another door," Gano said. "From all the experts I've talked to, they've said, 'If you build it, they will come.'"

Of primary concern is a maternity colony biologists have known about since 1993. In many bat species, the females separate from the males to raise their young.



Herald/Bob Brawdy

Ken Gano, a senior scientist at Bechtel Hanford Inc., holds a specimen of a small-footed myotis bat. Hanford workers are installing a gate for the bats on a pipe where the bats have established a nesting colony.

Female bats are nesting in the reactor piping underneath a concrete hatch cover near the reactor end. Scientists speculate they like the warmth from the sun hitting the hatch — similar bats elsewhere have been found rearing their young at temperatures of 122 degrees.

The hatch also is made with ¼-to 1½-inch-wide cracks that make cozy homes. The bats can

crawl in, then turn around to face out, Gano said.

At night, they fly through the pipes and out the reactor to forage. One little brown bat can catch 1,200 bugs in an hour, often two in a second, according to Bat Conservation International.

Gano's not sure how many bats are using the maternity roost, but maternity colonies typically have 30 to 100 mothers, each raising a single baby each year.

That slow reproductive rate, common to most bats, is among the reasons the bats are vulnerable to extinction, even though the small-footed myotis, along with many other species of little brown bats, are fairly widespread in the western United States.

They're also finding fewer places to roost in the West, as attics are built tighter, mine shafts collapse or are destroyed and caves are vandalized.

"Those things alone make it very sensitive," Gano said. "You wipe out a population in an area, and it takes a long time to recover."

The bat gate will go up about 600 feet down the pipe from the maternity colony. Although humans aren't likely to disturb the bat habitat on the far reaches of the Hanford reservation, the gate is being built with steel pieces spaced 5¼ inches apart, too small for a human head to fit through.

The drop to the floor of the pipe will be 12 to 15 feet, so coyotes or raccoons may investigate but aren't likely to enter the tunnel.

Part of the reason Hanford's defunct reactors are being sealed up — put in interim safe storage in Hanford lingo — is to keep animals safe from radioactive contamination.

Researchers have long known from droppings found in Hanford reactors that bats are living in them. "Old reactor buildings have essentially become caves for them," Gano said.

Piles of yellow-jacket wings at other old reactors also indicate bats have been snacking in

See **Bat**, Page A2

Fluor Daniel staff hits injury-free milestone

By the Herald staff

The administrative staff of Fluor Daniel Hanford has worked 3 million hours without losing a day to job-related injuries.

Fluor's salaried administrative staff of about 700 people includes office workers, project managers and engineers.

That translates to no lost-day accidents among this group since Fluor Daniel Hanford took over running the site Oct. 1, 1996, said Dave Jackson, Fluor's director of occupational safety and health.

"I continue to be impressed by our employees' daily focus on eliminating workplace hazards and the overall commitment to a safe workplace," said Ron Hanson, Fluor Daniel Hanford president.

The administrative workers are one segment of about 2,600 people directly employed by Fluor Daniel Hanford. The rest of the employees are the nonadministrative people doing on-site hands-on work.

Jackson said the perfect record posted by the Fluor administrative staff helped improve overall Hanford operations — Department of

Energy, Bechtel, Fluor and other contractors — from having the second worst to the second best safety record among all DOE sites over the past two years.

Overall, Hanford showed about three lost-time accidents per 200,000 hours worked in 1997 — the last full year statistics are available. The 200,000-hour figure translates to roughly 100 people working for one year.

The average across the entire DOE complex is 3.75 lost-time accidents per 200,000 hours worked. Savannah River has the best record at slightly less than two accidents per 200,000 hours worked.

Fluor Daniel Hanford's overall contribution — blue and white collar employees — to Hanford's showing is 2.5 lost-time accident, per 200,000 hours worked.

Jackson said the perfect record posted by the administrative employees led to an estimated \$1.4 million savings each year — for a total of \$2.8 million — in money not spent on medical costs, workers compensation and training replacements.

Wagoner ends tenure as DOE Hanford chief

By John Stang
Herald staff writer

An 8½-year stint at Hanford was not how John Wagoner thought he would end his career.

He figured it would end at Savannah River.

After all, he spent most of his Department of Energy career south of the Mason-Dixon Line — in New Orleans and Oak Ridge before becoming Savannah River's deputy manager in 1988.

Then, DOE's Hanford Manager, Mike Lawrence, resigned in 1990.

The site needed an acting chief. Wagoner got picked. Just as a temp.

So he showed up at Hanford in July 1990. The complexity of cleaning up the nation's most contaminated chunk of land — a new idea at that time — intrigued him more and more.

So did the Tri-Cities as Wagoner got involved in the United Way and Rotary Club.

Wagoner got hooked — and stayed.

That stay is now over.

As of today, Wagoner, 58, is retired, and DOE's Oak Ridge Manager, Jim Hall, is temporarily filling his spot until a permanent replacement can be found in a few months.

Wagoner hasn't really figured out what he will do next. That pondering was put on hold until he actually left DOE to avoid any conflict of interest.

"I will do something else. ... It's going to be fun to explore what my options are," Wagoner said.

About the only thing Wagoner is sure about is that he and his wife, Marilyn, eventually will move back to the Southeast.



Wagoner

See **Wagoner**, Page A2

Hanford dose estimates popular

By John Stang

Herald staff writer

A regional project to provide radiation dose estimates to Hanford's downwinders has received inquiries from 6,868 people in slightly more than two months.

The Hanford Individual Dose Assessment Project sends brochures to people who inquire how to obtain estimates of how much Hanford radiation they may have absorbed during the Cold War.

Counting those who have asked for extra brochures for family members, the project has mailed 9,971 brochures so far, said Cindy Green, project outreach coordinator.

The project's purpose is to provide downwinders estimates of how much iodine 131 may have been absorbed by their thyroid glands from 1944 to 1957, the period of heaviest releases.

This is the final stage of a long-running project to calculate Hanford's radiation releases, how the radiation moved through the air and food chain, and how much was absorbed by individuals.

For information on obtaining dose estimates, people may call 800-432-6242. There is no charge for the service, which is operated by the Washington, Oregon and Idaho state health departments and the federal Centers for Disease Control.

Also, people can download a copy of the brochure at www.doh.wa.gov/ehp/rp/rp-ida2.htm on the Internet.

The first is short. It looks at their ages, when and where they lived and for how long. The second form will follow later and will be longer. It will ask for an extensive rundown of what the person ate and drank during the affected years.

Meanwhile, Seattle's Fred Hutchinson Cancer Center is preparing to release results of an epidemiological study to see if Hanford's iodine 131 releases can be linked with thyroid diseases in Eastern Washington, Northern Idaho and Northeastern Oregon. The study also is using information from the Hanford Environmental Dose Reconstruction Project.

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300 Area using Richland water system

By John Stang

Herald staff writer

Hanford's 300 Area switched over to Richland's water system last week.

On Dec. 28, Hanford shut down the water filter plant in the 315 Building, which served more than 100 facilities in the 300 Area. The 300 Area is the former nuclear fuel fabrication site north of Richland. It still is used for research and development.

The switch from the 300 Area pumping and treating its own water from the Columbia River to buying water from the city saves about \$50,000 a year after the elimination of the plant's operating and maintenance costs, said Tom

Harper, Fluor Daniel Hanford's director of infrastructure.

This is part of an ongoing Hanford effort to close unnecessary facilities to reduce overhead costs.

And it also is meant to strengthen links between Richland and the 300 Area — which is a prime potential economic development area.

The 300 Area already was hooked to the city's water system, said Rich Grantham, DynCorp Tri-Cities Services Inc.'s utility manager.

The only 300 Area operation not using city water is a group of holding tanks using untreated river water for fish studies at a life sciences building operated by Pacific Northwest National Laboratory.

The handful of workers operating the 315 Building plant will be shifted to other jobs.

The 315 Building's water plant was built about 40 years ago to support the then-brand new experimental Plutonium Recycle Test Reactor in the 309 Building complex.

The plant was later converted to serve the entire 300 Area with water for drinking, firefighting and industrial uses.

Now, the 315 Building will be closed off.

It will be demolished at an undetermined date in the future, Harper said.

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State refuses to reduce Hanford fine that resulted from explosion

By John Stang

Herald staff writer

The state has denied Hanford's request to trim a \$110,000 fine for a 1997 Plutonium Finishing Plant explosion.

Hanford officials did not show any "extraordinary circumstances" to justify trimming or eliminating the fine, said a letter the Washington Department of Ecology sent Thursday to the Department of Energy, Fluor Daniel Hanford and B&W Hanford.

DOE, Fluor and B&W Hanford have 30 days to appeal the penalty to the Washington Pollution Control Hearings Board. Fluor manages Hanford for DOE, and B&W Hanford manages the PFP for Fluor.

"We're certainly disappointed," said DOE spokesman Guy Schein.

He said Hanford officials have to review the state's ruling before deciding whether to appeal.

The \$110,000 fine is the highest fine the state has ever levied against Hanford.

On May 14, 1997, a PFP chemical tank exploded — severely damaging a fourth-floor room in the PFP's Plutonium Reclamation Facility building and exposing 10 people outdoors to fumes.

Subsequent DOE and state investigations showed several warnings were missed prior to the explosion and the emergency response after it was botched.

The state levied the fine Sept. 16, 1997, and DOE, Fluor and B&W Hanford filed a petition for relief from the fine Oct. 3, 1997.

The extremely long turnaround time for the state to rule on the petition is due to efforts to fix the emergency response problems at the PFP, said Department of Ecology spokeswoman Sheryl Hutchison.

With a limited staff, the department wanted its people to concentrate on fixing the emergency response problems — delaying work on Hanford's petition for relief from the fine, she said.

Overall, the PFP was hit with a total of \$250,625 in fines for various troubles in late 1996 and 1997.

In addition to the state's \$110,000 penalty, DOE fined Fluor \$28,125 for explosion-related problems and another \$112,500 for violations in moving scrap plutonium within the plant.

In early 1998, Fluor paid the \$140,625 in fines to DOE without contest.

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Clancy confuses Hanford facts

By John Stang

Herald staff writer

Tom Clancy may know nuclear subs.

He might be the lay expert on the latest in techno-military gizmos.

And the best-selling author with the big reputation for extensive research might be on the cutting edge of the finer nuances of international terrorism, counterterrorism and counter-counter terrorism.

But when it comes to Hanford, well...

Clancy's a bit out of date — by roughly a decade.

We refer you to Page 95 of his latest 740-page post-Cold War thriller *Rainbow Six* — published in 1998.

That's where Hanford shows up.

Not as a major plot.

But as a minor throwaway reference in a couple of paragraphs.

To impress readers with the breadth and depth of his research.

A second-string character — a high level White House adviser — ponders U.S. nuclear weapons policies.

She wonders: "Why not ... recommend the closure of the dirty reactor at Hanford, Washington."

The character's musings continue somewhat ungrammatically that

this reactor was: "The only American reactor of the same design as Chernobyl — less a power reactor than one designed to produce plutonium — pu 239 — for nuclear weapons, the worst gadget the mind (sic) of warlike men had ever produced."

Only one Hanford reactor fits that description.

N Reactor.

The problem facing the 1998 novel is that N Reactor was shut down in 1987 primarily because of the 1986 disaster at the Chernobyl reactor, which superficially resembled N Reactor.

N Reactor's fate lingered in limbo until 1989 when it was more or less accepted that it would never be revived.

Hanford workers began seriously pulling out the N Reactor complex's innards in 1994.

What this means is that in Clancy's vast Cold War and post-Cold War universe of interconnected novels, N Reactor closed down a few thick books ago.

Clancy does toss in a bit of the Hanford of the 1990s.

Page 95 of *Rainbow Six* continues: "There were new problems with Hanford, new leaks from the storage

tanks there, discovered before the leakage could pollute the ground water, but still a threat to the environment, expensive to fix."

Close, but not quite true:

But cut Clancy — living 3,000 miles away while researching a long novel primarily about evil terrorists — a little slack on this one.

Radioactive wastes from Hanford's tanks have reached the ground water. That was greatly suspected prior to 1997 and acknowledged by the Department of Energy that same year.

Did Clancy research this tidbit in 1998 or 1997 or before? Before or after the tank wastes were confirmed in the aquifer?

Clancy did note: "The chemical mix in those tanks was horribly corrosive, and lethally toxic, and radioactive."

Clancy's White House adviser character also thought about other high-ranking characters wanting to build a new Hanford.

"Even this president wouldn't countenance that," the character concluded.

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ALE poses puzzles

Public to help guide future management

By John Stang

Herald staff writer

The weather-beaten gate No. 118 leading into the sagebrush north of Rattlesnake Ridge illustrates some questions facing the future of the Fitzner-Eberhardt Arid Lands Ecology reserve.

A reddish-pink bra and a man's jockey shorts sat on the ground by the "No Trespassing" sign at the gate along Highway 240.

Another sign inside the wire fence warned that the 10-mile-long gravel road is not maintained.

Next to that road is 6,000 acres of charred sagebrush from last summer's range fire.

Questions include how much access should be granted to the reserve, or ALE.

Should the ALE be made more people-friendly, or left alone?

And how much should humankind tinker with nature? Should range fires be fought or left to burn?

These are a fraction of the issues the U.S. Fish and Wildlife Service must ponder when it maps out a plan for managing the ALE — the 120-square-mile chunk of western Hanford dominated by Rattlesnake Ridge.

The wildlife service manages the ALE for the Department of Energy, which keeps it as a buffer zone for the radioactive wastes stored in central Hanford.

1-12-99
Battelle gives \$30,000 to Habitat for Humanity

Battelle donated \$30,000 on Monday to Habitat for Humanity. That's enough money for the organization to build a house for a low-income family.

The money will be used to build a house in Pasco. Battelle operates Pacific Northwest National Laboratory in Richland for the Department of Energy.

Since the Tri-County Partners Habitat for Humanity was formed in 1994, more than 100 Battelle employees have volunteered for building projects.

Tri-County Partners is beginning work on its sixth house. The group uses volunteer labor and donated supplies to build homes for low-income families.

1-12-99
False alarm evacuates Hanford building

A false fire alarm caused part of central Hanford's Waste Receiving and Packaging facility to be evacuated for 45 minutes Monday afternoon.

The WRAP is where barrels of wastes are inspected in preparation to go to a permanent storage site in New Mexico.

A faulty fire alarm was triggered by a door slamming shut, according to Fluor Daniel Hanford. There was no fire or smoke. Thirty people were evacuated.

1-13
Fluor's review for 2nd year less 'critical'

By John Stang
Herald staff writer

The word "critical" is missing from Fluor Daniel Hanford's report reviewing its second year of managing Hanford.

Fluor released a traditional corporate annual report late Tuesday on the improved performance of its seven-company cleanup team in fiscal 1998.

The 27-page report — the second in Fluor's tenure at Hanford — is essentially a rundown of accomplishments in 1998.

That is a far cry from last year's 148-page report — dubbed a "Critical Self-Assessment" — that ana-

lyzed the Fluor team's strengths and weaknesses in detail.

Meanwhile, the Department of Energy expects to release information soon on Fluor's performance fee for fiscal 1998 — Fluor's real grade for how it did in the past year.

In fiscal 1997, Fluor earned 55 percent — \$29.9 million — of its total possible performance fee of \$54 million. That score disappointed Fluor and DOE leaders.

For fiscal 1998 — which ended Sept. 30 — Fluor can earn \$50 million with a perfect grade.

After watching Fluor struggle during its first year, U.S. Sen. Patty

See Fluor, Page A2

1-13
Merged union claims about 600 at Hanford

More than 600 Hanford workers belong to the new union formed by the merger last week of the Oil, Chemical and Atomic Workers and the United Paperworkers International unions.

The new union — the Paper Allied-Industrial Chemical and Energy Workers International, or PACE — has 320,000 members, which is up from OCAW's 100,000 members.

The merger is a move to create the nation's largest natural resources workers union, said Jim Watts, president of Local 369, which under OCAW had 2,500 people at Hanford, Alaska and Hawaii. About 25 percent of the 2,500 work at Hanford.

The new PACE union also includes the cardboard facility workers at Boise Cascade's Walula plant.

OCAW's Hanford contract remains in place with PACE, Watts said. The merger gives the expanded union greater political and lobbying clout, Watts said.

1-14-99
Fluor Daniel reabsorbs Duke Northwest team

By John Stang
Herald staff writer

Fluor Daniel has reabsorbed one of its "enterprise" companies — pulling the people working at Duke Engineering & Services Northwest back inside the Hanford fence.

Duke Engineering & Services Richland Office — a sister company of Duke Northwest — remains as a Tri-County enterprise company created to seek business from outside Hanford.

About 35 Duke Northwest people were affected by the change in late December.

When Fluor took over Hanford in 1996, it and five subcontractors created six enterprise companies with former Westinghouse team employees.

The enterprise companies were created to work at Hanford while building up long-term non-Hanford business to become permanent Tri-County companies.

Major subcontractor DE&S Hanford tackled the enterprise concept differently than the other subcontractors. It created two sister enter-

prise companies — Duke Northwest to focus exclusively on Hanford work and Duke Richland to focus exclusively on off-site work.

When Fluor put together its Hanford team, it decided it needed outside expertise on quality assurance work and set up Duke Northwest to provide that expertise.

Meanwhile, Fluor President Ron Hanson decided several months ago to push overall quality improvements across Hanford.

As part of that push, Fluor wanted greater control and ownership of the site's quality assurance functions. Consequently, Duke Northwest's functions have been transferred to Fluor Daniel Hanford.

The majority of Duke Northwest's employees were offered jobs at Fluor, Hanson said.

"We have been able to make the change with no disruption in the services being provided," Hanson said.

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1-14-99
DOE lauds Fluor for 'progress' in 1998

By John Stang
Herald staff writer

Improvements that began last spring propelled Fluor Daniel to earn about 72 percent of the total possible performance fee for managing Hanford in fiscal 1998.

That is better than Fluor's grade of 55 percent for fiscal 1997.

"We think Fluor and its team made significant progress in 1998, especially in the second half of the year. ... We think this will build strong momentum going into 1999," said Lloyd Piper, the Department of Energy's deputy Hanford manager.

Fluor President Ron Hanson praised the Fluor team's employees. "This is all about how people rallied around. ...

They're the ones who did the work," Hanson said.

DOE released the performance fee report Wednesday for the period from Oct. 1, 1997, to Sept. 30, 1998.

For 1998, Fluor earned \$32.19 million out of a total possible \$44.6 million. Hanson declined to detail how the fee would be split among the subcontractors. Fluor

has been traditionally mum on contract financial terms with subcontractors.

For 1997, Fluor earned \$29.9 million out of a possible \$54 million.

Originally, the maximum fee Fluor could have earned in 1998 was \$50 million. However, Fluor's contract is tied to how much Congress appropriates for Hanford's cleanup. Consequently, cuts in Congress's

spending trimmed the maximum possible fee to \$44.6 million.

A maximum performance fee has not been set yet for fiscal 1999.

The biggest problem area noted in 1998 involved work removing spent nuclear fuel from the K Basins to a safer central Hanford

See Progress, Page A2

1-15-99
Concerns about limits voiced at ALE meeting

By John Stang
Herald staff writer

Access and elk. Both need some sort of limits. And both were the two top concerns of about 140 people who attended a meeting Thursday evening to find out what the public wants addressed in a future plan to manage the Fitzner-Eberhardt Arid Land Ecology Reserve.

The U.S. Fish and Wildlife Service held the Richland meeting to find out what issues it should address as it maps out a plan for managing the reserve — a 120-square-mile parcel of western Hanford dominated by Rattlesnake Ridge.

The wildlife service manages the reserve, or ALE, for the Department of Energy, which keeps it as a buffer zone for the radioactive wastes stored in central Hanford. The wildlife service is in the early stages of creating a long-term management plan.

A draft plan is due by September with a final version by December. The top two concerns mentioned Thursday were:

■ Somehow limiting the ALE's fast-growing elk population.

The wildlife service estimates the ALE's elk numbers at 750 to 800. Some people thought that number is higher, especially when wandering elk on neighboring lands are included.

The elk spark complaints because they eat crops on neighboring lands.

"They've got to get the elk under control," said Joe Williams of Prosser.

■ Limiting public access to the ALE to preserve its mostly pristine natural habitat.

Access concerns ranged from potential trampling to people carrying noxious weeds into the ALE that will crowd out the native vegetation.

"The less access you have, the less problems you have," said Neal Ice, who lives next to Rattlesnake Ridge.

The third most-voiced concern was managing the ALE to preserve its unique nature.

The ALE is considered one of the best remaining desert shrub steppe habitats in the Northwest and is home to numerous ecologically sensitive plants and animals.

Other concerns that fostered support included fighting noxious weeds, supervising scientific research on the site that plays host to biological projects and local astronomers using the old observatory on top of the ridge.

Other oft-voiced concerns included protecting tribal cultural rights, policies that deal with range fires and encouraging school groups to use other shrub steppe areas for educational purposes.

The wildlife service supervises the ALE as a restricted biological sciences reserve under a 1993 management plan created by Pacific Northwest National Laboratory.

The ALE is a complicated site to manage.

There are the old observatory and several radio towers on top of southern Rattlesnake Ridge with an old Nike missile site at the bottom.

The northern part of the reserve includes a vast mix of flat lands and large rolling hills and valleys. Much of it is hidden from Highway 240.

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Hanford eyes accelerated Columbia shoreline cleanup

By John Stang

Herald staff writer

Hanford officials are working on a draft plan to speed up cleaning the site's southern Columbia River shoreline area.

The basic plan, which was described to a Hanford Advisory Board committee Thursday, would be to clean up 91 square miles along 34 miles of highly visible shoreline area by 2006.

But questions have been raised on whether accelerating shoreline cleanup would siphon money away from higher priority Hanford cleanup projects.

While some projects — such as

converting radioactive tank wastes into glass and to removing spent nuclear fuel from the K Basins — are more important for public safety, they also are slow and expensive. And Congress has been tight with allocating money for cleanup.

Department of Energy and Bechtel Hanford Inc. officials speculated that by completing the high-profile tangible river shore cleanup, Congress may be inclined to provide more cleanup funding.

The draft plan — dubbed the "Columbia River Corridor Initiative" — is to be ready by April 30 for public scrutiny.

Committee members and regula-

tory agency officials at Thursday's meeting were intrigued by the idea, but also were concerned it could mean missing some deadlines in Hanford's overall cleanup plan.

"I think this is an attractive opportunity. We shouldn't let it expire without making a stab at it," said Gordon Rogers of Pasco, a Hanford board member representing the public-at-large.

Bob Potter, Bechtel's project manager for strategic initiatives, described how the plan could help a major rivershore project — the "cocooning" of Hanford defunct plutonium reactors. The work involves demolishing outlying buildings and sealing the reactor

cores in their main chambers.

The work is proceeding slowly because Congress trimmed its proposed budget for 1999. So far, Bechtel has cocooned C Reactor and has begun work on F and DR reactors.

But Potter pointed to some basic math.

The average cost to cocoon a reactor is \$15 million, and F and DR reactors each got \$2.5 million in 1999. The legal deadline to finish both is in 2001, which means that unless a lot of extra money is found, those deadlines look out of reach.

So DOE and Bechtel began looking at adding cleanup of the rivershore lands surrounding the

reactors to the cocooning to make a more politically attractive budget package.

State officials from Oregon and Washington want to study the concept further to make sure it would not scuttle other higher priority projects with legally mandated deadlines under the Tri-Party Agreement.

Dirk Dunning, a nuclear waste specialist with the Oregon Department of Energy, and Jack Donnelly, a cleanup project manager with the Washington Department of Ecology, also questioned whether a high-profile push on problems posing less environmental risk can justify taking money from Hanford's finan-

cially strapped top priority projects.

"We need to see which regulatory needs have to be addressed," Potter said. "That may be the fatal flaw in the whole thing."

If rivershore cleanup is accelerated, Bechtel's annual cleanup budget appropriation of roughly \$137 million would have to increase to about \$200 million beginning in 2001 or 2002 — a figure including extra money for increased ground water studies and cleanup.

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PNNL project city airs on '60 Minutes'

The lead story on Wednesday's debut of *60 Minutes II* was one of the three Russian "secret" nuclear cities that Pacific Northwest National Laboratory is forging some economic development ties with.

The city is Zheleznogorsk, which also is known in the broadcast as Krasnoyarsk-26. A *60 Minutes* crew visited the plutonium-making reactor site hidden in a Siberian mountain next to the city of roughly 100,000 people.

PNNL is trying to build economic development ties with three of Russia's 10 "closed" cities, where scientists researched, created and built nuclear materials and weapons.

Russia's closed cities used to be referred to by special post office codes — such as Krasnoyarsk-26 — to disguise their locations. In 1994, Russia dropped that practice and gave the cities new names.

Additional \$20 million needed for tank farms

By John Stang

Herald staff writer

Hanford's tank farms have \$310 million for the year — enough to meet immediate obligations under the Energy Department's pact with regulators.

However, the tank farms need about another \$20 million for unexpected costs that popped up in the past few months.

Those extra costs — although important for safety at Hanford — don't affect deadlines set by the Tri-Party Agreement, the cleanup pact between DOE and state and federal environmental agencies.

But even without the unexpected costs, some Tri-Party Agreement deadlines in 2000 and later years are jeopardized because a current shortfall of \$41 million in the tank farms budget is delaying some preliminary work.

Those are the key elements in the picture that the Department of Energy painted for the Hanford Advisory Board's financial affairs committee Friday in Richland.

"We'll do our best to work it off," Jon Peschong, director of DOE's tank management systems office,

told the committee.

Central Hanford has 177 tanks filled with 54 million gallons of highly radioactive wastes.

The \$310 million budget covers safety measures at the tank farms plus work on preparing the wastes to be eventually convert into glass.

The extra work that has recently surfaced at the tanks farms includes more sampling and analyses of how leaked tank wastes seep underground, removing radioactive residue from some tanks after the liquids have been pumped out, some safety studies and some additional pumping of liquid wastes.

One of the biggest extra costs is a tentative \$7 million to analyze why the surface crust of the wastes in Tank 101-SY has risen several inches since mid-1997 — and to create a plan for eventually reducing any hazards.

Officials suspect that highly flammable hydrogen gas trapped beneath the crust might be the cause.

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FYI

Did it taste like garlic?

Think of it as a quiet case of gas instead of a resounding belch.

A recent issue of the Hanford Reach weekly newspaper ran a correction on an earlier article on Tank SY-101, better known as Hanford's "burping" tank, because hydrogen gas would build up underneath the radioactive sludge to routinely burst through the surface.

A mixer pump cured this problem in 1993.

The earlier Hanford Reach article made a reference to an "audible sound" during the "burping."

But, the correction said, no "audible sound" was heard during the "buoyant displacement gas-release events."

Little '305 Test Pile' Hanford's first reactor

By the Herald staff

So you think you're really hip on Hanford's history? The words "B Reactor" roll off your tongue before someone can even finish the question of: "What was Hanford's first reactor?"

Wrong.

Hanford's first was a small 300 Area test reactor that began operating in March 1944 — six months before B Reactor cranked up to produce plutonium for the United States' efforts to create atomic bombs in World War II.

The dinky plant was one of six test reactors that operated in the 300 Area — scattered 1 to 1½ miles from north Richland.

Only two remain — one in the silver dome of the 309 Building complex and one stashed away in the 308 Building.

Hanford's first reactor — or "pile" as they were called in those days — was in the 305 Building in the northern 300 Area.

The "305 Test Pile" was small. Its core was an 18-foot cube.

And in the few months before B Reactor's nuclear debut, the 305 Test Pile kept three shifts of workers occupied around the clock. But after B Reactor got rolling, tests at the 305 Test Pile diminished greatly.

However, tests were still conducted there through 1972. The reactor was finally dismantled and buried in 1976 and 1977.

Meanwhile, five other reactors were built in the 300 Area for tests that only nuclear engineers and physicists can comprehend.

There were the:

■ **Physical Constant Test Reactor**, which was used in experiments in the design and operation of KE, KW and N reactors, plus the silver dome's Plutonium Recycle Test Reactor.

This was built in the 1950s in the 305-B

Building and was shut down in 1970.

■ **Thermal Test Reactor**. This was installed in the late 1950s in the 305-B Building. It was used for fuel and safety rod experiments until it was shut down in 1978.

Both reactors are gone from the 305-B Building, which is now a hazardous materials storage site.

■ **Training Research Isotopes General Atomics reactor** was installed in the 308 Building in the late 1970s for various fuel tests. It is now shut down. The fuel and some equipment has been removed, but part of it remains.

■ **High Temperature Lattice Test Reactor**. This was built in the late 1960s in the 318 Building to test nuclear fuels at high temperatures. It shut down in 1982 and is now gone.

■ **The Plutonium Recycle Test Reactor**. This is the one in the silver dome.

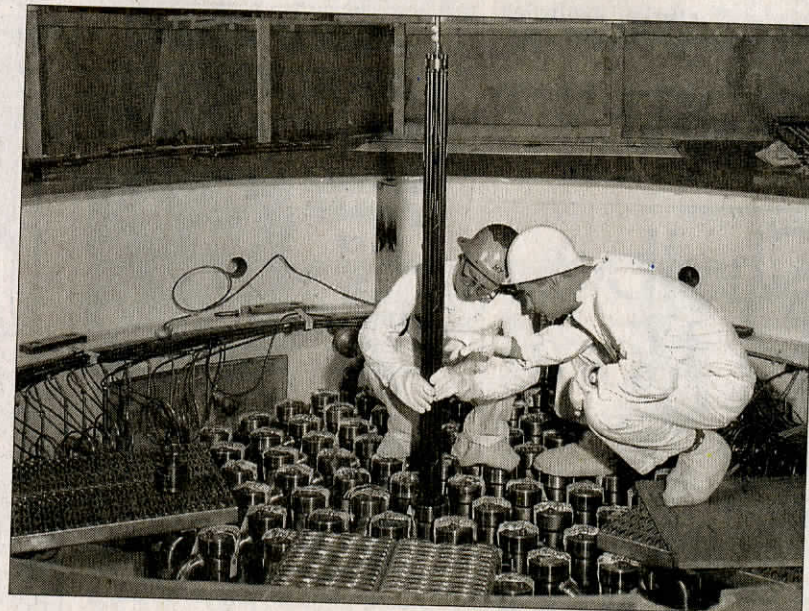


Photo courtesy of Fluor Daniel Hanford

Hanford workers prepare the first fuel assemblies for the Plutonium Recycle Test Reactor in this photo from 1960.

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PNNL chief Madia takes Battelle VP job

By Annette Cary
Herald staff writer

Battelle is looking for a new leader for Pacific Northwest National Laboratory after announcing Monday the promotion of Director Bill Madia.

Madia, who has been director of the Richland lab since August 1994, will become executive vice president at Battelle. Battelle operates the national laboratory for the Department of Energy.

Madia said he had mixed emotions as he began to call friends and colleagues with the news.

"This has been my best assignment in 24 years with Battelle," he said. "This is a terrific laboratory and a terrific community."

He'll continue as director of the laboratory until a replacement is found. Battelle will launch a national search that's expected to take about six months.

In Madia's new position, he'll be

responsible for the management, strategic direction and coordination of all of Battelle's DOE business.

"Our DOE business has grown substantially and requires the full-time focus of a key executive at the corporate level," said Doug Olesen, the president and chief executive officer of Battelle, in a written statement. "Bill's knowledge of the respective national laboratories will provide considerable value to DOE in developing further cooperation through the national lab system."

When Madia came to the Tri-City lab, it had most of Battelle's DOE business. But through the years, that's expanded to Brookhaven National Laboratory in New York, the National Renewable Energy Laboratory in Colorado, Pantex in Texas, DOE programs at Battelle's Columbus, Ohio, headquarters and other programs.

"I've been straddling the fence" between Battelle's growing DOE oper-

ations and running the Richland laboratory, Madia said, "and the rails have been getting farther apart."

His new position was created to split the duties in two. He's not sure where he will be based, but he will be leaving the Tri-Cities.

Battelle will hire the new director with DOE approving the selection. Madia, who will play a substantial role in the selection, said the job will require someone with nationally recognized scientific credentials. But the new director also will need the business experience and leadership to run a \$500 million-a-year enterprise.

The high point of Madia's 4½ years at the laboratory was its recent outstanding rating from DOE.

"Such a rating is rarely given by DOE," Olesen said.

Madia, who has a doctorate in chemistry, had several senior management positions before coming to the Tri-Cities. Most recently, he had been gen-

eral manager of Battelle's worldwide environmental business.

In the Tri-Cities, the outgoing laboratory director then, the late Bill Wiley, said Madia's challenge would be to make the laboratory more productive and competitive.

That project got a jump-start three months after Madia joined the lab, with the November 1994 elections and resulting federal budget cuts.

Madia had to trim 900 jobs from the work force of about 4,600.

"It's the sort of thing that keeps you up at night," he said.

But it left the laboratory "more cost effective, more focused," he said. "Focus is a core belief of mine. Unless you focus, you can't be excellent."

The laboratory put its emphasis on environmental science and technology and looked for different areas to use its expertise — more environmental cleanup, nuclear nonproliferation



Herald/André Ranieri

Bill Madia, director of Pacific Northwest National Laboratory since 1994, has been promoted to executive vice president at Battelle, the company that operates the laboratory.

See PNNL, Page A2

A4

TRI-CITY HERALD

WEDNESDAY, JANUARY 20, 1999

METRO

Specialist says Tri-Cities should be hub for medical isotopes

By Annette Cary
Herald staff writer

The Tri-Cities should push to become a national medical center in the promising field of using isotopes to kill cancer cells, an international specialist in the field said Tuesday.

Dr. Huib Vriesendorp said the Tri-Cities needs to start clinical trials of medical isotopes and launch a national training and accreditation center for their use. The Houston doctor, who's published 135 papers, is visiting the Tri-Cities this week to discuss his work with medical isotopes.

The concept of using drugs that would seek out cancer cells and kill them selectively has not moved into mainstream medicine as fast as it should because of lack of resources and coordi-

nation, Vriesendorp said Tuesday.

But the Hanford nuclear reservation and supporting scientific community have "untapped resources going to waste," he said.

Those include trained professionals, expensive laboratories and knowledge of radiation safety, he said.

Hanford already is helping supply clinical grade radioactive isotopes for medicine, including the yttrium 90 Vriesendorp has used in medical trials to treat cancer patients.

Yttrium 90 is extracted and purified from nuclear waste, but if the Fast Flux Test Facility were restarted, Hanford could supply large quantities of medical isotopes.

Now, 50 percent of medical isotopes are used in the United States — mostly for diag-

nosis rather than treatment of disease — but only 10 percent is made here. The supply and quality have been lacking at times, Vriesendorp said.

Having a good supply of isotopes of the type strong enough to attack cancer cells would encourage research. And giving medical, scientific and pharmacy specialists a place to work together and train others also would increase the use of medical isotopes, he said.

He's treated 150 patients with Hodgkin's disease since 1988 using immunoglobulin, which seeks out the cancer cells in patients' bodies and attaches to them. A radioactive isotope from Hanford is attached to the immunoglobulin molecule and releases a short-lived blast of powerful radiation that kills the cancer cells with minimal damage to healthy tissue.

The majority of Vriesendorp's patients have responded to the treatment, even though they cannot become candidates for experimental treatment until they have failed several rounds of more conventional cancer treatment.

Sue Spenceley, a hospital administrator in California and one of his patients, was to visit the Tri-Cities with Vriesendorp this week but canceled because of illness.

She had Hodgkin's disease for eight years before entering Vriesendorp's clinical trials. She's now been free of the disease for four years.

Other clinical trials are using the same technique to treat leukemia, non-Hodgkin's lymphoma and a few solid tumors, Vriesendorp said.

He's moved his work to Paris because the

European medical community has shown more interest in medical isotopes than hospitals and doctors in the United States, he said.

One of the major benefits of using medical isotopes to treat cancer is that cancer cells can be targeted more selectively than in conventional radiation or chemotherapy.

Since far less healthy tissue is damaged, patients don't have the debilitating side effects that leave some cancer patients weak, nauseous and bald.

"By the time patients come to us, they are very angry," Vriesendorp said. "They say, 'This treatment is so much nicer. Why didn't we get this first?'"

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Herald/André Ranieri

Sue Pritchett, president of the Richland Senior Association, holds up one of the commemorative "A" house ornaments Monday in front of the real "A" house she lives in. The government built 3,505 of the alphabet homes in the 1940s to house Manhattan Project workers.

Group wants to capitalize on alphabet heritage

By Chris Mulick
Herald staff writer

Richlanders love their government-built "alphabet homes."

So much so that when the Richland Senior Center began selling small "A" house ornaments in late October, they sold all 864 within two months with little advertising.

Sue Pritchett, president of the Richland Senior Association, said she still is getting calls about the ornaments — originally intended for Christmas trees — and hopes to obtain more later this year.

"You find pockets of fanatical interest," agreed Hal Bury, chairman of the city's Housing and Community Development Advisory Committee.

"I brought one (ornament) home, and my wife just went berserk."

That interest is partly why Bury's volunteer committee, the city and a small group of students from Richland's Washington State University branch campus are looking for a way to commemorate the homes. The Army built the 3,505 cookie-cutter homes in the 1940s to house those working on the Manhattan Project to build atomic bombs.

Originally, the group wanted to identify a particular neighborhood with the homes, such as along Hains Avenue, and get a state designation for it as a historical housing district. The problem is, to qualify, the homes have to look like they did when built.

But when Richlanders were allowed to begin buying their homes from the federal government

in 1959, some started making changes. Over time, some have added garages, porches and bay windows.

"Too many people have had too many changes," said Josie Woods, Richland's housing resource specialist.

That revelation hasn't thwarted any plans so far. Picking out individual homes in a larger section of town, possibly for a walking or driving tour, is being considered.

Gerald Dagle, who is organizing the effort for the advisory committee, said central Richland south of Bradley Boulevard is a strong contender.

"The whole idea is to try to improve people's pride in their homes," he said.

See **Alphabet**, Page A2

Hanford forecast shows new jobs may be in future

By John Stang
Herald staff writer

Hanford's downward job spiral appears to have stopped, and the site's overall work force might even climb by a few hundred people in 1999, Hanford contractors indicate.

The Department of Energy last month nailed down its fiscal 1999 Hanford cleanup budget of \$1.104 billion.

Its contractors now have had a chance to crunch numbers to see how that budget translates to job predictions through Sept. 30, 1999.

Fluor Daniel Hanford's seven-company team, Fluor Daniel Northwest and Bechtel Hanford Inc.'s three-company team expect to be about stable in 1999 after dealing with shrinking work forces the past two years.

Hanford's newest prime contractor — BNFL Inc.'s four-company team — expects to grow significantly, and Pacific Northwest National Laboratory expects to add a handful of people.

Hanford's budget and work force had been shrinking steadily since

1994, when more than 18,000 people worked at the site.

The total number of workers dropped to 12,078 people in September, including Hanford contractor workers, DOE employees, off-site "enterprise" company workers and PNNL's work force.

The Herald's recent spot check looked at six Hanford-related corporations and teams that employ about 85 percent of the site's workers.

These included the five prime contractors — Fluor Daniel Hanford's team, Bechtel's team, PNNL, BNFL's team and the Hanford Environmental Health Foundation. The largest of Hanford's six enterprise companies — Fluor Daniel Northwest — also was contacted.

The spot check showed: ■ Fluor Daniel Hanford's team expects to stay about steady at its current work force of 5,266. That is up slightly from 5,147 last year.

Only minor fluctuations are expected in 1999, said Gordon Beecher, Fluor's director of human resources.

See **Hanford**, Page A2

SPOKANE — Some prison inmates whose testicles were bombarded with radiation in a Cold War experiment got permission last week to pursue a federal court lawsuit.

U.S. District Judge Robert Whaley ruled their lawsuit — against two former Washington state prison officials and the doctor who experimented on them — can proceed.

But Whaley dropped General Electric Co., a former Hanford contractor, and Battelle, which operates the Pacific Northwest National Laboratory, from the lawsuit.

The companies were involved in the X-ray machine used on the prisoners in Walla Walla in the 1960s, but didn't participate in any alleged conspiracy to deprive prisoners of their civil rights, Whaley ruled.

The federal government, which paid for and administered the experiments, was also dropped from the lawsuit.

Hanford was one factor in prompting the experiments.

A 1962 Hanford radiation flash

little knowledge existed then on radiation's effects on sperm generation. The experiments began shortly afterward.

Battelle took over Pacific Northwest Laboratory in 1965 — inheriting a technical support role in the experiments.

But Whaley said that plaintiff Robert White of Spokane can go ahead with federal civil rights claims against Dr. C. Alvin Paulsen, the University of Washington endocrinologist who used X-rays to study radiation's effect on fertility.

Whaley also kept two former state prison officials in the case — ex-Washington State Penitentiary warden Robert Rhay and prison director William Conte.

The ruling pleased White, who was only 22 and serving a prison term for assault when he agreed to have his genitals bombarded with X-rays in Paulsen's experiment.

He got 300 rads, equivalent to 40,000 chest x-rays, according to the lawsuit.

White, 57, contends he has recurring pain and major scars from the experiments, which left him sterile.

Olympia to debate boost in spending

By The Associated Press

OLYMPIA — After a sleepy first two weeks of their session, Washington lawmakers are ready to sink their teeth into two of the biggest, most contentious issues they'll face: the state budget and saving salmon.

In the opening round of the partisan budget wars, Senate Democrats are ready to usher through a \$51 million supplemental budget this week.

That's peanuts compared with the underlying \$19 billion, two-year budget, but the add-ons are of political significance because the level of spending in the current budget cycle will determine how much lawmakers can spend on the new 1999-2001 budget.

The state's voter-approved Initiative 601 uses a formula based on inflation and population growth to set the spending cap for each budget year. Last month, Democratic Gov. Gary Locke proposed supplemental spending right up to the limit. He would add a net of \$73 million to the current budget — which runs through June 30 — primarily benefiting school construction.

That would boost the Legislature's spending capacity by more than \$140 million in the next budget, something Republicans have been resisting.

Senate Democrats today will weigh in with a supplemental spending plan somewhat lower than Locke's. Budget Chairwoman Valoria Loveland, D-Pasco, will hold hearings on a plan that would boost spending by nearly \$100 million.

Once savings from lower-than-expected school enrollment and social service caseloads are subtracted, that would leave a net increase of \$51 million. That would allow legislators to spend an extra \$102 million in the new biennium, under the I-601 formula.

Loveland proposes spending about \$48 million on school construction and repairs, \$15 million for construction and repairs at community colleges, \$13 million to replace old and unsafe school buses, \$8 million to reimburse fire-fighting costs, \$6 million for support of county fairs and \$6 million for disaster assistance.

The Ways and Means Committee is scheduled to approve the plan Tuesday, and full Senate action could come as early as Wednesday. The measure then goes to the House, where Republicans and Democrats hold 49 seats each.

See **Olympia**, Page A2

Bent on cleaning up Hanford's B Cell



Herald photos/Bob Brawdy

The glow of an arcing plasma cutting torch lights the face of hot-cell technician Ray Eisele as he operates a robot arm at B Cell in Hanford's 300 Area near Richland. Eisele is using the torch to dismantle a highly radioactive pipe in the hot cell.

Workers rely on robot arms to package debris

By John Stang

Herald staff writer

Ray Eisele's body English looked like a bowler trying to psychokinetically will his ball to pick up a 7-10 split.

Knees bent in a quasi-runner's crouch. Torso leaning back. Left arm wrapped around a thick movable rod of cables and pulleys connected to the wall above him.

His right wrist twirled as his right fingers and thumb squeezed and flipped the controls at the end of the rod.

Twenty feet away, behind a 4-foot-thick window, a huge extended arm — looking like it belongs to the robot in *Lost In Space* — mimicked the movements of Eisele's right hand in one of Hanford's deadliest rooms.

That arm's two pincerlike fingers

held a cutting torch next to a 27-foot-tall metal rack full of pipes and braces.

Eisele's left foot tapped a floor pedal.

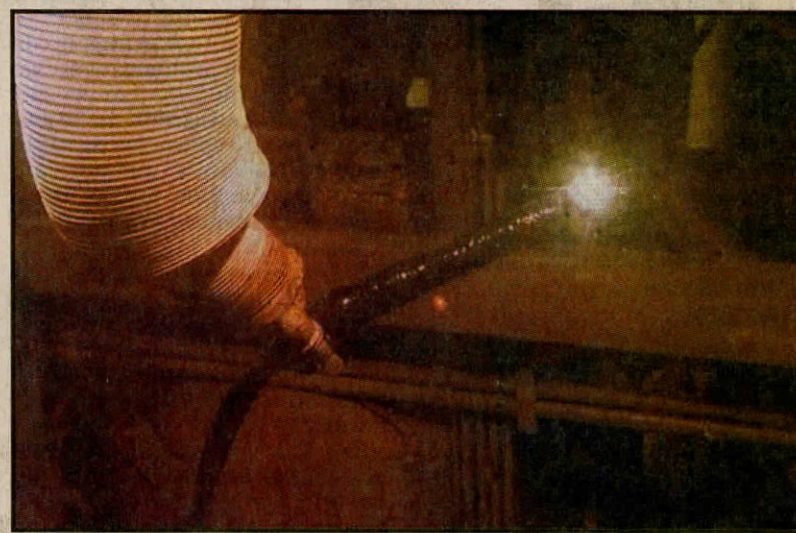
A burst of bright yellow light blanketed the window as the torch briefly cut a tiny bit of pipe.

Welcome to B Cell — a three-story, highly radioactive, concrete chamber tucked inside Hanford's 324 Building.

That's the first building northeast of the 300 Area's silver and highly visible experimental reactor dome — about 1 1/4 mile from Richland.

Maybe 2 million or more curies of radioactive dust, dirt and metal junk linger inside B Cell. By contrast, about 15 curies of radioactive iodine was released in the 1979 Three Mile Island reactor incident.

See **B Cell**, Page A2



An arc glows off the tip of a plasma cutting torch as seen through the layers of glass of an inspection window of the B Cell. The walls are nearly 4 feet of high-density concrete to block radiation.

Hanford study results to be discussed Thursday

Results of the Hanford Thyroid Disease Study will be discussed from 7 to 9 p.m. Thursday at the Doubletree Hotel, 802 George Washington Way, Richland.

The tentative meeting time announced last week now has been confirmed. The meeting is open to the public, but the meeting room can accommodate no more than 200 people.

Investigators from the Fred Hutchinson Cancer Research Center and the Centers for Disease Control will present findings. The study investigated whether there was an increased risk for thyroid disease among people exposed to releases of radioactive iodine from Hanford during the 1940s and 1950s.

1-27-98

Probe cites poor directions in tritium release

PNNL report says larger amount of gas leaked in Dec. 8 test

By John Stang
Herald staff writer

Poor directions from a supervisor caused a bigger-than-planned tritium gas release at Hanford's 300 Area in December, according to an internal investigation.

The release of 68 curies of tritium and tritium-laced water vapor came during a Dec. 8 test at Hanford's 325 Building when Pacific Northwest National Laboratory scientists were extracting tritium from reactor fuel.

According to a PNNL report on the incident released Tuesday, a supervisor directed a technician to open the wrong valve, resulting in the leak.

It was the year's second acci-

dental release at the building. On Aug. 26, a broken seal on some equipment sent 118 curies of tritium into the air. PNNL notified the state, then fixed the problem.

Tritium is a gas that is caught in a special trap. Building 325's tritium releases into the air are supposed to stay in the 5- to 10-curie range.

After the December incident, the Washington Department of Health ordered the tritium extraction work stopped until researchers provide assurances it won't happen again.

That stoppage remains in effect until PNNL provides more documents to the state, and enters into additional talks with the state, said Al Conklin, the state health department's manager for radioactive emissions.

The amount of released tritium posed no health nor environmental threat, Conklin said.

The tritium extraction tests in the 325 Building are to provide data to

help the Department of Energy analyze plans for modifying Tennessee Valley Authority reactors to produce tritium to boost the explosive power of atomic bombs.

The state health department permit for the 325 Building limits it to releasing 379 curies a year through 2000. The facility posted 305 curies released in 1998 — with most of the emissions coming in the two larger-than-expected bursts.

The recovery of the rest of the tritium trapped within the system resulted in less than five additional curies being released in late December, PNNL's report said.

But the state does not want to give a green light to full-fledged tritium extraction experiments until emissions concerns are resolved.

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

1-27-99

Hanford begins moving plutonium again at PFP

By John Stang
Herald staff writer

The movement of plutonium within the Plutonium Finishing Plant is cranking up after a two-year halt.

Now the question is: How much lost time can be made up?

Hanford officials plan to answer that question by April.

"The catch-up plan is now being worked on," said Larry Olguin, Fluor Daniel Hanford's project director for facilities transition.

Actually, the catch-up plan will have to address a 2½-year slip of the PFP's cleanup schedule.

The conversion of the PFP's 4.4 tons of scrap plutonium into safer forms originally was to be completed by May 2002.

But stricter federal standards about the final state of the neutralized plutonium added more months to the two-year slippage.

That puts the tentative completion date at December 2004.

Current planning efforts are

focused on making up as much of that lost time as possible, said Pete Knollmeyer, the Department of Energy's assistant facilities transition manager. He spoke at a Tuesday press conference on moving plutonium again within the PFP.

Some cautious movement actually began Jan. 15. But neutralizing the scrap plutonium gradually will build up in stages until work is going at full speed in six or seven weeks, Hanford officials said.

For two years, the PFP could not convert scrap Cold War plutonium into a safer, ceramiclike powder in small, ovenlike "muffle furnaces" in a process that resembles baking.

That halt was prompted by safety concerns.

In late 1996, B&W Hanford Co. — a subcontractor of Fluor — took over the plant from Westinghouse Hanford Co.

A series of plutonium handling mistakes in late 1996 and early 1997 led to the increased chances of a

1-16-99

Small fire extinguished inside Hanford's B Cell

Dripping molten metal started a small fire in a container inside B Cell — one of Hanford's most radioactive rooms — Sunday morning.

The fire was quickly put out. No one was injured, and no radiation escaped, according to Fluor Daniel Hanford.

B Cell is a three-story chamber inside southern Hanford's 324 Building that contains roughly 2 million curies of radioactivity. Fluor Daniel and B&W Hanford are cleaning up the chamber, which involves cutting the metal racks and equipment inside into pieces.

About 10:55 a.m. Sunday, a remote-controlled cutting torch was burning through metal equipment when molten metal fell into a container that held combustible items, Fluor said.

A worker used a remote-controlled spray device to shoot water onto the fire.

Thyroid study to continue

By Annette Cary
Herald staff writer

A proposed multimillion-dollar program to monitor 14,000 Hanford downwinders for thyroid problems still has support, despite the results of the Hanford Thyroid Disease Study released Thursday.

The study found no evidence thyroid disease increased because of

exposure to radioactive iodine released into the air above Hanford from 1944 to 1957.

Inside:

An extensive report on the results of the Hanford thyroid study. **Pages A10-A11.**

It's Your Call:

Are you satisfied with the results of the thyroid study? **Page A3.**

information and education about thyroid disease and screening, but those who wanted screening still could get the service.

"This is still a very important program," said Gregory Thomas, senior regional representative for the Agency for Toxic Substances and Disease Registry, which has called for the long-term monitoring.

The study drew national attention when it was made public Thursday in Richland. It compared thyroid disease rates among 3,441 people after estimating how much radioactive iodine they were exposed to as young children living downwind of Hanford. It compared those with estimated higher doses of radiation — mostly from counties around Hanford — to those with little or no exposure to radiation from Hanford.

The study was done by the Fred Hutchinson Cancer Research Center in Seattle with \$18 million from the Centers for Disease Control. The study was ordered by Congress

Study results

- No evidence was found that any kind of thyroid disease increased as a result of Hanford radiation exposure.
- Among the 3,441 study participants, 19 cases of thyroid cancer were found — but those cancers were not linked to higher estimated radiation doses.
- The overall death rate for those in the study was higher than for the state, but researchers said it is unlikely Hanford radiation was the cause.
- The study looked only at thyroid disease and does not answer whether Hanford radiation may have caused other health effects.

in 1988 after the Department of Energy released previously classified documents showing large amounts of radioactive iodine had been released from Hanford.

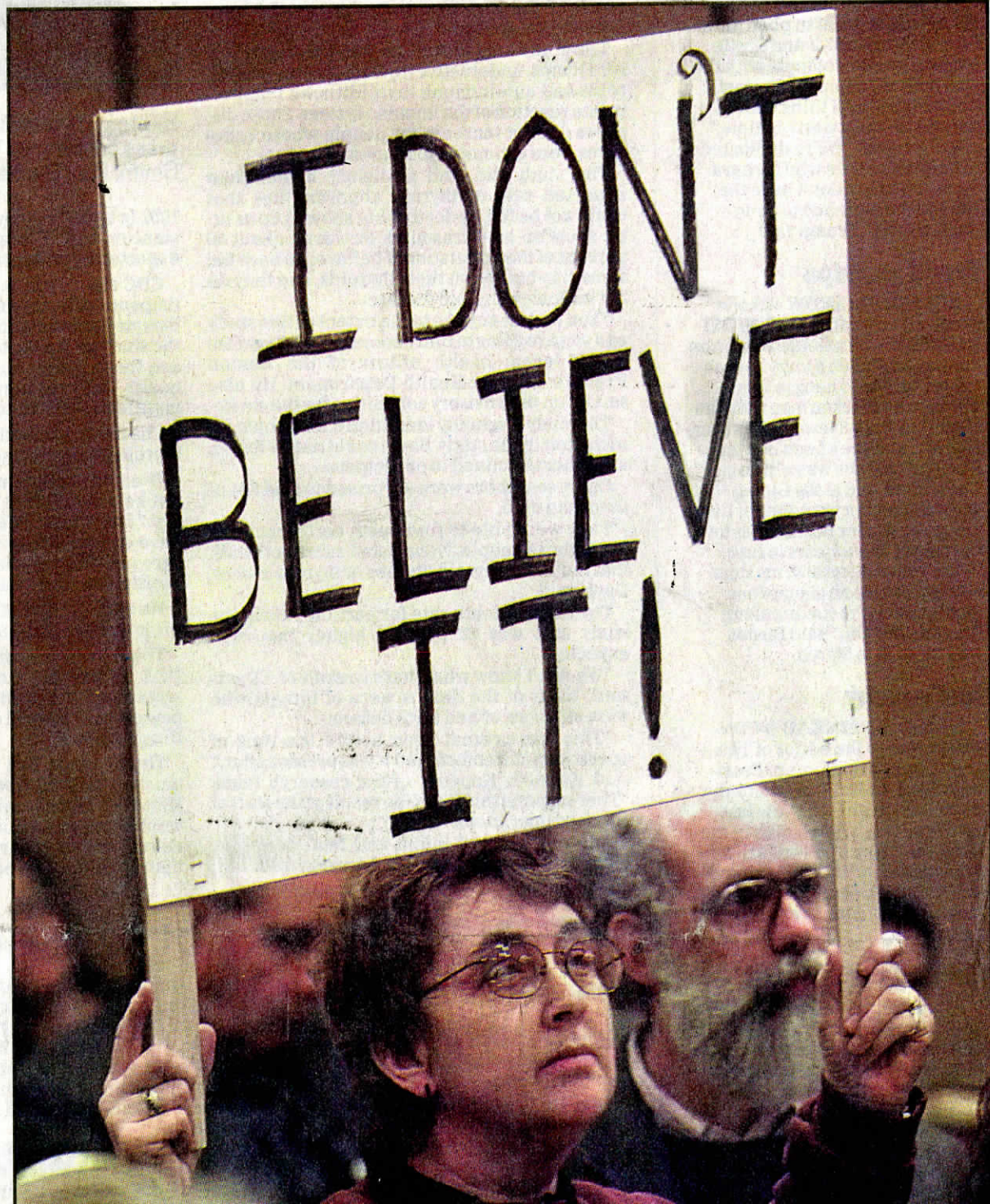
The radioactive iodine was blown by the wind over thousands of miles before falling to the ground. Some was consumed by people in fruits and vegetables or milk from cows that grazed on radioactive grass. Radioactive iodine is known to concentrate in the thyroid gland, posing a particular risk to the thyroids of young children.

"We looked at all types of thyroid disease and found no evidence that the number of cases was significantly elevated among those with higher (radioactive iodine) doses," said Scott Davis, principal investigator.

"No epidemiology study is capable of saying if an individual case of thyroid cancer was caused (by the fallout)," Davis said. "The purpose was to find out if there was an increased risk."

The study also didn't consider possible health consequences of releases of other types of radiation from Hanford into the air, ground and water, although radioactive

See **Thyroid**, Page A2



Of Concerns, Curries and Conclusions

Downwinders doubt study findings

By John Stang and Wendy Culverwell
Herald staff writers

Health officials expressed relief but downwinders were skeptical as researchers said Thursday that there's no evidence linking Hanford radiation emissions with thyroid disease.

Roy Haber, a Eugene, Ore., attorney who represents about 800 downwinders who have sued alleging their health problems stem from Hanford releases, wondered why only 19 cases of thyroid cancer were found among the 3,441 people involved in the study. Of the 19, five never lived in the study area.

"I'm initially shocked they only showed 19 with the clients we have. I would guess we have a good 150 thyroid cases," he said.

Richard Eymann, a Spokane attorney representing another group of downwinders, said the study was flawed, both in the assumptions made about radiation doses and in its scope.

"I'm stunned they spent \$18 million comparing only four counties to three counties in the same state," Eymann said, referring to the Mid-Columbia study counties and the three control

group counties in northern Washington.

The study is good news for the former Hanford contractors being sued in the downwinder cases, said Kevin Van Wart of Chicago, lead defense attorney in the suit until the mid-1980s.

"This study is now the definitive study and defeats the (plaintiffs') claims ... I think it is the end of the road," he said.

Not so, said Kay Sutherland, 58, a Walla Walla

the largest releases occurred and therefore at the greatest risk.

Dr. Maxine Hayes, acting state health officer, said the results were good news because the study indicates people weren't sickened by the releases.

"That's tremendously good news," she said, though she understands some people will be disappointed or even skeptical of the conclusion.

"I know this is still going to leave a lot of questions in people's minds," she acknowledged.

Dr. Larry Jecha, health officer of the Benton Franklin District Health Department, wasn't surprised by the results.

"Talking to physicians in the community, they are not seeing large numbers of thyroid cancer," he said. "I do feel it was a good study."

Ron Kathren, a professor at Washington State University at Tri-Cities and past president of the American Health Physics Society, praised the Fred Hutchinson researchers after reviewing a draft of the final report on the Internet.

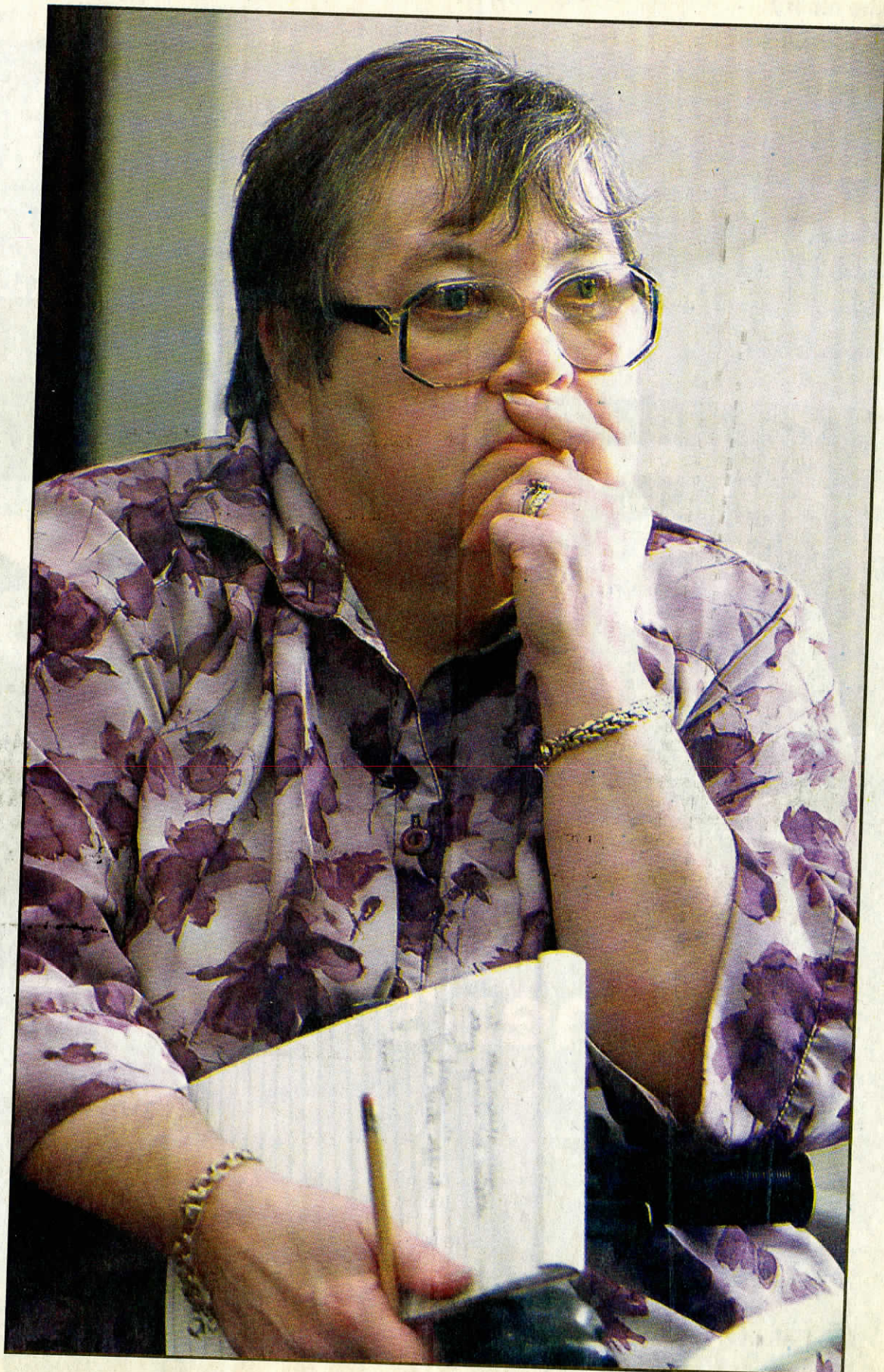
"I just think that this is a high-quality study," he said. "They went far beyond what one might do with a normal epidemiological study."

Kathren said downwinders should be relieved no evidence was found to link Hanford releases to increased thyroid diseases.

"This should bring relief to people who might have worried," he said.

Jennifer Scott, a spokeswoman for Rep. Doc Hastings, R-Wash., said he was pleased to learn the study found no risk of thyroid disease for Hanford downwinders.

Lynne Stembridge, chairwoman of the Hanford Health Effects Subcommittee and director of the Hanford Education Action League, cautioned



Kay Sutherland, 58, of Walla Walla listens intently as panelists reveal their findings Thursday afternoon in the Hanford thyroid disease study in Richland. She describes herself as "an outspoken

Herald/Bob Brawdy

1944-1951:

727,900 curies of radioactive iodine released

By John Stag
Herald staff writer

It was the great roundup of 1946. Soldiers and health technicians hopped in jeeps and secretly roped sheep and cattle grazing near Hanford.

Then, they pressed Geiger counters to the animals' thyroids to check for the presence of radioactive iodine 131.

The roundup was ordered by the late Herbert Parier—a formal and aloof English radiologist who was Hanford's first chief of health and safety.

Parker fretted about the huge clouds of iodine 131 as spewing from the stacks of central Hanford's B Plant and T Plant—where plutonium was chemically extracted from nuclear fuel rods.

Parker knew iodine 131 affected thyroid glands. But he didn't know what amounts were unsafe for people. It was a problem he kept trying to calculate.

He and other scientists had struggled for years to find out how iodine 131—which loses half its radioactivity every eight days—enters human bodies.

Early on, they believed iodine and other radionuclides settled on vegetation that birds and animals ate. And they noted hunters ate game animals.

In the late 1940s, technicians stalked rabbits, coyotes and birds to find excessive amounts of iodine 131 in their thyroids, according to *On The Home Front*, a Hanford history book written by long-time site historian Michele Gerber.

For decades, the government kept secret any speculation about the risks of radioactive iodine to folks downwind from the plutonium plants. The official word was Hanford's neighbors had nothing to worry about.

But in the government-owned town of Richland, home to most of Hanford's workers, there were some curious rules that seem aimed at preventing iodine 131 from moving through the food chain, Gerber noted.

Chickens and livestock were banned, and Richland pasture land was off limits for grazing. The government constantly was testing the milk and water.

Richland's milk supply came from the Yakima and Ellensburg areas—upwind of Hanford. Hanford officials often cautioned Richlanders

Much about the Green Run still is classified, but numerous clues indicate

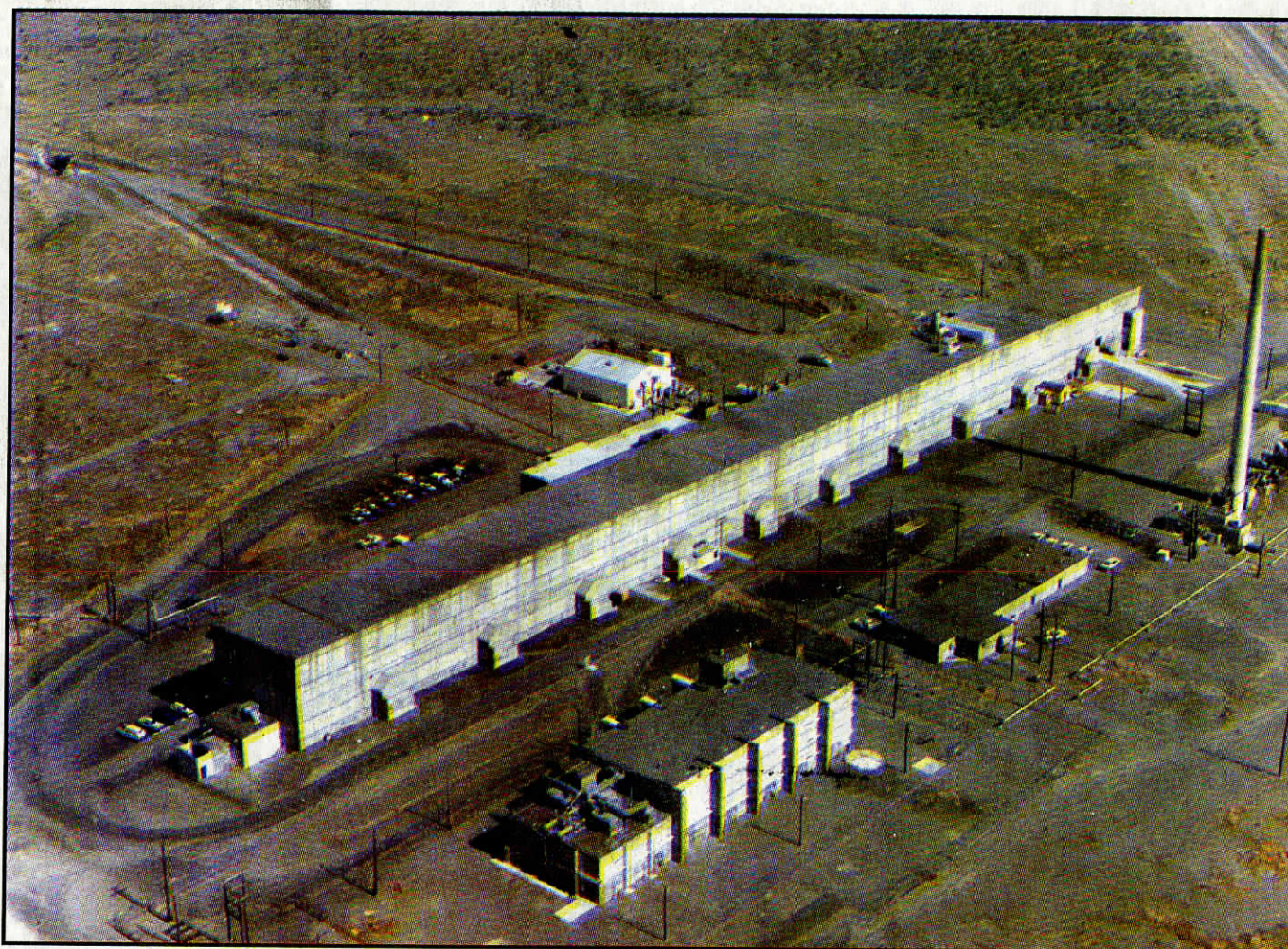


Photo courtesy of the Department of Energy

Hanford's T Plant was the origin of a 1949 intentional release of radioactive iodine 131. The release was dubbed the Green Run because it involved processing spent nuclear fuel that still was "green" because it had not been left to cool for as long as normal.

The wall of secrecy surrounding Hanford began to crumble as the Cold War drew to a close in the late 1980s. Among the thousands of pages of declassified documents was an account of the so-called Green Run of 1949.

In terms of radiation dose, the Green Run's 8,000-curie release pales in comparison with the years of routine emissions. But the federal government's decision to use the Northwest as an outdoor laboratory for radiation experiments still rankles many.

Much about the Green Run still is classified, but numerous clues indicate

1,000 times the limit set at that time.

In 1950, special filters were put on the processing plants' smokestacks to capture iodine. Emissions dropped to a fraction of previous counts.

But Hanford had an accidental release of 15,000 curies over several weeks in 1951 when the filters failed.

Meanwhile, scientists kept researching iodine 131's health effects.

They fed iodine 131 pellets to sheep kept at a facility near Hanford's F Reactor in 1950 and 1951 and did autopsies on the carcasses. The then-classified study showed thyroid damage and changes in blood and hormone levels in

milk and subsequently in human thyroids after atomic bomb tests in Nevada, Gerber said. She believes the AEC was certain about the connection prior to that publication.

However, it was not until the mid-1980s that public questions and concerns about Hanford radiation releases and people's health gained major momentum.

That was spearheaded by newspaper articles on "downwinders" and a massive 1986 release of 19,000 pages of previously classified documents that included information on iodine and thyroids.

— Iodine release history —

■ **1942** — The isotope iodine 131 is discovered and almost immediately is used to slow extremely active thyroids.

■ **1943** — The Manhattan Project creates the super-secret Hanford site to build reactors to create plutonium for the first atomic bombs.

■ **1944** — Hanford begins producing plutonium. The first radioactive releases go into the air, river and soil.

■ **1945** — Hanford's plutonium is used in the first atomic bomb exploded in New Mexico and in the one that destroyed Nagasaki, Japan. By now, Hanford's B Plant and T Plant have released about 557,000 curies of iodine 131 into the air. Hanford begins years of pondering potential health effects of exposure to iodine 131.

■ **1946** — The Atomic Energy Act is passed. The act allows the Atomic Energy Commission and its eventual successor, the Department of Energy, to operate nuclear weapons materials plants without independent oversight.

■ **1947** — Hanford begins building more reactors and processing plants for the Cold War.

■ **1948** — Hanford decides not to allow farming to return to the Wahluke Slope because of concerns about airborne radionuclides falling there. The Atomic Energy Commission has several studies under way on iodine 131's effects on thyroids.

■ **1949** — T Plant intentionally releases almost 8,000 curies of iodine 131 in the secret "Green Run"—allegedly to learn how to track radioactive clues from Soviet atomic bomb production.

■ **1950** — Filters are put on processing plants' stacks to reduce emissions of iodine 131 and other airborne radionuclides.

■ **1951** — The iodine filters fail at the processing plants. About 15,000 curies of iodine 131 are secretly released before the filters are replaced. By now, Hanford has released almost 730,000 curies of iodine 131 since 1944. After this, Hanford's iodine 131 emissions plummet.

■ **1957** — The Windscale No.1 reactor in northwestern England overheats and excessive radionuclides, including iodine 131, escape from its stacks. Within 24 hours, excessive iodine 131 is

1-30-99

2 DOE officials leaving for East Coast jobs

By John Stang
Herald staff writer

Two senior Department of Energy officials are to leave Hanford soon for new posts in the East.

Alice Murphy, chief financial officer, will move to DOE's Federal Energy Technology Center in Morgantown, W.Va., in early March where she will be involved in planning how to market fossil fuel technologies.

Also, Charles Hansen, assistant manager for waste management, will head to Savannah River in late February to become that site's assistant manager for materials and facilities stabilization.

No decisions have been made on their replacements. Both said their decisions to move were influenced partly by a desire to be closer to family members.

Murphy, a graduate of the University of Tennessee with a master's degree from the University of Bristol, has been with DOE and its predecessor agencies since 1974, serving in various locations and offices.

She moved to Hanford from DOE's Ohio Field Office in 1995.

"I'll miss the community, the dedicated workers and the challenges of Hanford," Murphy said.

Hansen, a graduate of Tufts University, did a stint in the U.S. Navy's nuclear service before joining the Atomic Energy Commission — which later evolved into DOE — in 1972.

He was in charge of submarine reactor refueling and overhaul operations at the Charleston Naval Shipyard for several years. Then he joined the Electric Boat Division of General Dynamics, where he managed the design of

nuclear submarine reactor propulsion plants and the building and testing of submarines.

In 1987, Hansen joined Babcock & Wilcox.

He moved to Hanford in 1995 to be assistant manager for waste management, which included supervising the setting up of a liquid effluent treatment plant and the Waste Receiving and Packaging facility.

He also took over managing the removal of 2,300 tons of spent nuclear fuel from the K Basins to a vault in central Hanford.

At Savannah River, Hansen will be in charge of plutonium stabilization efforts and a chemical processing plant similar to Hanford's old "canyon" buildings.

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Sunday, Jan. 31, 1999

Benton eyes PILT money for school debts

By Kim Bradford
Herald Western Washington bureau

OLYMPIA — Benton County officials are hoping to get the go-ahead to use \$4.5 million to pay for school construction debts, a move that could save county taxpayers some money.

At Benton County's request, state lawmakers are considering measures that would authorize the distribution of the money, which was part of a 1996 settlement in the county's longstanding battle with the Department of Energy over property taxes.

That money, called payment in lieu of taxes, or PILT, is compensation for taxes lost when

the federal government took Hanford lands off the tax rolls.

Most of that settlement was distributed to schools and other taxing districts. But Benton County officials have held onto money that was meant to replace taxes earmarked for the state's school fund.

County Treasurer Darwin Parker worked for a year and a half to find a way to keep the money in the county. The result is Senate Bill 5567 and House Bill 1585, which would give Benton County the authority it needs to distribute the money to schools.

The legislation has the support of the Benton County delegation as well as a few key Democrats. It also is one of four measures

that have the backing this year of the Washington State Association of County Treasurers.

If approved, the proposal would allow the release of about \$4.5 million this year to six school districts, as well as continuing distributions of an estimated \$500,000 a year.

The money would be divided among the school districts based on their share of the county's property values.

Rich Semler, Richland School District superintendent, said the extra money would mean a small savings for the district's taxpayers. It would be used to help pay off the district's \$32 million in existing construction debt, payments that would otherwise come

from tax dollars.

"As a house owner, it's going to be a small decrease because the savings are absorbed among all the people and businesses in the district," Semler said. "Still, every dollar counts."

The Senate's budget writer, Sen. Valoria Loveland of Pasco, supports Benton County's effort, but said it faces one hurdle: Lawmakers will have to count the PILT money as a loss in the state budget if it goes to school districts.

■ Reporter Kim Bradford can be reached in Olympia at 360-753-0862 or via e-mail at kbradford@thurston.com

Cleanup budget for 2000 up \$70 million

By John Stang and Les Blumenthal
Herald staff writers

The Department of Energy is requesting a bigger cleanup budget for Hanford in fiscal 2000 — but it still is \$23 million short of what is needed to meet that year's Tri-Party Agreement obligations.

On Monday, DOE officials in Washington, D.C., and Richland unveiled the agency's fiscal 2000 budget request to Congress.

DOE's cleanup budget request for Hanford is \$1.17 billion, which is \$70 million more than Hanford's 1999 cleanup budget.

DOE's nationwide cleanup budget would grow from roughly \$5.6 billion in 1999 to about \$5.7 billion for fiscal 2000, which begins Oct. 1, 1999.

"This increase demonstrates our commitment to safety, accelerating cleanup and reducing the ultimate cost to the taxpayers while meeting our cleanup milestones. We

need to do more, and this budget reflects our commitment," said Energy Secretary Bill Richardson.

The budget request would somewhat keep Hanford's cleanup on the same pace as in 1999.

That means the cocooning of two defunct Hanford reactors will continue slowly.

And the Fast Flux Test Facility likely will need extra money once DOE decides whether to shut it down or study reviving it.

And in another budget niche, DOE is asking Congress to set aside \$106 million to eventually pay BNFL Inc. to convert Hanford's liquid tank wastes into glass. That is significantly less than set-aside requests in previous years.

U.S. Rep. Doc Hastings, R-Wash., was optimistic DOE's cleanup budget request will fare well as it goes through Congress — which usually trims the request each year.

"I anticipate widespread support for the

department's request, and I'm prepared to make the case in the House that this funding is essential for keeping cleanup on track," Hastings said.

Highlights of DOE's budget request include:

■ **The \$23 million shortfall.**

When DOE officials crunched budget figures in mid-1998, they predicted the 2000

See **Cleanup**, Page A2

2-5-99

Hanford water leak found, plugged

By the Herald staff

The water line from the Columbia River to Hanford's 200 West area ruptured at noon Thursday.

The leak was found quickly and plugged, but it will take about two days to finish repairs, according to

Fluor Daniel Hanford.

The line supplies water for drinking and fire protection to the area. The break did not pose any risk to Hanford workers or the public, Fluor officials said, and does not affect the fire protection system.

2-6-99

Hanford workshops focus on public input

Workshops on ways to increase public participation in decisions about Hanford cleanup are scheduled this year in Richland, Seattle, Spokane and Portland.

The workshops are sponsored by several Hanford-related agencies and interests, plus the University of Washington Consortium for Risk Evaluation.

Plans call for meetings:

■ Feb. 10 in Richland to review previous workshops and plan for the 1999 sessions.

■ April 8-9 in Seattle to address access to documents and other subjects.

■ June 2 in Spokane to discuss tribal concerns.

■ Sept. 24 in Portland to review this year's efforts.

Each workshop will be from 9 a.m. to 4:30 p.m., with public comment periods scheduled at 11:45 a.m. and 4:15 p.m.

For information, call 206-616-3719 or 509-376-6216. The Web site at www.hanford.gov/boards/openness/index.htm also offers more information.

Budget request could hamper Hanford cleanup effort

EPA says top priority not being addressed

By John Stang
Herald staff writer

Some Hanford cleanup milestones appear endangered by shortfalls in the Department of Energy's Hanford budget request to Congress for fiscal 2000.

The endangered milestones address studying and cleaning up contaminants in the soils and aquifer in central Hanford.

This bothers the U.S. Environmental Protection Agency because Energy Undersecretary Ernest Moniz declared in early 1998 that dealing with ground water contamination should be a top priority, said Doug Sherwood, EPA's Hanford site manager.

The EPA, the state Department of Ecology and DOE are partners in what's called the Tri-Party Agreement, which governs cleanup scheduling and operations for Hanford.

The dilemma over missing the milestones surfaced last week when the DOE unveiled its \$1.17 billion Hanford cleanup budget request, which was \$23 million short of the agreement's obligations.

The problem puts a major wrinkle in DOE and Bechtel Hanford Inc. efforts to draft a master plan for handling Hanford's underground contamination.

The pending budget shortfall is expected to affect work at central Hanford's 200 Area, which is crammed with underground tanks, trenches, old ponds and cribs where radioactive and chemical wastes were dumped and stored.

The 200 Area also is the source of most of the 440 billion gallons of diluted wastes and more than 1 million gallons of concentrated highly radioactive wastes that are in Hanford's soils or aquifer.

The Tri-Party Agreement calls for sampling and analyzing about 750 waste sites by 2008. These are split among 23 groups of sites.

The sampling and analysis of the first three groups of old ponds, trenches and cribs along the periphery of the 200 Area are supposed to begin in 2000.

The cost in 2000 is \$11.7 million — slightly more than half of the \$23 million shortfall.

But that \$11.7 million is not in the DOE budget request.

Rich Holten, the DOE official in charge of the planning, said that's because:

- Cleanup dollars are limited. And when DOE had to choose which projects to fund, the 200 Area analysis was edged out by higher priority projects.

- The fiscal 2000 budget numbers were mostly crunched before Hanford's draft master plan on subterranean contamination was completed in late December. And public comments are being taken on that draft until March 12.

The budget requirements to sample and analyze all 23 groups are expected to increase steadily and significantly from now through 2008, Holten said.

That's because the samplings and analyses will move from the edges of the 200 Area to the more polluted and more complicated plumes inside the 200 Area.

Sherwood is concerned about this project catching up later if it is not funded now.

Holten echoed that worry. "There's a real concern in our organization about meeting the 2008 milestone," he said.

Sherwood said not funding this work is not acceptable to the EPA.

"We are not going to agree on any changes solely based on funding. This is work that has to be done. DOE simply decided not to fund it. That's not one of the accepted practices in our agreement," he said.

Holten said DOE plans to meet soon with the EPA and the state Department of Ecology on the issue.

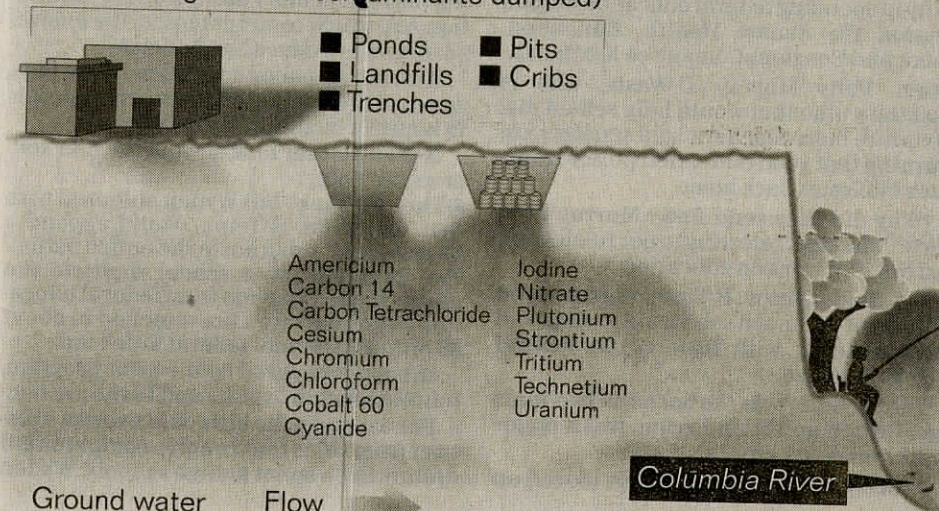
Possible solutions include shifting some cleanup priorities or reallocating money.

Meanwhile, another Tri-Party Agreement obligation appears not to be funded for 2000.

That is the need to drill an estimated 10 to 15 new monitoring wells annually for the next few years — a project that could cost \$2 million to \$3 million a year, said Mike Thompson, the DOE official in charge of ground water monitoring.

Contaminants poured into 200 Area soils

(440 billion gallons of contaminants dumped)



Herald/Sherry Emery

When Hanford dumped 440 billion gallons of polluted water in the ground, those massive volumes created two underground "mounds" of water bulging above the aquifer under the 200 Area.

But when Hanford quit dumping polluted water in the early 1990s, those mounds began to shrink.

That changed the dynamics of how water flows underground at Hanford.

DOE is supposed to put in deeper monitoring wells at new locations to track the shifting flows, according to the Tri-Party Agreement. But no money has been earmarked for this in 2000.

When DOE and Bechtel drafted their master plan on how to deal with subterranean contamination, it assumed there would be no budget constraints and an estimated \$89 million worth of work could be done in 2000, more than double DOE's fiscal 2000 budget request of \$40.1 million.

Again, Holten said, the draft plan materi-

alized after the fiscal 2000 budget proposal was mostly nailed down. Also, the draft has to be studied and changed to reflect a more realistic, budget-constrained plan, he said.

The \$40.1 million has been earmarked for ground water and surface water monitoring, pumping and treating polluted water, coordination issues, reviews by outside scientists and the public, some analysis of pollutants beneath the underground waste tanks and initial studies on what to do with low-level radioactive wastes that will be solidified in the next decade by BNFL Inc.

Proposed projects not making the cut

included the 200 Area sampling and analyses, filling in no-longer-needed monitoring wells extra analysis of pollutants beneath the tanks, and computer analyses and lab experiments to understand how subterranean contaminants flow.

Hanford officials hope to find some money outside of DOE's cleanup funds to pay for some lab and computer analyses.

The difference between the draft plan's wishes and budget reality caught the attention of a special panel of eight outside experts whose purpose is to double-check and advise the master planning efforts.

At a meeting last week in Richland, the panel praised the draft plan's top priorities of dealing with seeping tank wastes.

But the panel also believes Hanford needs a backup plan to tackle subterranean contamination if funding falls short, said panel chairman Edgar Berkey, vice president of Concurrent Technologies Corp. in Pennsylvania and a member of several federal science and environmental advisory boards.

Holten and Mike Graham, Bechtel's project manager, agreed a backup plan should be looked at. But they said first more information has to be gathered, studied and discussed.

"Our project needs to mature a bit before we can discuss a contingency plan," Graham said.

Berkey also said Hanford's ability to assess the environmental risks from the contaminants "is way behind schedule," although it's hard to say how far behind.

"They've got to get on this job really quick," Berkey said.

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

Budget shortfall means barrels may stay in trenches

By John Stang
Herald staff writer

The Tri-Party Agreement deadline to begin removing barrels of radioactive junk from Hanford's trenches appears to be in trouble.

The Department of Energy's proposed budget for fiscal 2000 requests \$1.17 billion, which is estimated to be \$23 million short of meeting the site's legal cleanup obligations.

Of that shortfall, \$4 million would go for removal of barrels of transuranic wastes from 200 Area trenches.

They eventually would be shipped to the Waste Isolation Pilot Project (WIPP), a huge underground storage site in New Mexico.

Transuranic wastes are radioactive junk such as tools, clothes and miscellaneous items.

About 3,000 barrels of Hanford's 100,000 barrels are stored above ground in buildings.

The remainder is buried in trenches.

The first major retrieval from the trenches is due by September 2000.

The transuranic wastes don't pose as urgent a threat as other Hanford problems — such as tank

wastes, spent nuclear fuel and plutonium needing neutralizing at the Plutonium Finishing Plant, said Jay Augustenborg, DOE's deputy assistant manager for waste operations.

In addition, although Hanford is scheduled to ship its first barrels of transuranic wastes to New Mexico by October 1999, DOE is not sure when the actual opening of WIPP will occur, he said.

And when WIPP opens, Hanford will have to wait its turn behind a few other DOE sites before shipping out its barrels, he said.

The 3,000 above-ground barrels should be enough to keep shipments rolling to WIPP into 2001.

But the question remains whether delaying retrieval of the buried barrels to 2001 or beyond will create a gap in shipments to WIPP, Augustenborg said.

"We don't have a clear picture on the 2001 budget. ... We can recover, but recovery is dependent on what we get in 2001," he said.

The deadline for the last barrel to leave Hanford is 2033.

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

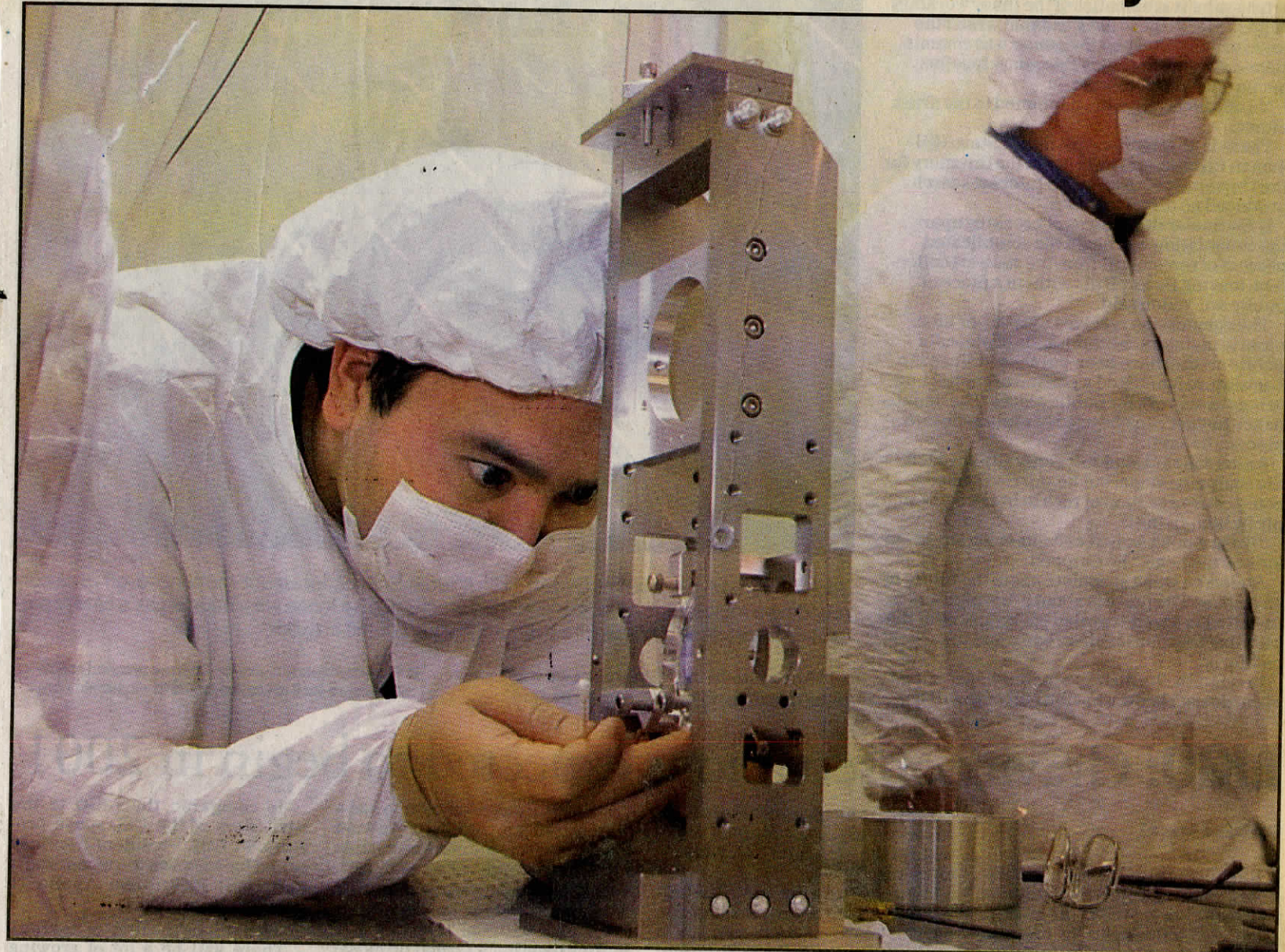
FFTF isotope mission discussion Wednesday

Using Hanford's Fast Flux Test Facility to research and produce medical isotopes is to be discussed Wednesday at a meeting of a new group forming to promote medical isotope industries.

Also, Dr. Richard Giever of the Tri-Cities Cancer Center is to discuss a medical isotope treatment center.

The meeting is to begin at 3 p.m. at the Neil F. Lampson Building, 607 E. Columbia Drive, Kennewick. For more information, call 544-0404.

LIGO gearing up to test Einstein's theory



Herald/Chris Thelen

Malik Rakhmanor, a California Technical Institute graduate student, concentrates closely on the installation of a tiny mirror in a dust-free tent at the Laser Interferometer Gravitational-Wave Observatory in Hanford as project director and physicist, Fred Raab, walks by.

Giant instrument takes delicate preparation

By John Stang
Herald staff writer

In the end, the twin tunnels, each 9 feet tall and about 13,000 feet long, will depend on a set of mirrors, none larger than a dinner plate.

Yet these mirrors, tiny as they are in the immense scale of the Laser Interferometer Gravitational-Wave Observatory, or LIGO, are the heart of a multimillion-dollar research project going up in southern Hanford's sagebrush.

The tunnels are so long, you can stand at one end and lose sight of the other beyond the horizon. The biggest mirror is a mere 10 inches in diameter, and most are smaller.

When the LIGO cranks up in 2001, its purpose will be to probe hundreds, thousands of light years away — theoretically to the edge of our expanding universe as we think we know it.

The object of this cosmic search is to find and

analyze gravity waves from deep outer space. Physics theory predicts such waves, but no one ever has found physical evidence of them.

That's not surprising. The waves are so faint compared with the normal earthly hubbub that trying to detect them is a little like listening for a butterfly's flutter at a heavy metal rock concert.

LIGO's two tunnels meet in a 90-degree "V" in a giant room that looks like a movie set for Jules Verne's *20,000 Leagues Under The Sea*.

The room holds a complicated network of 15-foot-tall, spherical metal chambers and big connecting tubes that dwarf the people working on them.

Laser beams are tweaked, split and purified in the main LIGO room's tubes and chambers before they're sent down the two, 2½-mile tunnels to bounce off the series of mirrors.

A few of the mirrors are where gravity waves are supposed to be caught — sort of like micro-

phones capturing sound waves that jiggle them in infinitesimally tiny ways.

Infinitesimally — as in one ten-trillionth the diameter of a human hair.

And that brings us to the small lab in the LIGO complex where the mirrors are prepared and checked.

Ultimately, ultra-thin piano wires will be attached to the mirrors with glue and tiny magnets. The mirrors then will be hung within vacuum chambers where the lasers will strike them to measure the smallest movements, including those infinitesimal motions theoretically caused by gravity waves.

The trick is to balance everything just right, said Malik Rakhmanor, a California Institute of Technology graduate student working on preparing the mirrors.

Get Involved in Hanford Cleanup Decisions!

Public Comment Sought On Draft State Waste Discharge Permit for Hanford Wastewater Discharge

The United States Department of Energy (USDOE) has agreed to seek State Waste Discharge permits from the state of Washington as part of an overall effort to reduce or eliminate the discharge of wastewater to the ground at Hanford. A new draft permit has recently been developed by the state Department of Ecology based on an application submitted by USDOE, and covers stormwater discharges to land on the Hanford Site. These discharges include stormwater collected in engineered structures or on impervious surfaces and then discharged to engineered land disposal structures.

How you can get involved

A 30-day public comment period will begin on February 8, 1999 and end on March 9, 1999. Ecology will hold a public hearing on this issue only if one is requested during the comment period.

For more information, to submit written comments, to view the draft permit, or to request a hearing, contact Dave Dougherty, Department of Ecology, Nuclear Waste Program, 1315 W. 4th Ave., Kennewick, WA 99336-6018, (509) 736-3047.

Information available:

The draft permit and related information also be read and copied at the Hanford Information Repository:

WSU, Tri-Cities
USDOE Public Reading Room
Consolidated Information Center
Rm 101 L
Richland, WA
(509) 372-7443

All information in the repository plus all data submitted by the applicant may be reviewed at the Hanford administrative record:

2440 Stevens Center Place
Suite 101
Richland, WA
9 a.m.-noon, 1-3:30 p.m.
(509) 376-2530



If you have a special accommodation needs, please contact Tammie McClure at (360) 407-7126 (Voice) or (360) 407-6206 (TDD).

2-9-99

Top of her class

PNNL scientist reaps new honors

By Annette Cary
Herald staff writer

Before Mari "Lou" Balmer of Pacific Northwest National Laboratory met Vice President Al Gore at a reception at his home, she read his book.

She knew she'd have just a minute to talk to him, so she wanted to use the time well.

Eighteen months later, she's heading back to Washington, D.C. — this time, to be honored at the White House.

In November, the 33-year-old woman received the Energy Research Young Scientist Award from the Department of Energy. That put her in line to receive Wednesday one of 60 Presidential Early Career Awards for Scientists and Engineers.

Balmer is being honored for discoveries she's made in alleviating auto exhaust pollution and for separating radioactive waste so it can be cleaned up.

President Clinton was to be at the reception to honor the scientists. But after several postponements to find a date he could attend, officials are going ahead without him.

Balmer's parents, who live on the East Coast, plan to meet her on this trip to Washington, D.C. They're thrilled with her success. Neither graduated from college, but Balmer went on to get a doctorate.

"If you'd asked me in high school if I'd be a scientist, I probably would have said no," Balmer said. "I had not thought about it. There were no role models in the family or close by."



Herald/Paul T. Erickson

Mari "Lou" Balmer, a senior research scientist for Pacific Northwest National Laboratory, holds containers of metal nitrate solutions that are components of a research project she is working on

But she liked chemistry class in high school in Lancaster, Pa. Her physics teacher singled her out, telling her she was talented and should consider a science career. "That planted the seed," she said.

She enrolled at Penn State for her bachelor's degree and became interested in the college's ceramics science and engineering program. She was fascinated by the use of ceramics to insulate space shuttles so they can re-enter the atmosphere without burning up.

She still likes to demonstrate for students space shuttle tiles, which remain cool in her hand even when a torch is held to the other side.

Balmer used her bachelor's degree to get a job at the National

Institutes of Standards and Technology in Maryland. But she quickly discovered she would need a doctorate to do the work she wanted.

"I was kind of a technician, but my boss would let me go to conferences" to hear about new research, she said. "My boss was generous and let me take the initiative and do research on my own."

Two years later, she enrolled in the fledgling materials program at the University of California at Santa Barbara, a program some now consider the best in the nation.

She joined the Richland laboratory in 1993 and was eligible for the presidential award for the work she did in her first five years after graduate school there.

to lower emissions in car exhaust, Balmer will be honored Wednesday with the Presidential Early Career Award for Scientists and Engineers in Washington, D.C.

At PNNL, she headed research that developed a new way to contain radioactive cesium in the Hanford waste tanks heating an ion exchanger. The chunk of ceramic that results should hold the radioactive material securely when the waste is permanently stored.

Balmer and her research team in the lab's materials and chemical sciences program hold a patent on the material.

She's also expecting another patent for her work with other researchers at the new Environmental Molecular Sciences Laboratory (EMSL) for General Motors, Ford and Chrysler to reduce emissions from their cars. They are developing technology that will

make diesel engines practical for soccer moms.

Diesel engines have "had the reputation for being stinky and dirty in the past," Balmer said. But they release less of the carbon dioxide linked to global warming than gasoline engines.

With 55 percent of sales in the United States being trucks, vans and sport utility vehicles, Detroit's interested in improving emission standards by using diesel engines in those.

Balmer is working to reduce diesel engine emissions of nitrogen oxides, which cause smog and acid rain.

METRO/NORTHWEST

U.S., Kazakhstan eye biotechnical plan

By John Stang
Herald staff writer

Call it turning swords into plowshares.

More precisely, it's an effort to take biological warfare experts and train them to make vaccines, antibiotics and agricultural biochemicals.

The nation doing this is Kazakhstan — the biggest of the central Asian countries created by the Soviet Union's breakup.

The question is whether the technological and commercial hurdles can be crossed to make these viable ventures.

A handful of officials from institutions belonging to the National Center of Biotechnology of the Republic of Kazakhstan came to

Pacific Northwest National Laboratory this week to explore the possibilities. The Kazakhstanis are building up biotechnological ventures in three cities — Stepnogorsk, Gvardeysk and Almaty — to replace the defunct biological warfare plants near those cities.

The effort is sponsored by the Department of Energy's Initiative for Proliferation Prevention, a program aimed at converting biological, chemical and nuclear warfare sites to peacetime uses.

Ten federal labs are in the program, which has received \$114 million. About \$9 million has gone to PNNL since late 1996, including \$1.8 million this year.

PNNL is helping Kazakhstan figure out which new endeavors might be economically viable, said Patricia Godoy-Kain, PNNL's program manager for the project. This includes preliminary marketing research and contacts with U.S. companies.

After that, the program will tackle more extensive market research, prototype tests and seeking U.S. companies as partners.

PNNL and Kazakhstan are looking at collaborating on five projects:

■ Developing a product that when applied to plants can give a farmer early warning of plant problems.

■ Developing a vaccine to cope with hepatitis C, which most likely is transmitted through blood transfusions. There currently is no vaccine for hepatitis C, which ranks just behind HIV as the most troublesome disease worldwide, said Vladimir Berезin, director of Kazakhstan's Institute of Microbiology and Virology.

■ Creating a product that when applied to plants can give a farmer early warning of plant problems.

■ Developing a vaccine to cope with hepatitis C, which most likely is transmitted through blood transfusions. There currently is no vaccine for hepatitis C, which ranks just behind HIV as the most troublesome disease worldwide, said Vladimir Berезin, director of Kazakhstan's Institute of Microbiology and Virology.

■ Developing a fungus to create higher yields of beta-carotene. This is an ingredient in Vitamin A for humans and feed for animals. It's also used in food coloring, and it has potential for cardiovascular treatments.

■ Refining the making of roseofungini, an antibiotic capable of

fighting several types of microbes, plus herpes.

■ Developing a product to help plants extract excessive iron from the soil.

■ Creating a product that when applied to plants can give a farmer early warning of plant problems.

■ Developing a vaccine to cope with hepatitis C, which most likely is transmitted through blood transfusions. There currently is no vaccine for hepatitis C, which ranks just behind HIV as the most troublesome disease worldwide, said Vladimir Berезin, director of Kazakhstan's Institute of Microbiology and Virology.

■ Reporter John Stang can be reached at 562-1517 or via e-mail at jstang@tricityherald.com

NRC increases its allowable radiation standards

By John Stang

Herald staff writer

The Nuclear Regulatory Commission recently bumped its cleanup standards from an annual radiation dose of 15 millirems to 25 millirems.

The immediate effect on Hanford is nil.

But the change has started a ripple effect that in two years might lead Washington state to consider nailing down additional legal cleanup standards along the Columbia River at Hanford.

State and federal regulators briefed about 75 people on the subject Wednesday in Kennewick.

The situation is as follows.

Currently, the state Department of Health

and the U.S. Environmental Protection Agency holds the Department of Energy to a 15-millirem cleanup standard.

But that is just a guideline, because setting a concrete regulation requires a cost-benefit analysis. And a cost-benefit analysis on Hanford contamination standards is too difficult to do at this time, said state and federal officials. Meanwhile, the state Department of Ecology uses the state Model Toxics Control Act standard of limiting the risk to creating one extra case of one cancer per 100,000 people exposed. The state's legal standard on allowable millirems is unclear. Millirem is a measure of radiation dose that a human would absorb.

The NRC increased its exposure standard from 15 millirems to 25 millirems. And 25

millirems translates to a one in 50,000 chance of extra cancer risk.

The state health department is considering following the NRC's lead. This would also include reducing the 25-millirem standard by "as low as reasonably possible." That potential reduction still has to be calculated.

But the health department standards apply to all of Washington, except Hanford. At Hanford, the health department has jurisdiction only over air releases.

A public comment period on the health department standards will be announced soon.

Meanwhile, the EPA plans to stick with its guideline of 15 millirems as the cleanup standard for a few hundred waste sites

along the string of nine defunct river-shore reactors, EPA officials said.

But now, the state ecology department will have to scrutinize NRC's rule change, which does not apply directly to Hanford, and the state health department's potential change.

That means "in a couple of years," the state ecology department will have to decide if it wants to tackle the issue of changing cleanup standards along the river, said Mike Wilson, the state nuclear programs manager.

That might lead the ecology department to do a cost-benefit analysis and set a more definite cleanup standard in millirems, the state official said.

Meanwhile, the Hanford Future Site Uses Group — an early 1990s quasi-ancestor of

today's Hanford Advisory Board — recommends that the reactor areas be cleaned up to a level of unrestricted uses.

While, Gerald Pollet, director of Heart of America Northwest, said Indian children — who are on the Columbia River a lot as part of their lifestyle — would face greater risks from cancer if allowable millirems are increased.

Also, he noted that the public has access to Hanford's Columbia River shore below the high-water mark. And plumes of contaminated water seep out of the rocks between the high- and low-water marks, he said.

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

DOE official sees possible uses for FFTF

By Annette Cary

Herald staff writer

Operating the Fast Flux Test Facility at partial capacity could make manufacturing medical isotopes affordable if combined with other work, a top Department of Energy official said Thursday.

"I'm encouraged," said William Magwood IV, director of the office of Nuclear Energy, Science and Technology at a meeting with the Herald's editorial board. His office is exploring possible missions and costs for the Hanford research reactor.

"I've seen a lot of detailed information on the facility," he said. "The cost analyses look favorable."

Energy Secretary Bill Richardson is expected to decide in April whether to conduct an environmental impact statement on restarting FFTF after he has reviewed possible uses for it. A decision to conduct the impact study would be the next step toward restarting the reactor.

In making the decision, Richardson is to consider an independent report DOE's Nuclear Energy

Research Advisory Committee is preparing. It will look at the nation's existing reactors, accelerators and hot cells and project what will be needed in the next two decades.

During his Tri-City visit, Magwood called FFTF "a unique facility, the likes of which we may never see again."

Building the 400-megawatt reactor and the adjacent Fuels and Materials Examination Facility (FMEF) today would cost about \$2.5 billion, he said.

"The government would never lay out that for a research facility again," he added.

The size of the reactor is a benefit and a deterrent to restarting it, he said.

The large core volume would allow several uses at once, he said. But it also makes it expensive to operate.

While most DOE reactors would cost \$30 million to \$40 million a year at most to operate, running FFTF at full capacity would cost \$100 million a year.

See FFTF, Page A2

EPA inspections lead to largest Hanford fine

By John Stang

Herald staff writer

Hanford has been hit with a \$367,078 fine — the largest in the nuclear site's history — after a lengthy U.S. Environmental Protection Agency inspection.

"The inspection reaffirmed previous indications the Department of Energy and its contractors ... are still not exercising the degree of control needed to protect the environment," said Mike Bussell, director of chemical and waste management at EPA's regional headquarters in Seattle.

"EPA is troubled not only by what we found last year, but also by previous instances of noncompliance with environmental regula-

tions," he said Thursday.

Paul Kruger, DOE director of environment, safety and health, said DOE is not surprised by the fine's amount.

DOE has not had a chance yet to review the details of the EPA complaints, he said.

The inspection began in May and lasted through the year.

The EPA is charging Hanford with three violations that make up the \$367,078, plus other violations for which it cannot legally levy a fine. If it could, the fine would total \$31,000.

And the EPA referred concerns on another matter to DOE, which

See Hanford, Page A2

Hanford activists, DOE dispute membership on FFTF advisory panel

By John Stang
Herald staff writer

Two Hanford activists say they were kicked off a federal advisory panel looking at the Fast Flux Test Facility because they asked too many questions Tuesday during a tour.

But DOE said the two never were really on the subcommittee.

A letter — with a standard paragraph welcoming them to the panel — was unwittingly sent Friday to the activists, said DOE spokesman Mathew Donoghue. “The letter mistakenly identifies its recipients as

subcommittee members. ... We regret this miscommunication,” he said.

The dispute started when Tom Carpenter of the Government Accountability Project and Gerald Pollet, director of Heart of America Northwest, protested to DOE last week about the lack of public oversight during a subcommittee of the Nuclear Energy Research and Advisory Committee’s visit to Hanford this week.

The overall committee’s purpose is to look at DOE’s facilities nationwide, including the FFTF, and rec-

ommend what to do with them. The subcommittee visited Hanford to pick up technical knowledge.

Pollet and Carpenter talked Thursday to DOE officials about the subcommittee. Friday, they got letters from Oak Ridge Institute of Science and Education, which handles logistics for the committee. The letter’s first paragraph said “Thank you for agreeing to serve as a member of the (subcommittee).”

So, they thought they were on the subcommittee. On Tuesday, they joined the FFTF tour and started asking lots of questions — particu-

larly about what nuclear wastes would be generated by the FFTF if revived.

The reactor staff would not answer their questions, the activists said. “We were essentially told to shut up,” Carpenter said.

When they protested, demanding the straight answers they deserved as subcommittee members, DOE was confused. But to be certain, department officials verified they aren’t on the panel.

What happened is that when the Oak Ridge institute sent letters to the pair outlining travel reim-

bursments and schedules for the tour, it mistakenly sent the same letter it sent to committee members, including a welcome to the subcommittee. A second letter was sent Tuesday to clarify the matter.

A DOE source, speaking on condition of anonymity, said their questions deviated from the FFTF tour’s topics. But the pair said waste generation is an important issue ignored on the tour.

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METRO/NORTHWEST

WEDNESDAY, FEBRUARY 17, 1999

TRI-CITY HERALD

A7

Hanford watchdog group’s leader resigns

By John Stang
Herald staff writer

Lynne Stembridge, a co-founder and current director of an influential Hanford public interest organization, will leave her post March 31 to return to college.

Stembridge, director of the Spokane-based Hanford Education Action League, also plans to leave her position as chairwoman of the Hanford Health Effects Subcommittee about mid-summer.

“I’ve been (a full-time HEAL staffer) for nine years, and I’ve loved this job. But I’m ready for something different,” said Stembridge, whose association with HEAL stretches back 15 years to its roots as an informal study group.

She plans to finish her bachelor’s degree in humanities at Whitworth College and is thinking about going on to get a master’s degree in teaching.

The timing of her decision is influenced by her children’s college attendance schedules. “It’s my turn to go back (to college)... This is my window,” she said.

Stembridge, 44, has been involved in HEAL for virtually its entire existence.

In 1984, Spokane Unitarian Minister Bill Houff delivered a sermon titled “Silent Holocaust” that addressed radiation’s effects on people and the environment.

Stembridge heard about the sermon, and it prompted her to join a study group that soon evolved into HEAL. She became intrigued with the then-highly secretive Hanford.

“It seems to me that in a democratic society there should be no closed doors, and that piqued my interest,” she said.

HEAL became a formal nonprofit organization in the mid-1980s, and Lindy Cater was the first director. Stembridge was a board member and was board president for 1½ years.

Cater left in 1990, and Stembridge became interim director, then permanent director.

She fretted about becoming director until her husband, Tom, told her, “Your name is written all over this job. If you don’t take it,

you’ll regret it for the rest of your life.”

Stembridge took over a lean organization that fluctuates between 300 and 400 members. Its annual budget of about \$125,000 comes mostly from grants. It has two full-time employees — Stembridge and staff researcher Todd Martin.

Stembridge is proud of HEAL’s role in Hanford’s evolution from a closed site with no external regulation and no cleanup plan to a comparatively open site with regulators and a long-term cleanup pact.

“As often as issues become frustrating and disappointing, it’s good to look back to see where we had come from,” she said.

No replacement for Stembridge or timetable to find one has been set. Martin said he is not interested in the post — preferring to focus on cleanup issues rather than administrative and money-raising chores.

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

Congress has time to shift funds at Hanford

By Les Blumenthal and John Stang

Herald staff writers

Northwest congressional members and Department of Energy officials are optimistic that \$56 million needed to avert layoffs will be shifted to Hanford cleanup.

DOE expects to send a request to Congress later this week that would allow transfer of the money. It’s not clear how long it will take for the proposal to wend its way through four congressional committees, however.

“We are optimistic we can get this through Congress and avoid having to implement a (layoff) plan,” said Mark Frei, DOE’s acting deputy assistant secretary for waste management.

The Tri-City Herald obtained a copy of one contingency plan for dealing with potential shortfalls if additional money isn’t found for cleanup at the nuclear site.

Lloyd Piper, DOE’s deputy

Hanford manager, said several contingency plans exist, with shifting dollars and jobs figures in the works. He declined to discuss specific numbers, including those obtained by the Herald.

That contingency plan looks at laying off from 720 to 800 people at Hanford if DOE is unable to shift \$56.3 million from a capital portion of its budget to an operations portion.

Hanford currently employs about 12,000 people when core contractors, the Pacific Northwest National Laboratory and six so-called enterprise companies are included.

The money to solve the shortfall is available because the timetable for new plants to turn radioactive tank wastes into glass was delayed from 2002 to 2007.

Hanford security forces coming together

By John Stang
Herald staff writer

Hanford's security force — split between two companies since late 1996 — is on the road to reunification, possibly by March 1.

On Thursday, the Department of Energy gave Fluor Daniel permission to make the change and also move the security service back inside the Hanford fence.

Since December, Fluor has studied problems stemming from the unionized Hanford Patrol employees working for Fluor "inside the fence" and answering to "outside-the-fence" supervisors working for nonunion B&W Protec, said Gordon Beecher, Fluor director of human resources.

The review came after Philadelphia-based Protection Technology Hanford won the contract to replace B&W Protec on March 1.

"We were seeing increased attrition and problems," Beecher said.

The history of the split Hanford Patrol dates to Oct. 1, 1996, when Fluor took over Hanford.

At the time, Fluor created six "enterprise" companies whose purpose was to work largely at Hanford while trying to build up non-Hanford business.

That meant the unionized guards stayed with Fluor, but the supervisors and other non-Hanford Patrol security workers ended up with the enterprise company B&W Protec.

It was later recognized that a Hanford security company has little potential for non-Hanford work.

The split meant the unionized guards kept better benefits and pensions by staying inside the fence, while the supervisors and other nonunion workers had lesser pensions and other benefits at B&W Protec.

Part of a "subcontractor's" memo on the situation, which was provided to the Herald, said:

■ Since October 1996, not a single unionized Fluor-employed guard has accepted a promotion to a supervisor slot under B&W Protec because of the benefits loss.

■ 27 percent of B&W Protec's security people — largely "high-end technical and senior staff" — have left since Oct. 1, 1996.

■ Security needs are increasing with the Plutonium Finishing Plant cranking up work with scrap plutonium, and the likelihood of the K Basins spent nuclear fuel starting to arrive at a huge central Hanford vault in two years.

■ The Hanford Patrol's managers, since they work for an enterprise company, could not negotiate union contract issues with the Fluor-employed guards because the groups worked for different companies.

The memo stated: "The ongoing loss of key (security) staff resources, coupled with an increasing (security) workload, adds up to a serious concern. The ability of a crippled (security) program to protect national security interests at Hanford must be called into question."

Beecher more or less agreed with the memo's points.

Earlier this week, Fluor recommended consolidating the entire security force inside the fence to DOE, which approved the change Thursday.

DOE and Fluor have slightly different numbers on the Hanford Patrol's makeup.

Fluor sets the unionized guards at about 125. DOE put the number at 139, plus two clerks.

Both agree that B&W Protec has 56 Hanford Patrol supervisors.

Overall, B&W Protec employs roughly 155 people, with about 100

handling to security functions outside those of the Hanford Patrol.

Beecher said all B&W Protec people and Fluor's unionized guards would be united under Protection Technology as an inside-the-fence company.

Fluor believes the change will mean better control over the entire operation and will fix the benefits problem, Beecher said. "We're working feverishly to make that feasible by March 1," he said.

The memo also recommends that contractual language be drawn up to ensure the security employees never be detached from the Hanford benefits package again.

Beecher said that matter could be brought up during collective bargaining talks with the union.

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METRO/NORTHWEST

SUNDAY, FEBRUARY 21, 1999

TRI-CITY HERALD

A5

PNNL awarded for technology transfers

By Annette Cary
Herald staff writer

The Federal Laboratory Consortium has singled out Pacific Northwest National Laboratory for moving two technologies from the laboratory to the marketplace.

The two awards bring the Richland lab's total to 41 since the presentations began, the most of any federal laboratory. The consortium awarded 15 excellence in technology transfer awards this year to government laboratory teams.

The Richland lab won for a discovery that's used in an environmentally friendly dry-cleaning system and for a new type of radiation sensor.

The cleaning method depends on carbon dioxide, the substance that puts the fizz in soda pop. Scientists at the Richland laboratory came up with the idea of using the colorless, odorless, tasteless gas as part of their research on the unusual properties of materials under different combinations of temperatures and pressures.

Compressed carbon dioxide has a density like water but flows like a gas, allowing it to reach places water and chemical solvents can't.

Traditionally, clothes are dry cleaned and mechanical parts are cleaned using hazardous chemicals as solvents. The new carbon-dioxide method uses no toxic substances.

Micell Technologies of North Carolina, founded by scientists in 1995, created the Miclean and Micare cleaning process using detergents they developed that increase the scrubbing power of the carbon dioxide.

Micell is selling the dry cleaning system mostly in the Mid-Atlantic and Midwest so far. It's also developed systems to use the carbon dioxide and detergents to clean metal surfaces without environmental problems.

Battelle, the operator of the Richland laboratory, holds the patent on the carbon dioxide portion of the process and has granted exclusive licensing rights to Micell.

The agreement also calls for Battelle to provide research, development and engineering support to Micell. Battelle declined to release the financial details of the arrangement, although the Department of Energy should receive some of the money.

At the Richland lab, researchers John Fulton and Max Phelps and commercialization manager Nick Lombardo worked on the project.

The new type of radiation sensor licensed to Tennelec/Nucleus Inc. uses glass fibers to detect radionuclides.

Tennelec/Nucleus of Oak Ridge, Tenn., has been in business since the 1960s and now is owned by Oxford Instruments, a British corpo-

ration. The Tennessee division manufactures nuclear electronics analyzers, spectroscopy systems and other detectors.

Traditional neutron sensors use helium-filled tubes, but technology developed at the Richland lab uses glass fibers that are more flexible.

That makes the fibers more versatile, allowing them to be wrapped around a drum to inspect its contents or installed in an asphalt road to alert officials that nuclear materials are being transported.

The sensor also has applications in medicine and in monitoring workers as radiation exposure occurs.

The technology has been demonstrated to the International Atomic Energy Agency for monitoring plutonium in spent fuel rods, one of the largest potential uses for the radiation sensor.

None of the sensors has been sold yet. Oxford Instruments has an exclusive license to manufacture and market the fibers, except for medical uses. Battelle declined to discuss the financial details of the licensing agreement.

The Richland laboratory team that worked on the project included Mary Bliss, Ron Brodzinski, Ned Wogman, Debra Barnett and Dick Craig.

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GAO criticizes aid to Russian nuclear scientists

By The New York Times
and the Herald staff

A federal study to be released today is highly critical of the Clinton administration's effort to stop the spread of nuclear, biological and chemical weapons by helping to employ scientists from the former Soviet Union on peaceful projects, The New York Times reported.

That includes programs that Pacific Northwest National Laboratory is participating in.

The General Accounting Office report focuses on two Department of Energy programs — the Initiative for Proliferation Prevention and the Nuclear Cities Initiative. PNNL is involved with both.

However, so are several DOE, state department and defense department and Russian offices, plus nine other U.S. national laboratories.

Russia:

U.S. urges Russia to set up joint missile warning center. **Page A8.**

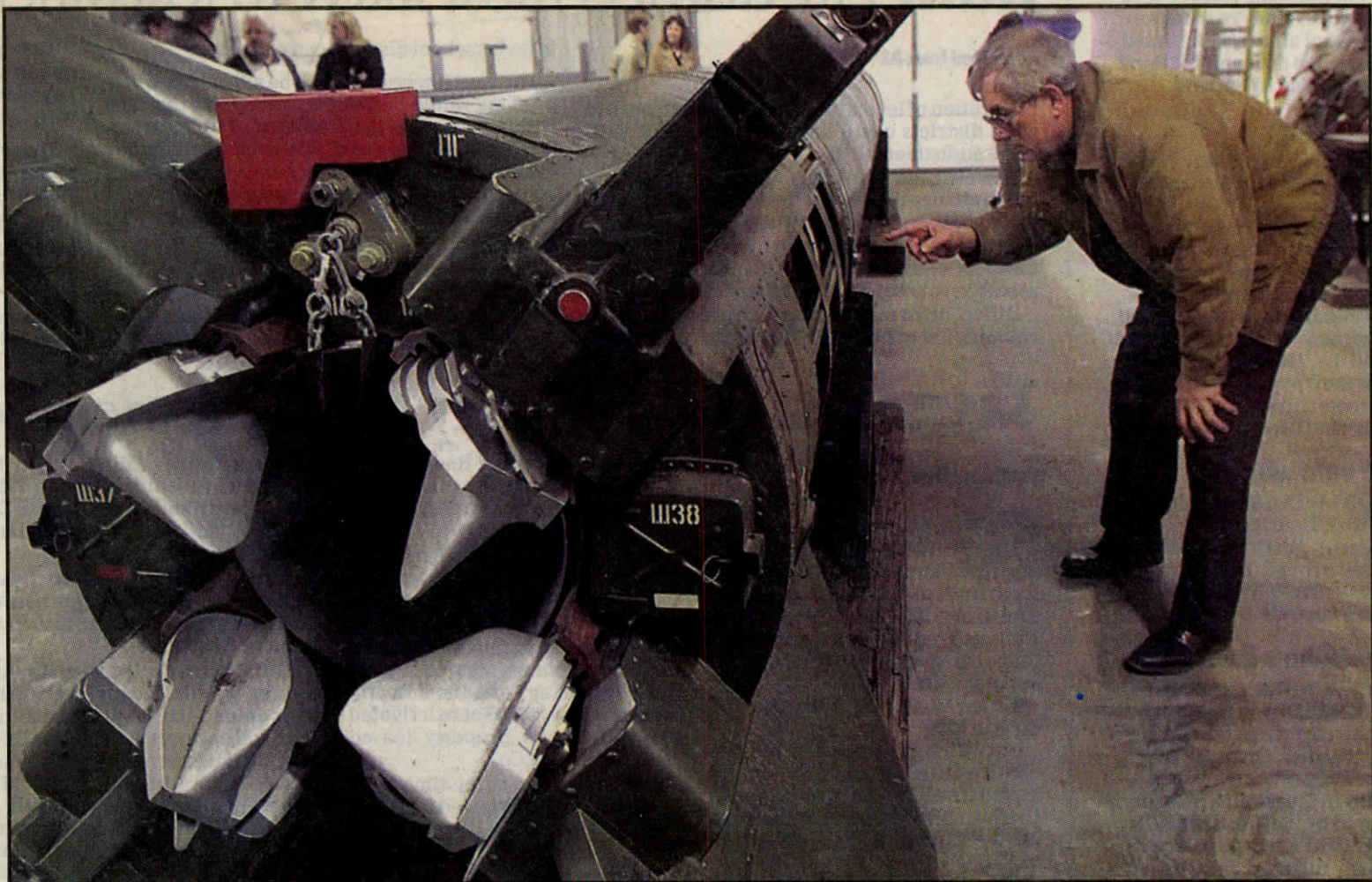
The Times story — sent over its wire service Sunday night — did not name which specific national laboratories are involved with which problems.

The GAO report is due to be released today, but a draft was made available in advance to The New York Times.

The report charges that: ■ About \$39.8 million, or 63 percent, of the program's money that was supposed to support former Soviet weapons scientists actually was spent in the United States, mostly by DOE's 10 national laboratories in charge of administering the projects. Only 37 percent of the money reached the designated scientific institutes in Russia and other former Soviet republics.

■ The amount of money that reached scientists at Russian institutes is unknown, "because the institutes' overhead charges, taxes and other fees reduced the amount of money available to pay scientists." Russia, in other words, taxes U.S. foreign aid.

Scud stud at PNNL



Herald/André Ranieri

William Cliff of PNNL's National Security Division looks at a Scud missile Monday being used for training near Richland.

Soviet missile lands in Richland training center

By Chris Mulick
Herald staff writer

If you think your kid has a cool show-and-tell item, you haven't seen what Dave Nelson is hiding behind his back.

And it's not for just any schoolroom class, mind you, but one for top border patrol officials in foreign countries.

On Monday, the senior research scientist for the Pacific Northwest National Laboratory unveiled a Scud missile.

He and his colleagues will use it to train foreign officials on how to detect weapons of mass destruction being smuggled across their borders.

PNNL trucked in the 37-foot-long, 8,000-pound prop Monday on loan from the U.S. State Department. It will stay at the Department of Energy's Hazardous Materials Management and Emergency Response (HAMMER) training center for two years before heading in 2001 to a new Smithsonian museum in Washington, D.C.

"It's a pretty impressive piece of gear," Nelson said. "It's really an excellent tactical weapon. It just makes an excellent teaching package."

The Scud, which was used by Iraq in the Gulf War, was a prominent missile in the arsenal of the former Soviet Union.

That's partly because it is a versatile weapon, able to carry large amounts of chemical, biological or nuclear material in its warhead.

"It carries a significant payload for a significant distance," said William Cliff, who heads up the International Border Security department of PNNL's National Security Division.

"You never know when someone will drive out the back door with one of these. The last thing we want to see is those weapons used against us by terrorists."

Dave Nelson,
PNNL research scientist

But with other, more high-tech, missiles having been developed, the Scud isn't as high a security priority for countries within the former Soviet Union.

"You never know when someone will drive out the back door with one of these," Nelson said. "The last thing we want to see is those weapons used against us by terrorists."

That's why PNNL started the classes in fall 1997. About 130 students from eight countries have participated in the eight- to 10-day sessions so far, Cliff said.

The next round is scheduled to begin next month.

At HAMMER, students are taught how to detect when weapons are being smuggled and how to start training programs for their officers. Since most smuggled missiles are likely to be smuggled in pieces, students are taught which kind of parts to look for.

While PNNL has had an American cruise missile to use, one isn't likely to show up illegally in Eastern Europe. Until now, PNNL only has been able to use the American parts

to compare with what the components of a Scud might look like.

"There has got to be thousands of those," Nelson said of the Scuds. "This was the basic workhorse. This is the stuff we're looking for. It has a much bigger impact."

Because of the kind of training PNNL is providing can't be gotten anywhere else, Nelson hopes to increase the number of foreign officials they teach. The more who are trained, the more borders that can be adequately patrolled, he said. At the very least, that would help limit the smuggling of weapons across multiple borders.

"It's kind of a statistical thing," he said.

The history of the loaned missile, which doesn't have a warhead or fuel cell, isn't exactly known, though it appears to have been built in Russia, Nelson said. Foreign countries often provide the State Department with such weapons for training programs like the one PNNL puts on, Cliff explained.

Specific information about the borrowed Scud's age, which usually is engraved on the nose of the missile, has been sanded off and painted over.

Though the missile doesn't have a top of the line guidance system, the ones circulating in Eastern Europe aren't likely to have them, either. But that could change, Cliff said.

"A lot of countries may take this system and modify it to improve it," he said. "This actually is perhaps one of the best mockups you can imagine."

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DOE defends program for ex-Soviet sites

By John Stang

Herald staff writer

A Department of Energy official on Monday defended a criticized program that provides aid to former Soviet weapons sites, saying it meets its main goal — keeping scientists employed in former Soviet republics.

"The object of keeping scientists in place has been successful," said Leonard Spector, director of DOE's office of arms control and nonproliferation in Washington, D.C.

On Monday, the federal General Accounting Office released a report that criticizes DOE's efforts to help former Soviet nuclear, chemical and biological weapons sites find peaceful missions. The idea is to keep their poorly paid scientists from seeking employment in nations that are hostile to the United States.

The GAO report looked at DOE's 5-year-old Initiative for Proliferation Prevention (IPP) and the fairly new Nuclear Cities Initiative.

Richland's Pacific Northwest National Laboratory is involved with both programs — along with nine other U.S. national laboratories and many federal, Russian and Kazak agencies.

However, of the 79 individual projects inspected by the GAO, none was connected to PNNL, the GAO report indicated. PNNL officials said they needed to study the GAO report more before commenting on it.

PNNL is involved with 42 out of 413 IPP projects. By December 1998, PNNL had received \$7.8 million out of the overall program's spending of \$82 million.

Also, PNNL is handling economic development efforts in the first three cities to be tackled in the Nuclear Cities Initiative, which is to eventually help 10 cities near Russian nuclear weapons sites. PNNL is looking at a yet-undetermined share of the \$15 million to \$20 million allocated for the entire program in 1999.

School board to take up Hanford High equity issue

By Wendy Culverwell

Herald staff writer

Hanford High School isn't likely to give up its 3A status, no matter what happens when the Richland School Board starts talking tonight about athletic parity for its two high schools.

The reason: There aren't enough high school students in Richland to form two 4A schools. With about 800 students in grades 10, 11 and 12, Hanford falls far short of the 1,200 needed for 4A status. The district's only other high school, Richland, barely meets the threshold.

The school board will take up a request from Hanford Principal Dave Bond to talk about the school's 3A dilemma when it meets at 6:30 p.m. in the board room at 615 Snow Ave. Bond asked the board last summer to consider ways to bring parity to his school.

Richland is the sole Eastern Washington district with high schools in separate leagues. Kennewick has three high schools, all 4A.

Richland High competes in the Big Nine League, which is based in the Tri-Cities. Hanford's size puts it in the Mid-Valley

League, based in Yakima. Prosser is its nearest competitor.

The dilemma for Hanford is twofold: Hanford Falcons travel farther to compete against like-sized high schools, and their games attract fewer admission-paying fans.

Hanford students therefore miss more class time than their Richland peers and spend more time raising money to pay for extracurricular activities. Student body funds pay for game officials, uniforms and support extracurricular programs.

No obvious solutions have emerged since Bond first approached the board with a

laundry list of facts and figures outlining the problem.

If the district redrew high school boundaries to equally divide students between the two high schools, both would have fewer than 1,200 students in grades 10 to 12. That option likely would upset Richland fans.

Hanford could "opt up" to the 4A category, but likely would get clobbered by larger rivals in competitions. Opting up likely would upset the Hanford fans who would rather remain competitive in the 3A league.

The district expects enrollment to grow but not enough to put both schools over the

1,200 mark, according to latest projections.

The district may not be able to give Hanford more students, but it could give the school money to make up for the lower gate revenues. Bond said Hanford collects about \$28,000 less in gate revenues than Richland.

Tonight's meeting is the first of several to decide what, if anything, the board wants to do to address the question of equity for Hanford.

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W. Richland to consider skate park plan tonight

By Kristin Alexander

Herald staff writer

An abandoned gravel pit in West Richland could become a park soon for skateboarders and in-line skaters.

The West Richland City Council plans to consider a proposal

Gunter has created a scale model of his vision of a 120-by 120-foot park with a half pipe, quarter pipe, vertical wall, rails and other geometric structures for skaters to roll along. He plans to show the model and discuss his plan tonight.

The city council agreed last year to provide \$10,000 to lay a concrete

Health panel to discuss Hanford thyroid study

By the Herald staff

The future of a program to monitor the thyroid health of Hanford downwinders is to be discussed this week at a meeting of the Hanford Health Effects Subcommittee in Kennewick.

The subcommittee, which advises the U.S. government, will meet all day Thursday and Friday at Cavanaugh's at Columbia Center. The public is invited to attend and talk during comment periods.

The Thursday agenda includes a discussion of the proposed Hanford Medical Monitoring Program from 11 a.m. to noon by officials from the Agency for Toxic Substances and Disease Registry.

Public comment will be heard from about noon to 12:30 p.m.

From 1:45 p.m. to 3 p.m., the results of the Hanford Thyroid Disease Study will be discussed and possible next steps considered.

In January, researchers at the Fred Hutchinson Cancer Research Center in Seattle announced they found no evidence any kind of thyroid disease increased as a result of Hanford radiation exposure to downwinders.

The Centers for Disease Control spent \$18 million for the study. It checked the thyroids of 3,441 people born downwind from Hanford from 1944 to 1957 to determine whether airborne radioactive

iodine increased the risk of thyroid disease to those living in the area.

The scientists who did the study said they're confident its results are accurate, but the study has been criticized by downwinders who believe their health problems are linked to radiation releases from Hanford.

Officials from the disease registry had proposed before the study was released that the federal government pay for thyroid checks of downwinders. In January, they said they favored continuing the program but emphasizing education.

The 14,000 people who received the highest doses from Hanford airborne radiation releases would

be given information on the Hanford thyroid study and on others that have linked thyroid disease to radiation from other sources. If those people still wanted screening for thyroid disease, that would be arranged.

On Thursday, the subcommittee is scheduled to meet from 8:30 a.m. to 5 p.m. and on Friday from 8:30 a.m. to 4:30 p.m. A public comment period is scheduled from 11:45 a.m. to noon Friday.

On Wednesday, the Inter-Tribal Council on Hanford Health Projects will meet from 9 a.m. to 4 p.m., also at Cavanaugh's, to discuss topics that affect tribes and the subcommittee.

Radiation releases may have been underestimated

By Annette Cary

Herald staff writer

A statistical error in the Hanford Environmental Dose Reconstruction report may have caused airborne radiation releases from the federal weapons site in the 1950s to be underestimated.

However, the error would affect approximately just 5 percent of the total release of radioactive iodine from Hanford reactors between 1944 and 1957.

The U.S. Centers for Disease Control will spend about \$60,000 of Department of Energy money to have Pacific Northwest National Laboratory make the correction. Two errors discovered earlier that do not

have an effect on the estimates of radiation downwinders were exposed to also will be corrected.

The statistical error should be fixed before the Hanford Individual Dose Assessment Project begins sending out estimates of radiation exposure to people who lived downwind of the airborne releases in the '40s and '50s.

The error also should not affect conclusions of the Hanford Thyroid Disease Study, said Bill Farris, a researcher at the laboratory associated with the HEDR project.

Researchers on the thyroid disease study at the Fred Hutchinson Cancer Research Center in Seattle were notified of the error

when it was discovered in January, Farris said. Although the error had not been corrected, researchers were able to make checks before the study was made public.

"It didn't appear to make any difference," Farris said.

The study found no link between airborne radiation releases from Hanford and thyroid disease. Fred Hutchinson researchers will be given the corrected information when it's ready.

The statistical error raises total estimates of radioactive iodine releases by 2.9 percent, or from 738,862 curies to 760,643 curies.

The error occurred in the data covering 1951 to 1957. The largest releases of radioac-

tive iodine had already occurred before those years.

But for those years, the releases may be two and a half times greater than earlier estimated.

It's still an estimate, however.

Radiation releases in the 1950s were calculated two ways. Researchers were able to use historical documents on measurements of effluent released into the air at Hanford. Those measurements were only done since the late 1940s.

They also did modeling — estimating releases by figuring how much radioactive iodine should have been released according to what work was under way.

The estimates of releases made using the

monitoring documents from the 1950s are close to the modeling estimates that now are believed to be flawed. That puts the corrected estimates much higher than the historical documents would indicate.

"If anything, this is an overestimate," Farris said. "We're being conservative."

The other two errors the CDC money will be used to correct include a typographical error and an error on how much iodine fell on sagebrush. Since that would not have been ingested by people, it would have no effect on radioactive dose rates to people.

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Hanford budget meeting scheduled Thursday

The Department of Energy has scheduled a public discussion Thursday on the first preliminary Hanford cleanup budget calculations for fiscal 2001.

The workshop and public meeting is scheduled for 1 to 6 p.m. at the Tower Inn in Richland. Preliminary figures are expected to change as 1999 unfolds.

DOE is expected to send a cleanup budget proposal to the federal Office of Management and Budget in the fall. Then, the final request likely will go to Congress in February 2000.

Doctors speak today on medical isotopes

The Tri-Cities Committee for Isotopes will hear from Dr. Sheila Rege and Dr. Richard Giever today on the development of a medical isotope treatment center in the Tri-Cities. The meeting is at 3 p.m. at the Lampson Building, 607 E. Columbia Drive, Kennewick.

The committee wants medical isotopes produced in Hanford's Fast Flux Test Facility. Supporters are asked to call Gov. Locke and leave a message at 800-562-6000 or write him at P.O. Box 4002, Olympia, WA 98504-0002. Sample letters and postcards also are available from the group weekdays at 3315 W. Clearwater Ave., Kennewick.

2-25-99

DOE seeks approval of fund transfer to avoid layoffs

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

WASHINGTON — The Department of Energy formally asked Congress on Wednesday for authority to transfer \$53.3 million needed to avoid layoffs at Hanford.

The request, which was delivered late Wednesday, comes little more than three weeks before layoff notices were scheduled to be mailed to about 800 workers at the former federal weapons site.

The House and Senate Armed Services committees and the energy and water appropriations subcommittees in both chambers still have to approve the fund transfer to avoid layoffs.

Asked whether there was time for the congressional committees to act, Rep. Norm Dicks, D-Wash., said, "We will certainly try."

In a written statement, U.S. Rep. Doc Hastings, R-Wash., said: "I hope Congress moves quickly to approve this (transfer) request so unnecessary job losses at Hanford can be prevented. I will be doing everything I can to ensure the request is approved."

Dicks and Hastings jointly sent letters to the four congressional committee and subcommittee chairmen to support DOE's proposed transfer.

Energy Secretary Bill Richardson, testifying Wednesday before the House interior appropriations subcommittee, said, "We won't have any disruptions (at Hanford). Hanford is very important. I took care of it."

Richardson also said he hopes to name a new Hanford manager within 30 days.

"Hanford is one of our priorities," Richardson said. "We have to improve our efforts there."

The Energy Department and the White House budget office have been locked in a dispute for several weeks over the transfer of \$53.3 million from a capital portion of the Hanford budget to an operations portion.

The Office of Management and the Budget opposed the transfer, but Richardson, after a phone call from Dicks just minutes before Wednesday's hearing, told the subcommittee he had found the money.

2-25-99

Benton to seek \$2.4 million from DOE for lost taxes

By Jason Hagey
Herald staff writer

Benton County has prepared another property tax bill for the federal government, despite concerns the Department of Energy doesn't intend to keep paying the county to make up for Hanford property taken off tax rolls in the 1940s.

At nearly \$2.4 million, the 1999 bill is the biggest since 1996, when the county won an eight-year battle to get the government to reimburse it for the lost taxes.

Last year's bill for payment in lieu of taxes — or PILT — was about \$2.3 million.

For the last few years, the money has helped pay for schools and economic development projects intended to reduce the Tri-Cities' dependence on Hanford.

But concerns that the funding source might be drying up have surfaced with the Hanford cleanup budget proposed for 2000. The budget makes no provision for PILT, and there is even some doubt whether the 1999 bill will be paid.

County Commissioner Claude Oliver is troubled by the uncertainty, but he isn't ready to let go.

Payment in lieu of taxes money is still being paid to Oak Ridge, Tenn., Oliver said, and there is no reason Hanford communities shouldn't get the same treatment.

"We don't want to be left out," he said. "If there is one site getting paid, they have a responsibility to pay all of the existing sites."

Oliver, who fought the federal government for years as Benton County treasurer, intends to bring up the PILT money as much as possible during a visit next week to Washington, D.C.

The increase in this year's

request reflects a rise in the assessed value of Hanford land, the bulk of which — more than 92,000 acres — is classified as irrigated agriculture land. About 35,000 acres are considered dryland agriculture, and the rest is classified as town plats, rural residential or riverfront.

The land's assessed value increased from nearly \$171 million to about \$188 million, according to Barbara Wagner, Benton County assessor.

The increase would have been higher if deductions had not been made for land given to the Port of Benton.

For years, the county wasn't reimbursed for property taxes it lost when Hanford property was taken by the federal government.

In 1996, DOE agreed to give the county and the smaller taxing districts within it some compensation, starting with \$11.2 million for reimbursements dating to 1988 when the county first asked for the payments.

Annual bills have gone out since then.

This year's money would be distributed as follows: Benton County, \$308,473; Richland School District, \$810,217; state schools, \$631,347; county road district, \$385,483; Port of Benton, \$104,775; rural library, \$94,121; Prosser School District, \$32,598; Kiona-Benton School District, \$7,074; Prosser Hospital District, \$6,400; county health district, \$4,706; indigent soldier fund, \$2,127.

An effort is under way in the state Legislature to give the state school money to local schools instead of putting in an escrow account for the state.

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2-26-99

Cleanup plan would come up millions short

By John Stang
Herald staff writer

If the Department of Energy follows its long-range plan of keeping Hanford's cleanup budgets level, it will fall \$232 million short of meeting its legal obligations in fiscal 2001.

That message surfaced as DOE unveiled preliminary calculations for Hanford's fiscal 2001 cleanup budget Thursday in Richland.

And state and federal regulators overseeing the cleanup clearly were displeased. One called the likely result a "train wreck."

DOE's unveiling also showed:

■ Removing contaminated soil along the Columbia River and the "cocooning" of old reactors would face overwhelming cuts under a level budget. Bechtel Hanford Inc. runs these programs.

■ The so-called "bow wave" of greatly increased set-aside funding requests to build plants to glassify Hanford tank wastes is looming because construction is supposed to begin in 2001.

Preliminary figures put the 2001 set-aside request at \$606 million.

DOE got \$100 million in 1999 and requested \$106 million for 2000. This money is separate from the main cleanup budget.

■ The preparation and movement to New Mexico of transuranic wastes — essentially radioactive junk in barrels — would be delayed. And work to neutralize plutonium scrap at the Plutonium Finishing Plant also faces delays.

"Unfortunately, I think 2001 is the year that the train wreck is actually happening" to the cleanup process, said Mike Wilson, director of the Washington Department of Ecology nuclear wastes program.

Doug Sherwood, U.S. Environmental Protection Agency site manager at Hanford, agreed: "We're starting down the path that could change the cooperation between (DOE and its regulators), and that is unfortunate."

EPA official Dennis Faulk said: "The EPA is not going to tolerate this type of budget."

Thursday's unveiling was the public's first look at preliminary

See **Cleanup**, Page A2

Proposal would scale back thyroid monitoring

By Annette Cary
Herald staff writer

A five-year program to monitor Hanford downwinders for thyroid problems is proposed to be scaled back to \$28 million instead of the nearly \$50 million planned earlier.

The proposed cutback didn't please some attending a Hanford Health Effects Subcommittee meeting Thursday in Kennewick.

They criticized an \$18 million study that found no increase in thyroid disease among those with the most exposure to airborne radiation downwind of Hanford in the 1940s and 1950s.

Partly as a result of that study by the Fred Hutchinson Cancer Research Center, the Agency for Toxic Substances and Disease Registry (ATSDR) proposed the scaled-back medical monitoring program.

"I am surprised at the reconfiguration of the study before you came back (to the sub-

committee)," said Judith Jurji, a member of the subcommittee and president of the Hanford Downwinders Coalition. She pointed out the Hanford Thyroid Disease Study is still being reviewed by the National Academy of Sciences.

"There is an obvious agenda here," said Greg deBruler of Columbia River United. "If there is no impact perceived from Hanford, there is no liability. There are no downwinders. This \$18 million study is a sham."

Tim Connor, an environmental writer and researcher, said the study was "a repudiation of experience."

"Let's deal with (the study) technically — give the tires a good kick — and leave the downwinders alone until then," he said, later adding, "It's a crime. We know the population is exposed and at risk and we're not doing jack."

Connor was invited to address the committee as a representative of the U.S. Advi-

sory Committee on Energy-Related Epidemiologic Research.

The subcommittee includes a mix of downwinders, labor representatives and those with science or medical backgrounds. Much of the comment by subcommittee members at the meeting came from downwinders.

On the matter of the revised thyroid medical monitoring program, Bob Spengler of ATSDR said it had been reviewed by the U.S. Centers for Disease Control and is being reviewed by community and tribal representatives. He characterized it as having high-level support. However, the federal government has come up with just \$5 million so far, not enough to start the monitoring.

Under the revised proposal, the focus would shift to providing information to eligible downwinders and doctors to let them assess the risk of thyroid disease. Downwinders who still wanted thyroid exams would be given them in the five-year program.

Spengler listed several reasons for proceeding with the monitoring.

Estimates indicate residents near Hanford may have received high radiation doses to the thyroid, he said. The thyroid disease study cannot resolve all the questions about the potential health risks from exposure, he said.

He also pointed out concern among downwinders about their radiation exposure.

Marlene Nesary, a subcommittee member, questioned whether ATSDR might have underestimated the costs of the revised medical monitoring proposal. More exams could be requested than expected, she said.

She pointed out the huge response to a project to estimate individual exposure to radiation released from Hanford nuclear reservation in the 1940s and 1950s. It has received about 11,000 inquiries from all over the world.

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Hanford board wants to protest cleanup funding

By John Stang
Herald staff writer

A Hanford Advisory Board committee suggested Friday it's time to protest to the White House about expected funding shortfalls for Hanford Reservation cleanup.

Members of the Hanford board's financial affairs committee said they were deeply unhappy with preliminary calculations the Department of Energy unveiled Thursday on what the site's 2001 cleanup budget may look like.

If DOE continues to follow its long-range plan of level cleanup budgets, Hanford's 2001 budget would fall \$232 million short of meeting legal obligations. Similar shortfalls are predicted annually through 2006.

"With a flat-line budget, (meeting cleanup targets) is not realistic," said Joe Richards, with the Confederated Tribes of the Umatilla Indian Reservation.

The committee members discussed protesting the situation beyond DOE — to the federal Office of Management and Budget and to the Clinton administration. And they talked about joining forces with other DOE sites facing the same dilemma.

Committee members are to meet again all day next Thursday at the Federal Building to prepare recommendations for the full Hanford Advisory Board on March 25.

Committee member Harold Heacock, of the Tri-City Industrial Development Council, said every DOE cleanup site faces the same shortfall problem with DOE's level budget plan. And each site wants more money.

"You've got to get more money into the (nationwide cleanup) system," Heacock said.

"If we don't make this a national call, a national political question, we'll never win," said committee chairman Gerald

Pollet of Heart of America Northwest.

Committee members cited an Aug. 7, 1998, letter from President Clinton to Gov. Gary Locke that they may use as ammunition.

Clinton wrote: "My administration has made a priority of accelerating toxic waste cleanup, and we remain committed to the principle that all federal facilities must comply fully with their environmental obligations."

Clinton added budget constraints lead to "the need to make hard choices in making funding allocations. I assure you that in making funding allocations, I will continue to place the highest priorities on maintaining safety and environmental compliance."

The source of the committee's grumbling is DOE's Richland office unveiling two preliminary budget scenarios to present to Washington, D.C., headquarters.

One scenario outlines what is needed to

meet all of Hanford's legal obligations. That figure would total \$1.406 billion in 2001 — compared with the \$1.174 billion DOE requested for 2000.

However, DOE's Richland office was also required to calculate what it could do with a level budget.

And that budget scenario is \$232 million short of meeting legal obligations.

Work at the tank farms and K Basins would remain relatively intact under this scenario. There would be delays, however, in sending transuranic wastes to New Mexico and neutralizing scrap plutonium at the Plutonium Finishing Plant.

The biggest hit is to the environmental restoration program — especially soil cleanup projects along the Columbia River and the sealing of old reactors.

A level budget leaves this program with about \$113 million — which includes \$20 million to cancel some contracts —

rather than the \$210 million DOE calculated it needs in 2001.

This possible cut struck a nerve with the committee and Hanford's regulators. "The picture is bleak. (Environmental restoration) is essentially going away in 2000 and 2001," said committee member Nanci Peters, a Yakama Indian Nation staff person.

Committee member Gordon Rogers, representing the public at large, said: "I would say this is flatly unacceptable."

The committee members disagreed river-shore cleanup is a low-enough priority to justify slashing.

And they questioned using the \$20 million to cancel contracts rather than using that money for cleanup.

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

PNNL defends projects at ex-Soviet sites

By John Stang

Herald staff writer

Federal money in Pacific Northwest National Laboratory projects to nurture new peaceful businesses at ex-Soviet Union weapons sites is being properly routed and tracked, PNNL officials said Monday.

They were responding to last week's General Accounting Office's report that criticized two Department of Energy programs that are meant to help former Soviet nuclear, chemical and biological weapons sites find peaceful missions.

PNNL is participating in both — the 5-year-old Initiative for Proliferation Prevention (IPP) and the fairly new Nuclear Cities Initiative. So are nine other national laboratories and several government agencies in the United States and former Soviet nations.

The GAO report criticized the programs for spending the bulk of their money in the United States instead of the former Soviet nations and for not keeping careful track of the money that is spent in those countries.

None of the PNNL-related projects was among the 79 individual projects — out of a possible 413 — studied by the GAO.

However, Patricia Godoy-Kain, PNNL's program manager for IPP, said 52 percent of the PNNL-related federal funds went to the lab's 42 projects in Russia, Kazakstan and Ukraine — compared with the overall IPP's average of 37 percent.

The rest pays for support efforts in the United States. That includes bringing Russian, Kazak and Ukrainian scientists and officials to the United States, said PNNL spokeswoman Staci West.

PNNL has received slightly more than \$9 million in federal money since 1996 for this program. Overall, the 10 U.S. national labs have received \$114 million for the 413 projects over five years.

The GAO report also contended DOE does a poor job of tracking whether the 37 percent ending up in the former Soviet Union is being spent properly.

Godoy-Kain said PNNL's contracts with its ex-Soviet counterparts include clauses that

each doesn't get paid until specific goals are reached — to ensure the ex-Soviet weapons scientists actually are tackling the nonproliferation projects.

Also, the GAO report said Russia's turbulent economy handicaps DOE's programs — saying these essentially are subsidies for ventures that are not expected to show profits within five years.

Godoy-Kain said it usually takes five to seven years in the United States to nurture a piece of scientific research into a marketable product.

She noted that many PNNL projects are advancing from the initial technical research stages to studying their commercial viability — a move that cannot be taken without interested U.S. and other foreign investors.

And great portions of the markets for these products — vaccines, biochemical aids to plants, antibiotics and some industrial items — are outside Russia, she said.

PNNL does not have a role in the final stages of nurturing these ex-Soviet projects.

Godoy-Kain echoed DOE officials in saying

the overall IPP program is achieving its primary goal — keeping ex-Soviet scientists employed on peaceful projects so they don't work on weapons of mass destruction.

Also, PNNL is handling economic development efforts in the first three cities to be tackled in the Nuclear Cities Initiative, which is to eventually help 10 cities near Russian nuclear weapons sites. PNNL is looking at an undetermined share of the \$15 million to \$20 million allocated for the entire program in 1999.

How fast this program expands beyond the first three cities is up to DOE, West said.

The Nuclear Cities Initiative is supposed to act as a catalyst to get projects started. But each Russian city is responsible for creating and pursuing its own economic programs, West said.

"We have to remember that economic diversification doesn't happen overnight," West said. "In the Tri-Cities, economic diversification has gone on for years."

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

Duke confident of K Basins contract renewal

By John Stang

Herald staff writer

Talks have started on renewing DE&S Hanford's contract amid optimism that significant improvements were made at the troubled K Basins project in the past few months.

DE&S — commonly called Duke — has been operating on month-by-month extensions of its original two-year contract that ended last Sept. 30. At that time, the rest of Fluor's subcontractors received two-year extensions.

DOE, Duke and Fluor declined to comment on the ongoing contract renewal talks. "We're confident we can reach a reasonable agreement," said Tony McConnell, DE&S Hanford's president.

But even with the recent progress, problems at the K Basins are far from resolved.

The plan is to move 2,300 tons of spent nuclear fuel from two aging indoor pools full of radioactive water near the Columbia River to a new underground vault miles from the river by 2003.

Revisions in the long-range budget supposedly provide enough money to complete the work and handle any surprises. But the project can't afford any additional delays and still meet its deadlines.

"It's still very tight. It's a challenge. It's not a cakewalk to heaven," said Beth Sellers, the Department of Energy official in charge of the project.

Efforts to deal with the deadly spent fuel stored in the old ponds was hampered by timetables and budget estimates that proved far too optimistic.

The delays and budget increases were part of the reason DOE trimmed Fluor's potential performance fee to \$32.19 million out of a possible \$44.6 million for 1998.

In late 1996, the project was estimated to cost \$814 million during its lifetime, and plans called for finishing the work in 2001.

Now, Hanford officials are highly confident about the current timetable, which calls for starting to move fuel in late 2000, finishing the move by December 2003, and removing all the radioactive sludge in the pools by July 2005.

The latest lifetime budget estimate for the project is \$1.59 billion, but DOE hopes to trim that to \$1.4 billion or lower after fuel removal begins. That's when experts can study fuel movement to see how to do it cheaper, Sellers said.

McConnell said: "There are so many uncertainties that will determine that final costs. We won't know how the processing works out until a batch of fuel goes through it."

Among the most challenging schedule changes are plans to install some key equipment at the "Cold Vacuum Drying Facility" by July.

That is a tight schedule, needing fast and good work in a short time, said Nancy Williams, Fluor's K Basins project manager.

The drying facility is the second segment in the K Basins project. The first part is to wash residue off spent fuel in the pool, insert it into special transportation containers. This will occupy much of the project's attention in the upcoming year.

The second segment will use vacuum devices to suck away remaining moisture inside the cases — which would be done in the Cold Vacuum Drying Facility near the K Basins.

Two chambers full of drying equipment are to be installed by this summer. One or two of the remaining chambers would be equipped later.

Finally, the cases will go to the 200 Area's "Canister Storage Building" where they will be inserted in 40-foot-long vertical tubes in a big underground vault.

The Defense Nuclear Facilities Safety Board staff in Richland has been closely watching the talks, and staff memos regularly outline ongoing problems with the project.

Williams and Sellers agree with most of the defense board's observations, and said the issues are being tackled.

These include dealing with eight valves near the bottom of the K West basin that drain into a something like an underground septic field, called a crib in Hanford jargon.

Fluor and Duke first focused on the problem in late 1997 — noting the valves and connecting pipes could rupture in a major earthquake. But the risk in lesser catastrophes is low, Sellers said.

Originally, Duke and Fluor thought the environmental risk was too slight to worry about, and wanted to concentrate on fuel removal, Williams said. DOE disagreed.

It took more than 15 months to arrive at a solution — much too long, according to the defense board.

Williams said Hanford looked at several possible solutions — complicated by the valves being deep in radioactive water and maps showing conflicting locations for the connecting pipe.

Ultimately, DOE and Fluor-Duke decided to probe for the pipes and pour cementlike grout block any potential leaks. This \$1 million project is to be done by late March.

In another incident singled out by The Defense Nuclear Facilities Safety Board, subcontractor Fluor Daniel Northwest damaged an auxiliary pond containing radioactive water and sediments.

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

WALLEY

Protection Technology replaces B&W Protec as Hanford security

By the Herald staff

Hanford's security force is now all "inside-the-fence," although its workers still are split between two companies.

Protection Technology Hanford officially replaced B&W Protec on Monday. And it converted from an off-site "enterprise" company doing work at the federal site to being a conventional subcontractor of Fluor Daniel Hanford.

Previously, the Hanford Patrol's 139 union guards and two union clerks were employed by "inside-the-fence" Fluor but were supervised by 56 B&W Protec supervisors who had lesser benefits because they were "outside the fence."

The two groups now work together under the same administrative rules and benefits but still are split between the two companies.

In the past, the split work force resulted in no union Fluor guards accepting promotions to become B&W Protec supervisors. There was also a high turnover among B&W Protec employees.

This was happening against a backdrop of needing increased security over the next few years for the Plutonium Finishing Plant and a spent nuclear fuel storage vault.

Overall, Protection Technology now has about 155 people. The majority handle other site security duties outside the Hanford Patrol.

Fluor wanted the entire security force to be "inside-the-fence" so it would have better control over the security operation and to fix the benefits problem.

As an "enterprise" company, B&W Protec was supposed to find other non-Hanford clients. But Hanford officials later decided the outside market is very slight for a Hanford security company.

Concern voiced again over tank waste funding

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

WASHINGTON, D.C. — The chairman of a key congressional subcommittee hinted Thursday he may again have trouble with providing the money the Department of Energy's says it needs to dispose of the highly radioactive tank waste at Hanford using a private company. Rep. Duncan Hunter, R-Calif., chairman of the House Armed Services Committee's military procure-

ment subcommittee, told Energy Secretary Bill Richardson a privatization contract like that being used to clean up Hanford's tank waste has never been used before and no one knows if it will work. Hunter also questioned the department's proposed budget, which calls for setting aside about \$600 million a year between fiscal 2001 and fiscal 2004 for the tank waste project and its contractor, British Nuclear Fuels Ltd. (BNFL). "Under the concept of privatiza-

tion, the contractors will build cleanup facilities using private funds," Hunter said. "They are not paid by the government until they actually begin treating nuclear waste successfully. "Since no privatization projects are yet mature enough to prove the concept, it remains to be seen whether privatization will result in cleanup of nuclear waste sites at a reduced cost to the government." Hunter has been a consistent skeptic of the department's efforts

to turn cleanup over to private companies and has, over the past few years, sought, with some success, to cut money for privatization contracts. Democratic Rep. Adam Smith, Washington state's lone member on the subcommittee, said it was his understanding BNFL needs Congress to agree to the \$600 million in annual funding in the budget's so-called "out-years" so it can attract investors. "They need to have a guarantee from Congress so they can get

investors," Smith said during a subcommittee hearing on the department's budget. Richardson said he remained committed to the privatized tank waste contract at Hanford, and the BNFL contract had been divided into phases to "make sure this will work." In the current, two-year phase, BNFL will complete about 35 percent of the design work on a vitrification plant which will be used to stabilize the waste into glasslike

logs. "We will also look for alternative financing," Richardson said, though Jim Owendoff, the department's acting assistant secretary for environmental cleanup, said the department expects BNFL to put between \$250 million and \$500 million of its own equity into the project. ■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at lblumenthal@mcclatchydc.com

Costs mount for Snake dam removal

By Mike Lee
Herald staff writer

Tack on another \$30 million a year to breach the lower four Snake River dams. That's more than enough money in just one year to pay for the entire Kennewick School District bond coming up for a vote Tuesday. The bond would remodel two schools,

Preparing for opening night



BNFL executive pleased with work at Hanford project

By John Stang
Herald staff writer

The head of British Nuclear Fuels is pleased with how the Hanford project of its American subsidiary is proceeding. "Overall, it is going very well for us," said John Taylor, British Nuclear Fuels' chief executive and recently elected board chairman of the British corporation's American subsidiary, Virginia-based BNFL Inc.



buy CBS Corp.'s Westinghouse nuclear operations and facilities for \$1.19 billion in cash and assumed liabilities. Morrison Knudsen is the majority partner. But British Nuclear Fuels will receive 40 percent of the profits on many of ex-Westinghouse projects. If the sale is approved, BNFL will handle work at the underground waste storage repository in New Mexico where Hanford is to eventually ship its transuranic wastes. And it will play a role at DOE's Idaho Falls site and receive revenue from DOE's Savannah River complex. Taylor spent a much of his career with Exxon Chemicals before becoming British Nuclear Fuels chief executive in 1996. He became BNFL Inc.'s board chairman in December 1998. Since its creation in 1990, American-based BNFL Inc. has won almost \$9 billion in contracts, including projects at DOE sites at Hanford, Idaho, Oak Ridge, Rocky Flats and Savannah River.

He visited Hanford and Richland Wednesday and plans to continue today. BNFL Inc. is in the design phase of a potentially long-term contract to build and operate plants to convert Hanford's radioactive tank wastes into glass. The company also is Hanford's fastest growing company — going from about 30 employees in early 1997 to about 350 today. The design phase is scheduled to be done in 2000. Then, the Department of Energy will decide whether to stick with BNFL for the long run. The parent corporation, British Nuclear Fuels, also is expanding. "We want to see BNFL grow to become the leading global nuclear company," Taylor said. "A major plank in that growth is expected to be nailed down soon — if everything falls into place." He referred to a joint venture by British Nuclear Fuels and Boise-based Morrison Knudsen Corp. to

buy CBS Corp.'s Westinghouse nuclear operations and facilities for \$1.19 billion in cash and assumed liabilities. Morrison Knudsen is the majority partner. But British Nuclear Fuels will receive 40 percent of the profits on many of ex-Westinghouse projects. If the sale is approved, BNFL will handle work at the underground waste storage repository in New Mexico where Hanford is to eventually ship its transuranic wastes. And it will play a role at DOE's Idaho Falls site and receive revenue from DOE's Savannah River complex. Taylor spent a much of his career with Exxon Chemicals before becoming British Nuclear Fuels chief executive in 1996. He became BNFL Inc.'s board chairman in December 1998. Since its creation in 1990, American-based BNFL Inc. has won almost \$9 billion in contracts, including projects at DOE sites at Hanford, Idaho, Oak Ridge, Rocky Flats and Savannah River. ■ Reporter John Stang can be reached at 582-1517 or via e-mail at jstang@tri-city-herald.com

Hanford smelter put on hold

By Chris Mulick
Herald staff writer

A proposed aluminum smelter at Hanford won't be built anytime soon. Columbia Ventures, a Vancouver, Wash., company, had been considering building a \$160 million plant on 150 acres leased by the Washington Public Power Supply System. It also was considering sites in Boardman, Ore., and one in British Columbia. But last week, the company sent a letter dated Feb. 26 to Kimball Schmidt, a Seattle-based recruiter for the Tri-City Industrial Development Council, informing him Columbia Ventures has no plans to build anywhere in the country in the near future. The British Columbia site also appears to be out of the running. In the letter to TRIDEC, James Hensel, Columbia Venture's vice president for new projects, said the plant won't be built partly because of plummeting aluminum prices. He also said it could be difficult to get financing for such a facility because of low worldwide commodity prices and timid financial markets. Hensel also noted he expects Northwest power costs to increase. Deregulation of the wholesale market has allowed the region to sell its excess power elsewhere. "What once was a region of oversupply is now considered a region of balanced supply with increasing general market demand," Hensel wrote. The plant would have produced aluminum ingots for use in a range of goods, from computer parts and windows to engine blocks and pop cans. TRIDEC senior recruiter Tom Patton wouldn't comment on the issue because of the possibility Columbia Ventures may build here in the future.

Richardson's FFTF ruling set for April 1

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

WASHINGTON, D.C. — Energy Secretary Bill Richardson says he will make a decision on the future of the Fast Flux Test Facility at Hanford by April 1.

The announcement had been expected at the end of April, but Richardson told the House Armed Services Committee's military procurement subcommittee he would act sooner.

"I've had a team out there, and I want to make a decision by April 1," Richardson said Thursday.

He said he had yet to receive a recommendation from the Department of Energy's task force, which is looking at how existing facilities and infrastructure will match up with DOE's science and technology programs over the next 20 years.

“This makes it all the more urgent for people in the community to distribute petitions for signatures.”

Jim Mokler, member, Save the FFTF Campaign

Late last year, Richardson ruled out using FFTF to produce tritium, a radioactive gas used to boost the power of nuclear weapons. But he said the department would explore using the reactor for such things as producing plutonium 238, which can be used to power spacecraft, and medical isotopes, which can be used to diagnose and treat some diseases, including cancer.

Richardson's plan to make an earlier decision will put an additional pressure on a petition drive launched by a group called Save the FFTF Campaign. "This makes it all the more urgent for people in the community to distribute petitions for signatures," said Jim Mokler, one of the leaders of the group. Mokler said the new deadline for the petitions is March 20.

3-5-99

INSIDE

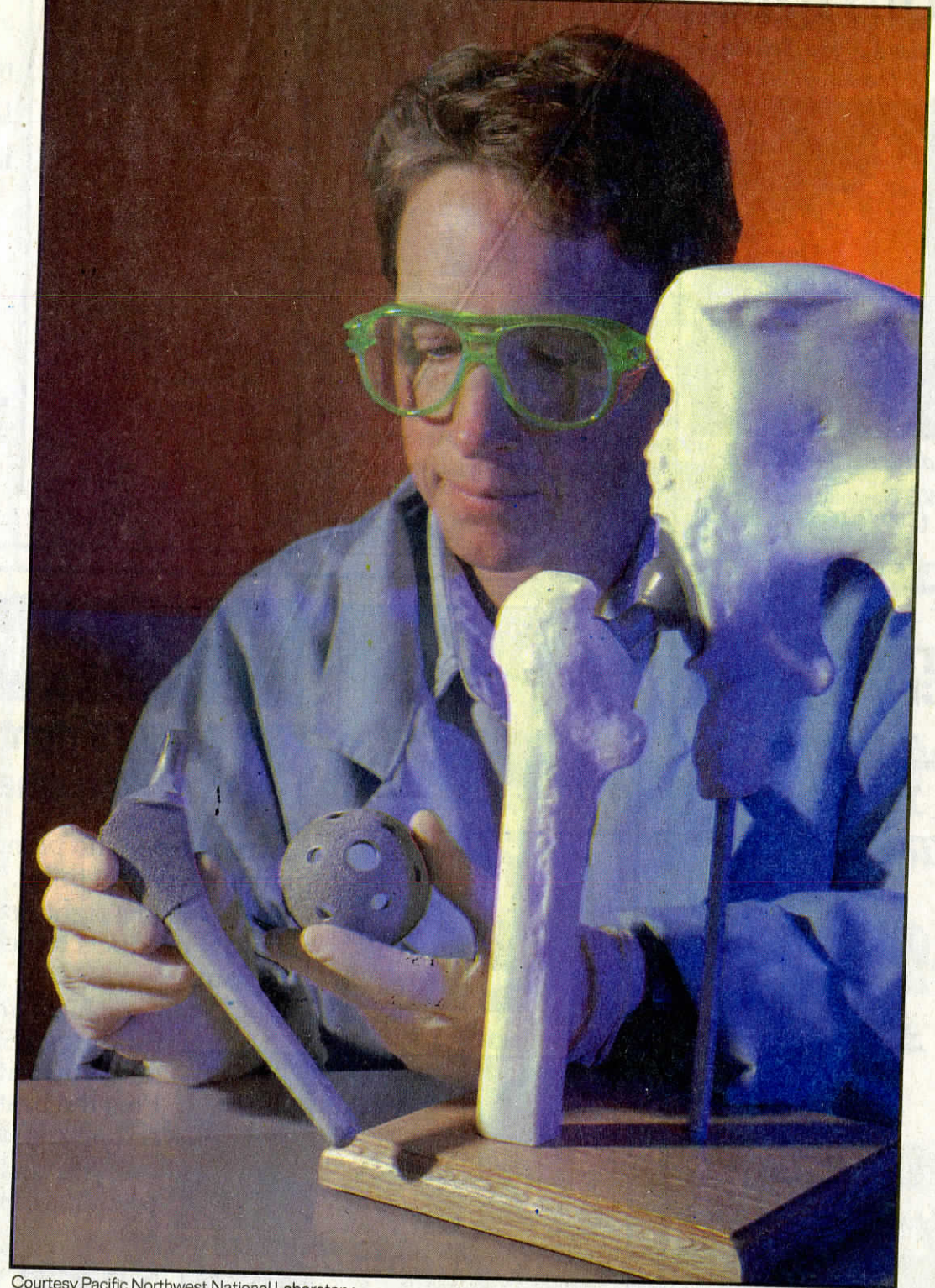
- ▶ **APEL:** Incubator nurtures new high-tech enterprises. **PAGE D16.**
- ▶ **Hanford:** Information technology key to diversification. **PAGE D12.**

Tri-City Herald



Courtesy Department of Energy

Adding their names to the list of workers who successfully deactivated Hanford's B Plant four years earlier are, from left, Sen. Patty Murray, Energy Secretary Bill Richardson, Hanford Deputy Manager Lloyd Piper and retired Hanford Manager John Wagoner. **Story, Page D14.**



Courtesy Pacific Northwest National Laboratory

By studying shells, bones and teeth, Pacific Northwest National Laboratory researchers developed a process that "grows" bonelike material on implants, such as the hip implant shown here, making them stronger and last longer. **Story, Page D21.**

New boilers mark milestone in way Hanford functions

Early last year, Johnson Controls Inc. completed a \$31.5 million replacement of two 50-year-old central steam plants at Hanford.

The World War-II vintage plants were replaced with 42 high-efficiency boilers installed in 28 locations around the 560-square-mile site.

The accomplishment marks a major milestone in the changing way business is done at Hanford. The new equipment will save the federal government and taxpayers more than \$100 million and reduce harmful emissions to the environment by several hundred tons annually.

The old plants were built in the



Michael Tenvooren

Michael Tenvooren is the site manager for Johnson Controls Inc., which manages the energy savings performance contract at Hanford for the Department of Energy.

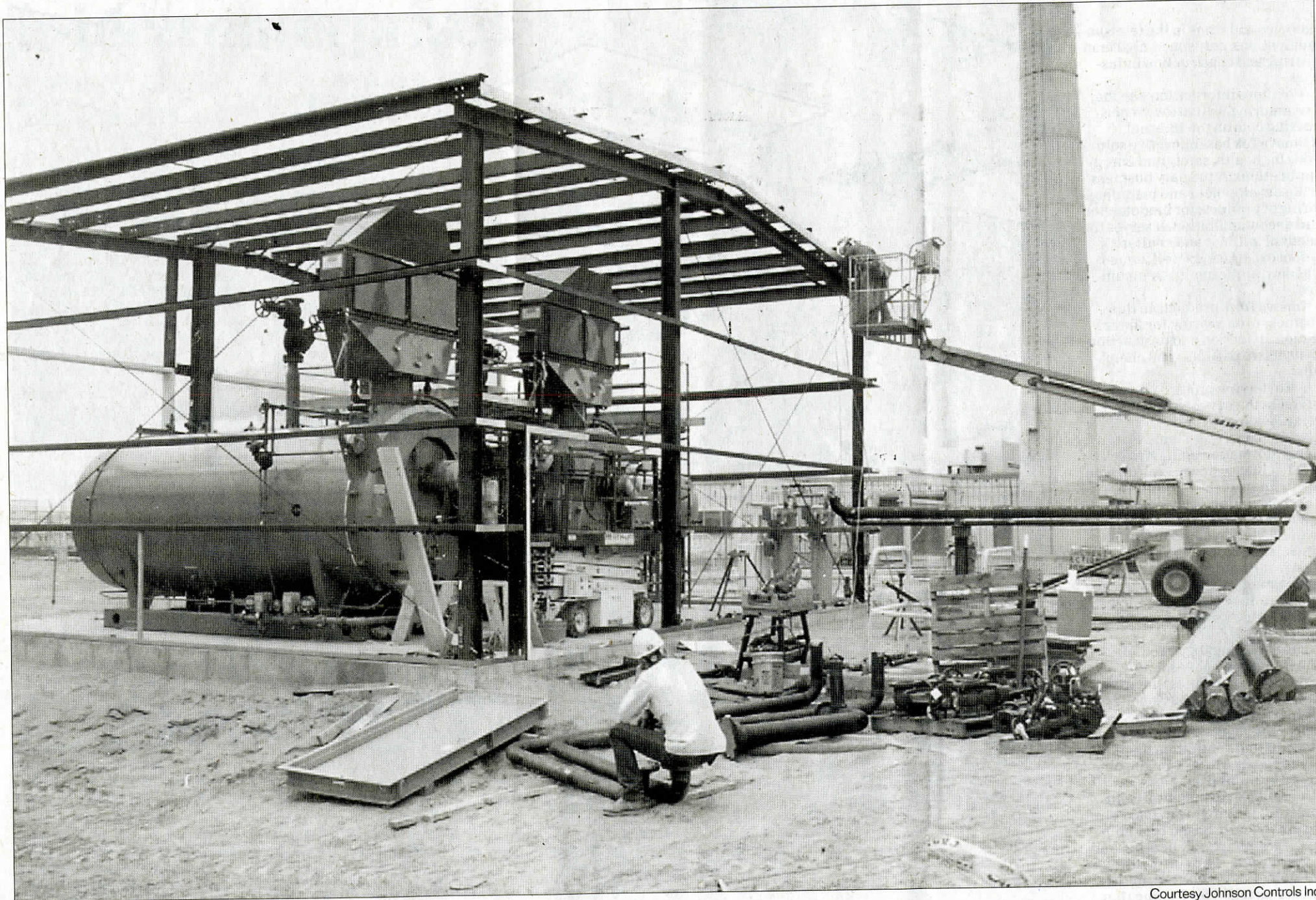
mid-1940s to produce steam to heat buildings and for various chemical and industrial processes at Hanford. The two plants served Hanford's 200 and 300 areas, and burned tons of coal and thousands of gallons of diesel oil each year.

They released substantial amounts of sulfur dioxide, carbon dioxide, nitrous oxide and other greenhouse gases into the atmosphere. The coal-burning plant in the 200 Area also produced a mountain of ash each year that was expensive to dispose of properly.

The new boilers are much more efficient and cleaner burning. They eliminate the need for coal use, transportation and disposal, as well as significantly reduce greenhouse gas discharges to the environment.

The boilers in the 300 Area, just north of Richland, burn natural gas. In the 200 Area in the center of Hanford, low-sulfur fuel oil is used.

In keeping with the desire to do



Courtesy Johnson Controls Inc.

The two boilers installed at Hanford's 300 Area provide steam for building heat and industrial processes for the 324 Building. Each of the 300-horsepower boilers has an

energy output of more than 10 million British thermal units. By comparison, a furnace for a 3,000-square-foot house has an output of about 80,000 Btu.

The Department of Energy used a contracting mechanism called a energy savings performance contract. It is a financing option Johnson Controls has used since the early 1980s. It requires the contractor, in this case Johnson Controls, to provide the upfront

and maintain the equipment. Then the contractor is paid for its work out of the savings it guaranteed to the customer.

Hanford is the nation's largest energy savings contract. The \$160 million, 25-year contract between DOE and Johnson Controls was

the life of the contract.

That's money that now can be spent on cleanup rather than operating outdated, inefficient equipment. Energy and operational savings realized from updated and energy-efficient equipment are used to completely fund the pro-

- Reduce energy consumption to comply with executive orders and Environmental Protection Agency regulations.
- Replace 50-year-old steam plants.
- Improve ability to measure, monitor and manage energy use.

At the same time, the project

The initial project involved replacing the two centralized boilers with 42 high-efficiency boilers at 28 dispersed sites. All are tied together with a monitoring and control system designed by Johnson Controls, called Metasys. Johnson Controls provided upfront

Tank waste major source of frustration at Hanford

If there is one source of consistent frustration — inside and outside the Department of Energy — with Hanford cleanup, it is the tank waste treatment and disposal program.

The frustrations run the gamut — the program is too fast, too slow, too expensive, overstaffed, understaffed, poorly managed, micro-managed, too open, too secretive, overfunded, underfunded — you name it, somebody thinks it. When Hanford talks tanks, paradoxes and disagreements abound.

What seems to be agreed upon, however, is the notion the tank waste treatment program has not made adequate progress. Hanford isn't much closer to removing and treating Hanford's tank wastes today than it was 10 years ago.

The tank waste program is tasked with removing, vitrifying in

stand why the program is not further along.

History

To begin, let's look at a brief summary of treatment and disposal efforts.

In 1957, Hanford embarked on a program to treat and dispose of tank waste. The approved program outlined an effort that would treat the waste as it was produced for \$25 million (in 1957 dollars). The program would avoid the building of new tanks and greatly reduce the wastes being dumped into the ground.

Unfortunately, the money to support this program was diverted to build the N Reactor. As a result, new tanks had to be built and Hanford continued operations with no treatment capability.

In 1989, almost exactly 10 years ago, the Tri-Party Agreement (TPA) was signed to much fanfare. For the first time, DOE was to be externally regulated by the EPA and the Washington state Department of Ecology.

The agreement required DOE to remove the waste from the tanks and separate the low and high-activity portions through a high-tech pretreatment process. The low activity portion would be mixed with cement and dumped

The history of the program shows a pattern of delays and dramatic changes in program direction. Sometimes, these delays are positive, the result of genuine technical issues and leading to necessary changes in the program. And other times, changes are motivated by politics and negatively affect the program.

tion of all the tank waste in two vitrification plants.

In 1994, DOE signed on to the new plan as outlined in the Tri-Party Agreement. Low-activity waste vitrification would start in 2004, and high-activity waste vitrification would start in 2009.

In 1995, less than one year later, DOE again changed its mind, claiming the 1994 plan was too expensive. DOE's new buzzword idea — "privatization" — appeared amid sparkling lights and grandiose promises.

Privatization seemed to have everything — except a definition and any connection with sound, common-sense thinking.

The privatization concept held that DOE would save money by issuing fixed-price contracts to private contractors to conduct the tank waste cleanup.

The contractor would finance the building and operating of the

At Hanford, DOE's poorly conceived original privatization concept was forced to evolve. It has resulted in DOE's current contract with BNFL to design a vitrification plant.

The BNFL contract fails to meet the dates laid out in the 1995 version of the Tri-Party Agreement. The contract with BNFL currently estimates starting high-level vitrification in 2006-2007 and starting low-activity vitrification in 2007 or 2008. The TPA, however, has not been modified to reflect the current schedule.

Barriers to progress

As one can see, the history of the program shows a pattern of delays and dramatic changes in program direction. Sometimes, these delays are positive, the result of genuine technical issues and leading to necessary changes in the program.

And other times, changes are motivated by politics and negatively affect the program.

Either way, when we look at the program's history, several fundamental barriers to real progress emerge. Here are four. I call them the laws of the tank program.

1) The start of tank waste treatment and related milestones always will be delayed.

The philosophy behind this law is that, if DOE doesn't ever start the job, DOE will never finish the job. The history of the program shows that the actual start of construction — pouring concrete, building the building — of a vitrification facility always is delayed. As a result, the start of treatment always is delayed.

While there have been instances where DOE has agreed to speed up the start of treatment, those instances always were followed shortly by a renegotiation allowing for a long delay.

Looking at the original Tri-Party Agreement, the program already would have filled several grout vaults and the vitrification plant would be starting this year. Instead, Hanford is still more than five years away from starting a vitrification plant.

2) Delays increase costs and risks.

Many of the delays and changes in program direction ostensibly are made because DOE says they will reduce the cost of vitrifying tank wastes. Many arguments can be made over whether the changes actually will result in savings. (The current debates about whether privatization will be cheaper are a good example.) It is all but impossible to accurately estimate the cost of a program that is so large and complex. As a result, arguments over cost often divert attention away from the real cost driver — delays.

What we can say for sure is this: Delays cost money. The longer DOE delays, the more costly the treatment program gets. Further, the longer DOE delays, the longer we're paying for surveillance and maintenance in the tank farms, the more tank leaks threaten the Columbia River and risks to workers in the tank farms are prolonged.

Hanford is 10 years into what was originally a 30-40 year program projected to cost between \$13 billion and \$40 billion. Ten



Todd Martin

Todd Martin is the Hanford Education Action League's staff researcher.

3-7-99
**Your Comments
Are Requested**

Proposed Changes to the Hanford Site High-level Radioactive Waste Tank Interim Stabilization Program

**Public Comment Period
March 3 through May 3, 1999**

The U.S. Department of Energy (DOE), Washington State Department of Ecology and the U.S. Environmental Protection Agency are initiating a 60-day public comment period on proposed work schedule and associated modifications to the DOE High-level Radioactive Waste Tank Interim Stabilization Program. This is a two-part change governing the removal of remaining pumpable liquids from 29 single-shell tanks at DOE's Hanford Site. Under the proposed changes: (1) New work schedules that will accelerate the interim stabilization program will be filed as a court enforceable "consent decree," and (2) Out-of-date Tri-Party Agreement work schedules superseded by the new schedule will be deleted.

Over the past eight months, Ecology, DOE, the U.S. Department of Justice and the Washington State Attorney General have worked to reach agreement on revised interim stabilization program requirements designed to avoid further delay in completing the removal of pumpable SST wastes.

The agencies have agreed to a plan that will pump remaining liquid wastes out of Hanford's single-shell tanks over the next five years. The plan will be implemented through a consent decree filed with the U.S. District Court for the Eastern District of Washington. The schedule represents an aggressive approach to removal of remaining liquids from the single-shell tanks, with priority given to the tanks posing the highest environmental risk.

For more information regarding the public comment period, please call the Hanford Cleanup toll-free line at 800-321-2008, or contact:

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To review a copy of the proposed modifications and the consent decree, visit the Information Repository or Administrative Record near you or Hanford's Web page on the Internet at: <http://www.hanford.gov>.

Richland U.S. Department of Energy, Public Reading Room
Washington State University, Tri-Cities

Consolidated Information Center, Room 101L, 2770 University Drive
(509) 372-7443 Attn: Terri Traub

Tri-Party Agreement

3-8-99
**State business leader
promotes use of FFTF**

The president of the Association of Washington Business is asking Gov. Gary Locke and the Washington congressional delegation to support peaceful uses of Hanford's Fast Flux Test Facility.

Dan Brunell, president of the 3,700-member group, said he supports the start of an environmental impact statement, the next step toward restarting the reactor to produce isotopes for medical and other research and industry uses.

The FFTF is one of the Department of Energy's newest reactors, and Hanford has a highly skilled work force, he said.

"We ought to take advantage of those assets and at least study other possible peaceful missions for the reservation," he said in a written statement.

IWEST

WEDNESDAY, MARCH 10, 1999

TRI-CITY HERALD

A7

Fluor cuts won't affect Mid-Columbia

From Bloomberg news service

IRVINE, Calif. — Fluor Corp., the largest U.S. engineering and construction company, will cut 5,000 jobs and close 15 offices as low oil prices and recessions in Asia and Latin America crimp revenue.

However, those cuts will not affect Fluor's two Richland-based firms — Fluor Daniel Hanford and Fluor Daniel Northwest, corporate spokesman Rick Maslin told the Herald on Tuesday.

Jobs at those two companies will hinge on specific issues at Hanford and the Tri-Cities, Maslin said.

Fluor Corp.'s second-quarter charge of \$130 million likely will result in a loss in the quarter ending April 19.

Fluor, which will break the company into four business

groups, will be eliminating 10 percent of its work force by the end of 1999. The charge will trim fiscal 1999 profit to \$107 million, or \$1.42, from \$235.3 million, or \$2.97, in 1998.

The four businesses are Fluor Daniel, its traditional engineering and construction work; A.T. Massey Coal Co.; Fluor Global Services, a provider of nontraditional services like temporary staffing and equipment leasing, and the work at Hanford; and Shared Services, a unit that handles the other divisions' administrative and support duties.

All of the job cuts will come from Fluor's construction unit. Again, Maslin said Fluor Daniel Northwest will not be affected.

Engineering and construction companies, along with others that get revenue from capital

spending, have suffered alongside weakening economies and tumbling oil prices, which have left customers with little to spend on construction of oil refineries and chemical plants.

"We are reacting to deteriorating business conditions," Chief Financial Officer Jim said Rollins. "Capital spending on a global basis is declining."

Fluor said the moves are expected to save \$160 million yearly, while increasing its return on operating assets to 13 percent from 9 percent in 1998.

Oil prices have rebounded in the last week on indications that the Organization of Petroleum Exporting Countries will cut production.

When adjusted for inflation, however, they still are hovering around the lowest level since the Great Depression.

3-10-99
Hanford jobs in danger if Congress delays budget vote

By John Stang
Herald staff writer

Late March appears to be the deadline for Congress to approve an internal Hanford budget transfer without affecting workers at the site.

If the transfer is not approved by Congress' spring recess, which will begin by March 27, Hanford's various contingency plans call for initial layoff notices to possibly go out March 30, said a Tuesday memo to DOE employees from Jim Hall, the Department of Energy's acting Hanford manager.

Any actual job reassignments or layoffs would occur two to four weeks later.

However, the actual date that these initial notices would go out still is up in the air and depends on how the \$53.3 million budget transfer proposal fares in Congress, Hall wrote.

Several hundred Hanford jobs could be permanently or temporarily at stake — depending on how the extremely fluid budget transfer picture evolves.

The situation is this:

The deadline for when Hanford expects plants to be operating and

classifying tank wastes has been delayed from 2002 to 2007.

That delay about makes \$53.3 million from the fiscal 1999 budget available.

DOE wants to shift that money from delayed construction work to tank projects, which include dealing with the site's two most troublesome tanks — C-106 and SY-101 — and speeding up pumping of hazardous waste stored in single-shell tanks.

But DOE needs approval for the transfer from the U.S. Senate's and House's armed services and appropriations committees. That

effort is just beginning.

If Congress does not approve this shift, some Hanford programs could take major hits.

However, the extent of those hits — including the scope and timing of any layoffs — depends on how fast Congress acts and how much of the transfer it approves.

"The longer it is put off ... the potential is there for more people to get impacted," said DOE spokesman Felix Miera.

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

Wastes pumped from Hanford tank

By John Stang
Herald staff writer

A significant amount of radioactive waste was pumped out of one of Hanford's most troublesome tanks Sunday.

And if all goes well, wastes in Tank C-106 no longer will spontaneously heat up in a month or so, Hanford officials said Monday.

Hanford officials now hope to empty that tank no later than Sept. 30, 2000.

"It's too early to really predict (how fast the tank will be pumped out)," said Dan Bryson, the Department of Energy's operations program director.

The single-shell Tank C-106 is Hanford's so-called "high heat" tank. It contains 229,000 gallons of wastes — 32,000 gallons of liquids and a 197,000-gallon layer of radioactive sludge 6 feet deep that spontaneously heats up.

That means water has to be added periodically to the tank to cool off the mixture, which contains 5 million curies of strontium 90, which is one of the deadlier radioactive substances at Hanford. But adding water to the old tank worries Hanford officials because of the potential for leaks.

While Tank C-106 is not a suspected leaker, 67 of Hanford's single-shell tanks are suspected of leaking in the past, and contaminants have reached the underground aquifer to seep toward the Columbia River.

The plan is to pump the waste into nearby double-shell Tank AY-102, which has a more advanced ventilation system that cools wastes without adding water.

Hanford tried to begin pumping

out Tank C-106 in November. But the tank's exhaust ventilation system emitted more organic chemical vapors than the tank's state permit allowed.

Also, nine workers reported strange odors and throat irritation. They were checked and later returned to work.

All this led Hanford experts and workers to modify their methods. Several Hanford officials credited the workers with coming up with key adjustments to get the pumping under way Sunday.

Sunday's 11 hours of pumping moved 8 vertical inches of the sludge to Tank AY-102.

That, together with 3 inches pumped out in November and an inch during a December test adds up to a foot of sludge removed. One vertical foot equals roughly 33,000 gallons of wastes.

Now, Hanford experts plan to do a monthlong study of the wastes in Tanks C-106 and AY-102 to see how they've been affected and to make sure no surprises pop up.

The sludgelike liquid in Tank AY-102 also needs a chance to settle, said Dale Allen, Lockheed Martin Hanford Corp.'s director of tank waste operations.

After those studies are done, Hanford plans to pump out another vertical foot of wastes — which experts speculate will remove the threat of Tank C-106 spontaneously heating up.

More studies will be conducted as the new wastes in Tank AY-102 settle before more pumping is attempted.

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

Thursday, March 11, 1999

Hanford's Lockheed lands contract with Nike

By Melissa O'Neil
Herald staff writer

A Hanford enterprise company will hire about a dozen people and expects to reap up to \$10 million as part of a new contract with Nike.

Lockheed Martin Integrated Business Solutions, based in Florida, won the five-year contract to provide "information technology work" for the Oregon athletic shoe and clothing manufacturer. The work could total \$250 million and includes managing computer networks and business operations, telecommunications and Internet services.

Lockheed Martin Services in Richland is a subcontractor. That means some of the computer help-desk calls placed by Nike employees will be answered by Tri-Citians and some of the sports company's Web sites will be developed here, said Bob Russell, Lockheed Martin Services vice president.

"We've been building the marketing network for over two years now. It takes a long time," Russell said. "One of the problems

we've had is how do we bring business to the Tri-Cities?"

"This is an example, this and Footstar, where we do most of the work from here," he said. "It doesn't matter where we win it, we can bring that work here."

This is the third in a string of new commercial contracts involving Lockheed Martin Services. A few weeks ago, the Richland company received a three-year, \$4 million desktop computer support contract with Footstar Corp., a retailer out of New Jersey and Texas. Another new client is the Portland-based Teachers Credit Union.

Frank Armijo, Lockheed Martin Services business development director, said the Nike contract was in the works for at least 10 months, between proposals and negotiations.

The exact dollar figure of the Nike contract was not released, but it's in the range of \$30 million to \$50 million a year. Lockheed Martin Integrated Business Solutions beat out IBM and Electronic Data Systems for the job.

Lockheed Martin Services is one of the five

Project Hanford Management Contractor enterprise companies charged with creating non-Hanford jobs to help diversify the Tri-City economy.

Tri-City industrial recruiters have found that the Hanford nuclear waste cleanup site — and misperceptions about it — sometimes prejudices businesses against the Tri-Cities. But not this time, Armijo said.

"Thankfully, they knew nothing about Hanford," Armijo said. "They thought of Lockheed Martin as an East Coast company. We sent some of our Richland representatives to meet their staff, and they really valued the fact that we are in the Pacific Northwest, just a (four-hour) drive or an hour flight away. We believe that was a critical success factor in their final selection."

Nike spokesman Vada Manager said the company was looking to reorganize the information management operations because it is capital intensive, meaning it's expensive to keep up all the technological equipment.

"Nike wants to redirect its resources toward its core business of product superi-

ority and its athletic businesses," he said. "The beauty of the (contract) is they will hire all 180 information technology professionals at Nike and establish a new Portland-based service center here. Anyone at Nike who wants to work for Lockheed Martin gets a job, and we retain the knowledge of those Nike professionals."

The employees are being interviewed by a Lockheed Martin team, which is in Oregon today and includes a Richland manager. Teams of Tri-Citians will travel frequently to the Portland area for consulting work and to get project requirements, Russell said.

"We will be adding staff, not only for the Nike contract but for the Footstar contract and several others we hope to win in the next few weeks," Russell said. "We'll hire 10 or 12 people over the next three months for Nike."

Some remodeling work is being done at the Lockheed Martin Services office in anticipation of new employees. The company fully assumes the Nike work April 16.

■ Reporter Melissa O'Neil can be reached at 582-1531 or via e-mail at mo'neil@tricityherald.com

Officials vow Kennewick, elections

repackaged to emphasize the aging schools that the failed measure would have paid to update: Kamiakin High School and Edison Elementary. Kamiakin was built in 1970 and Edison was built in 1960.

Edison Principal Doug Carl said staff members were quiet Wednesday.

"Everyone is disappointed," he said.

Carl said he took a child-at-Christmas approach the bond — he tried not to wish too hard for the bond to pass so he wouldn't be disappointed if it failed.

It didn't help. But Carl said he's more optimistic voters will approve a revised bond issue if it doesn't include a community center.

In addition to paying to remodel Kamiakin and Edison, the bond

Isotope Web site to rally FFTF support

The Tri-Cities Committee for Isotopes has started a Web site with petitions and sample letters that may be downloaded.

The committee is rallying support for an environmental impact statement, the next step toward restarting Hanford's Fast Flux Test Facility to make medical isotopes and isotopes for other industrial and research uses. Now, most medical isotopes used in the United States are imported.

For more information, go to www.tcf.org/isotopes/FFTF.html on the Internet. The group also

FFTF petition at Kennewick mall Saturday

You can add your signature to a petition to help save Hanford's Fast Flux Test Facility Saturday at Columbia Center mall in Kennewick.

Volunteers from the Tri-Cities Committee for Isotopes will be at the mall from 10 a.m. to 9 p.m. at the community booth near Lamonts and the John Clement Gallery. The committee is rallying support for producing isotopes for medical and agricultural uses at the reactor. A decision is expected April 1 on whether to proceed with an environmental impact statement, the next step toward restarting the reactor

Maryland melter possible model for Hanford

By Les Blumenthal

Herald Washington, D.C., bureau

COLUMBIA, Md. — In a light industrial park surrounded by tract homes off a busy freeway corridor, tests are under way to develop the key piece of equipment for one of the world's most daunting environmental projects — cleaning up the radioactive waste at Hanford.

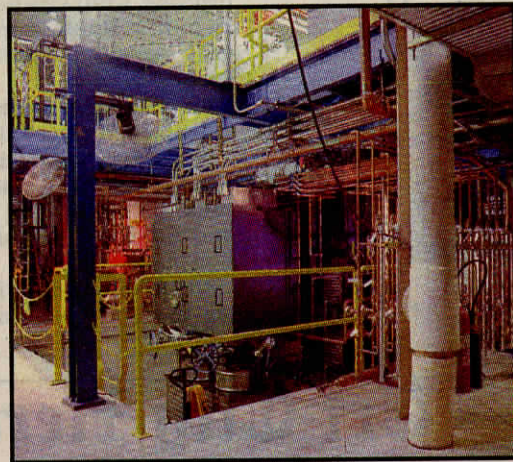
A medium-sized Maryland firm, GTS Duratek, and an international company with broad experience in handling radioactive waste, British Nuclear Fuels Inc., have invested \$25 million in developing a state-of-the-art melter that could be the forerunner of those planned at Hanford.

If everything goes according to schedule, in 2007 a \$2 billion plant will start turning into glass-like logs the 61 million gallons of radioactive waste now stored in aging and, in some cases, leaking underground tanks at Hanford.

Researchers believe the logs can be stored safely for thousands of years as the radioactivity decays.

At the heart of that plant will be three melters capable of processing a total of 30 tons of molten glass mixed with radioactive waste every day for 10 years.

The waste, along with glass-forming chemicals, will be heated to more than 2,000 degrees by running an electric current through them.



Courtesy GTS Duratek

A Maryland firm, GTS Duratek, and British Nuclear Fuels have invested \$25 million to develop a state-of-the-art melter for radioactive wastes that could be the forerunner of those planned at Hanford.

Then, the molten glass will be extracted from the melter and shaped into logs as it cools and solidifies.

The melters at the Hanford vitrification plant will be twice as large as the largest ones currently used to process nuclear waste, and that's where the test melter at the GTS Duratek plant comes into play.

"Key engineering structures need to be tested before the next scaling up," said Robert Prince, president of GTS Duratek.

Mike Lawrence, chief operating officer of BNFL, the Hanford subsidiary of British Nuclear Fuels, said the companies weren't taking any chances, having invested \$25 million of their own money.

"This is a critical step, and the data we get will be critical for the project," Lawrence said. "There have been failures when you try to scale up. They (the ones planned at Hanford) will be the largest high-level radioactive waste melters in the world, and we need to make sure we understand the scale up."

"The team assembled to deal with the tank waste program is firmly committed to this project. Failure is not an option."

The test melter is about one-third the size of those which eventually will be installed at Hanford.

While the Hanford ones will be cloaked in a thick cement cell to shield workers from deadly

See **Melter**, Page A2

METRO

WEDNESDAY, MARCH 17, 1999

TRI-CITY HERALD

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False alarms put Hanford waste-tank pumping on hold

By John Stang

Herald staff writer

It was a textbook operation from beginning to end.

Except for one leak detector that gave a half-dozen false alarms.

And that was enough Friday evening to cause Hanford officials to shut down the first transfer of radioactive wastes through a pipeline from the 200 West Area to the 200 East Area.

It could take up to two weeks to study and fix the faulty leak detector, said Dale Allen, Lockheed Martin Hanford Corp.'s director of tank-waste operations.

This was the first time that Hanford's 6.2-

mile "cross-site transfer line" was used.

Central Hanford is divided into two zones — the 200 West Area, with mostly single-shell, leak-prone underground radioactive waste tanks, and the 200 East Area, where most of Hanford's safer double-shell tanks are located.

Hanford's master plan is to pump wastes from the 200 West's single-shell tanks to Tank SY-102, one of the west area's three double-shell tanks.

Then, that waste is to be pumped through the cross-site transfer line to the 200 East's double-shell Tank AP-107. Those wastes would be distributed among the east side's double-shell tanks. Then, they eventually would go to waste glassification plants to

be built on the east edge of the 200 East Area.

The 200 West's Tank SY-102 began pumping last Wednesday with about 1.12 million gallons. And the plan was to pump about 750,000 gallons to Tank AP-107 over the next several days.

But on Thursday and Friday, one of the underground line's several dozen leak detectors began sounding alarms over and over. And each alarm automatically shut down the waste transfer.

Allen compared the situation to driving a car with an engine alarm light constantly flashing on the dashboard — even though nothing is wrong with the car.

With a camera, the operators examined

the one underground leak detector — and found no leaks after each alarm, said Allen and Dana Bryson, the Department of Energy's operations program director.

Officials speculated some slight shifts in the temperature inside the compartment containing the leak detector might have tripped it. But they want the detector's manufacturers to examine it before settling on what actually happened.

The constant alarm tripping caused the tank crew to decide to shut down the transfer Friday evening. By then, 150,000 gallons had been pumped to the 200 East Area.

Hanford officials praised the operating crews involved in the project — noting the

start-up, the pumping and the shutdown went perfectly except for the one leak detector.

And they praised various operating crews for quickly and smoothly resuming pumping wastes from three 200 West single-shell tanks into Tank SY-102.

Allen noted there is little pressure to resume using the cross-site transfer line immediately, since Tank SY-102 has plenty of empty space to receive wastes from the single-shell tanks.

"I've got a couple of months of space in there," he said.

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

House panels OK money to save jobs at Hanford

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Two House panels — the Armed Services Committee and the Energy and Water Appropriations Subcommittee — have approved the Department of Energy's request to transfer \$53.3 million needed to avoid layoffs at Hanford.

The Senate Armed Services Committee and the Senate Energy and Water Appropriations Subcommittee have until the end of the month to act or lay-off notices could be sent to up to 800 Hanford employees.

The money is to be shifted from delayed construction projects at Hanford to the effort to clean up underground tanks that hold millions of gallons of radioactive waste.

Among other things, the money is needed to deal with some of the site's most troublesome tanks, including SY-101, in which the crust on top of the tank's radioactive liquids has been growing.

The money also is to be used to accelerate work to pump wastes out of other aging and leaking tanks.

"I'm glad the House moved quickly in approving this reprogramming request," said Rep. Doc Hastings, R-Wash. "I hope

See **Hanford**, Page A2

Hanford budget change may clear Senate soon

A proposed internal Hanford budget transfer may clear two U.S. Senate committees by Friday and go to the full Senate next week, U.S. Sen. Slade Gorton, R-Wash., predicted Tuesday.

Two U.S. House committees Monday approved the Department of Energy's request to transfer \$53.3 million in its 1999 budget from delayed construction projects at Hanford to the effort to clean up underground tanks that hold millions of gallons of radioactive wastes.

Congress has until the end of the month to approve the transfer, or layoff notices could be sent to up to 800 Hanford workers.

Lockheed Martin lands contract with Veterans Health Administration

By the Herald staff

The Veterans Health Administration headquarters in Washington, D.C., will receive computer help services from Richland under a new contract landed by Lockheed Martin Services.

It is the fourth in a string of new commercial contracts involving the Hanford enterprise company.

The latest contract is based on a "seat management" concept in which computer services are provided on a fixed price based on the number of users. Lockheed Martin Services is one of the first companies to win a federal government contract based on the concept,

according to the company.

About six people are expected to be hired to carry out the contract for helping up to 1,000 computer users. It is worth about \$250,000 annually, said a company spokeswoman.

The Veterans Health Administration awarded the contract to improve the technical service to its staff and improve call tracking and trend information. Support calls will begin as soon as April 1.

Last week, Lockheed Martin Services announced it would hire about a dozen people as part of a new contract between Lockheed Martin Integrated Business Solutions, based in Florida, and Nike,

Some of the computer help desk calls placed by Nike employees will be answered by Tri-Citians, and some of the sports company's Web sites will be developed here.

A few weeks ago, the Richland company received a three-year, \$4 million desktop computer support contract with Footstar Corp., a retailer out of New Jersey and Texas. Another new client is the Portland-based Teachers Credit Union.

Lockheed Martin Services is one of five Project Hanford Management Contractors charged with helping to diversify the Tri-City economy by creating non-Hanford jobs.

Rep. Hastings supports DOE 3161 request

By John Stang
Herald staff writer

Rep. Doc Hastings and nine other members of the U.S. House of Representatives fired a shot Friday in the latest round of congressional debate on whether the Department of Energy should distribute economic diversification money among its sites.

Hastings, R-Wash., joined the nine in sending a letter to Rep. Ron Packard, R-Calif., chairman of the House's subcommittee on energy and water development, to support DOE's request for its workers and community transition program funding — known as 3161 money — in fiscal 2000.

The money is used to help counter effects of work force cuts at Hanford and other DOE sites and for projects to wean these regions from economic dependence on DOE.

In recent years, Congress has debated annually whether to cut the program.

The congressional letter quotes a 1998 federally contracted audit that said the 3161 program has "had a positive impact on mitigating the social and economic impacts of the DOE transition by helping to develop and create more than 22,000 jobs, providing a foundation for community economic development."

The Tri-City Industrial Development Council — the local agency in charge of handling the 3161 money — is hoping to get \$10 million to \$12 million for fiscal 2000, but realistically expects \$3 million to \$5 million, said Sean Stockard, TRIDEC economic transition program director.

With a \$30 million possible appropriation for all DOE sites, the lower amount appears more realistic, he said. It would be used mostly for roads and utilities construction and upgrades.

Overall, TRIDEC has received at least \$21 million since 1994 in 3161 money, including \$4 million for fiscal 1999.

Hanford, Microsoft working on software glitch

By John Stang
Herald staff writer

Hanford hopes to get new software soon to fix a computer problem originating from a 1998 sitewide conversion.

Fluor Daniel, Lockheed Martin Services and Microsoft are working on software to deal with a glitch in Hanford's relatively new Microsoft Word 97 word processing software, said Pat Terry, Fluor's deputy chief information officer.

Developing the new software "is in progress right now. We expect it to be completed in a couple of days so we can roll on out to the site," Terry said.

The glitch caused some typographical errors. Fluor had its sub-

contractors review their documents to see if the glitch caused any significant problems. The sub-contractors reported back "nothing substantial," said Fluor spokesman Michael Turner.

Since 1987, Hanford had used Word Perfect 5.1 software for its word processing.

In fiscal 1998, Hanford did a \$1.9 million update of computer software and hardware. One part of that conversion was switching from Word Perfect 5.1 to Microsoft Word 97.

But a glitch showed up with the new software — which is used in administrative, safety and engineering documents.

That problem surfaces when someone uses the top row of keys on the main keyboard — the row with all the numbers and fractions in it.

If a user hits a "shift" key, it changes the number from what is intended.

For example, someone typing a "¼" could end up with a "3" on a document.

This problem only happens when a Word Perfect 5.1 document is converted into a Microsoft Word 97 document, Terry said.

The error does not show up if a document is kept within the Word Perfect 5.1 software or if the document originated with Microsoft Word 97 software.

Richland-based Lockheed Martin Services, which provides computer support for Hanford, plus Microsoft and Fluor are working on the repair measures. Microsoft is doing the modification work for free.

The fix-it software will be used to check the appropriate documents by scanning through them to spotlight suspected numerals.

The exception would be tables and graphs — especially complicated ones. These likely would be redone and reinserted into the converted documents, Terry said.

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

Soft prices pose problem for Hanford uranium

By John Stang
Herald staff writer

It looks vaguely like the final scene from *Raiders of the Lost Ark*.

Rows and rows of neatly stacked wooden boxes line the huge, windowless room.

Waiting for who knows what.

Five Hanford 300 Area buildings contain these rooms.

All are full of boxes packed with leftover uranium once used for Cold War reactor fuel during Hanford's plutonium production days, which ended 12 years ago when N Reactor shut down.

Even after 12 years, it appears unlikely these 1,943 tons of Hanford uranium will go anywhere soon.

However, the Tri-Party Agreement — the legal pact governing Hanford's cleanup — sets a deadline of December 2000 for Hanford to come up with a plan.

The uranium — stored in various forms in Hanford's 200 Area and 300 Area — doesn't pose a serious threat to the public or the environment, said Ivan Metcalf, B&W Hanford's facilities manager for fuel supply systems shutdown projects.

But Hanford wants to get rid of the uranium. "It's our desire to sell it or transfer the material to someone else," said Larry Romine, Department of Energy director of transition programs.



Courtesy of Fluor Daniel

Rows of boxes holding uranium sit in five Hanford 300 Area buildings. It appears unlikely the 1,943 tons of Hanford uranium will go anywhere soon.

That's because the uranium is a big loose end that needs to be taken care of eventually. And it's stored close to Richland and the Columbia River.

It would be difficult with a uranium stockpile there, Metcalf said.

The long-range plan for the 300 Area is to turn

See **Uranium**, Page A2

Tank waste pumping starts under new timetable

By John Stang

Herald staff writer

Hanford recently began pumping radioactive wastes under a tentative new agreement with the state.

Wastes from single-shell Tank S-102 began moving into a double-shell tank Thursday.

As of Monday, 1,850 gallons of the tank's 224,000 gallons of wastes had been removed. The effort is expected to take about two years to complete.

This is the first of three single-shell tanks in the 200 West Area that are supposed to begin pumping by July 30 under the tentative pact.

"We will be removing significant risks

from those single-shell tanks," said Tony Umek, Fluor Daniel's tank farms project director.

Three weeks ago, the Department of Energy and the state announced a plan to change the tank pumping timetable.

Hanford has 54 million of radioactive wastes in 149 old single-shell tanks and 28 safer double-shell tanks.

But DOE and its contractors had fallen far behind the timetable to pump wastes from the single-shell tanks to the double-shell tanks.

The state initially threatened a lawsuit over the delays but recently agreed to let DOE delay the deadline for pumping all the old tanks by four years, from 2000 to 2004.

In return, Washington got a consent

decree, a legal document that lets state officials take any future complaints about delays directly to a federal judge.

The public comment period on the tentative agreement ends in late May. If no major objections surface, the consent decree will be filed in U.S. District Court in Spokane.

Despite delays, tank farm workers have made progress. So far, Hanford has pumped out 119 single-shell tanks. Another five are being pumped, including the one started last week.

Some of the biggest worries have surrounded the 67 tanks suspected of leaking. So far, the liquid wastes have been pumped out of 64 of those tanks, and another one is being pumped.

The remaining two suspected leakers are in the 200 East Area's BY Farm, where pumping is scheduled to begin in 2001.

Plans also call for starting to pump out tanks next year in the 200 West Area's U Farm, said Dana Bryson, DOE's tank farms operations program division director.

U Farm is considered Hanford's most potentially dangerous single-shell tank cluster, he said.

That's because the chemical composition of the wastes would help speed any leaks to the ground water, Bryson said.

Bryson said 2000 may be the tank farms' busiest year with six more tanks starting to be pumped and one or two finishing.

Meanwhile, a leak detector giving false

alarms in Hanford's cross-site transfer line for tank wastes has been fixed, said Dale Allen, Lockheed Martin Hanford Corp.'s director of tank waste operations.

All the 200 West Area's wastes eventually go to Tank SY-102. That is the jump-off point for wastes to travel through the 6.2-mile cross-site pipeline to the 25 double shell tanks in the 200 East Area.

The line's first waste transfer began a couple of weeks ago, but the false alarms in one leak detector stopped an otherwise successful transfer.

A new transfer likely will begin within two months, Allen said.

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Richland
to vote on
community

WIPP official named DOE's Hanford chief

By Les Blumenthal
and John Stang

Herald staff writers

Hanford's new manager will be Keith Klein, current acting manager for the Department of Energy's underground waste repository in New Mexico.

Klein, 47, with 26 years at DOE under his belt, will transfer to Hanford when DOE selects and installs a new manager at the Waste Isolation Pilot Project, or WIPP, the agency announced Tuesday.

How fast that will happen is uncertain, said DOE spokeswoman Anne Elliott.

In a phone interview from New Mexico, Klein said: "I'm quite enthusiastic about further nurturing (cleanup) efforts at Hanford. ... It's a good mission, an important mission and a challenging mission."

Meanwhile, former Kaiser Engineers Hanford Co. President Dick

French returned to Hanford on Tuesday as DOE's new manager of the Office of River Protection — which is Hanford's reorganized tank waste department.

Energy Secretary Bill Richardson, in a written statement, said: "(Klein) will bring to the position an outstanding combination of technical depth, diverse career experience, problem-solving and communications skills and academic credentials. He is the right person for one of the department's most challenging jobs."

U.S. Rep. Doc Hastings added: "Keith Klein has a strong reputation for community involvement, and I look forward to working with him to move ahead with cleanup at Hanford."

Klein spent four years as DOE's deputy manager for technical programs at Rocky Flats, 21 miles northwest of Denver. Rocky Flats

See **Hanford**, Page A2

DOE, state OK smaller Hanford tank fine

By John Stang

Herald staff writer

The state and the Department of Energy have agreed to cut to \$10,000 a \$75,600 fine against Hanford.

And that \$10,000 is to be spent on environmental enhancement.

The fine resulted from a spring 1998 Washington Department of Ecology inspection of central Hanford's tanks SY-101, SY-102 and SY-103 — the only double-shell tanks in the 200 West Area.

The inspection found the tanks did not have the required number of leak detectors between the double walls and that the detectors in use were poorly maintained. None of the three tanks has leaked.

Hanford's 54 million gallons of radioactive wastes are held in 149 old single-shell tanks and 28 newer, safer double-shell tanks in the 200 West and 200 East areas. The site is pumping the

single-shell tank wastes into the double-shell tanks.

The detector problem led to the state proposing a \$75,600 fine against DOE, Fluor Daniel Hanford and Lockheed Martin Hanford Corp. last summer.

Since then, DOE and the state have been discussing the issue, which led to the settlement.

"Our goal was to get a good leak detector system in place, not to extract a pound of fines from DOE," said Bob Wilson, the state's lead inspector.

The settlement calls for:

■ Hanford to spend \$10,000 on some extra environmental fix-it project. This could be pollution prevention, environmental enhancement or monitoring or environmental education.

This has been the traditional way to pay Hanford's fines.

In 1998, the state and Hanford agreed to trim a \$90,000 fine for some analytical lab violations to \$35,000, which bought 300 acres for a Grant

County nature preserve.

■ \$25,000 of the original fine to be suspended. That means if Hanford does not meet all settlement obligations, the state can reinstate \$25,000 of the original fine.

■ Hanford to have three leak detectors between the walls of the three SY tanks by Dec. 31.

■ Hanford to submit to the state by mid-April a report on the status of all tank farm leak detectors and their maintenance and upgrading schedules.

Wilson and Dana Bryson, DOE's tank farms operations program division director, agreed that only the three SY tanks need the extra leak detectors.

Bryson said one leak detector in each gap was adequate, because the other two are backups, but DOE agreed to the extra detectors.

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

Rising isotope demand to play role in FFTF ruling

By Annette Cary
Herald staff writer

The national need for medical isotopes should increase by 8 to 17 percent annually for the next 20 years, according to a top Department of Energy official.

That was the conclusion of a panel of medical experts, William Magwood, director of DOE's Office of Nuclear Energy, Science and

Technology, recently told a subcommittee of the U.S. House Appropriations Committee.

The panel's report has been accepted by the Nuclear Energy Research Advisory Committee as the basis for its development of a long-term isotope research and development plan, Magwood said. That means it should be considered in a decision on whether studies should proceed toward restart-

ing Hanford's Fast Flux Test Facility to make medical isotopes.

The independent committee is preparing a report on uses for DOE's existing reactors, accelerators and hot cells over the next two decades, including medical isotope production. Energy Secretary Bill Richardson also has asked the committee for a recommendation on whether FFTF will be needed.

The projected increase in

demand for medical isotopes should come in their use for research and for diagnosing and treating disease, Magwood said.

"Although the cost of meeting this demand is not insignificant, it is a fraction of that which would be saved in health care costs by the use of isotopes for diagnosis and treatment," Magwood said.

See FFTF, Page A2

Hanford glassification continues design phase

Hanford's tank waste glassification project passed a "go-or-no-go" checkpoint Wednesday to continue through its design phase.

That announcement came Wednesday evening at a public Hanford tank farms forum in Richland. About 55 people attended.

Last summer, BNFL Inc. and the Department of Energy signed a contract that gave BNFL two years to do a significant portion of the design work on plants to convert Hanford's 61 million gallons of radioactive tank wastes into glass. BNFL also must get its financial package ready for DOE's approval during that two-year period.

If DOE approves BNFL's finances and engineering designs in mid-2000, that gives the company the green light to tackle a \$6.9 billion glassification project. The deadline is 2007 to get the plants running.

However, DOE wanted to evaluate BNFL's work from the first six months of the two-year design period. If BNFL's work was not up to snuff, DOE could have canceled the project this spring.

DOE just finished its evaluation and told the company to continue, said Neil Brown, one of the DOE officials supervising BNFL.

\$97.8 million shortfall predicted for Hanford

By John Stang
Herald staff writer

If Hanford's budget stays level from 1999 to 2000, it will fall \$97.8 million short of what is needed to meet the site's environmental cleanup obligations.

That's how the fiscal 2000 budget, which begins Oct. 1, is shaping up, according to recent Department of Energy number crunching.

DOE's Richland office is supposed to send its fiscal 2000 budget recommendations to DOE's Washington, D.C., headquarters by April 15.

The agency's proposed budget of \$1.065 billion in Richland-managed programs and roughly \$109 million in Washington, D.C.-managed programs would total roughly \$1.174 billion for Hanford's cleanup.

That's \$70 million more than the 1999 cleanup budget, though the 2000 numbers could change over the next several months, said Bob Tibbatts, DOE's acting chief financial officer at Hanford.

DOE's master plan calls for funding cleanup projects nationwide at a steady level through at least 2006.

But that approach appears to be unable to meet legal obligations under the Tri-Party Agreement governing Hanford's cleanup.

In February, DOE knew the 2000 budget request would fall \$16.2 million short of meeting Tri-Party Agreement deadlines in 2000.

But at that time, DOE said it still had to calculate the ripple effects of undone work in 2000 on Tri-Party Agreement milestones and other obligations in 2001 and beyond.

Those calculations now are done and the 2000 preliminary budget is:

- \$54.1 million short of meeting Tri-Party Agreement obligations. That includes the \$16.2 million for projects to be finished in 2000. The rest covers work not tackled in 2000 that would hurt deadlines in 2001 and beyond.

- \$21.3 million in unmet Defense Nuclear Facilities Safety Board obligations.

- \$22.4 million in other obligations, including \$3 million for federal payment-in-lieu-of-taxes money to go to local governments. However, Deputy Hanford Manager Lloyd Piper told the Hanford Advisory Board on Thursday that DOE will try to make the PILT payments.

The 2000 budget request establishes Hanford's tank farms and the removal of spent nuclear fuel from the K Basins as the top priorities. However, the tank cleanup money still falls short, Tibbatts said.

Meanwhile, removing contaminated soils from along the Columbia River shore, sealing up two old reactors and tracking the flow of underground contaminants are in danger of being cut drastically.

Forecast:
Hanford budget deficit grows for 2001. **Page A7.**

Goals:
Official puts rush on glassification project along. **Page A9.**

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Hanford official hopes to speed up glassification of radioactive waste

By John Stang
Herald staff writer

Dick French wants managing Hanford's new Office of River Protection to be his last job before retirement.

He doesn't want to retire before seeing Hanford's first 54 million gallons of radioactive tank wastes turned into glass.

But French, 56, said Thursday he also wants to retire before 2007 — the tentative deadline to begin glassifying tank wastes.

He believes the schedule can be accelerated.

French became the Department of Energy's manager of Hanford's Office of River Protection — the revamped and consolidated tank farms department — on Tuesday.

This new office will supervise BNFL Inc. building and operating the glassification plants plus Lockheed Martin Hanford Corp.'s handling tank safety and preparing wastes for glassification.

A new wrinkle is French will report directly to DOE's assistant secretary for environmental management — instead of DOE's Hanford manager.

However, French is expected to

work closely with the Hanford manager — the recently named Keith Klein, presently in New Mexico.

French said it's too early to tell if he will make major changes in the tank farms. And he will have to build a good working relationship with Klein.

"How everything is organized is one thing. How everything operates is flexible," he said.

French added: "It depends a lot on the people. If I don't come up with the right people, it fails."

Right now, the new river protection office has about two-thirds of the 95 people expected to run it.

French will have two assistant managers. Jackson Kinzer, who had been DOE's tank farms leader under the old system, will oversee the Lockheed half of the operation. A yet-to-be chosen assistant manager will be in charge of the BNFL half.

French returns to Hanford after serving as ICF Kaiser Engineers Hanford Co. president from 1988 to late 1993. DOE gave Kaiser good grades during French's tenure.

Kaiser was the engineering and construction subcontractor to former lead contractor Westing-

house. Fluor Daniel's team replaced Westinghouse in late 1996.

A consulting firm, ICF, absorbed Kaiser in 1989.

French said ICF and Kaiser had different corporate cultures, which led to him to have major philosophical differences with his boss, who came from ICF.

A confidentiality agreement kept him from discussing details of his departure from Kaiser. But French said it was a combination of ICF Kaiser nudging him out and him wanting to leave.

ICF Kaiser convinced French to stay in 1993 until Kaiser won a renewal of its contract with Westinghouse. That happened in mid-1993, and French left at the end of the year.

Prior to his Kaiser stint, French spent 14 years with EG&G, a company at DOE's Idaho Falls site.

After leaving Kaiser, he founded a Richland-based consulting firm — RTF Services Inc. — which had engineer and construction management clients.

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Hanford board calls budget shortfall unacceptable

By John Stang

Herald staff writer

A \$232 million shortfall in Hanford's expected budget for 2001 is unacceptable, the Hanford Advisory Board plans to tell the Department of Energy.

On Thursday, the board discussed sending a 16-page memo to DOE detailing its concerns. It expects to approve that memo today.

The board represents the entire political spectrum of Hanford inter-

ests — which adds weight to its stance.

The board's complaint is that DOE's plan to hold cleanup funding level at all of its sites through at least 2006 would drastically harm Hanford environmental cleanup efforts.

"Flat funding is not adequate to meet the minimum work required by safety and cleanup standards," stated the draft memo discussed Thursday in Richland.

DOE's Richland office was

required to prepare a flat funding scenario under the agency's nationwide long-range plan.

A level Hanford budget in 2001 would be approximately \$1.17 billion.

But the site needs about \$1.40 billion in 2001 to meet all of its legal cleanup obligations, according to preliminary DOE calculations.

The Hanford Advisory Board's proposed memo calls for full funding of all of DOE's cleanup obligations in 2001.

The draft memo also cites an Aug. 7, 1998, letter from President Clinton to Gov. Gary Locke, and a June 25, 1998, letter from acting DOE cleanup czar James Owendoff to Hanford board chairwoman Marilyn Reeves.

Clinton wrote: "I assure you that in making funding allocations, I will continue to place the highest priorities on maintaining safety and environmental compliance."

Owendoff wrote: "Please be assured that (DOE) will request full

funding from the (federal) Office of Management and Budget for all legally required activities at Hanford and at all of our sites."

The 2001 budget calculations largely protect tank waste projects and removal of spent nuclear fuel from the K Basins.

But the removal of contaminated soil from along the Columbia River, sealing of old reactors, tracking underground contaminants and other programs face potential severe cuts.

Hanford board members object to the idea of picking which legal obligations to meet and which to violate.

"It's like (the 1982 Holocaust film) *Sophie's Choice*. It's asking which baby to sacrifice," said board member Madeleine Brown, who represents Hanford's nonunion workers.

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TRI-CITY HERALD

SATURDAY, MARCH 27, 1999

METRO/NORTHWEST

HAB member Buske after unescorted Hanford access

By John Stang

Herald staff writer

Hanford Advisory Board member Norm Buske wanted a badge to allow him to go unescorted into Hanford.

He went to both the Department of Energy and the Hanford Advisory Board with his request.

Buske couldn't get one.

And that sparked a complicated debate Friday at HAB's meeting in Richland. Issues surfaced regarding:

■ Should Hanford's badging rules for the public — including HAB members — be rethought?

■ Buske's contention that if he does not get a badge, the board should be shut down.

■ Should the Government Accountability Project, a whistleblower advocacy organization with a seat on the board, remove itself? Buske is GAP's alternate member on the board.

Buske is an antinuclear activist who is

famous for his Hanford-related pranks.

In the early 1990s, he went to Hanford's Columbia River shoreline, got some contaminated mulberries, made them into a jam and sent the radioactive spread to Washington's governor to illustrate the site's problems.

Last year, he returned to Hanford's river shore and found radioactive mulberry leaves.

Meanwhile, DOE has dealt with badging non-Hanford employees on a case-by-case basis.

In these cases, DOE looks to see if a person has a specific project or purpose at Hanford, that person's safety training and other factors, said Paul Kruger, DOE's assistant manager for environment, safety and health.

For example, GAP attorney and GAP's primary HAB member Tom Carpenter has a badge allowing him to go unescorted into some restricted areas because of his role as a labor lawyer, Kruger said.

However, Carpenter — who was not at Friday's meeting — said he had never heard of his labor lawyer role being the reason for his unescorted site badge.

Board members and Kruger agreed inconsistencies exist in the site's badging policies. Kruger is to return to the board's next meeting in June to discuss the matter in depth.

Board chairwoman Marilyn Reeves and some board members said it is DOE's place, not the HAB's, to make individual badging decisions. And they objected to HAB members getting unescorted badges solely because they are HAB members.

Buske wants the unescorted badge to go into inland Hanford — outside of the fenced-off areas — to collect plants and other samples. Buske said he told DOE: "I'll sample the hell out of you."

However, Buske has not determined yet what sort of samples he wants to collect.

Kruger said: "If he just tells me he wants

to sample the site, I need something more specific." If Buske produces a specific sampling plan with goals and protocols, DOE would seriously consider his badging request, Kruger said.

And Reeves said Buske should not get a badge solely because he is a HAB member because the board has not sought any sampling project.

However, Carpenter said DOE's denial of Buske's badge and several HAB members reluctance to back Buske is a sign "that the (DOE) is in control of the (HAB)."

Buske contended he needs the badge to check up on DOE's handling of Hanford. If he is denied that badge, Buske argued the HAB would not be fulfilling its watchdog role and all of its past and future recommendations should be "invalidated."

That would mean "the board is inherently invalid, and the next step is to shut it down," Buske told the board.

Reeves said: "If you want to make any

motion relative to dissolving this organization or to retract any advice we've made, I'll rule it out of order."

Reeves also said if GAP believes the board is invalid, its leaders should discuss among themselves whether GAP wants to remain on the HAB.

Carpenter said: "We've been thinking along those lines." GAP wants to see how the badging matter plays out, he said.

Carpenter said: "Maybe we want to get more aggressive again and go with litigation again."

Thirty-two Hanford-related groups, constituencies and agencies have seats on the board.

These cover the entire Hanford political spectrum. Because its rules require a nearly unanimous vote on its recommendations and stances, the HAB wields significant political clout on Hanford matters.

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3-28-99
Disinterest
spells end
of Hanford
watchdog

By John Stang
Herald staff writer

One of Hanford's pioneering and most influential watchdog environmental groups plans to disband Wednesday because of shrinking grass-roots support.

The Hanford Education Action League has struggled with declining public interest on Hanford cleanup issues, which affected its ability to raise funds and attract volunteers, said HEAL President Lynne Stemberge.

"There doesn't seem to be the folks to carry the ball forward. It's best to end cleanly and clearly. ... It's bittersweet, to say the least. All good things come to an end," she said.

HEAL has been the main voice from the Spokane area on Hanford matters.

And it carved itself a niche as the leading Hanford tank farms watchdog — universally respected by the Hanford insiders and critics.

"There is a tremendous amount of respect across the nation (for HEAL) ... because of the quality of the individuals who have worked there over the years," said Marilyn Reeves, chairwoman of the Hanford Advisory Board.

HEAL played what may have been the lead role in using public pressure to force the Department of Energy to open up on up on Hanford's secrecy in the mid-1980s.

And it was a leading advocate for bringing regulatory oversight to Hanford and in setting up public committees on Hanford issues.

Stemberge said she's proud of HEAL's accomplishments, but she voiced disappointment over stalled efforts to set up a medical

See **Hanford**, Page A2

Metro/Northwest

A3

Tri-City Herald

Tuesday, March 30, 1999

PNNL reports 3 security incidents in 1998

Lab employees' reports identified concerns

By Annette Cary
Herald staff writer

Pacific Northwest National Laboratory reported three security lapses in late 1998, two of them serious enough to be classified as "unusual."

Problems or potential problems are rated in occurrence reports as off-normal in the least serious cases, unusual in more serious incidents and as emergencies in the worst cases.

Laboratory officials were not aware of other security incidents in the last five years that were classified as unusual. However, Department of Energy officials said reporting criteria has changed in the last few years, making incidents more likely to be reported as unusual.

Security incidents are rated as off-normal if there was no potential for security to be compromised. They're rated as unusual if infor-

mation was compromised or investigators cannot prove that it was not.

"As far as we know, no classified program was compromised," said Greg Koller, a spokesman for PNNL.

DOE and Richland laboratory officials said they could not discuss details of the incidents, but said they did not involve foreign nationals. The FBI has been investigating the alleged Chinese theft of top-secret nuclear warhead technology from New Mexico's Los Alamos National Laboratory in the 1980s.

Energy Secretary Bill Richardson has imposed new security measures for national weapons laboratories because of the FBI investigation. The Richland laboratory is not one of the nation's three weapons labs, but it does have classified programs that include work for the military and law enforcement.

DOE Undersecretary Ernest Moniz is expected to visit the Richland lab on a tour to review security at five national labs, including the three weapons labs and Oak Ridge National Laboratory in Tennessee. No date has been announced for his Richland visit.

He's already visited Los Alamos and will be

at Lawrence Livermore National Laboratory in California later this week. He'll also visit Sandia National Laboratories in New Mexico.

The security incidents rated as unusual at the Richland laboratory occurred Oct. 28 and Nov. 11. Lab officials would not say whether they were related. The off-normal incident was Sept. 14.

Since then, DOE has asked the laboratory to analyze its security. The analysis showed no trend toward increased security problems, said Jim Spracklen, director of safeguards and security for the Richland DOE office.

There initially appeared to be an increase in security problems over the last several years at the lab. However, the analysis showed that some of the problems discovered in Richland had occurred when other DOE sites improperly sent classified information to the lab.

Although officials would not give specifics of the three most recent security violations, they did say examples of security infractions include putting classified information in a safe but not closing it or spinning the dial. Other examples include leaving documents

unattended within a secure area or typing information on a computer that's not secure.

The three security problems in late 1998 were identified by laboratory employees.

"The three incidents were self-identified in a self-assessment process," Koller said. "We have a light trigger on these."

"I'm not alarmed by the occurrences," Spracklen said. "Contractors who handle classified information are going to make mistakes."

The intent of the system is to identify potential problems early and investigate them so security is not compromised, he said.

"Self-identified infractions can be a sign of healthy and effective security and counterintelligence programs," Koller said.

Although the laboratory does have foreign nationals doing research, they are not allowed to work on classified projects. Significant background checks are conducted on foreign national visitors from sensitive countries, Koller said.

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3-31-99
Hanford whistleblower loses fight to learn names on FBI documents

By John Stang
Herald staff writer

The last legal skirmish ended Friday in Hanford whistleblower Ed Bricker's attempts to obtain the contents of a file the FBI kept on him.

Now, Bricker is pondering whether he wants to reopen litigation against former Hanford lead contractor Rockwell International and its successor, Westinghouse Hanford Co., in a case that was settled in 1994.

For 2½ years, Bricker had been getting most of his FBI file in bits and pieces under Freedom of Information Act litigation in U.S. District Court in Washington, D.C.

However, he lost the last skirmish Friday. A federal judge ruled the FBI did not have to provide names blacked out on the documents.

"I'm disappointed," Bricker said.

However, one of the attorneys in this case, Sarah Levitt of the Project for Liberty in the Workplace, said: "We won three-fourths of the case. We forced the FBI to process the docu-

ments and get them for Ed."

Bricker said: "I'll be meeting with my attorneys to see if we should pursue litigation (against Rockwell and Westinghouse)."

That potential litigation pertains to whether the contractors provided all required documents to Bricker before he settled for \$200,000 in 1994. Westinghouse says it provided all the documents.

"Had I these (FBI) documents before, I wouldn't have settled," Bricker said.

The issue began in 1982, when Bricker raised safety concerns about plutonium production at Hanford. In 1986, the Department of Energy ordered Rockwell to shut down plutonium operations because of such safety concerns.

A then-Rockwell vice president had launched "Special Item — Mole," a plan to arrange for what was described as the "timely termination" of Bricker.

Troubles followed Bricker when Westinghouse Hanford Co. took over Hanford in 1987.

In 1990, Bricker had proved he was being systematically harassed in retaliation, the

U.S. Department of Labor ruled.

Since the 1994 settlement, Bricker had heard through the grapevine that there were more documents on him held by the FBI that had not surfaced.

Using the Freedom of Information Act, Bricker and the Project for Liberty in the Workplace obtained his file in small segments dribbled across many months. They constantly argued the FBI had not produced everything and had inadequately searched its files.

One produced document was a 1991 affidavit by a Westinghouse employee — whose name is blacked out — who made a sworn statement to a DOE Inspector General investigator.

The Westinghouse employee wrote he received a proposal to tackle the "insider threat" by targeting unspecified employees. The employee didn't specifically refer to Bricker, but he was mentioned earlier in the affidavit.

The affidavit said the proposal included scrutinizing employee medical records to develop cases that they were "psychologically

unfit," recruiting people to spy on the targeted workers and using closed-circuit television cameras to observe who the targeted employees talked to and what they read.

The plan was discussed with a Westinghouse attorney and dropped, the affidavit said.

Bricker's final legal attack on the FBI was to find out whose names were blacked out in the documents he had obtained.

Two FBI spokespeople said names routinely are blacked out on documents produced under the Freedom of Information Act because of privacy laws. They were not familiar with Bricker's case.

Bricker accused Westinghouse attorney Bob Dutton of having documents — later found in the FBI files — in his possession during the original settlement talks and not producing them.

That accusation stunned Dutton. "We produced all the documents in our care, custody and control," he said Tuesday.

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FFTF shutdown up in the air

By the Herald staff and Associated Press

Three members of the Northwest congressional delegation Tuesday called for the U.S. Department of Energy to shut down the Fast Flux Test Facility.

Energy Secretary Bill Richardson is expected to announce in the next two weeks whether the government should proceed with an environmental study of the impacts of restarting it or shut it down. The announcement had been expected as early as Thursday, but DOE spokesmen said that's unlikely.

"This issue has dragged on far too long," U.S. Sen. Ron Wyden, D-Ore., and U.S. Reps. Adam Smith and Brian Baird, both D-Wash., said in a letter to Richardson on Tuesday. The experimental reactor has been on standby since 1992.

Those who have said they support a restart of FFTF for an isotope mission include Democratic Gov. Gary Locke, Sen. Slade Gorton, R-Wash., Sen. Patty Murray, D-

Wash., Rep. Doc Hastings, R-Wash., and Rep. Norm Dicks, D-Wash.

In addition, the Tri-Cities Committee for Isotopes has collected 6,400 signatures in support of starting an environmental impact statement for FFTF. It also gathered 60 resolutions or letters from Mid-Columbia, state and federal groups and politicians supporting a study or a restart of the reactor.

A restart would cost about \$215 million over 3 1/2 years, if a decision to begin the environmental impact statement is made this spring. Closing down the reactor would cost about \$210 million.

FFTF operated for 10 years as a research reactor before it was placed on standby for lack of a mission.

Hanford tours to begin April 24

A series of Hanford road tours are scheduled to begin April 24.

The Department of Energy has scheduled eight Saturday morning bus tours around Hanford through Sept. 15.

The tours are free. But riders must pre-register, be at least 16, be United States citizens, and bring a driver's license or other official photo identification.

The tours are scheduled to start at 8:30 a.m. with badging at the corner of Mansfield Street and Jadwin Avenue in Richland.

The tours will drive through the old town sites of Hanford and White Bluffs, by some river shore defunct reactors, and through the 200 Area. Buses will return to the Federal Building about noon.

The tour dates are April 24, May 15, June 19, July 11, July 31, Aug. 14, Sept. 11 and Sept. 15.

To pre-register, call Fluor Daniel Hanford at 376-0213 or 376-8752.

Federal judge dismisses downwinder's DOE suit

By Annette Cary
Herald staff writer

A federal judge Wednesday dismissed a Hanford downwinder's suit to require the Department of Energy to provide money for medical monitoring of those exposed to past radiation releases.

Trisha Pritikin, who was born in Richland and is now a Berkeley, Calif., attorney and activist, sued under the federal Superfund law that governs Hanford's cleanup.

She believes exposure to radiation releases from Hanford when she was growing up in Richland damaged her thyroid gland. Her father, who was a Hanford scientist, died of thyroid cancer.

U.S. District Judge Edward Shea agreed with federal attorneys who said the Superfund law does not give a private citizen the right to require DOE to pay for medical monitoring. However, the Agency for Toxic Substances and Disease Registry could bring such an action.

ATSDR decided in 1997 that a program was needed to monitor the thyroids of 14,000 Hanford downwinders.

Those people lived downwind of Hanford in Eastern Washington and Oregon in the 1940s and 1950s when airborne radiation was

released during tests and the production of plutonium at Hanford.

The releases were primarily of radioactive iodine, which collects in the thyroid gland and can be particularly harmful to children.

ATSDR had proposed checking the thyroid glands of 14,000 people exposed to the highest doses of radioactive iodine for damage. However, it's since scaled back its proposal to focus on providing information and education to eligible downwinders and doctors. They would assess the risk of thyroid disease, and those who still wanted thyroid exams would be given them.

The five-year program is estimated to cost \$28 million. Initially, ATSDR had asked for \$13 million to launch the program.

The change in the program came in part because of the Hanford Thyroid Disease Study, which failed to find an increase in thyroid disease among those with the most exposure to airborne radiation.

ATSDR and DOE have discussed money for the medical monitoring program since 1997 but have not reached an agreement.

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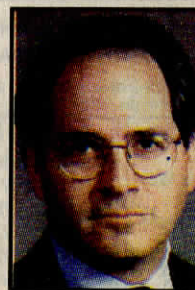
New DOE Hanford manager gets mixed reviews

By John Stang
Herald staff writer

The Department of Energy's new Hanford manager received mostly good marks from observers of his last 4 1/2 years in Colorado and New Mexico.

The dissenting voices came from two public watchdog groups, who portrayed Keith Klein as a "slick DOE bureaucrat" who talks well but doesn't always follow through.

Klein currently is DOE's acting manager for its Waste Isolation Pilot Project. The gigantic underground cavern in New Mexico was created as a permanent storage site for certain types



Klein

New Mexico. It's unknown when that will happen.

of radioactive wastes from several DOE sites.

For the past couple of weeks, the WIPP has been DOE's hottest and most controversial newsmaker as it receives its first wastes from Los Alamos National Laboratory.

Klein, 47, won't leave WIPP for Hanford until DOE finds a permanent replacement for him in

Klein's 26-year DOE career, spent largely in Washington, D.C., also included four years at DOE's Rocky Flats site as deputy manager for technical programs. He left Colorado for WIPP in October.

At Hanford, he'll replace former site manager John Wagoner, who retired in January. Oak Ridge Manager Jim Hall is acting Hanford manager until Klein arrives.

Interviews last week with environmentalists, regulators, city officials and retired contractor presidents in Colorado and New Mexico revealed mostly praise for Klein.

See **Manager**, Page A2

9 lawmakers back increase in Hanford cleanup funds

By the Herald staff

All nine Washington members of the U.S. House of Representatives have sent a letter to a key House subcommittee to ask for an increase in Hanford cleanup money for 2000.

The letter to the House appropriations subcommittee on energy and water development asks for an increase in the Department of Energy's fiscal 2000 budget request by about \$49 million.

Most of that money would go to Hanford's environmental restoration program. Increases would go to sealing up old reactors, boosting cleanup along the Columbia River and ensuring Tri-Party Agreement milestones are met.

The rest — \$10.2 million — would be used to keep on track the neutralizing of plutonium at the Plutonium Finishing Plant and the cleanup of the 324 Building's highly radioactive B Cell, the letter said.

The nine representatives, including GOP Rep. Doc Hastings, did not request increases in other Hanford programs.

Advisory panel calls for impact study to decide FFTF restart

By Les Blumenthal and Annette Cary
Herald staff writers

WASHINGTON — A deeply divided advisory committee recommended Wednesday that Energy Secretary Bill Richardson conduct a full-blown environmental impact study to determine whether to restart Hanford's Fast Flux Test Facility.

Earlier this year, Richardson asked the Nuclear Energy Research Advisory Committee for a recommendation on what to do with the experimental reactor. FFTF, the department's newest and safest reactor, has been on standby since the early 1990s. Proponents of restarting FFTF have argued it could be used to produce isotopes for medical or other uses.

All the disagreements that have punctuated the debate so far over the reactor's fate were on display at Wednesday's meeting of the advisory committee. In the end, on an 11-8 vote, the committee decided to recommend Richardson order an environmental impact statement be prepared on restarting the plant, a process which could take up to two years.

But the committee also decided it would let Richardson know how sharply it was divided.

"I will tell him exactly what happened," William Magwood IV, director of the department's Office of Nuclear Energy, Science and Technology, said after the meeting. "It was very controversial. But he (Richardson) is the decision maker."

Richardson had indicated he would make a decision on what to do with FFTF by today. But department officials indicated it may be several weeks before the secretary makes up his mind.

"That's why he gets paid the big bucks. He gets paid to make decisions," said Richard Reba, a University of Chicago scientist and one of the committee members who questioned the need for an environmental study.

FFTF's supporters viewed the committee's recommendation with cautious optimism. "We certainly hope the secretary will follow the advice of the committee and recommend an

See **FFTF**, Page A2

Hanford finds few takers for leftover cesium

By Annette Cary
Herald staff writer

After a year of trolling the Internet for companies interested in buying some of Hanford's most radioactive leftovers, officials aren't any closer to making a deal.

"In general, the economics are pretty shaky using materials in their current configuration," said George Reddick, a Fluor Daniel Hanford project manager.

A year ago, Fluor Daniel Hanford's office of economic transition posted a notice on the Internet asking if businesses were interested in buying cesium, a radioactive waste left from producing plutonium.

It was an attempt to gauge interest, not a formal request for proposals. But even at that, the effort hasn't been particularly successful.

The capsules are among 1,936 stored in a concrete pool at Hanford, the largest concentration of radioactive material in the United States. About two-thirds of the 22-inch-long capsules hold cesium, and the rest hold stron-

tium, another radioactive waste. Water in the pool shields workers from a potentially deadly dose of radiation.

In the late 1970s and early 1980s, hundreds of the capsules were leased to companies that used their radiation for processes that had a range of benefits, from strengthened wood to sterilized medical supplies.

But the capsules, surrounded by two layers of steel, were designed to be cooled underwater. The metal was damaged when they were taken in and out of the water for irradiation processes.

In 1990, one of them sprang a microscopic leak, forcing closure and cleanup of an irradiation plant in Georgia. The capsules were recalled in an effort that took years because of safety concerns. The cylinders must be transported in water-filled shipping casks.

The capsules are set to be vitrified — turned into glass logs for permanent storage.

That was tentatively scheduled to be done from 2013 to 2018. But in a new proposal, that could start as early as 2007 or 2008. Because

waste still in tanks is more diluted and less radioactive than the capsules, the two may be blended together.

Until vitrification begins, Hanford officials are storing the capsules at an annual cost of \$10 million to \$11 million.

Reddick said any use of the capsules would have to make economic sense for DOE.

However, responses to the Internet advertisement indicated companies are expecting the government to underwrite the use of cesium.

Now, Hanford officials are waiting for DOE officials in Washington, D.C., to develop a policy for the isotope, including addressing finances and safety issues.

"(DOE) may decide potential hurdles are too difficult to overcome," said Loren Rogers of DOE Richland Operations. "It has the potential to be used. But a number of issues would need to be resolved."

Although interest in irradiation, including irradiating food, is increasing, other sources of radiation are available.

Hanford's cesium "isn't currently economically competitive with cobalt 60," Reddick said. Cobalt 60 is produced in nuclear reactors by irradiating a nonradioactive form of the metal.

If the cesium is shipped off the Hanford site as it was in past decades, it likely would be in a different form. For instance, capsules might be opened and the contents made into pellets.

"That would be very, very expensive to do," Reddick said.

Finding a company willing to use the capsules at Hanford might be one way to make the capsules' use more affordable, Hanford officials said.

The strontium capsules are even less likely to be used, although a small amount of Hanford's strontium is being used to make yttrium 90 for medical isotopes.

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

Ex-DOE Hanford chief Lawrence returning

By John Stang
Herald staff writer



Lawrence

long-range planning efforts.

"My main capacity is the delivery of the (tank waste glassification) project to (the Department of Energy)," Lawrence said.

He added: "I'm thrilled to be coming back to Hanford and the Tri-Cities. Obviously, it is the largest and most important project we have. ... It should be the largest and most important project in the Department of Energy."

Meanwhile, Bullock will become BNFL's manager for project operations at Hanford — putting him in charge of technical and engineering matters while Lawrence handles most of the administrative functions.

Bullock has 36 years of managerial and engineering experience — and has led BNFL's Hanford operation since 1993. "Maurice Bullock has done a tremendous job in leading the project's efforts," BNFL Inc. President Rolland Langley said in a press release.

Also, Bullock will be the technical and engineering head of BNFL's privatized projects — which are at Hanford and Idaho Falls, where the company is to sort, compress and dispose of plutonium-laced wastes in barrels.

Under privatization, DOE will not pay BNFL anything until Hanford wastes are glassified or until the Idaho project meets certain milestones.

At Hanford, BNFL is supposed to build and begin operating plants to convert radioactive tank wastes into glass by 2007.

Bullock, primarily an engineering and technical expert, led BNFL's Hanford operations

through the initial design and engineering phases.

But the BNFL operation has grown rapidly in the past two years. In early 1997, it had a handful of employees. Today, it has roughly 375 people.

Bullock said he found himself stretched too thin. Both Bullock and BNFL saw a need to divide the administrative and technical leadership.

Lawrence has 30 years of experience in nuclear fields, including 21 years with DOE. That includes being DOE's Hanford manager from 1984 to 1990.

After leaving DOE, he held a couple of jobs before becoming president of a BNFL subsidiary in 1994. He joined BNFL Inc. in 1997.

Lawrence said he did apply for DOE's open Hanford manager spot earlier this year.

However, Keith Klein, DOE's acting manager of the Waste Isolation Pilot Project in New Mexico,

was chosen instead.

Lawrence said he is happy to return to Hanford — whether as DOE manager or as BNFL's general manager.

Lawrence has known Klein since 1973. At one point, Klein worked for Lawrence in Washington, D.C.

Lawrence said Klein is a good choice for Hanford manager, citing his combination of experience in Washington D.C., and in the field at Rocky Flats and WIPP.

Lawrence also has worked with Dick French, DOE's new manager of the Office of River Protection, which is the renamed and reorganized tank farms department. French was president of the former Kaiser Engineers Hanford Co. while Lawrence was the Hanford manager.

"We had an outstanding relationship," Lawrence said.

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4-6-99

Energy chief to bring news to Tri-Cities

DOE mum on Richardson visit for 'major lands announcement'

By John Stang
Herald staff writer

Energy Secretary Bill Richardson is scheduled to show up Saturday in the Tri-Cities to make "a major lands announcement," Department of Energy officials confirmed Monday.

But DOE would elaborate little on what the announcement will be.

Richardson's visit will involve an environmental and cultural issue, said DOE spokeswoman Karen Randolph.



Richardson



Hastings

And it will not address the Fast Flux Test Facility, she said.

Richardson's visit to the Tri-Cities will be short, she said, and times and details are being hammered out.

Likely candidates for a lands announcement are management decisions for the Wahluke Slope, the Hanford Reach or the Fitzner-Eberhardt Arid Lands Ecology Reserve.

The Wahluke Slope and the Hanford Reach are the more controversial issues, with a wide variety of opinions on how they should be developed and managed in the future.

Here is a look at the issues: ■ **Wahluke Slope.** This is Hanford's 134-square-mile former security buffer zone north of the Columbia River in Franklin and Grant counties.

U.S. Rep. Doc Hastings, R-Wash., and county governments in Grant, Franklin and Benton have pushed for local control of this land.

They want to put a mixture of

wildlife reserves and farmland on the slope.

A Hastings bill to put the counties in charge of the slope stalled last year in Congress.

While U.S. Sen. Patty Murray, D-Wash., has never offered a bill on the slope's future, she favors federal control of that land.

This year, neither side has a bill pending in Congress addressing who should control the slope.

■ **Hanford Reach.** This is the 51-mile stretch of the Columbia River going through Hanford.

Again, a battle of local control vs. federal control for the lands along the Reach has waged in Congress and locally for the past few years. Murray and Hastings had competing bills on this issue that went nowhere in Congress last year.

This year, Murray and U.S. Rep. Norm Dicks, D-Wash., have introduced modified bills in the Senate and House to put the Reach under federal control with a federal-state-local-tribal advisory commission controlling its management.

Hastings has not introduced a counterproposal in a bill this year.

■ **Arid Lands Ecology Reserve.** This is a 120-mile wildlife reserve in western Hanford that is dominated by Rattlesnake Ridge.

DOE already has decided on its future, opting to keep the ALE as a Hanford safety buffer zone, with the U.S. Fish and Wildlife Service managing it as a reserve.

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New BNFL manager Lawrence predicts business as usual

By John Stang
Herald staff writer

BNFL Inc.'s new general manager at Hanford does not expect any major changes soon but notes there are issues that need to be tackled.

Mike Lawrence, BNFL's executive vice president, is in the Tri-Cities this week to prepare to become BNFL's general manager for its tank waste glassification project on April 15.

"I don't see any immediate changes," Lawrence said.

BNFL is in the initial two-year design phase of a potential long-term contract to build and operate plants to turn Hanford's radioactive tank wastes into glass.

Those plants are supposed to begin operating in 2007. And BNFL is not to be paid until the first glass is made.

The Department of Energy has been asking Congress to set aside money each year to start paying the huge bills expected to show up in 2007.

So far, Congress has been allocating slightly more than \$100 million a year. But for fiscal 2001, DOE says \$606 million needs to be set aside, with similar huge amounts to be set aside annually beyond that.

Whether Congress will approve a half-billion-dollar increase in 2001 is on Lawrence's mind. But he said he's not sure yet how to deal with Congress if it becomes reluctant to provide the increase.



Lawrence

Hanford Corp. — which handles tank safety and preparing wastes for BNFL — under one DOE office.

That is the Office of River Protection,

"There might be another way of dealing with it. ... There's no easy answers," Lawrence said.

And Lawrence will face a complicated chain of command.

DOE has reorganized its tank farms operations to bring BNFL and Lockheed Martin

which is the renamed and consolidated tank sections in DOE.

The new manager of the Office of River Protection is Dick French, who reports to the assistant secretary for environmental management in Washington, D.C.

But French also has to work out support matters with DOE's Hanford manager, who soon will be Keith Klein, currently acting manager of the Waste Isolation Pilot Project in New Mexico.

Meanwhile, Lawrence will hang on to a few BNFL corporate duties for its American operations because he will remain executive vice president. However, his main focus will be on Hanford.

And Maurice Bullock, BNFL's longtime

general manager, will become manager for project operations at Hanford. Basically, Bullock will handle technical and engineering matters, and Lawrence will handle administrative, community and political matters.

Also, Bullock will be BNFL's corporate technical head for its privatization projects. There are two — one at Hanford, and another at Idaho Falls.

Lawrence, who was DOE's Hanford manager from 1984 to 1990, said the complicated arrangement will work.

"We have no choice but to make sure it works," he said.

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

Lawsuit claims Hanford overbills

By the New York Times News Service and from Herald reports

WASHINGTON — Two Hanford contractors used a computerized accounting scheme to overbill the Energy Department by at least \$85 million for cleanup work at Hanford over the last 12 years, a former budget analyst for the contractors charged in a lawsuit filed Tuesday in U.S. District Court in Spokane.

The accused contractors are Westinghouse Hanford Co. and its successor Fluor Daniel Hanford, which took over from Westinghouse in late 1996, according to the New York Times. Both companies deny any wrongdoing.

Westinghouse and Fluor were allowed to bill 14 cents for every dollar they paid workers in straight time, to cover vacation, sick time and holiday pay.

But, the lawsuit says, their computerized accounting system added the 14 percent charge to overtime wages as well, as if working extra hours created more vacation or holiday days.

The contractors compounded the improper charges, the suit says, by plugging the inflated labor costs into formulas for calculating pension and benefit costs and general overhead.

Richland DOE office responds to inspector general's report

By John Stang
Herald staff writer

The Department of Energy is unnecessarily duplicating some telecommunication, copying and photography services — costing Hanford about \$1.5 million annually, a March DOE Inspector General's report said.

The report recommended DOE's Richland office collect more information on how these services are handled and direct contractors to use existing services.

DOE's Richland office generally agrees with the inspector general recommendations.

However, the office also says the savings figures are exaggerated and the report left out extenuating circumstances.

The potential annual savings are about \$1 million to \$1.2 million, Tri-City DOE officials said.

The inspector general's report

zeroed in on three services.

These are:

■ Hanford is not using all its available phone lines, while Bechtel Hanford Inc. and Pacific Northwest National Laboratory have bought or are planning to buy additional phone lines.

Hanford has 24,400 telecommunications lines of which 15,700 are in use and 8,700 are available.

Bechtel has bought 540 to 600 lines from a commercial company. And PNNL is looking at buying a 3,400- to 4,000-phone line system in November, the report said.

The report said DOE paid a consultant almost \$450,000 to evaluate the site's telecommunications systems.

That consultant recommended Bechtel and PNNL be directed to use the on-site phone system. The report said DOE did not tackle this until November 1998.

■ Fluor Daniel's copying center has

the unused potential to make 8 million extra copies annually.

But a contractor — whose name was unavailable Monday — set up its own copying center. And it paid for 850,000 additional copies from commercial vendors even though its own center had an available unused capacity for 500,000 more copies a year.

Meanwhile, other Fluor subcontractors had 106,000 extra copies made off-site in 1998.

■ Hanford's photographic service is used at 56 percent of its capacity. However, contractors bought at least \$60,000 in commercial photo services off-site last year.

Pete Knollmeyer, DOE's assistant manager for facilities transition, and Jim Mecca, his deputy — as well as acting Hanford Manager Jim Hall in a letter — agreed with the IG's recommendations on fixing the situation.

But they disagreed with some of

the report's interpretations — saying some mitigating circumstances were left out.

They noted that the Hanford department in charge of these matters has cut infrastructure costs at a growing rate each year with \$200 million trimmed in 1998.

Knollmeyer and Mecca said the consultant's 1997 and 1998 recommendations on the phone systems prompted DOE to begin working to bring in PNNL and Bechtel at those times.

And DOE added cutting phone costs as an incentive in Fluor's contract, they said.

DOE has begun to renegotiate its overall phone contract with U S West, they said. Meanwhile, Bechtel's phone contract is due to expire in a few months.

With all that, DOE is arranging with Bechtel for the company to use the Hanford system when Bechtel's contract expires — provided the

two sides agree it makes economic sense at that time, Mecca said.

Meanwhile, PNNL — with its scientific research — has more advanced phone needs than the rest of Hanford, Knollmeyer and Mecca said. And, as BNFL Inc. grows, it will need more phone lines.

On the copying issue, Knollmeyer and Mecca said a central copying center has led to problems on quick turnaround times to produce copies on deadlines — which has contractors setting up their own systems or going off-site.

Also if less-than-one-day turnarounds are needed on copying projects involving color pager, binding and collating, that forces contractors to go off site, they said.

Knollmeyer and Mecca weren't sure why the off-site photo services were bought.

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Will continue council liaisons

also opposed the plan.

"Please consider the message you'll be sending to the volunteer members of the boards, committees and commissions," he said, reading a written statement. "Is your message we should not take these duties seriously?"

The city council's top goal for 1999 is to foster community involvement. But Councilman Bob Thompson said the proposal only would hinder that.

"If you say something, you've got to walk the walk," he said.

Council members Clark Crouch and Wanda Munn agreed it would

Hanford public access workshops scheduled

A two-day workshop on improving public access to Hanford information is scheduled for Thursday and Friday in Richland.

The public workshops are scheduled to run from 9 a.m. to 5 p.m. both days in Room 147 in the Federal Building. Public comment times are set at 12:15 a.m. and 4:45 p.m. Thursday and 11:45 a.m. and 4:15 p.m. Friday.

This is the second of four 1999 public workshops on Hanford openness matters.

The workshops are sponsored by several Hanford-related agencies and interests, plus the University of Washington Consortium for Risk Evaluation.

The future workshops are:
■ June 2 in Spokane to discuss tribal concerns.
■ Sept. 24 in Portland to review this year's efforts.

For information, call 206-616-3719 or 509-376-6216. The Web site is www.hanford.gov/boards/openness/index.htm

4-8-99

Energy chief to give up to \$500,000 for 'reindustrialization'

Announcement also expected on Reach, Slope

By John Stang
Herald staff writer

Energy Secretary Bill Richardson is expected to present "up to a half million dollars" Saturday to a Tri-City economic development group for a fledgling "reindustrialization" project.

Richardson will likely make the presentation before he goes to the Hanford Reach to make an announcement about management of Hanford lands in the Reach and Wahluke Slope, said a source close to the preparations for the visit.

"Reindustrialization" is the term for an experiment that might be under way by late this year at Building 314 in Hanford's 300 Area. It's a mix of economic development and cleanup that is

patterned after the Department of Energy's Oak Ridge site.

The basic concept is that a tenant is given a low price for renting an unused and contaminated DOE building — in exchange for cleaning up the contamination.

The idea is that empty DOE space would house new businesses, while those businesses also inject extra nonfederal money into Hanford's cleanup.

The Tri-City Industrial Development Council has been tapped to be the middleman and coordinator for the Hanford project. TRIDEC made a request to DOE in early March for \$750,000 for reindustrialization, and Richardson is expected to present a check to TRIDEC officials Saturday.

See **Reindustrialization**, Page A2

4-8-99

FFTF decision expected before May

Energy Secretary Bill Richardson expects to make a decision on the future of Hanford's Fast Flux Test Facility by the end of the month, according to a Department of Energy announcement Wednesday.

The decision had been expected as early as a week ago. Richardson has asked Under Secretary Ernie Moniz to make a recommendation based on the findings of the Nuclear Energy Research Advisory Committee and other analyses under way in the department.

The advisory committee recommended in a split vote at the end of March that an environmental study be done on the reactor. The study would be required to restart the reactor.

Supporters are calling for the restart of the reactor to produce medical isotopes and for other nonmilitary uses.

4-8-99

DOE letter airs concerns on K Basins

By John Stang
Herald staff writer

A high-ranking Department of Energy official voiced qualms about whether Hanford's K Basins project is on track in a recent letter.

Meanwhile, two Hanford contractor officials say those qualms already are being addressed.

James Owendoff, DOE's acting assistant secretary for environmental management, sent a March 29 letter to California-based Fluor Daniel Inc. President James Stein over concerns on how Fluor Daniel Hanford and subcontractor DE&S Hanford are managing the spent fuel project.

Fluor and DE&S Hanford — usually called Duke — are supposed to move 2,300 tons of corroding spent nuclear fuel from the swimming pool like K Basins near the Columbia River to a safer underground vault in central Hanford.

Movement is supposed to begin November 2000 and finish in 2003.

Owendoff's letter said: "It is critical that the best personnel be brought to bear ... to achieve a successful outcome. We do not believe that this has yet been achieved or that a satisfactory team is currently in place."

Owendoff requested that Fluor send plans and information to DOE by April 12 to cover:

- How Fluor will ensure a good senior management team is in place.
- Identifying any potential problems in meeting the November 2000 movement date.
- Fluor making sure its contract with Duke — being renegotiated — will hold the subcontractor accountable for meeting deadlines within budget. Duke's contract expires Sept. 30.

Fluor and Duke are negotiating a new contract to reflect a 1998 overhaul with the two combining their spent fuel departments into one consolidated section.

Dave Van Leuven, Fluor Hanford's executive vice president, and Charles Aycock, Duke's deputy director for the spent fuel project, believes those talks will be successfully concluded.

Both said Owendoff's perception of the spent fuel management team likely is out of date. There have been massive changes in managers at all levels in the past several months, and Owendoff may not be up to date on the new people, Van Leuven and Aycock said.

4-10-99

Wahluke Slope plan considers recreation

By Herald staff
and The Associated Press

Hunting, fishing and other recreational activities would continue to be allowed on the Wahluke Slope if the proposed transfer to the U.S. Fish and Wildlife Service takes place.

Land management transfer plans formally being announced today also include making improvements to the boat launches at White Bluffs

Landing and Ver-nita.

Hanford:
Innovative cleanup program announced.
Page A6.

Energy Secretary Bill Richardson is in the Tri-Cities for today's announcement of the wildlife

refuge plan, along with John Rogers, Fish and Wildlife Service deputy director. Some details were released Friday evening by the Fish and Wildlife Service.

"We want to come to terms with our past," Richardson said Friday. "We created a mess there, we're cleaning it up, but now for future generations we want to pay back Washington state and that community."

The Wahluke Slope is a 134-square-mile area north of the Columbia River in Franklin and Grant counties, across from the Hanford site in Benton County.

For decades, the primitive high desert area was Hanford's security buffer to the north and east. The proposal is for it to remain a buffer between farmlands and the Hanford Reach, a 51-mile stretch of the Columbia River that's a spawning ground for chinook salmon.

If the proposal clears all state and federal administrative hurdles, the area could become a refuge in November, thus protecting the land from future development or agricultural uses.

DOE put the plan in its draft Hanford Remedial Action Environmental Impact Statement, which addresses future uses of lands within the Hanford Nuclear Reservation.

The draft document "will be released in a couple weeks and is subject to public comment," said Joan Jewett, Fish and Wildlife Service spokeswoman.

Hanford test to mix waste cleanup, economic development

By John Stang

Herald staff writer

Southern Hanford's Building 314 is a yellowish faded Cold War hulk whose facade is decorated with rust spots, stains and chipped cement blocks.

Built during World War II, it was used to mold uranium fuel rods for the plutonium production reactors upriver until it was shut down in 1971. Later, it became a Battelle chemical and radiological analytical lab until 1996.

Now Building 314 will be the site of a Hanford experiment that will blend waste cleanup with economic development — dubbed “reindustrialization.”

On Friday, the fledgling program got a \$500,000 boost from the Department of Energy.

Of the \$500,000, roughly \$100,000 to \$150,000 will be used to set up a corporation to handle reindustrialization, Stockard said.

The rest will be used to study the buildings, find and support tenants, and to make sure all appropriate laws and regulations are met.

If the experiment succeeds, Building 314 should have an industrial tenant by the end of 1999.

“Reindustrialization” is basically a complicated swap.

DOE leases contaminated Hanford buildings to a middleman economic development group, which in turn subleases them extremely cheaply to private companies. In return, the companies must decontaminate the buildings.

Thus, unused buildings are used for economic growth and taxpayers save money.

The concept showed up in spring 1996 at DOE's Oak Ridge site in Tennessee. Jim Hall, Hanford's acting manager since January, is the permanent manager at Oak Ridge, and brought the idea with him.

“Reindustrialization” appears to have a decent track record at Oak Ridge. But it sparked a dispute between DOE and the U.S. Environmental Protection Agency on who has the final say on the cleanup work.

Hanford is greeting the concept with cautious optimism.

“The only thing we're fretting about is unexpected uncertainties because we've never done anything like this before. ... We're sure some of them are out there. That's why we're doing the pilot project,” said Sean Stockard, who handles the project for TRIDEC.

Hall said reindustrialization began as a way to cope with a shrinking cleanup budget for Oak Ridge's K-25 complex.

A plant that formerly enriched uranium, K-25 is roughly two to four times bigger than Hanford's 300 Area. K-25 has roughly 250 buildings, compared with about 90 in the 300 Area, and some of those buildings dwarf the 300 Area's facilities.

To handle Oak Ridge reindustrialization, the Community Reuse Organization of East Tennessee, or CROET, was set up.

CROET leases facilities from DOE and subleases them to industrial or cleanup-oriented companies.

“We have not spent a lot of time on marketing because CROET is trying to keep up with the interest and the



Herald/André Ranieri

Dave Evans, project manager for the Department of Energy's 314 Pilot Project, stands in front of the door of the 28,000-square-foot facility north of Richland.

demand,” said Jeff Deardorff, the group's vice president for facilities reuse.

The arrangement has attracted 21 tenant companies.

In the past two years, the concept has created 223 jobs with the tenant businesses, plus 590 extra cleanup jobs, according to CROET.

Tenant firms have done \$1 million to \$2 million in cleanup work, Deardorff said. None of the sites has been totally cleaned up yet, Hall said.

Deardorff declined to say how much rent CROET has collected from the firms, but he said \$325,000 to \$350,000 of that rent has been routed back to cleanup.

Lease arrangements vary from tenant to tenant, depending on the company and how much cleanup it faces, Deardorff said. Most tenants hire licensed cleanup firms to do the actual work, he said.

The dispute between DOE and the EPA involves who should have final say on cleanup. DOE argues the Atomic Energy Act of 1946 gives it the final say to approve tenants and on whether finished cleanup projects meet federal standards.

But the EPA argues the “Hall Amendment” to a 1994 defense authorization budget bill gives it the final approval on tenants and cleanup completion.

“The (reindustrialization) concept itself is not really the source of the conflict. ... The devil is in the details. How you determine what's safe is where the conflict arises,” said Jon Johnston, the EPA's regional federal facilities branch chief in Atlanta.

Hall said the two federal agencies are working on a compromise.

Doug Sherwood, the EPA's Hanford site manager, said his agency has no fundamental problems with reindustrialization, but does have several questions to resolve.

“I'm not hung up on getting the EPA to approve leases at Hanford. But we want reindustrialization coordinated in a manner that does not impact (other cleanup) in the 300 Area,” Sherwood said.

TRIDEC's Stockard and Jim Mecca, DOE's deputy assistant manager for facilities transition, said they are optimistic about the pilot project at the 314 Building. They and Hall said TRIDEC and DOE will work closely with the EPA and state Department of Ecology.

A company oriented toward cleanup and salvage work has been approached about the project, but officials declined to name it.

The 25,000-square-foot Building 314's chief attraction is a 7,500-foot, three-story bay whose floor is dotted with leftover equipment — furnaces, presses and rolling mills that helped shape uranium. Its walls are covered by pipes, tracks and several dozen electrical boxes.

The building also holds old chemical and nuclear material labs, and many offices. But the building also has leftover uranium embedded in

the floor and walls. The uranium does not pose much of a threat to a casual visitor or people working with appropriate precautions, said Bill Bjorkland, facilities transition project manager for Pacific Northwest National Laboratory.

But anyone chipping or drilling into the walls without protection can be contaminated, he said.

DOE still occupies roughly 35 of the 300 Area's 86 buildings. If the 314 Building project works out, DOE and TRIDEC will look at other buildings to lease.

Sherwood, Mecca and Bjorklund noted some questions and issues need to be addressed on reindustrialization. These include:

- What happens if DOE missions and a reindustrialization project coexist at the same site?

- A lot of contaminants are seeping into the ground beneath the 300 Area. How should Hanford deal with tenants cleaning and occupying buildings while contaminants still ooze beneath them? How should digging for new underground utility lines be handled? And how does Hanford clean out underground contamination later on?

- What should be the cleanup standards for occupying a building? Another twist is that cleanup standards will likely vary, depending on type of tenant.

- If an occupied building discharges sewage or wastes, what types and how much should be allowed?

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Committee says FFTF decision can't be put off any longer

By Annette Cary
Herald staff writer

Energy Secretary Bill Richardson should not let the Fast Flux Test Facility linger in standby, eating up tax dollars, a committee has advised.

That could mean doing a less than full environmental impact statement, which would take two years.

The Nuclear Energy Research Advisory Committee sent a letter dated Wednesday to Richardson, with its advice on the future of FFTF, an experimental reactor built north of Richland in the 1970s as part of the nation's breeder-reactor program.

The letter and a report by a subcommittee that visited FFTF were released Friday by the Department of Energy.

The full committee was deeply



Richardson

divided on the issue, casting a split vote last month to advise Richardson to start an environmental study on the reactor. Eight of 19 members voting said they had too little information to make a recommendation.

The letter said most members support starting either an environmental impact statement or a less time-consuming study to determine whether sufficient missions exist to justify restart of the reactor.

The committee found that more acceptable than assuming enough "compelling and unique missions" have been identified to begin the environmental impact statement process.

"Some believe that it should be possible to conduct a more focused and timely study rather than the more extensive EIS to determine whether there were sufficient missions to justify further consideration of a restart of the facility," the letter said.

"Others ... believe that the open and thorough nature of the EIS is the more preferable course toward obtaining the information necessary for a final decision."

“
There are tradeoffs that must be considered with respect to the facility's high cost of operation versus the low probability of DOE being able to build a new reactor.
”

Nuclear Energy Advisory Committee letter

The third option Richardson could consider would be to start dismantling the reactor, which the committee did not support.

But it warned that the department "must remain conscious of the costs involved in a prolonged decision-making process. In any event, the committee doesn't believe that the status quo of continued maintenance in a standby mode is a viable option."

Keeping the reactor in working condition but not operating will cost \$40 million this year.

The subcommittee that took a closer look at the reactor as part of

preparing an "infrastructure road map" of DOE facilities concluded the FFTF has unique capabilities. But it also had some reservations about the reactor.

It pointed out "there is some strong public opposition to FFTF restart." Although the restart has been popular in the Mid-Columbia, environmentalists and some lawmakers want Hanford to stick to cleanup work.

Subcommittee members also were concerned with the reactor's high operating costs. At a minimum, it would cost an estimated \$55 million per year for the facility to be

fully operational and running at a quarter of full capacity, according to the report.

The report also said the reactor has limited flexibility. For instance it cannot be used for neutron scattering research, the report said.

"FFTF is not the type of reactor that DOE would build today for a multi-mission facility," the report said. "However, this reactor does exist, and it does have unique characteristics. Hence, there are tradeoffs that must be considered with respect to the facility's high cost of operation versus the low probability of DOE being able to build a new reactor."

Pluses identified by the committee included that the reactor "has the ability to perform certain research studies that cannot be performed in any other U.S. nuclear reactor." It also has "been maintained in excellent condition during its shutdown period."

Potential missions include making medical isotopes and producing plutonium 238 for batteries to power spacecraft. Plutonium 238 can't be

See FFTF, Page A2

Sunday, April 11, 1999

Study reveals more Hanford-related ills

By Annette Cary
Herald staff writer

PENDLETON — An unusual amount of thyroid disease was diagnosed in children who could have been exposed to radiation from Hanford during the Cold War years, according to a new study.

The study, published in the April issue of Environmental Health Perspectives, was discussed Saturday at a meeting of the Northwest Radiation Health Alliance in Pendleton.

"It's not a standard epidemiological study," said Rudi Nussbaum, professor emeritus of physics and environmental sciences at Portland State University. "We've never claimed it was. But it has raised ... questions."

The published paper was based on a survey done by the alliance, which includes environmentalists, scientists, doctors and people who lived downwind of Hanford when airborne radiation was released. The alliance is

sponsored by the Oregon chapter of Physicians for Social Responsibility.

The group distributed between 1,500 and 2,000 questionnaires through an informal network of concerned downwinders. Some 801 were returned with information related to likely exposure to Hanford radiation and a wide spectrum of health problems.

The questionnaires found 60 cases of hypothyroidism diagnosed from 1945 to 1970 in children and teen-agers, as reported by downwinders who are now adults. Diagnosis was typically made 15 years after the largest radiation releases, according to the study.

Hypothyroidism, a condition in which the thyroid gland is underactive, is not commonly seen in children other than cases that show up in the first few months of life, said Dr. Charles Grossman, a Portland member of Physicians for Social Responsibility. The thyroid hormone is essential for normal growth and bone maturation in children.

The number of reported cases was 10 times

greater than would be normally expected, which seems significant even though the group was self-selected, he said. Downwinders with health problems might have been more likely to be given a questionnaire or more likely to return them than those who don't believe radiation harmed them.

According to the study, most of the juvenile hypothyroid cases were reported in downwinders who were under 10 when they could have been exposed to radiation from Hanford.

"We recognize that a small cluster of cases could be the result of the diagnostic criteria of a single practitioner, but the spread of cases over a wide region makes this unlikely," the study said. Many of the cases were reported in the Tri-Cities, Walla Walla and Spokane.

The cases also did not appear to be the result of doctors looking for hypothyroidism because they did not suspect it to be a problem. Not until 1986 did the government

make public information about releases of radioactive iodine into the atmosphere in the 1940s and 1950s. The iodine is taken up in the body by the thyroid gland.

According to the study, increases in hypothyroidism also occurred in children exposed to radiation releases from fallout from the Chernobyl nuclear accident in the former Soviet Union.

The health alliance study follows the release of the Hanford Thyroid Disease Study, an \$18 million effort paid for through the U.S. Centers for Disease Control. It did not find a link between possible exposure to airborne radiation from Hanford and increased incidence of several types of thyroid disease.

Researchers for that study were not available Saturday to comment on any information they found on the age of onset of thyroid disease.

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

PNNL focuses on a healthy environment

By Glen E. Fryxell
Special to the Herald

Water is the principle requirement for human survival. Food and shelter rank highly, but we can live without those for much longer than we can live without water.

Only the air we breathe equals water for importance, but air is generally all around us, all the time. Clean drinking water is harder to come by. Wars have been fought (and continue to be fought) over access to clean water.

Here in Eastern Washington and Eastern Oregon, we live in a desert. Our communities, and our agricultural economy, would not exist if not for a steady supply of water from the Columbia, Snake and Yakima rivers.

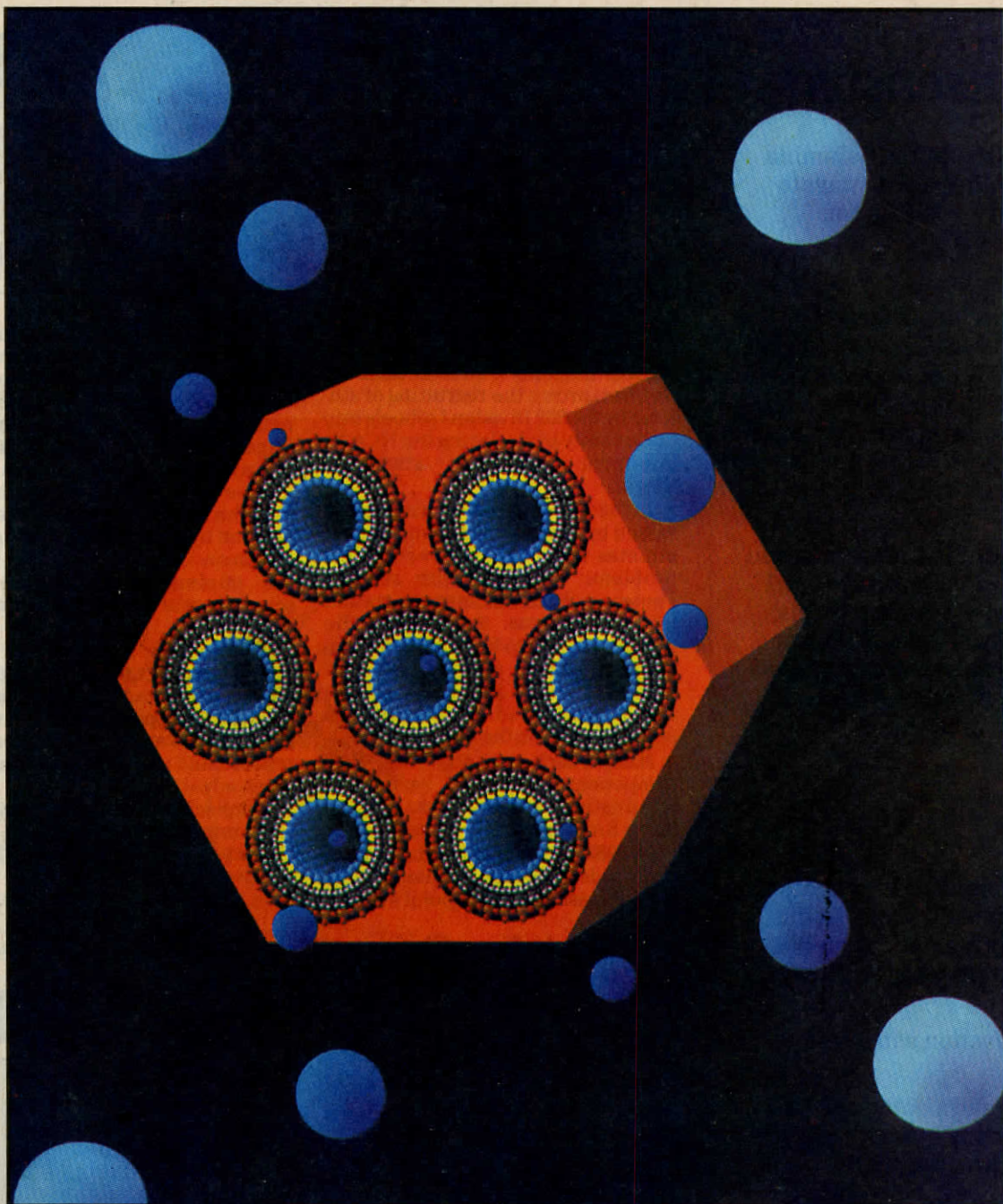
We are blessed in modern-day America to be able to turn just about any tap we find and expect safe, potable drinking water to erupt from within. Sure, sometimes we encounter a "sour" well or hear in the news about an occasional bacterial outbreak in some city's water supply, but when was the last time you thought to yourself as you bent over a water-fountain, "Will this make me sick?" Science and technology have indeed made our lives better and safer.

Other societies are not so blessed. An example in the news recently is Bangladesh, where most of the drinking water wells are contaminated with small amounts of arsenic — not enough to cause acute arsenic poisoning in the short-term, but enough to induce chronic arsenicosis over time, with continued ingestion.

Tens of thousands of people in Bangladesh are slowly, and painfully, dying of chronic arsenicosis because they have no choice. They have no other water supply.

Other examples are found in Japan, the Philippines, and parts of India where mercury has been introduced to the ground water (and food chain) by industrial or mining activity. These local populations have no choice but to drink, cook and wash from this mercury laden water supply. The human toll, generation after generation, in birth defects, disease and death is staggering.

Toxic heavy metals are a



Graphic by Jun Liu of Battelle Pacific Northwest National Laboratories

This representation shows how Battelle scientists have found a way to rid water of harmful materials. The orange hexagon matrix of silica is used as the foundation to build Self-Assembled Monolayers on Mesoporous Supports (SAMMS). Inside each of the pores is a densely packed, ordered layer of molecules, each capable of binding environmentally with problematic chemicals. In the example shown, the sulfur binding sites (yellow balls) attract mercury (the light blue spheres). The mercury in the water clings to the sulfur and can thus be removed, leaving contaminated water clean. By changing the identity of the binding sites (yellow balls), different toxins can be removed from contaminated water.

global concern and we have our share here in America as well. Lead is known to cause serious developmental problems in children as they grow.

In the 1960s and 1970s, blood lead levels in American children were climbing to unacceptable levels. In this case, the pri-

mary sources of exposure were coming from lead-based pigments in household paints and from the combustion of leaded gasoline.

Both of these practices have been phased out, and children's blood lead levels have dropped precipitously in recent years; a

clear victory. The downside is we burned huge quantities of leaded gas in this country and lead was widely dispersed throughout the environment. It is slowly, but surely, creeping into the country's water supply.

Another environmentally problematic metal in the United

States is chromium. The hexavalent state (chromic acid or chromate) is commonly used in the electroplating industry to chrome plate everything from car bumpers to rifle barrels. Unfortunately, this oxidized form of chromium is the most readily absorbed by the body — and also the most toxic.

Not all toxic metals are introduced into the environment by human activity. Some occur naturally (like the arsenic in Bangladesh). Selenate (an oxidized form of selenium) is common to the geology of central California. As a result of the agricultural development of the region, heavy irrigation has caused significant amounts of selenate to be extracted from the soils and mobilized in the run-off from these fields. This water-borne selenate has accumulated in the wetlands of central California, causing massive die-offs in the local fish populations, as well as to the migratory waterfowl that find shelter in these poisonous swamps.

How can we deal with these toxic metals in our drinking water?

Ideally, we would make some kind of filter matrix that we could filter our water supply through to selectively remove the toxic heavy metals, leaving only clear, clean water. Many different filters and sorbent materials are available today (look at the booming business in household water filters).

These vary from simple fiber filters to remove sediments, to ceramic oxides to remove rust and other metal salts, to activated carbon to remove organic solvents.

While these filters are usually modestly effective at achieving their desired goals, there are some inherent limitations due to the materials chosen for construction.

First off, these are usually low-surface area materials. Since the goal is to bind a toxic metal to the surface of the sorbent, the more surface area it has, the more metal it can bind.

Secondly, these filters use materials that usually just physisorb the problematic species to the surface instead of binding it fast with covalent chemical bonds. Think of it this way: A child's muddy hand print is physisorbed to the wall and can be wiped off with a wet

See **Water**, Page D3

Wahluke Slope to stay in federal hands

U.S. Fish and Wildlife Service to take over management

By John Stang
Herald staff writer

Rich Steele saw a 35-year dream come true Saturday on the Columbia River shore.

"I can't tell you how excited I am. I've been getting emotional about it. ... It's important to get this," said Steele, a leader of the Columbia River Conservation League.

The Richland resident spent decades lobbying, preaching, giving river tours, being a watchdog — all to protect the stretch of Columbia River through Hanford dubbed the Hanford Reach.

What tickled Steele on Saturday was that Energy Secretary Bill Richardson formally announced that the Wahluke Slope — down to

the edge of the Columbia River — will stay under federal control.

The Department of Energy will retain ownership of the 140-square-mile Wahluke Slope, and the U.S. Fish and Wildlife Service will take over management of the slope as a wildlife reserve, with hunting, fishing and other recreational activities — about what is allowed now.

Richardson and everyone else are now awaiting a DOE environmental study on future uses of all Hanford lands. The preliminary recommendations are due out later this month. That report will influence development of the slope's management plan.

See **Slope**, Page A2



Herald/Paul T. Erickson

Energy Secretary Bill Richardson shares a laugh with Laura Smith of the Nature Conservancy during a boat tour Saturday on a section of the Hanford Reach on the Columbia River.

Briefly

Compiled by the Herald staff

Coast Guard helicopter in Tri-Cities Saturday

A helicopter rescue demonstration planned by the Coast Guard is set for 1 p.m. Saturday over the Columbia River off Clover Island in Kennewick.

The helicopter will be on hand for people to look at from 11:45 a.m. to 12:45 p.m. at Bergstrom Aircraft in the Tri-Cities Airport, 3601 N. 20th Ave., Pasco. The crew also will be available for questions.

The demonstration is part of the Coast Guard Auxiliary Eastern Area District 13 conference on Clover Island that involves seven auxiliary units from Idaho and Washington.

Computer recycling drive set Saturday in Richland

The RECA Foundation, a Tri-City organization that promotes computer literacy, is planning a computer recycling drive from 11 a.m. to 4 p.m. Saturday at Howard Amon Park, Richland.

People who would like to get rid of old computers, computer parts and accessories are asked to bring them and donate them.

Donations are tax deductible. For more information, call 543-2910 or visit www.tcfn.org on the Internet.

Warehouse legislation may help apple growers

OLYMPIA — A last-minute addition to legislation Thursday could save the apple growers \$1.9 million a year in taxes.

Rep. Bruce Chandler, R-Granger, won support for an amendment that would give growers a tax credit for materials used to build apple storage warehouses.

The credit is expected to spur the construction of much-needed "controlled atmosphere" warehouses where apples can be stored for months following harvest, allowing the farmer to sell his apples at the highest prices.

Chandler, who owns a fruit orchard, said the warehouses are vital to the apple industry's efforts to compete against increased foreign competition.

His amendment was added to a bill that clarified the Legislature's intent that growers not be subject to the state's business and occupation tax.

It now goes to the Senate, which

Hanford protection drafts hit streets today

Public comments to be accepted April 23-June 7

By John Stang
Herald staff writer

A draft federal plan outlining plans for future land uses at Hanford is to begin to come out today.

The draft outlines six scenarios for what should be done with chunks of Hanford's 560 square miles of property after they are cleaned up.

The Department of Energy's draft recommendation would limit future industrial development to southeastern Hanford, the 200 Area in central Hanford, and a spot east of the 200 Area dubbed "May Junction."

The draft "Hanford Remedial Action Environmental Impact Statement" should be available

today at DOE's Reading Room on Washington State University's Tri-Cities campus.

Several hundred people are expected to receive copies in the mail next week. And copies can soon be ordered by calling 372-0649.

A public comment period on the draft land use plan is scheduled to run from April 23 to June 7.

Public hearings are scheduled May 18 in Portland, May 20 at Richland's Shilo Inn and June 3 in Spokane. On May 20, information sessions will be from 3 to 5 p.m. and from 6 to 7 p.m. The actual hearing is to begin at 7 p.m.

DOE is to make the final decision on the plan by Nov. 1.

Tom Ferns, the project's document manager, briefed the Hanford Advisory Board's environmental restoration committee on the plan

Thursday. Committee members decided to encourage the many constituencies represented on the overall board to approach DOE individually to ask that the public comment period be extended.

That's because the full Hanford Advisory Board is not set to meet until June 6, and that would be the earliest it could begin discussing what it might want to say about the draft plan.

The six scenarios include one that calls for no action. The other five are:

■ DOE's recommendation. This calls for wildlife reserves at the Fitzner-Eberhardt Arid Lands Ecology Reserve, the Wahluke Slope, the Hanford Reach, Gable Mountain and Gable Butte, plus the "dunes" area just north of southeastern Hanford.

This corresponds with Energy Secretary Bill Richardson's recent decision to keep the Wahluke Slope as a reserve.

Industrial development would be

kept to the 200 Area, the slightly built-up May Junction area to the east and southeastern Hanford. The area around a gravitational-wave observatory would be limited to research.

And a little mining would be allowed on small pieces of the ALE to provide basalt for central Hanford projects.

■ The three Mid-Columbia county governments' recommendation. This more or less duplicates DOE's stances on where industrial development should be. But it calls for less-strict protections for most of Hanford's lands and recommends some farming be allowed on the Wahluke Slope.

■ The Hanford Natural Resources Trustees Council's recommendation. The council is a mix of tribal, state and federal representatives.

The council wants industrial development to stay within the 200 Area and within part of southeastern Hanford that is smaller than DOE's and

the counties' recommendations.

The council calls for mostly wildlife reserves in the bulk of Hanford, with less strict controls on pieces of land scattered in southeastern Hanford and south of the old plutonium reactors.

■ The Nez Perce Tribe's recommendation. This calls for almost all of Hanford to become a wildlife reserve.

Industrial development would be allowed at the 200 Area, around the Fast Flux Test Facility and the Washington Public Power Supply System. A small area around the historic B Reactor would be zoned for recreational use.

■ The Confederated Tribes of the Umatilla Indian Reservation's recommendation. This closely resembles the Nez Perce recommendation, but with some minor differences.

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Tri-C

Wednesday, April 14, 1999

Tri-Cities can do without columnist's attention

By Jason Hagey
Herald staff writer

You just can't buy this kind of publicity. If you wanted to.

Dave Barry, the Miami Herald humor columnist who likes to write about potato cannons, bad song lyrics and stupid bureaucrats, puts the Tri-Cities in the national spotlight this week with a column about Hanford's radioactive ants.

Naturally, the piece — which will run Sunday in hundreds of newspapers across the country, including the Tri-City Herald — doesn't paint a flattering picture of the Tri-Cities. Nor is it complimentary of all the hard work and groundbreaking science going on at the federal Hanford site.

It doesn't mention the pristine Hanford Reach that exists solely because of Hanford. It doesn't mention the winning Tri-City Americans hockey team. It conspicuously fails to mention the booming construction going on behind Columbia Center mall.

No, rather than write an in-depth, nuanced piece about the country's most contaminated

nuclear dump site and the cities that love it, Barry takes the easy way out.

He makes fun of it all.

The thesis for Barry's column is that because "officials" say there is nothing to fear from the radioactive ants, flies and gnats discovered at the Hanford site, there really is reason to fear.

"I'll tell you when I start to worry," Barry writes. "I start to worry when 'officials' tell me not to worry."

From there, he quotes part of an Associated Press story about the Hanford ants — which was rewritten from the original Tri-City Herald story — with Barry offering some other examples of situations where "officials" initially told us not to worry about something and later changed their minds.

Such as:

Car air bags, which officials initially wanted for safety reasons and later warned that motorists could be hurt by them.

Or marijuana, which was called a dangerous and illegal drug and now is being studied for its potential medical benefits.

The point, Barry writes, is "we cannot trust

'officials' any farther than we can throw them by the leg. This is especially true when it comes to the Hanford nuclear complex. When this complex was built, 'officials' said it was safe; now, the whole area glows like a Budweiser sign."

Sentences like that are enough to make Tri-City boosters cry in their beer. But let's at least pick an excellent Tri-City microbrew — something else our man in Miami forgot about.

Kris Watkins, executive director of the Tri-City Visitor and Convention Bureau, normally would welcome the national exposure that comes from being mentioned in a syndicated newspaper column.

But she wasn't chuckling Tuesday when she heard of Barry's column.

"We are not amused," said Watkins, whose job it is to promote the Tri-Cities as a wonderful place to visit. "I take our image too seriously. I wish I could come up with something humorous in response, but I can't."

Officials at Hanford aren't laughing either, at least not publicly.

It's disconcerting, said Bob Shoup, director

of environmental safety, health and quality for Fluor Daniel Hanford, that the public perception of Hanford often differs from the reality.

The reality in the case of the flies, Shoup said, is that officials aren't aware of any cases where people were contaminated by radiation spread from them.

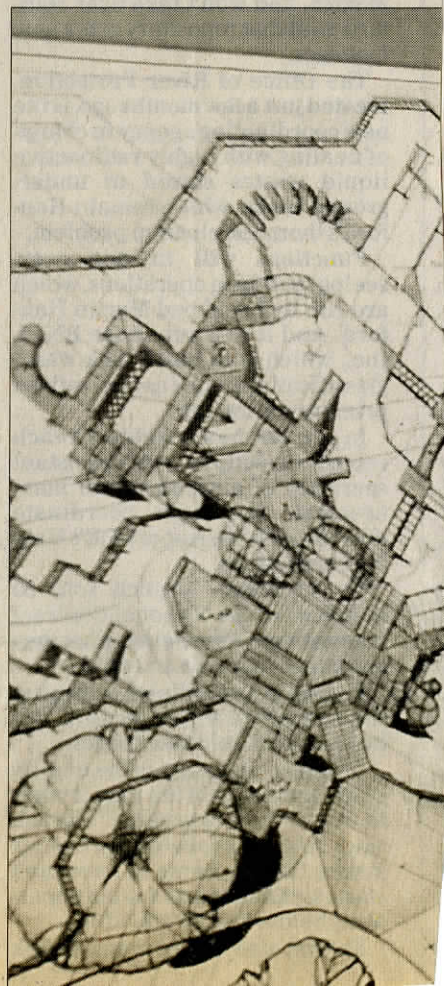
Furthermore, scores of Hanford workers are working diligently to make sure it stays that way, he said.

"There are a lot of very, very good people on the site," Shoup said.

None of them ever will be mentioned in a Barry column, however. Hardworking scientists doing their jobs just aren't as funny as radioactive flies.

Which means the national image of the Tri-Cities is destined to be hot for a while. The half-life of Hanford jokes appears longer than the glowing green tails on Tri-City residents.

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4-18-99

Opening ceremonies held for nuclear waste site

Department of Energy Secretary Bill Richardson on Saturday called the opening of the Waste Isolation Pilot Plant real progress in the effort to clean up waste from the Cold War.

Richardson made the comments in New Mexico, where he presided over the opening ceremonies of WIPP, where some Hanford radioactive waste will be sent. The nation's first permanent nuclear waste repository started accepting shipments March 26.

Hanford's timetable calls for truckloads of transuranic waste to head to WIPP from late 1999 to 2033.

4-23-99

'Flubber' fish may boost survival rate through dams

By The Associated Press

WASHINGTON — Heard of crash test dummies? Now there are crash test salmon.

Engineers Wednesday unveiled Flubber, a six-inch, rubbery replica of a young salmon packed with wires and sensors — a sort of "black box" of the guppy set.

The fake fish will spurt through the churning, 10-foot-long blades of the McNary hydropower dam on the Washington-Oregon border next month to measure how salmon are jostled, scraped and even killed on their treacherous journey downstream on the Columbia River.

Flubber will track seven different indicators such as pressure, velocity, strain and bending motions. "The idea is to document with data what fish experience," said George Hecker, president of Alden Research Laboratory Inc. in Holden, Mass.

The synthetic salmon was developed at the Department of Energy's lab in Richland as part of a five-year, \$8 million government effort to make hydropower dams more fish friendly.

4-21-99

Officials bug Dave Barry to visit Tri-Cities himself

By John Stang

Herald staff writer

We're not terrorized by giant rogue mutant ants.

C'mon, check us out.

That's what Tri-City mayors — all four of them — will say when they invite nationally syndicated humor columnist Dave Barry to the Tri-Cities.

The invite comes after Barry wrote about Hanford's problems with radioactive bugs (he didn't mention the radioactive tumbleweeds) in his column published Sunday.

Barry noted a story about Hanford tackling slightly contaminated ants, fruit flies and gnats — and scoffed at assurances by "officials" that the critters won't grow as big as houses.

As proof, Barry referred to the most authoritative work on radioactive ants — the 1954 sci-fi

film *Them*, which had atom bombs creating giant ants — to outline the potential dangers.

Local "officials" were left cringing at the thought of seeing the Tri-Cities as a convention center for mutant insects that "glows like a Budweiser sign."

To counter this image, Kris Kelley Watkins, president of the Tri-Cities Visitor & Convention Bureau, and the mayors of Kennewick, Richland, Pasco and West Richland expect to send their invitation to Barry by Friday.

"Although we can appreciate the satire, we were dismayed to think your only perception of our area might be a sci-fi vision of rogue ants ready to march across the shrub steppe and conquer the world," a draft of the letter said.

It added, "But since we know you're not comfortable taking our

See **Barry**, Page A2

4-21-99

Hanford efforts help create diverse economy, DOE says

By John Stang

Herald staff writer

Directly or indirectly, Hanford is predicted to add roughly 1,600 jobs to the Mid-Columbia economy in fiscal 1999, according to a report unveiled Friday.

"Our efforts are resulting in a more diverse economy for the Tri-Cities," said Joe Wiley, DOE's leader on the federally sponsored study.

This is the second straight year DOE has led a study on Hanford's direct effects and ripple effects on the economy of Benton and Franklin counties.

The report combines predictions for fiscal 1999 and what actually happened in fiscal 1998. Fiscal 1999 began Oct. 1, 1998.

In 1998, a good year for agriculture created 665 new jobs, which countered Hanford's shrinking work force.

In 1999, agriculture is losing jobs,

while Hanford and other Tri-City employers are doing well.

"This year is a reverse of 1998. Now, agriculture is down and everything else is up," said Mike Scott, a Pacific Northwest National Laboratory economist who worked on the report.

The report estimates the Mid-Columbia will lose 450 agricultural jobs in 1999, while traditional manufacturing firms will stay about even.

Job increases can be linked to the growth of BNFL Inc. — which is technically not part of DOE's Hanford budget and calculations because the federal government won't pay BNFL until its proposed waste glassification plants are operating in a few years.

Also, there are new people at Hanford science facilities. Most of the predicted job increases — an estimated 1,250 — are linked to new Tri-City businesses and

expansions, the report concluded.

The study also looked briefly at fiscal year 2000 and beyond.

"The diversification of the local economy remains on track," it said, "but the challenges remain. As Hanford downsizing continues, the core Hanford budget is expected to continue to decline, slowly eliminating a major component of the ... area's economic base."

Other observations in the report include:

■ In 1998, Hanford's cleanup work force, PNNL's employees, plus Hanford's economic ripple effects, accounted for 36 percent of the Mid-Columbia's jobs and 64 percent of the area's wages. This does not include BNFL's growing work force, which is not covered by DOE's actual annual appropriations to the site.

See **Hanford**, Page A2

4-24-99

DOE's acting Hanford manager says he's going to retire in July

By John Stang

Herald staff writer

Hanford's acting Department of Energy manager will retire in July, causing a domino effect that will send DOE's lead Hanford attorney to Ohio to lead operations there.

Jim Hall, DOE's Oak Ridge manager and acting Hanford manager, announced he will retire July 3.

That leads to Leah Dever, head of DOE's Ohio operations, being assigned to Oak Ridge to replace Hall on July 4.

And that will send Susan Brechbill, DOE's lead counsel at Hanford, to take Dever's slot on July 4.

DOE's Ohio operation covers sites at Fernald, Miamisburg, Columbia and Ashtabula in Ohio and West Valley in western New York.

Hall — a temporary fill-in — had been expected to leave Hanford soon when the new permanent manager, Keith Klein, arrives from New Mexico.

That will happen once DOE selects someone to manage the Waste Isolation Pilot Project in New Mexico — a slot Klein has been filling on a temporary basis.

Hall has spent 31 years with DOE, starting as an attorney and

spending the bulk of his career at Oak Ridge. He was in Oak Ridge on Friday, and was not available for comment.

Meanwhile, Brechbill said she did not apply for the Ohio manager's slot. "I was just tapped," she said. "I'm excited about the opportunity and the challenge there," she added.

Brechbill has spent 30 years with DOE, the last 4½ years as Hanford's lead attorney. She sometimes filled in as acting manager when DOE's manager and deputy manager were away from the site.

She held several posts during a long stint at DOE's Oakland office, which supervises two national laboratories and the Stanford linear accelerator. That included eight years as procurement director and a couple of hitches as an acting line program manager.

She also held posts in Washington, D.C., and Nevada — and led an inspection team on a DOE-related plasma physics lab at Princeton University.

Brechbill came to Hanford in 1994 as lead counsel for the site, and played a prominent role in negotiating various contracts.

In 1996, she was chairwoman of

the evaluation board that sifted through corporate proposals to manage Hanford, and eventually picked a team led by Fluor Daniel.

"The past four years have been the most educational in my years with the department," Brechbill said

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New DOE Hanford manager on way

By John Stang

Herald staff writer

Keith Klein, the Department of Energy's new Hanford manager, is scheduled to arrive in the Tri-Cities next week to begin his new job, according to DOE.

The exact date was not yet set Tuesday.

Jim Hall, DOE's acting Hanford manager, is scheduled to finish his stint at Hanford on Friday, said DOE spokesman Guy Schein. Hall will return to his permanent post as DOE's manager at its Oak Ridge site, then plans to retire in July.

Klein has been with DOE for 26 years, spending 1994-98 at Rocky Flats, Colo., as deputy manager for technical programs. In October, he was appointed acting manager for DOE's Waste Isolation Pilot Project — a huge underground permanent storage area in New Mexico for certain types of DOE wastes.

In late March, DOE announced Klein would replace longtime Han-

ford manager John Wagoner, who retired in January, once a new permanent manager was found for WIPP.

DOE announced the new WIPP manager Tuesday.

She is Inés Triay, who has held several positions, including leadership posts, at the Los Alamos National Laboratory since 1985.

Energy Secretary Bill Richardson praised Klein "for his contributions and excellent work in getting the (WIPP) successfully open and receiving the first shipment of transuranic waste."

Klein's arrival will be the latest in several recent top-level changes at Hanford.

■ A few weeks ago, Dick French, former Kaiser Engineers Hanford Co. president, became manager of a new DOE Hanford office — the Office of River Protection, which supervises all tank waste and waste glassification matters. It is a new concept, under which French reports directly to DOE's assistant

secretary for environmental manager but also must work closely with Klein.

■ Former DOE Hanford Manager Mike Lawrence also recently became BNFL Inc.'s new general manager at Hanford. BNFL is to build and run tank-waste glassification plants — reporting to the new Office of River Protection.

■ Earlier this year, Alice Murphy, DOE's chief financial officer at Hanford, and Charles Hansen, DOE's assistant manager for waste management, were transferred east.

Meanwhile, Hall's impending retirement at Oak Ridge has set in motion another domino effect that will affect Hanford.

Leah Dever, head of DOE's Ohio operations, will replace Hall at Oak Ridge in July. At the same time, Hanford's lead counsel, Susan Brechbill, will replace Dever in the Ohio post.

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

Mid-Columbia briefs

By the Herald staff

Hanford Fire Department wins federal award

The Hanford Fire Department recently received the Department of Energy's top fire protection award — the Walter W. Maybee Award — at a DOE conference in Atlantic City, N.J.

"I am extremely proud of every member of the Hanford Fire Department. ... They have contributed immeasurably to the safety of the Hanford site, its workers and the surrounding communities," said Bob Frix, president of DynCorp Tri-Cities Services Inc. DynCorp is the Hanford subcontractor in charge of the fire department.

The Hanford department was recognized for its efficiency and its ability to handle a wide variety of emergencies including hazardous materials incidents. The department deals with emergencies and fires on and off the site.

"The award was earned by all members of the department," said Hanford Fire Chief Don Good. "It was a team effort, earned because this team was willing to take on new responsibilities and work together to succeed."

Metro/Northwest

A3

Tri-City Herald

Friday, April 30, 1999

DOE chief undecided on FFTF as deadline looms

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — With a self-imposed deadline looming, Energy Secretary Bill Richardson still was trying to decide Thursday the fate of the Fast Flux Test Facility at Hanford.

Richardson met with his top staff Thursday afternoon to discuss whether to shut down the experimental reactor for good or conduct a full-blown environmental study that could lead to the restart of the reactor to produce medical isotopes and for other programs.

"There was a lot of discussion, pros and cons, but Richardson gave no indication what he would decide," said a Washington, D.C., source.

Richardson had said earlier he would make a decision by today, but that could slip into next week as the secretary faces increasing questions about Chinese espionage activities at the nation's nuclear weapons labs.

Attending the meeting with Richardson were Energy Department Undersecretary Ernest Moniz; William Magwood IV, director of DOE's Office of Nuclear Energy, Science and Technology; Keith Klein, the new Han-

ford operations manager; and other top staff.

Earlier in the day, Richardson met with Tri-City Industrial Development Council representatives Sam Volpentest and Bob Ferguson.

"I didn't get the impression he had made up his mind," Volpentest said of the FFTF decision.

Richardson was not only weighing the technical merits of possibly restarting the reactor, but also the politics.

Although most of Washington state's congressional delegation and Gov. Gary Locke have recommended Richardson authorize the environmental impact study, Washington

state Democratic Reps. Adam Smith and Brian Baird joined Oregon Democratic Sen. Ron Wyden calling for the permanent shutdown of the reactor.

A month ago the department's Nuclear Energy Research Advisory Committee recommended to Richardson, on a sharply divided vote, that an environmental study be completed. Richardson had specifically asked the committee for a recommendation on FFTF.

■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at lblumenthal@mcclatchydc.com

DOE to let Richland lab run FFTF study

By Annette Cary
Herald staff writer

Energy Secretary Bill Richardson is expected to announce some good news today for the Fast Flux Test Facility.

He is planning to ask Pacific Northwest National Laboratory to oversee a 90-day study of the Hanford reactor, said Cynthia Bergman, a spokeswoman for Sen. Slade Gorton, R-Wash. Richardson called Gorton on Monday afternoon, then had Department of Energy officials brief the senator's staff, she said.

"This is a golden opportunity to make a case for FFTF," Bergman said. "Gorton

thinks) if we build a case, there is no way Richardson can say no."

"We're very, very lucky to get this 90-day reprieve," said Sam Volpentest, executive vice president of the Tri-City Industrial Development Council, which has advocated studying whether to use the research reactor for production of medical isotopes.

At the end of 90 days, Richardson will decide if the reactor should be shut down permanently or DOE should proceed with an extensive environmental study of the reactor. The study would be required to restart it.

The 90-day study will answer questions such as why the FFTF is needed, what it

would be used for and why it's the best choice for proposed missions, Bergman said.

Supporters of restarting the reactor want it to be used to make medical isotopes for treating cancer and other diseases in new ways. That likely would be combined with other missions, such as doing research, making plutonium 238 for space batteries and testing how materials age when exposed to radiation in space or in commercial reactors.

Richardson was expected to make his decision on the future of the reactor after a report by the Nuclear Energy Research Advisory Committee last month. The com-

mittee split 11 to 8 in favor of recommending an environmental impact statement for the reactor.

Richardson said he needed more information than the committee supplied, Bergman said. "What's missing are plans for the financial, technical and management side of things," she said.

Officials at DOE headquarters in Washington, D.C., have advised Richardson to shut the reactor down to avoid further controversy, Volpentest said. He and Bob Ferguson, also representing TRIDEC, met privately Thursday with Richardson.

Environmentalists and some politicians have opposed a restart of FFTF, preferring

the nuclear reservation focus on cleanup only.

But money to restart the reactor would come from DOE's nuclear energy programs, not from cleanup funds, Volpentest said.

On Thursday, the two TRIDEC representatives told Richardson that there could be more uses for the reactor in international programs, such as international safeguards and nonproliferation, but more time was needed to investigate the initiatives.

"A lot of people have worked on" pitching the pluses of restarting FFTF, Volpentest said. "I think we've collectively

See FFTF, Page A2

FFTF opponents say new study 'throwing good money after bad'



Herald/Chris Thelan

Keith Klein, right, manager of the Department of Energy's Richland office, flanked by Bill Madia, director of Pacific Northwest National Laboratory, talks during a press conference Tuesday at the Federal Building in Richland. The two men announced that a decision on the fate of Hanford's Fast Flux Test Facility will be delayed 90 days while PNNL studies what the reactor would be used for and ways to hold down costs.

By Annette Cary
Herald staff writer

Energy Secretary Bill Richardson asked the Pacific Northwest National Laboratory on Tuesday to come up with specific plans for using Hanford's Fast Flux Test Facility.

If the report shows a compelling need for the research reactor — sufficient programs that make economic sense — he plans to call for an environmental impact study. The study is required for FFTF to be restarted.

"I'm committed to maintaining a strong research infrastructure in this country," Richardson said in a written statement. "Taxpayers have already invested nearly a billion dollars in the Fast Flux Test Facility. We need to respond to that investment by making the best decision on the use of this facility."

Opponents of restarting FFTF criticized the decision as just more study, with Sen. Ron Wyden, D-Ore., calling it "throwing good money after bad." Heart of America North-

west responded to Richardson's announcement by threatening a statewide ballot initiative to try to block the restart.

If PNNL, the Department of Energy's national laboratory in Richland, does not show a need for the reactor, Richardson said he will call for it to be shut down. The laboratory has 90 days to pull the information together with the help of industry and members of the nuclear medicine and scientific communities.

"The secretary realizes operating FFTF is an expensive proposition," said Keith Klein, on his second day as DOE's Hanford manager. "The question is how it can be done and not be a drain on the taxpayer or detract from the cleanup mission. We're bound and determined it not detract from cleanup measures."

He said expanding the Hanford economy should encourage a speedy cleanup of the site.

"Cleanup requires people to work themselves out of a job," he

said. "Part of achieving an accelerated cleanup is to have workers who want to achieve it because there are more exciting things to do."

He's looking for opportunities to move Hanford beyond strictly nuclear work and take advantage of scientific expertise and physical assets that can be applied to other problems, he said.

"The feeling is one of being granted a reprieve," he said. "It's a chance to tie the project up into a complete package that makes sense" scientifically, technically and economically.

"This was a gutsy call for the secretary to make," he said. "A lot of people were saying this is nothing new for FFTF, put it out of its misery."

However, Klein believes it is "a unique machine with unique capabilities. Once you take it down, it's gone forever, unless you go to the considerable expense of rebuilding," he said.

If the reactor is restarted, PNNL

is likely to be in charge of it.

PNNL Director Bill Madia said the report will produce "show me the money" information for Richardson and detail how it would be operated and incorporated into PNNL. That includes looking at financial and cost estimates, including business models and private-public partnerships that might lower operating costs.

The study also would gather letters of intent from those interested in using the reactor. Those could include pharmaceutical companies wanting medical isotopes and other industries that use isotopes.

The National Aeronautics and Space Administration will be approached about making plutonium 238 at FFTF to power space batteries. There also may be some international interest in using the reactor, possibly encouraging nuclear nonproliferation by doing tests of components and materials to allow overseas reactors to use

See FFTF, Page A2

Fluor Northwest ordered to rehire pipefitters

By Annette Cary
Herald staff writer

The Department of Labor has ordered Fluor Daniel Northwest to stop harassing a group of pipefitters it rehired under pressure from whistleblower laws, only to dismiss them again after six or seven months.

The company has been ordered to again return them to work, pay back wages with interest, pay damages and attorney fees.

The company, a subcontractor of Fluor Daniel Hanford, filed a notice of appeal within hours of receiving the ruling Friday. The appeal will come before an administrative law judge and allow the company to present its case in detail, said Jerry Holloway, a spokesman for Fluor Daniel Northwest.

The pipefitters were part of a group who filed complaints of discrimination in June 1997 after they were laid off for refusing to install valves they said were improper for a high-level nuclear waste transfer line, according to the Government Accountability Project, which represented them.

The case was settled out of court, and the men were rehired in March 1998. After six months, four of the men were laid off and another was laid off the following month, the Department of Labor found.

In January and February 1999, the company contacted the union to recruit more pipefitters for work of "unknown" duration, the Department of Labor found. It said four

newly recruited pipefitters were assigned to work for a foreman who had opposed rehiring those involved in the whistleblower action.

The pipefitters who brought the most recent action, Pete Nicacio, Randy Walli, Clyde Killen, Shane O'Leary and James Sull, told the Department of Labor that when they were rehired in 1998, the working environment was hostile and intimidating.

"Evidence supports them," regional administrator Richard Terrill wrote in a letter sent with the ruling.

The pipefitters' foremen and a general foreman signed a handwritten statement indicating they resented rehiring the five, Terrill wrote. "It is doubtful that opinions of this type are normally written on a layoff list and signed by all of the foremen," he wrote.

The company then allowed the same foremen who signed the statement to select who was laid off, he said.

Three of the foremen were heard making disparaging remarks about the men, he wrote. One was heard saying, "The complainants should have stayed laid off. I'll do anything in my power to get rid of them," Terrill wrote.

Another foreman was so hostile that other employees warned the pipefitters to "watch their backs" around him, Terrill wrote. And when they were laid off, "evidence indicates that (other) pipefitters who were laid off with

the complainants were vocal in their support of them," Terrill wrote.

Fluor Daniel Northwest was required to prove the allegations were wrong but failed to make its case, the Labor Department ruled.

"Respondent merely stated the basis for layoff decisions are part of the Hanford Site Stabilization Agreement without further explanation and without permitting the foremen who made the layoff decisions to testify," Terrill wrote. "Respondent did not say how skill, productivity and qualifications are applied ... when making layoff decisions."

Holloway said the company did provide additional information and federal officials had conversations with nonunion employees, but not the union foremen. In the earlier dispute, the laid-off workers had complained to the union about members who backed the dismissals. "That reportedly made Fluor reluctant to bring the foremen back into the investigation."

The Department of Labor is ordering back pay and interest to be paid ranging from \$21,142 for Nicacio to \$37,384 to Killen. Each man also was awarded \$2,000 in damages. Attorney fees of \$12,500 also were awarded.

Fluor Northwest must train or discipline employees who were involved, from superintendents to foremen, the Department of Labor ordered.

When the pipefitters brought their second action against the company, a spokesman said

that from March through October 1998, the company laid off about 90 union crafts workers, including 25 pipefitters.

When Fluor requests more union workers, as it did in January and February, it said it follows procedures governed by its labor agreement with the union. That allows the union to pick the workers who are hired or rehired.

"Fluor Daniel Northwest does not believe in retaliation against workers for safety issues," Holloway said. "I believe our safety record for employees shows it."

The company has not lost a worker day to work-related injury or illness in more than a million worker hours, he said. Its on-the-job injury rate is several times lower than the national construction industry average, he said.

The Department of Energy reimbursed Fluor Daniel \$500,000 in legal fees from the first pipefitter case, said Tom Carpenter of GAP.

How the required training or discipline is done "will be a crucial test for new Hanford DOE Field Manager Keith Klein, especially in light of the Labor Department's broad finding of a hostile working environment," Carpenter said. "... At a minimum, DOE should discontinue its practice of reimbursing the contractor legal fees, which subsidizes illegal retaliation."

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

Hanford pumping 2nd tank

By the Herald staff

Hanford recently began pumping a second radioactive waste tank under terms of a new legal agreement between the state and the Department of Energy.

Pumping on Tank S-106 began April 15 but was shut down to fix a leaking valve until April 23, according to Fluor Daniel Hanford.

It is expected to take 22 months to pump 250,000 gallons of wastes from the tank.

The single-shell tank joins nearby single-shell Tank S-102 in being pumped into double-shell Tank SY-102. Then, the wastes will be pumped from the 200 West Area to the 200 East Area for storage in double-shell tanks until they are eventually converted into glass.

Another single-shell tank — Tank S-103 — is scheduled to be pumped into Tank SY-102.

All this is part of a tentative agreement in March between DOE and the Washington Department of Ecology, which is expected to become official in a few weeks.

Hanford has 54 million gallons of radioactive wastes in 177 underground tanks, of which 67 are suspected of leaking.

Hanford's master plan is to move the wastes from 149 older single-shell tanks into 28 newer, safer double-shell tanks to await glassification. Most of the double-shell tanks and the proposed glassification plants are in the 200 East Area.

So far, 119 single-shell tanks have been pumped. But that pace was way behind the original Tri-Party Agreement timetable. And that prompted Gov. Gary Locke to threaten to sue DOE in 1998.

In March, the two sides agreed to move the final pumping completion deadline from 2000 to 2004 with a consent decree — meaning the state can take any lapses directly to federal court.

The agreement calls for pumping to begin on three new single-shell tanks by July 30 — S-102, S-103 and S-106.

Meanwhile, the pumping of Tank T-104 is almost done, which would make it the 120th single-shell tank to have its liquids removed.

New Hanford manager receives job orientation

By John Stang
Herald staff writer

Keith Klein spent his first day as the Department of Energy's new Hanford manager meeting various top staff members and going through the same orientations any new Hanford worker must do.

Klein officially became the new Hanford manager Saturday, and Monday was his first working day in his office.

"This is a chance to listen and learn. ... I've done some homework (on the area), but not enough," Klein said.

His calendar for the immediate future will include meetings with DOE staff, contractor heads and community leaders.

So far, he has had a couple of informal meetings with Dick French, the manager of a new DOE Office of River Protection, which supervises all tank waste and waste glassification matters. This is a new concept, in which French reports

directly to DOE's assistant secretary for environmental management, while also working closely with Klein.

"Dick and I see it as a partnership and will make it work," Klein said.

Klein is scheduled to spend part of next week in Nevada at a meeting with Energy Secretary Bill Richardson and DOE's other site managers. Those discussions are to include relationships between DOE's Washington, D.C., headquarters and the sites — some of which have new managers.

"I don't know if it will immediately affect anything on the ground here," Klein said.

Klein, 47, has been with DOE for 26 years. From 1994 to 1998, he was deputy manager for technical programs at Rocky Flats. In October, he became acting manager at DOE's Waste Isolation Pilot Project in New Mexico.

He replaces longtime Hanford Manager John Wagoner, who retired in January.

Jim Hall, DOE's manager at Oak Ridge, had been Hanford's acting manager until Friday.

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



Klein

5-10-99

Cleanup compact marking 10 years

By John Stang
Herald staff writer

Christine Gregoire and Mike Lawrence have each kept identical brooms in their offices for the past 10 years.

They're souvenirs of a May 15, 1989, ceremony at the Hanford House hotel in Richland that ingrained the word "cleanup" into Hanford's vocabulary.

The ceremony marked the signing of the Tri-Party Agreement — a thick legal document that ranks just behind the Manhattan Project in its influence over the history of Hanford and the Tri-Cities.

The TPA, as it's known in Hanford jargon, is a pact among the Department of Energy, the U.S. Environmental Protection Agency and the Washington state Department of Ecology.

Its frequently modified pages set the deadlines and standards for cleaning up the most contaminated chunk of land in the Western Hemisphere.

The contract put the official stamp on the end of Hanford's dying Cold War mission of producing plutonium.

For the first time, Hanford was locked into an enforceable and clearly defined cleanup mission.

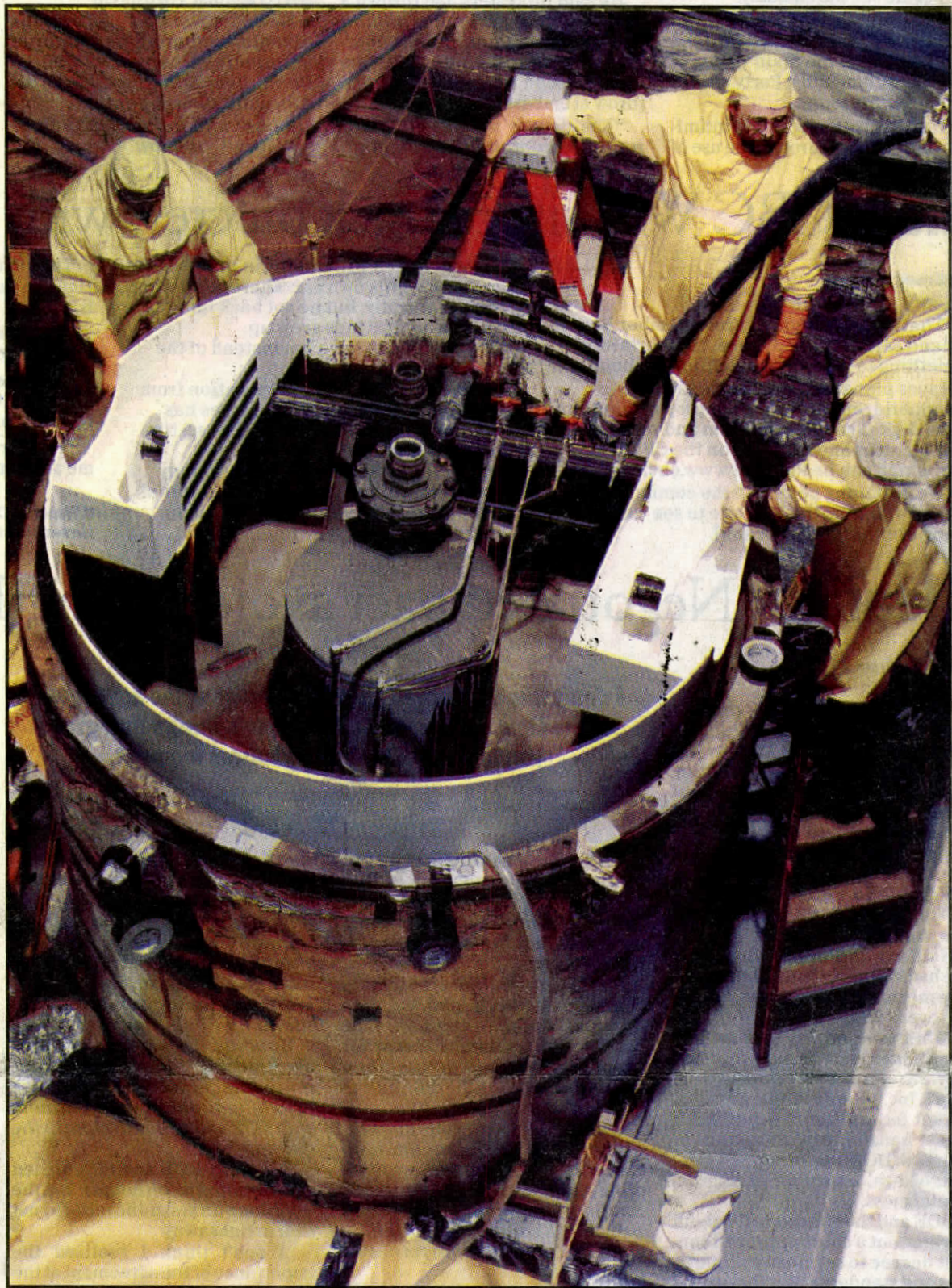
The agreement took what could have been a hodgepodge of environmental fix-it projects — likely accompanied by a messy mish-mash of lawsuits and enforcement actions — and molded them into one somewhat coherent plan, Hanford hands say.

And the legally binding cleanup mission brought some stability to the boom-or-bust life of the Tri-Cities.

The agreement also gave the state and the EPA the weapons needed to push DOE to clean up the old reactors, chemical plants and grounds contaminated by more than 40 years of producing plutonium for atomic bombs.

State and federal regulators who had virtually no oversight, suddenly had the power to fine DOE for failing to follow the new plan.

The pact gave Gov. Gary Locke the legal hammer in 1998 to threaten a lawsuit against the federal government over cleanup



Courtesy of Fluor Daniel

Bechtel Hanford Inc. workers finished cleaning out a spent fuel basin last year at the N Reactor. N Reactor is one of hundreds of Hanford sites covered by the Tri-Party Agreement.

delays — and forced the feds to address them.

It's a tactic Washington governors have used several times in the decade since the pact was signed as a negotiating chip in setting new cleanup deadlines.

The beginnings of the TPA date to the mid-1980s, when DOE began releasing thousands of documents revealing the extent of pollution on the 560-square-mile reservation.

And a federal judge ruled that environmental laws — from which

DOE previously had been exempt — would apply to all DOE sites.

At that time, Gregoire was an assistant in the state attorney general's office, which had joined forces with the state Department of Ecology in an unsuccessful attempt to pry out information on the environmental mess at Hanford.

"Every time we made a request, it was a stone wall. ... The more they didn't provide us, the more (Hanford) got on our radar screen," Gre-

goire, now Washington's attorney general, recalled during a recent interview.

In 1988, she became the director of the Ecology Department. Frustrations grew, and the state began seriously considering a lawsuit against DOE.

But state officials fretted about getting overwhelmed in a lawsuit, Gregoire said. Such litigation would be big, long and expensive

See **Cleanup**, Page A2

Hanford advisers hope tank farm cleanup keeps moving

By John Stang

Herald staff writer

Wait and see, but don't lose cleanup momentum.

An advisory group voiced those two themes Monday as it looked at the Department of Energy's efforts to revamp its tank farm operation at Hanford.

Keith Klein, DOE's Hanford manager, and Dick French, DOE's Office of River Protection manager, discussed the fledging effort in Richland with the Hanford Advisory Board's tank wastes committee.

DOE is in the early stages of setting up Hanford's Office of River Protection, which will supervise tank farms issues ranging from safety to turning the tanks' radioactive wastes into glass.

The new office has a co-equal and co-

dependent relationship with DOE's regular Hanford operation.

In simplified terms, French supervises work done by Lockheed Martin Hanford Corp. and BNFL Inc.

The rest of Hanford is Klein's responsibility.

Klein and French are new to their posts and are working out how the new setup will work. That is expected to be done by sometime this summer.

"We're both going into this as a partnership, and we're going to help each other out," Klein said.

Hanford board members talked about past Hanford reorganizations that almost routinely happen every few years.

George Kyriazis, Kennewick's representative and the board's vice chairman, noted

it took Fluor Daniel almost two years to smooth out its often-rocky reorganization of the site.

"I can visualize a lot of lost time and a lot of lost momentum (in the tank farms' restructuring)," Kyriazis said.

Merilyn Reeves, the board's chairwoman, said, "We don't want to see a slowdown in program during this interim period."

Later Reeves said, "I'd characterize the (Hanford Advisory Board) as having a tremendous amount of skepticism with an attitude of wait and see if this works."

However, Reeves and Todd Martin, a public interest representative and the tanks committee chairman, said the board needs to see what Klein and French actually work out before the board can venture opinions.

French said he and Klein have discussed

some ideas, but have not made any decisions.

French wants a distinct department with full control of its funding and of the contractors beneath it—BNFL and Lockheed Martin. Klein said that appears reasonable. "I don't have a lot of turf instinct in me," he said.

A major question is Lockheed Martin, a subcontractor of Fluor Daniel, which works for Klein.

Lockheed Martin is in charge of safety and operations of the tank farms and of preparing the wastes for BNFL. BNFL is a primary contractor with a radically different contract than Fluor's and is in charge of building plants to turn wastes into glass.

French said DOE is looking at several scenarios of grouping and managing the two

companies under the Office of River Protection, which range from Lockheed becoming a prime contractor to keeping it under Fluor, to something between those extremes. He declined to elaborate.

Another question is dealing with issues where the Office of River Protection and the rest of Hanford overlap. Committee members cited two examples—DOE's Hanford cleanup budget requests to Congress and dealing with subterranean contamination beneath the tanks.

French noted the new setup has to work because additional budget increases and delays could permanently sour Congress or efforts to remove and neutralize the wastes from Hanford's tanks.

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

Hanford health panel to meet in Pendleton

By the Herald staff

PENDLETON — The Hanford Health Effects Subcommittee plans to meet Thursday and Friday in Pendleton.

Public comment sessions are scheduled at noon Thursday and at 11:45 a.m. and 2:30 p.m. Friday at the Tamastlikt Cultural Institute, 72779 Highway 331. Among topics on the agenda are updates on health studies affecting those who worked at Hanford or who lived downwind from Hanford during airborne radiation releases in the 1940s and 1950s.

At 11 a.m. Thursday, researchers on the Hanford Thyroid Disease Study will answer questions from the subcommittee.

The subcommittee also is accepting applications for new members through Saturday. For more information, call 404-639-6337.

The subcommittee advises the federal government on public health activities and research

related to Hanford.

Today, the Inter-Tribal Council on Hanford Health Projects also will meet at the cultural institute, with public comment accepted at 3:15 p.m.



Herald/Paul T. Erickson

John McCoy, transportation certification official for Waste Management Northwest, second from left, explains the use of two radioactive waste containers Tuesday. These are similar to those that will be used to ship transuranic waste to the Waste Isolation Pilot Plant Project near Carlsbad, N.M., starting in October. From left are Charles Spencer, battalion chief for the Kennewick Fire Department;

Jeff Ripley, captain for Benton County Fire District 1; and Nathan Rabe, Kennewick Fire Department captain. Fluor Daniel Hanford is having its annual Hanford site health and safety exposition at the Trade, Recreation and Agricultural Center in Pasco. The event continues from 7:30 a.m. to 6 p.m. today and Thursday. The exposition is open to the public, with no charge for parking or entry.

Briefly

Compiled by the Herald staff and from news services

Kennewick VFW plans open house Saturday

The Kennewick VFW Post 5785 is offering an open house and serving supper Saturday to

PNNL chief outlines challenges of FFTF study

By Annette Cary
Herald staff writer

To critics of restarting the Fast Flux Test Facility, the search for a mission for the Hanford reactor has looked something like a blind dog loose in a meat market, Bill Madia, director of Pacific Northwest National Laboratory, said Wednesday.

"It looks like a dog's breakfast of things," he said. "Part of the challenge is to clearly articulate the mission."

At a breakfast with community leaders, he outlined challenges and opportunities the lab faces as it develops a business and marketing plan. Energy Secretary Bill Richardson has asked for the plan by Aug. 2. He'll use it to decide whether the reactor should be shut down or whether the Department of Energy should start environmental impact studies required to restart it.

Madia is encouraged that DOE officials are interested in a mission that's primarily public, with perhaps a third of the reactor's capacity for private industries, such as pharmaceutical companies.

"That is an advantage to us," he said. "There is a lot more money there."

The reactor would cost about \$55 million annually to operate, and DOE wants information on how much of that money could be covered by contract work at the reactor.

Madia believes the reactor would not need to make that full amount, at least initially.

DOE officials have indicated "if there is a broad public good, public dollars can support that," Madia said.

“
(DOE Secretary Bill Richardson is) taking this very, very seriously.
He took some heat for (requesting) additional study.
”

PNNL director Bill Madia

He foresees a strong public and private partnership for projects in two areas, nuclear science and irradiation services. Irradiation services could include making medical isotopes to treat cancer and other diseases and producing plutonium 238 for space missions.

He's organizing teams to secure commitments from each major market for FFTF, he said.

DOE is not asking for binding commitments from companies and federal agencies, he said. A company might include FFTF services in its long-range business plans rather than committing to a purchase order, he said.

Laboratory teams will be looking for such private interests as pharmaceutical companies planning to sell medical isotopes, industries needing materials research and reactor design tests for the nuclear industry.

Public missions may come from the National Institutes of Health and DOE's responsibilities for medical isotopes. The National Aeronautics and Space Administration will be approached about its interest in plutonium 238 to power space batteries. There also may be Department of Defense interest in nuclear fuel unsuitable for nuclear weaponry and DOE

interest in nuclear technology, he said.

Putting together a solid base of government work would make the reactor's services easier to sell to private and overseas interests, since it will assure them of continued operations, he said.

The study also will consider whether there are alternate ways to provide needed services, Madia said.

"FFTF has a lot of advantages, but it's not the only game in town," he said.

Other options include university and commercial reactors, other DOE reactors, international sources and accelerators.

He thinks advantages over an accelerator are obvious.

"If you want neutrons, you build a reactor," he said. Reactors can provide a wider variety and larger quantities of isotopes than accelerators, he said.

The FFTF also has advantages over many other reactors.

"You can slow down fast neutrons, but you can't speed up slow ones," he said.

The FFTF is named for its higher or "faster" neutron energy level. In commercial reactors, the high energy neutrons are "slowed down" by collisions with hydrogen

atoms in its coolant water. The FFTF's fast flux makes it capable of producing a wide variety of isotopes.

PNNL should have a draft report completed in July. Although plans aren't firm, it may go to independent review next. Because the lab could operate the reactor if it's restarted, an independent review could give the report more credibility in Washington, D.C.

The draft report also will be presented to the Nuclear Energy Research Advisory Committee.

PNNL was asked to put together the plan after the NERAC group split on a vote on whether work should go forward to restart FFTF. Eleven members voted to go forward. One person voted for closure. The remaining eight voting committee members said they needed more information, Madia said.

Richardson took a risk in asking for additional information and continuing to consider restarting the reactor, Madia said.

"He's taking this very, very seriously," Madia said. "He took some heat for (requesting) additional study."

Richardson's directive to PNNL in the study has been "very, very clear," Madia said. "There's been enough of the hand waving, the coulda, shoulda, woulda. It's show me the money time."

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

Hanford's budget not adequate, says panel

By John Stang
Herald staff writer

Hanford does not have enough money budgeted to sufficiently sample and analyze subterranean contamination at a desirable pace, an independent advisory panel said Saturday.

"We don't think there is enough in the budget for (sampling and analysis). You can't get good data without the money," said panelist John Matuszek, an independent hydrogeological consultant from New York.

Hanford currently has about \$6 million allocated in each of the 1999 and proposed 2000 budget to dig boreholes, collect soil and liquid samples from beneath the tanks and analyze them.

That's enough to keep the sampling and analysis on track to meet the Tri-Party Agreement's requirements for examining contaminants seeping from the tanks, said Rich Holten, the Department of Energy official in charge of planning how to coordinate Hanford's efforts to deal with subterranean contamination.

But Matuszek said the effort could and should be sped up with more money. He speculated it would take 40 to 50 new boreholes to get an adequate picture of the contaminants beneath Hanford's tanks — and that could take 20 years to accomplish at the present rate.

Hanford — led by DOE and Bechtel Hanford Inc. — is trying to create a master plan on finding, tracking and dealing with radioactive and nonradioactive contaminants seeping underground and toward the Columbia River.

Sixty-seven of the site's 177 huge underground tanks have leaked more than 1 million gallons of highly radioactive wastes, with another 54 million gallons still in the 177. Meanwhile, another 440 billion gallons of less contaminated water and fluids have oozed underground from disposal trenches and cribs through more than 40 years of Cold War plutonium production.

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

Hanford Land-Use Hearings

From April 23 to June 7, 1999, the U. S. Department of Energy and its nine Cooperating Agencies are seeking public comment on the Revised Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan.

Alternate land uses and their potential environmental impacts at the 586-square-mile Department of Energy's Hanford Site in southeastern Washington are discussed in the document. The Hanford Site currently is a complex land use of large areas of pristine shrub-steppe habitat, divided by 50 miles of Columbia River shoreline, with pockets of industrial areas contaminated with radionuclides and other hazardous substances. The proposed land-use plan will allow the Department of Energy to plan for public needs over the next 50 years or more.

Public Hearings on the U. S. Department of Energy's Revised Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan will be held at the following times and locations during the comment period:

May 18, 1999

State Office Building
800 NE Oregon St.
Portland, OR
Information: 6-7 pm
Public Hearing: 7 pm

June 2, 1999

Wahluke High School
502 N. Boundary
Mattawa, WA
Information Session: 6-7 pm
Public Hearing: 7 pm

May 20, 1999

Shilo Inn
50 Comstock Road
Richland, WA
Information: 3-5 pm and 6-7 pm
Public Hearing: 7 pm

June 3, 1999

Ridpath Hotel
West 515 Sprague Ave.
Spokane, WA
Information: 6-7 pm
Public Hearing: 7 pm

To comment, please attend one of the meetings, send e-mail to thomas_w_ferns@rl.gov or, send mail to Thomas Ferns, U.S. Department of Energy, MSIN H0-12, P.O. Box 550, Richland, WA 99352. Special-needs requests also can be made to these addresses, or by calling Tom Ferns at (509) 372-0649.

Battelle sonar tracks fish, dams

By Mike Lee

Herald staff writer

BONNEVILLE DAM — Rather be fishing?

You might ask Bob Johnson to tag along.

The Battelle scientist operates what could be the world's best fish finder — an unparalleled \$385,000 sonar system that "sees" just about everything that floats toward turbine No. 5 here.

Of course, Johnson is after more than dinner.

He's angling for knowledge that will allow the Army Corps of Engineers to figure out how to best get salmon and steelhead smolt past dams without subjecting them to going through power-generating turbines or an unsettling roller coaster ride through the dam's concrete bowels.

"These tools allow us to see fish movements more completely and take us one step closer to understanding how fish behave near these test facilities," said Johnson, of Pasco.

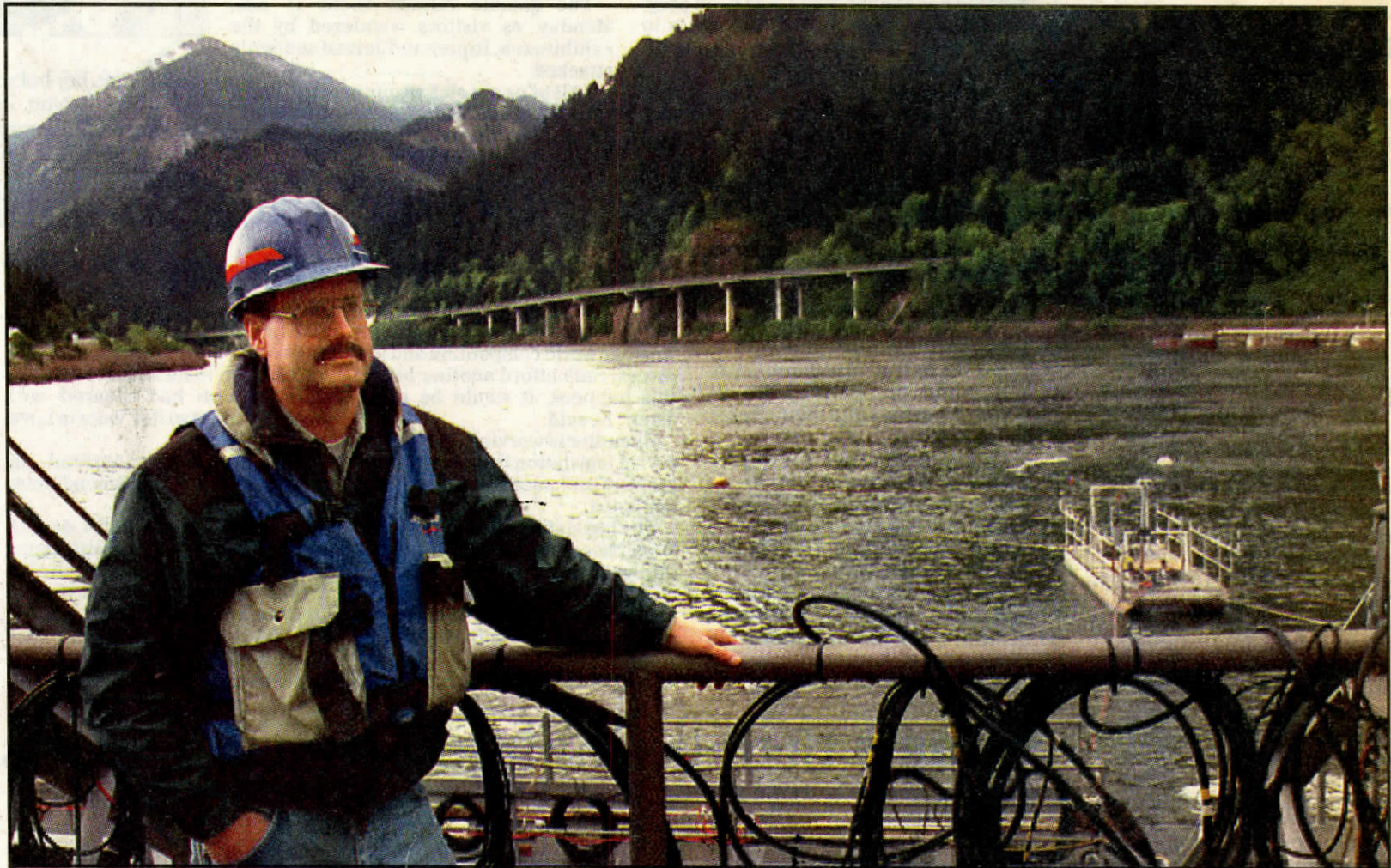
As he completes his second year of testing at Bonneville, the corps says what he found last year is showing its test fish bypass screen, which is designed to divert fish away from the turbines, works better than some river watchers predicted.

According to a recent report by Pacific Northwest National Laboratory operated by Battelle, the new dual-head, multibeam sonar Johnson operates has resulted in "unprecedented insight into fine-scale fish behavior."

"When you get the kind of numbers we got in 1998, it's hard not to look at it," said Blaine Ebberts, corps fish biologist.

Fish agencies are working to make dams invisible to fish migrating downstream — something that was not universally understood as a need when the hydrosystem was built.

A key strategy is spilling fish-



Herald/Mike Lee

PNNL researcher Bob Johnson of Pasco is in his second year of studying how fish approach Bonneville Dam by using his one-of-a-

kind sonar system. The cables shown behind him run along the dam's handrail to his sonar barge, moored behind him.

filled water over dams rather than using it to generate power. But too much spill causes lethal amounts of atmospheric gases to be mixed into the river, and large amounts of water are needed to turn the turbines for electricity.

So in recent years, the corps has kept an "aggressive" schedule to guide fish around the dams before

they get deep enough to go into turbines. Currently, the corps is developing "surface bypass collectors" that route fish around powerhouses.

These facilities likely would become even more important if the region decides to rely on technological upgrades to reduce fish kills rather than breaching the four

lower Shake River dams.

In 1998, the corps installed a prototype fish collection system at Bonneville's original powerhouse. It doesn't actually divert fish around the dam; it just tests fish preferences for gate width, water velocity and flow so the real thing — if it's ever built — could match fish needs.

The agency also operates a much larger functional structure at Lower Granite Dam on the Snake River at the far east end of the river's navigation system.

Hope for surface bypass systems is based on Wells Dam north of Chelan, which has passed nearly 90

See **Sonar**, Page A2

Portland speakers want less development at Hanford

By John Stang

Herald staff writer

PORTLAND — The less development the better for Hanford after cleanup is complete.

That theme emerged from a Tuesday public hearing in Portland on a draft Department of Energy study on what should be done with Hanford's lands.

"We support the greatest amount of protection possible," said Katherine Ransel of American Rivers.

Twenty people showed up at the hearing. And 13 — mostly representatives of watchdog or conservation organizations — spoke.

Other common themes voiced Tuesday included lumping the Wahluke Slope, the Fitzner-Eberhardt Arid Lands Ecology Reserve, the Hanford Reach and the northwestern corner of Hanford together and immediately declaring them a wildlife reserve.

Another common theme would prohibit any grazing on any part of Hanford and to allow no or little mining. And any develop-

ment should be kept to a minimum, several speakers said.

Several voiced opposition to a proposal by Benton, Franklin and Grant counties to farm part of the Wahluke Slope. Meanwhile, tribal rights should be looked after, some said.

"A pristine area must be strived for in order to protect future generations. ... Land-use planning must not be used as a justification to lower cleanup standards," said Paige Knight, representing Portland-based Hanford Watch.

The organizations voicing these themes included the Lower Columbia Basin, Portland and Vancouver chapters of the Audubon Society, American Rivers, the Sierra Club, Hanford Watch, Physicians for Social Responsibility and Hanford Action Oregon.

The DOE draft outlines six scenarios for what should be done with portions of Hanford's 560 square miles after they are cleaned up.

Tuesday's speakers split their support among three scenarios — DOE's recom-

“
A pristine area must be strived for in order to protect future generations. ... Land-use planning must not be used as a justification to lower cleanup standards.”

Paige Knight,
Hanford Watch group

mentation to allow limited development, a Nez Perce proposal that would more or less convert everything outside of the 200 Area to a preserve, or a Natural Resources Trustees Council's proposal somewhere between the other two.

As it reads now, the DOE's draft recommendation would limit future industrial development to southeastern Hanford, the 200 Area in central Hanford and a spot east of the 200 Area dubbed "May Junction."

A draft Hanford environmental impact statement is available in DOE's Reading Room at the Washington State University at Tri-Cities campus.

DOE is to make the final decision on the plan by Nov. 1.

More public sessions are scheduled at 7 p.m. June 2 at Richland's Shilo Inn and at 7 p.m. June 3 at Wahluke High School in Mattawa.

The six scenarios outlined in the draft include one that calls for no action. The other five are:

■ DOE's recommendation. This calls for wildlife reserves at the Fitzner-Eberhardt Arid Land Ecology Reserve, the Wahluke Slope, the Hanford Reach, Gable Mountain, Gable Butte, and the "dunes" area just north of southeastern Hanford.

Industrial development would be kept to the 200 Area, the slightly built-up May Junction area and southeastern Hanford. The area around a gravitational-wave observatory would be limited to research.

■ The three Mid-Columbia county govern-

ments' recommendation. This more or less duplicates DOE's stances on industrial development. But it calls for less-strict protections for most of Hanford's lands and recommends some farming the Wahluke Slope.

■ The Hanford Natural Resources Trustees Council's recommendation. The council is a mix of tribal, state and federal representatives.

The council wants industrial development to stay within the 200 Area and within part of southeastern Hanford that is smaller than DOE's and the counties' recommendations.

■ The Nez Perce Tribe's recommendation. This calls for almost all of Hanford to become a wildlife reserve.

■ The Confederated Tribes of the Umatilla Indian Reservation's recommendation. This closely resembles the Nez Perce recommendation with some minor differences.

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

Public tells DOE they want Hanford native habitat preserved

By John Stang

Herald staff writer

The crowd wanted as much of Hanford's native habitat preserved as possible.

That message was sounded at a Thursday public hearing in Richland on a draft Department of Energy study on what should be done with Hanford's lands after cleanup is complete.

"The natural and sensitive land of the Hanford nuclear reservation is a natural resource that must be preserved for all of us," said area resident Scott Woodward.

That sentiment was echoed by every one of the 27 people who

spoke at the hearing. About 100 people attended.

About half the speakers wanted the federal government to immediately declare the Wahluke Slope, the Fitzner-Eberhardt Arid Lands Ecology Reserve, the Hanford Reach, the Reach's islands and Hanford's northwest corner all as a federal wildlife reserve.

Most voiced opposition to farming and grazing on Hanford lands. Most wanted no mining on the site or the bare minimum needed for cleanup work.

The Lower Columbia Basin Audubon Society, the Environmental Information Network, the Columbia River Conservation

League and the Washington Environmental Council backed those positions. These stances echoed those voiced at a similar hearing Tuesday in Portland.

The DOE draft outlines six scenarios for what might be done with portions of Hanford's 560 square miles after they are cleaned up.

The speakers supported DOE's recommendation, if it is made more restrictive; or a Nez Perce Tribe proposal to convert everything outside of the 200 Area and B Reactor into a preserve; or a Natural Resources Trustees Council's proposal that is somewhere between the other two.

No one supported a proposal by the governments of Benton,

Franklin and Grant counties that would allow recreation in the reactors areas and Vernita area, and allow farming on a major portion of the Wahluke Slope.

That proposal — especially the Wahluke Slope — mirrors the local control stance that the three county governments favor as they oppose federal control of the slope and reach.

DOE is to make its final decision by Nov. 1. More public hearings are scheduled at 7 p.m. June 2 at Wahluke High School in Mattawa and June 3 in Spokane.

The six scenarios in DOE's draft study include one that calls for no action. The other five are:

■ DOE's recommendation. This calls for wildlife reserves at the ALE, the Slope, the reach, Gable Mountain, Gable Butte and the "dunes" area just north of southeastern Hanford.

Industrial development would be kept to the 200 Area, May Junction and southeast Hanford.

■ The counties' governments' recommendation. This more or less duplicates DOE's stances on industrial development. But it calls for less-strict protections for most of Hanford's lands and recommends some farming on the Wahluke Slope.

■ The trustees council's recommendation. The council wants industrial

development to stay within the 200 Area and within a part of southeastern Hanford that is smaller than DOE's and the counties' recommendations.

■ The Nez Perce recommendation. This calls for most of Hanford to become a wildlife preserve except the 200 Area and a recreational spot at B Reactor.

■ The Confederated Tribes of the Umatilla Indian Reservation recommendation. This is similar to the Nez Perce's proposal with some minor differences.

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5-26-99

Senate panel pushes raise in Hanford funding

By John Stang
Herald staff writer

A Senate subcommittee Tuesday recommended a \$40 million increase to the proposed Hanford cleanup budget for fiscal 2000.

The Senate Appropriations Committee's energy and water development subcommittee sent that recommendation to the full appropriations committee, which will tackle it Thursday, according to the offices of U.S. Sens. Patty Murray, D-Wash., and Slade Gorton, R-Wash.

The extra \$40 million includes \$30 million for tank farm work and \$10 million for demolishing and sealing of old plutonium reactors.

If Congress ultimately approves the recommendation, that money would be added to the Department of Energy's original fiscal 2000 request of \$1.065 billion for Hanford cleanup projects controlled by the agency's Richland office.

That \$1.065 billion does not include about \$109 million in DOE salaries plus some Hanford-related grants and programs controlled by DOE's Washington, D.C., headquarters.

Consequently, if \$40 million is added to the \$1.065 billion and \$109 million, Hanford's total cleanup budget could end up at \$1.214 billion for fiscal 2000. Hanford's 1999 cleanup budget is \$1.104 billion.

"Unfortunately, this is only the beginning in a long process. The president's budget request fell short of the amount needed to meet the Tri-Party Agreement, and my colleagues in the House will have an uphill battle to match the Senate amount," Gorton said.

Murray said: "We will have to be really vigilant in the Senate for the next several months so our colleagues don't eye this to (reroute) for what they want (in other programs)."

5-27-99

Fluor faces fine for procedural problems

By John Stang
Herald staff writer

Fluor Daniel Hanford is facing a fine exceeding \$200,000 for procedural problems in its nuclear waste cleanup work, two independent sources confirmed Wednesday.

The Department of Energy could levy the actual fine — which might reach \$300,000 — as soon as today, said one Hanford official familiar with DOE's investigation into the issues.

Deficiencies at K Basins may cost Hanford as much as \$300,000

He stressed the deficiencies are procedural problems, mostly at the K Basins project, where tons of spent nuclear fuel are stored in aging pools about 400 yards from the Columbia River.

"In no way were there any health or safety impacts to workers or to the public," one of the sources said. "There were no radiological releases."

He was unsure if Energy Secretary Bill Richardson had actually signed the paperwork yet to outline the deficiencies, levy the fine and order what remedial measures are to be taken.

Although DOE in Richland is anticipating an inspection report, fine and compliance order from its Washington, D.C., headquarters, no official word had arrived

by late Wednesday, said DOE spokesman Erik Olds.

Fluor spokesman Craig Kuhlman said Fluor cannot comment because it has not received any report or fine yet and has not had a chance to study any findings.

The expected fine and compliance order stem from a late March followup inspection to resolve problems found last

year at the K Basins.

The K Basins are two indoor pools that hold 2,300 tons of spent nuclear fuel. Hanford's master plan is to remove those fuel canisters, process them to make them less dangerous and send them to a huge underground vault in central Hanford by 2003.

The violations fall under the Price-Anderson Act. Since the K Basins project does not fall under the Nuclear Regulatory

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Metro/Northwest

Tri-City Herald

Friday, May 28, 1999

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DOE slaps Fluor with biggest fine yet

By John Stang
Herald staff writer

Fluor Daniel Hanford's fine for numerous failures to ensure the quality of work at a major Hanford cleanup project will total \$330,000, Energy Secretary Bill Richardson announced Thursday.

"We took this action because we have to make sure ... that we do things right. That is ultimately in the best interest of the Hanford community and the taxpayer," he said.

The proposed fine covers problems with supervising lower-level subcontractors, failures to properly check and double-check work, failures to fix long-identified procedural flaws and inadequate documentation on work matters.

Most of the problems are associated with work at the K Basins, two large pools near the Columbia River in which tons of spent nuclear fuel are stored.

The problems began with Fluor's arrival at Hanford in late 1996 and continued at least until early 1999, according to the Department of Energy.

"DOE is especially concerned that these deficiencies are widespread and recurring. Further, numerous commitments by (Fluor) to resolve the quality problems

have not effectively resolved them," stated a Wednesday letter to Fluor Daniel Hanford President Ron Hanson from David Michael, DOE's assistant secretary for environment, safety and health.

It is the biggest fine DOE ever has levied at Hanford. And it is the second biggest in Hanford history — following an U.S. Environmental Protection Agency fine of \$367,078 levied in February against DOE and its contractors for control problems with hazardous materials.

Fluor has 30 days to appeal to DOE to lower the latest fine. The company also has 45 days to impose plans and systems to fix the problems. And within 60 days, a Fluor "facilities evaluation board" is supposed to review Fluor's measures and report to DOE. If Fluor misses the latter two deadlines, it faces extra fines of up to \$110,000 per day, per violation.

"We will have no comment at this time. We'll review the information thoroughly and determine what our course of action will be," said Fluor spokesman Craig Kuhlman. Fluor is cooperating fully with DOE, he added.

And he noted the health and safety of workers and the public were not threat-

ened and no radiological releases occurred.

Michaels' letter noted that Fluor has made key management changes and has begun improvements.

The K Basins, two indoor leak-prone pools, hold 2,300 tons of spent nuclear fuel. Hanford's master plan is to remove the fuel canisters, process them to make them less dangerous and send them to a huge underground vault in central Hanford by 2003.

The violations fall under the Price-Anderson Act, which gives DOE the power and responsibility to regulate safety matters at projects such as the K Basins. An inspection team from DOE's Washington, D.C., headquarters looked over the K Basins project in April 1998, and found numerous procedural deficiencies. Those were outlined and discussed with Fluor in late summer and fall 1998.

Then DOE inspectors returned in March 1999 to see if the problems were fixed and also looked elsewhere at Hanford for similar problems.

The inspection report released Thursday noted 17 separate violations, including:

■ Two lower-tiered subcontractors did design

and fabrication work at the Cold Vacuum Drying Facility in 1997 without adequate and approved quality assurance programs.

■ Fluor had "continuing instances" in which designs and work were not adequately checked for quality.

■ Fluor had an inadequate system to investigate problems. And corrections were not meeting deadlines.

■ In July 1998, DOE told Fluor that similar quality assurance problems existed elsewhere at Hanford.

■ A monorail track — rated to hold 1,700 pounds — over the K West Basin pool was tested in 1997 with a 3,000-pound load without the proper safety analysis done.

■ A certified operator was supervising a trainee using a lifting hook to move fuel canisters in the K East Basin pool. After nine canisters were moved, the certified operator left before the trainee began moving the 10th canister. No one verified the lifting hook was properly engaged, and the last canister dropped into the pool.

■ Several documentation problems occurred with some June 1997 radiological surveys.

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5-28-99

Hanford cleanup funds zoom through Senate

A proposed \$40 million increase to Hanford's cleanup budget for fiscal 2000 sailed intact through the U.S. Senate Appropriations Committee Thursday.

The legislation's next stop will be the full Senate.

If Congress ultimately approves the recommendation, the money would be added to the Department of Energy's original fiscal 2000 request of \$1.07 billion for Hanford's cleanup programs controlled by the agency's Richland office.

That \$1.07 billion does not include what is predicted to be about \$109 million in DOE salaries plus some Hanford-related grants and programs controlled by DOE's Washington, D.C., headquarters.

If the \$40 million is added, Hanford's total cleanup budget could end up at \$1.21 billion for 2000. Hanford's total 1999 cleanup budget is \$1.1 billion.

Meanwhile, a U.S. House Armed Services Committee recommendation to authorize adding \$25.5 million to Hanford's cleanup request went to the full House Thursday. But no action was taken.

An authorization bill essentially sets the limit for what the House can later appropriate. An appropriation bill will have to follow. Eventually, the Senate and House versions will have to be reconciled in a conference committee.

Energy and the labs that, in my judgment, did not do their jobs.”

Meantime, the fallout continued from last week's release of a special House committee's report on China's 20-year campaign to steal America's nuclear technology.

tions in place. "And I never heard anything since."

Curran, on ABC's *This Week*, said the department later adopted those recommendations, but "it would have been nice to have a head start."

Next to the words is an outline of a Japanese soldier with a rifle standing over a prostrate prisoner.

The couple near the sign is Jim and Hazel Bogart of Kennewick. The photo was taken a

War. Page C1.
old soldier from a Min tank battalion that had invading Japanese arm

CREHST museum may house JFK exhibit in future



Herald/Chris Thelen

Gwen Leth, director of the Columbia River Exhibition of History, Science and Technology in Richland, poses with an atomic wand and a plaque commemorating President John F. Kennedy's 1963 visit to Hanford.

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

By John Stang

Herald staff writer

Once upon a time, Camelot arrived to bring some magic to the desert.

That magic sparked a behemoth to grow from the sagebrush on the banks of the Columbia, where it flourished for 20 years before fading away.

Next year, what's left of that behemoth, today just another defunct Hanford plan, should be gone.

Monday update

And only a trace of the magic will remain in a rarely seen relic — the "atomic wand."

For uninitiated readers, the wand is a legendary piece of showboating razzle-dazzle that's a major part of Tri-City folklore.

The time was Sept. 26, 1963, and President John F. Kennedy came to Hanford for a groundbreaking ceremony for the literally named "Hanford Generating Plant."

This benchmark was special for more than one reason.

The plant was to use steam from the neighboring partially built N Reactor to generate 860 megawatts of electricity for the Washington Public Power Supply System.

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OVER

Nobel winner says EMSL only getting better

By Annette Cary

Herald staff writer

In 2000, Pacific Northwest National Laboratory officials expect to take delivery of a scientific instrument worthy of the new millennium.

A nuclear magnetic resonance spectrometer 2½ stories tall is to be lowered through the roof of the Environmental Molecular Sciences Laboratory in Richland.

It is to be added to a laboratory that's already one of the world's best equipped with nuclear magnetic resonance spectroscopy equipment, professor Richard Ernst said Tuesday.

He should know. The Swiss scientist won the 1991 Nobel Prize in chemistry for his contributions to the development and improvement of nuclear magnetic resonance spectroscopy.

"One can say nature has built into it nuclear spies," he said, referring to the core nuclei of atoms. "They send out messages so we can learn about the inner workings of nature."

Exposing some atoms to a magnetic field will change the spinning of their nuclei, making the atom act as a microscopic bar magnet. That includes the carbon atoms common to all forms of life, making nuclear magnetic resonance an important way to look at biological molecules.

By manipulating the atoms with a magnetic field, scientists can learn more about how they are connected to other atoms and the shape of the molecule. They also can see how the molecular structure changes over time, an important feature for studying how materials change or how diseased cells change, for example.

Ernst developed a way to look at nuclei simultaneously to get a multidimensional perspective and to suppress the intense signal of the proton so scientists could look at the carbon signal.



Nobel Prize-winning scientist Dr. Richard Ernst, left, is a guest speaker at the Environmental Molecular Sciences Laboratory at Pacific Northwest National Laboratory in Richland. Seated next to him is EMSL Director Jean Futrell. The two sit in front of a nuclear magnetic resonance spectrometer.

Herald/Paul T. Erickson

"He increased the sensitivity of the method 10 to 100 to 1,000 times to make the technology what it is today," said Dave Koppenaal, acting associate director of the EMSL macromolecular structure and dynamics research group. "That

turned it from a curiosity to one fundamentally important in biochemistry, life science and organic chemistry."

Hanford downwinder files appeal over releases

By Annette Cary
Herald staff writer

Hanford downwinders are trying again to force the Department of Energy to pay for medical monitoring of people exposed to Cold War radiation releases.

On Tuesday, Trisha Pritikin filed a notice of appeal in U.S. District Court in Yakima over a decision by Judge Edward Shea.

Pritikin, a Berkeley, Calif., attorney, believes exposure to radiation when she was growing up in Richland damaged her thyroid gland. Her father, a Hanford scientist, died of thyroid cancer.

In late April, Shea agreed with federal attorneys who said a private citizen does not have the right to require DOE to pay for medical monitoring under the Comprehensive Environmental Response, Compensation

and Liability Act or CERCLA. He dismissed Pritikin's suit.

Her attorney, Tom Foulds of Spokane, said CERCLA has many interlocking provisions and part of it is written so poorly the provisions are inconsistent.

"The true intent of Congress was to get human remedy as well as physical remedy," Foulds said. "DOE has agreed to pay for physical (environmental) cleanup but has refused to provide funds for human (medical) cleanup."

If Shea is correct and Pritikin or another person who lived downwind from radiation releases can't sue DOE, there is no way to make DOE pay for medical monitoring, Foulds said.

"I'm going to court and saying this is not the intent of Congress," he said. He

expects a decision in about a year.

If he wins, medical monitoring would be available not just to Pritikin but also to other Hanford downwinders. The Agency for Toxic Substances and Disease Registry decided in 1997 that a program was needed to monitor the thyroids of 14,000 people who lived downwind of Hanford in Eastern Washington and Oregon in the 1940s and 1950s. Airborne radiation was released during tests and by production of plutonium at Hanford during those years.

The releases were primarily radioactive iodine, which collects in the thyroid gland and can be particularly harmful to children.

ATSDR had proposed checking the thyroid glands of people exposed to the highest doses of radioactive iodine for damage. However, it's since scaled back its proposal to focus on

providing information and education to eligible downwinders and doctors. They would assess the risk of thyroid disease, and those who still wanted thyroid exams would be given them.

The program, as initially proposed, could have cost nearly \$50 million. The scaled-back program should cost considerably less, with cost estimates still being considered.

The change in the program came in part because of the Hanford Thyroid Disease Study, which in draft form failed to find an increase in thyroid disease among those with the most exposure to airborne radiation.

ATSDR and DOE have discussed money for the medical monitoring program since 1997 but have not reached an agreement.

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DOE, Hanford officials don't see fallout from Savannah

By John Stang
Herald staff writer

Hanford's fledgling tank-waste glassification project is significantly different from a similar Savannah River plant criticized Wednesday in a U.S. General Accounting Office report.

Consequently, Department of Energy and BNFL Inc. officials believe the Hanford project will absorb few, if any, ripple effects from the South Carolina plant's troubles.

Savannah River's problems could add several years and \$2.3 billion to \$3.5 billion in extra costs to that site's efforts to convert its 34 million gallons of radioactive tank wastes into glass.

Those extra Savannah River costs could chew into a limited DOE nationwide cleanup budget from which Hanford is already struggling to get enough to meet its own cleanup obligations.

Savannah River's \$2.4 billion glassifica-

tion plant is the oldest among all DOE sites. Construction began in 1983 under DuPont Chemical Co. before Westinghouse inherited the project in 1989 when it took over the South Carolina site. The plant began converting wastes into glass in 1996.

Before tank wastes can be glassified, they have to be separated into highly radioactive wastes and less radioactive wastes. The two wastes require different glassification processes.

The report by the GAO — Congress' investigative arm — focused on that separations stage. It concluded:

- The separations process produced too much benzene gas, which is explosive.
- Westinghouse was designing the glassification facility while it was being built.
- Westinghouse had warnings over the past few years that benzene could be a problem and did not fix it.
- DOE did not adequately provide technical and financial supervision on Westing-

house glassification efforts.

Meanwhile at Hanford, BNFL is in the design stage to build plants to begin converting Hanford's 54 million gallons of tank wastes into glass.

DOE will inspect BNFL's designs and finances to decide by late summer 2000 whether BNFL should proceed. If so, BNFL is scheduled to begin construction in July 2001 and to begin glassification by 2007.

DOE at Hanford is keeping stricter controls on technical and financial matters than DOE at Savannah River did, said Anne Elliott, a DOE spokeswoman based in Washington, D.C.

DOE at Hanford has been routinely bringing in experts from inside and outside the agency to review BNFL's technical plans, said Neil Brown, DOE manager for BNFL technical programs.

BNFL's design work on the fundamental engineering and chemical processes is supposed to be done before DOE's mid-2000

decision, with design work on peripheral aspects to continue beyond that, said Brown and Stewart MacKay, BNFL's technical integration manager.

MacKay also said BNFL is using established technologies used elsewhere, including at its glassification plant at Sellafeld, England. In fact, BNFL consulted with Westinghouse a few years ago at Savannah River and voiced concerns about the separations process at that time, MacKay said.

Hanford's wastes are different from Savannah River's in that the Washington site's wastes are older with a wider variety of chemicals mixed together. Experts interviewed Wednesday had varied opinions on the extent and significance of the differences between Hanford and Savannah River wastes.

However, there is a fundamental difference between the two sites' approaches to separating wastes.

Savannah River modified a 1-million-gallon tank where chemicals are added to enable the high- and low-level wastes to be separated by a filtering system. The sheer size of that tank means too much organic chemicals have to be used to make the process work, creating the excessive benzene gas, said Brown and Roy Scheppens, DOE assistant manager for high level wastes at Savannah River.

"It's like using the world's largest mixing bowl to make a small cake," Brown said.

In contrast, BNFL plans to use an ion exchange method — similar to how a water softener works in a house — in the separations process. The tanks to be used in Hanford's separations process will be custom-built in drastically smaller sizes than Savannah River's tank, MacKay said.

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