

Richland PNNL managers to move to Idaho's nuclear plant

By Annette Cary

Herald staff writer

A team led by Bechtel has been picked to manage and operate the Idaho National Engineering and Environmental Laboratory, the Department of Energy has announced.

Several Tri-City managers will be moving to Idaho Falls to work for Bechtel B&W Idaho.

They include Bill Shipp, who is associate laboratory director for the environmental technology division at Pacific Northwest National Laboratory in Richland. He will hold the number two posi-

tion at INEEL, deputy general manager, and will be director of the Department of Energy's national laboratory there.

Bechtel B&W Idaho is proposing to make INEEL a regional center for environmental research.

Other PNNL managers who will move to Idaho include Penny Phelps, deputy director for communications at PNNL, and Dick Watkins, director of environmental safety and health at PNNL. Paul Kearns and Jerry Ethridge, managers in the environmental technology division, also will take jobs at INEEL, said PNNL spokeswoman Dawn White.

Bechtel Hanford in Richland will

transfer two employees, but the Idaho contract will not affect its top management, said Rick Dale, a spokesman for Bechtel Hanford.

The team winning the five-year, \$3 billion contract includes Bechtel National, BWX Technologies and Inland Northwest Research Alliance, a group of seven Western universities that performs research and development for DOE and other customers. It includes Washington State University.

Bechtel is a worldwide nuclear power and environmental firm employing 30,000 people. BWX also works internationally in the fields of power generation, nuclear

operations and emerging energy and environmental technologies.

Two other groups had submitted proposals to run INEEL, Idaho International Technologies, a Morrison Knudsen-led team, and TRW Energy and Environmental Management Idaho, a TRW-led team.

Bechtel B&W Idaho will replace Lockheed Martin Idaho Technologies Co. on Sept. 30. Transition will begin July 1. Lockheed did not compete for the contract.

"BBWI offered the department a strong, focused management structure, an experienced management team and a record of solid performance at other DOE sites,"

Energy Secretary Bill Richardson said in a prepared statement.

Bechtel Hanford has scored nine straight "outstanding" ratings for its work at Hanford. With two subcontractors, it's in charge of Hanford's environmental restoration work.

INEEL has a major cleanup mission and serves as DOE's environmental laboratory and as a nuclear energy lead laboratory. With 6,000 employees and a \$600 million annual budget, it is Idaho's second-largest employer.

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Metro/Northwest

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Briefly

Compiled by the Herald staff
and from news services

Richland police crack down on traffic violators

The Richland Police Department introduced a new traffic squad Thursday that aims at curbing accidents and traffic infractions.

The squad already has been on the streets for two weeks.

"We've definitely increased the number of traffic stops," said Chief Randy Carner.

Portland summit to highlight benefits of dams

By Mike Lee

Herald staff writer

Unions and businesses in Western Oregon are stepping to the defense of the lower Snake River dams — to the delight of Mid-Columbia dam advocates.

"The more light we shine on this, the more people in the region are going to understand that breaching is extreme and that it is not necessary," said Daren Coppock, executive vice president of the Oregon Wheat Growers League in Pendleton.

breaching isn't the answer to the region's salmon woes.

Ben Bennett, executive director of the Port of Benton, said the forum is "extremely important because in the Portland area... we have had trouble getting the attention of people (to see) what the reality is here."

The Business-Labor Columbia & Snake Rivers Summit will be at the Oregon Convention Center in Portland with work sessions starting at 9:30 a.m. Speakers include Oregon state politicians as well as U.S. Rep. Greg Walden, R-Ore.

detailed study of costs and benefits of breaching the four dams between Pasco and Lewiston. Many biologists believe such a move is necessary for salmon runs to improve, however, many Mid-Columbians fear dam breaching will ruin a way of life made possible by the dams.

"There has not been enough discussion of what the economic impacts would be to the region as a whole — not just Pasco, not just Lewiston, but Portland and... Seattle," Riggs said. "Those types of issues have not been adequately shared with the public, especially

"We don't have 10 years to wait," he said.

The coalition hopes to expand its salmon summit in the fall to include the four states. "It's time for us to do something that makes sense for the fish and the citizens that live here," Coppock said.

"This forum allows us to show leadership and show the public that we're not a bunch of greedy people who don't care about fish."

Forum sponsors include the Pacific Northwest Waterways Association, Northwest Food Processors and unions representing dam

Efficiency earns awards for PNNL, Hanford

By the Herald staff

Hanford and Pacific Northwest National Laboratory workers were honored Thursday for improving government efficiency.

Vice Presidential Hammer Awards were given to teams of employees from the Department of Energy's Richland office, Fluor Daniel Hanford, DynCorp, Fluor Daniel Northwest, Informatics and Battelle, which operates PNNL for DOE.

The awards recognize employees who cut through red tape to make government operations work better, cost less and deliver results. Hanford employees have won seven Hammer Awards in the past three years.

The three awards presented by U.S. Rep. Doc Hastings, R-Wash., honor:

■ PNNL workers for developing a service that electronically finds and distributes information from 11 federal agencies on research and development money available through the Small Business Innovative Research and Technology Transfer programs.

■ The Energy Savings Performance Contract team, which formed a partnership with Johnson Controls to modernize steam systems on the 560-square-mile Hanford site. The project is expected to save more than \$108 million in energy and other costs during the next 25 years. It also reduces the greenhouse gas emissions by more than 1,000 tons each year.

■ The team that arranged last year's transfer of the 1100 Area — a total of 816 acres, 26 buildings and 16 miles of railroad track — from the Department of Energy to the Port of Benton. The transfer will save DOE about \$3.5 million each year by consolidating employees and eliminating unnecessary Hanford functions such as the railroad. Plus, the 1100 Area now is available for use by the private sector through the port.

Hanford panel asks how river protection office works

By John Stang

Herald staff writer

SPOKANE — The Hanford Advisory Board is concerned about how the site's new Office of River Protection will fit into the overall plan for cleaning up Hanford.

The board consequently wants the Department of Energy to explain at the board's next meeting July 15-16 in Richland how the arrangement works.

U.S. Rep. Doc Hastings, R-Wash., got Congress to pass legislation that puts Hanford's tank farm operations and efforts to convert the radioactive wastes inside the tanks into glass under the control of the new agency.

The Office of River Protection is separate from but equal to Hanford's main DOE operations. Hanford DOE is supposed to

provide support to the Office of River Protection. And the Office of River Protection is supposed to report directly to DOE's assistant secretary for environmental management in Washington, D.C.

The precise arrangements are still being hashed out by the two new co-equal DOE managers — Keith Klein for the main Hanford office and Dick French for the Office of River Protection.

On Friday in Spokane, the Hanford Advisory Board approved sending a letter to Klein, French and Acting Assistant Secretary James Owendoff that outlines its concerns and questions.

The new setup "has created a significant amount of uncertainty in the program on the site and in the relationship with the regulators, public and tribes. At the same time,

the program's history indicates that a little disruption may be a benefit," the letter said.

The board added a long list of questions: ■ How will the Office of River Protection will be regulated under the Tri-Party Agreement, and how will Fluor Daniel's site management contract with DOE be altered?

■ Will the Office of River Protection have a separate budget from the rest of Hanford? That raises questions about how site-wide priorities are set, with two separate departments fighting to budget money, the board said.

■ How will worker safety issues, overhead and support services be split or shared between the two departments?

■ How will the two departments deal with public involvement issues and politically

sensitive government-to-government relations with the region's tribes.

The Office of River Protection and the main Hanford operation also will have to work out how to share overlapping programs and facilities, board members said. These include dealing with subterranean contamination in the 200 Area, sharing the 222-S analytical lab, and sharing the 242-A evaporator that reduces the volumes of wastes.

Another concern was the need to borrow underground tanks from Lockheed Martin Hanford Corp. to help deal with an underground Plutonium Finishing Plant tank filled with plutonium-laced sludge.

Hanford's main operations are in charge of the PFP. The Office of River Protection is in charge of Lockheed. Board members

wondered how difficult it would be to lend experts between the two separate Hanford offices.

Also Friday, the Hanford board approved sending a request to DOE for the board to fill at least two slots with experts of its own choosing on a panel that will look at backup ways to finance tank waste glassification if the current effort falls through.

BNFL Inc. is preparing designs and financial packages on building and operating tank waste glassification plants.

DOE is supposed to review BNFL's designs and finances to decide by late summer 2000 whether to proceed.

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

Pipe welds in K Basins substandard, tests show

By John Stang

Herald staff writer

SPOKANE — More than 60 percent of the welds checked so far in a key K Basins filtering network are defective, a federal official told the Hanford Advisory Board on Thursday.

The K Basins are two indoor water-filled pools near the Columbia River that hold 2,300 tons of spent nuclear fuel — radioactive waste — in corroding canisters. Water from the pools will be pumped into a network of newly installed filters to be cleared up and then returned.

Recently, Hanford workers began checking the welds to see if they are smooth and solid. Instead, the workers found welds that are rough and pitted.

So far, workers have checked 55 out of 400 welds. And 35 of those 55 are defective, Loscoe said. The problem was discovered about a week ago.

"It was just plain sloppy welding," said Phil Loscoe, DOE's acting director for the Hanford spent nuclear fuel project. He briefed the Hanford Advisory Board Thursday in Spokane.

The Department of Energy is investigating how the defective welds slipped through quality control systems meant to catch the problem.

And DOE is trying to figure out how to fix the problems and to find what ramifications this will have on the costs and timetables of the troubled K Basins project.

And these new troubles come just after DOE fined Fluor Daniel Hanford \$330,000 for numerous quality control problems, mostly at the K Basins.

Hanford's master plan is to remove the fuel from the pools, put them in bigger specialized canisters, remove every bit of water from the fuel and store it in a huge underground vault in central Hanford.

The pools' water gets cloudy from various sludges on the bottoms of these tanks and from bits and pieces floating loose from the corroding fuel canisters. The filtering system will rid the waste of this debris. It has been installed in the K West Basin, but installation is not complete in the K East Basin.

Hanford board member Shelley Cimon, representing the Oregon Hanford Waste Board, said: "I'm stunned that (35) out of (55) welds were unacceptable. ... In this day and age, we should not see a percentage like that."

The welds are in pipes 2 inches in diameter or smaller — and are mostly underwater.

The problem is that tiny bits of radioactive particles can get trapped in the pits in the welds, Loscoe said. The radiation from the trapped and stationary particles can get through the welds.

The problem does not really endanger workers, Loscoe said. Instead, it makes clearing up the water more difficult, and the trapped radioactivity will slow down the decontamination of the K Basins

See Welds, Page A2

B&W Hanford employees transferring to Idaho plant

By the Herald staff

Several B&W Hanford Co. employees will be transferring to Idaho, after the announcement last week that Bechtel B&W Idaho has won the contract to manage the National Engineering and Environmental Laboratory.

They include Mark Olsen, general counsel for the company, George Hayner, director of 300 Area stabilization projects, and Dave Lucoff, deputy director of the advanced reactor project. Managers from Pacific Northwest National Laboratory in Richland and Bechtel Hanford who also will be leaving for INEEL were announced earlier.

B&W Hanford, one of Fluor

Daniel's major subcontractors, is in charge of decontaminating, closing and taking care of several Hanford facilities.

BWX Technologies, the parent company of B&W Hanford, is part of the team awarded a five-year, \$3 billion contract to manage INEEL. It also includes Bechtel National and an alliance of regional universities, including Washington State University.

BWX is a world leader in power generation, nuclear operations and emerging energy and environmental technologies.

The Bechtel B&W Idaho team offered a record of solid performance at other DOE sites, said Energy Secretary Bill Richardson last week.

Hanford pumps out wastes to avoid overheating

By John Stang

Herald staff writer

Hanford's most troublesome waste tank may no longer be a major headache.

Workers pumped 46 vertical inches of the radioactive sludges from Hanford's Tank C-106, which at least partly cured its tendency to spontaneously heat up. Nine inches were removed last week.

It will take a few weeks of studies to determine if the problem is fixed, said Fran DeLozier, president of Lockheed Martin Hanford Corp., which manages the federal site's waste tank farms.

"We absolutely know we don't have to add water anymore," she said.

In the past, Hanford workers routinely added water to the tank to keep the wastes from heating to potentially flammable or explosive levels. But adding water to the underground tank increases the risk of radioactive contamination spreading through the soil if the tank leaks.

Right now, the single-shell Tank C-106 is not one of the site's 67 suspected leaking tanks.

A few months ago, the tank held 229,000 gallons of wastes — 32,000 gallons of liquids and a 197,000-gallon layer of sludge that was 6 feet deep.

The mixture contained about 5 million curies of strontium 90, which is one of the deadlier radioactive substances at Hanford.

One purpose of the current follow-up studies is to see how much of that radioactivity remains.

Hanford scientists calculated that removing roughly four feet in depth of that sludge would cure the heating problem. The wastes are being moved to the double-shell Tank AY-102, which has a more advanced ventilation system that cools wastes without adding water.

With the last week's work, scientists believe enough wastes were removed to ensure cooling water doesn't have to be added, though some spontaneous heating might remain, DeLozier said. However, any remaining temperature increases should be small enough to be handled by an improved

venting system in the tank, she said.

The pumping has gone on and off since November.

Problems that had to be solved included chemical vapors that irritated some workers' throats and some suction troubles. Also, the pumping was periodically stopped for studies on how the wastes were being affected.

In a few weeks, Hanford officials expect to continue pumping the rest of the sludges and liquids out of Tank C-106, leaving only solid salt cakes and crusts in the bottom that will be removed later.

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

Oregon lawmakers want input at Hanford

By The Associated Press

WASHINGTON — Oregon would get as much say as Washington in directing the cleanup of the Hanford nuclear reservation under a bill two Oregon lawmakers introduced Tuesday.

Nearly 1 million Oregonians live downriver from the nation's most contaminated nuclear site in Washington, and thousands of Oregonians live within 50 miles of the site, Rep. Peter DeFazio said.

Any mistake in

Hanford's

cleanup could

pollute the

Columbia River

or send a contami-

nated plume of air

into Oregon, the

Democrats said.

"Oregonians

have a very nat-

ural interest,"

DeFazio said. "My

message to people in Washington

state is, We want to help."

The bill by DeFazio and Rep.

Greg Walden, R-Ore., would add

Oregon as a fourth party to the so-

called Tri-Party Agreement that

governs the cleanup effort. The

agreement involves the Depart-

ment of Energy, the Environmental

Protection Agency and the state of

Washington.

The effort to add a fourth party

isn't being welcomed by a Wash-

ington congressman.

Rep. Doc Hastings, R-Wash.,

pointed out Hanford is located in

Washington and is on federal land.

The EPA and the Energy Depart-

ment represent the interests of

Oregon and other states, he said.

"We don't need another regu-

lator at Hanford," Hastings said in

a statement. "We need cleanup,

and we need to move toward

streamlining management, not

adding layers of regulators."

An Energy Department

spokesman said Oregon has repre-

sentatives on the Hanford Advisory

Board, and his agency frequently

consults with Oregon officials.

"They are very much a part of

things that happen at Hanford,"

Guy Schein said.

Although Oregon is asked for

advice and guidance on Hanford

issues, the state's advice is some-

times ignored, said Mike Graine,

assistant director for Oregon's

energy office.

The DeFazio-Walden bill for the

first time would give Oregon a true

say in the cleanup, he said.

Oregon Gov. John Kitzhaber, a

Democrat, also endorsed the pro-

posal. "Oregon has as much at stake

in the cleanup of Hanford as Wash-

ington," he said in a statement.

A spokesman for Washington

Gov. Gary Locke, a Democrat, said

he has not seen the bill and could

not comment directly on it.

Hanford to pump 'burping tank' in fall

By John Stang

Herald staff writer

Hanford officials plan to begin pumping some wastes out of the site's infamous Tank SY-101 this fall, which will be one step in efforts to deal with the thickening surface crust inside it.

Pumping of about 100,000 gallons of radioactive sludges and liquids is expected to begin in October or November.

After that, Hanford scientists will analyze what needs to be done next to neutralize gas buildup problems in the underground tank, said Fran DeLozier, president of Lockheed Martin Hanford Corp.

Lockheed is in charge of Hanford's tank farms operations. Lockheed and Department of Energy officials gave a briefing Tuesday on several tank farms matters.

Tank SY-101 — which contains 1.12 million gallons of wastes — is one of central Hanford's 177 tanks, which hold a total of 54 million gallons of radioactive liquids, sludges and solids.

This also is the "burping tank" —

called that because highly volatile hydrogen gas would build up near the tank's bottom and belch up through the wastes, which increased the risk of a spark touching off an explosion or fire.

A giant mixer pump was inserted into the tank in 1993 to fix that problem. But that also began converting the wastes' surface into a crust.

Then, tiny gas bubbles collected in the foam under the crust, and the air above the crust cooled the foam to create more crust.

That crust began to thicken and rise at a rate of a half-inch per week. Today, it is 7 to 8 feet thick, with the crust surface now 15 to 18 inches beneath the top of the tank's inner double-shell wall.

The rising crust increases the threat of a leak. Also, the rising crust compresses the air in the top of the tank, which concentrates the gases and increases the potential for combustion.

DeLozier said Hanford officials are tackling the problem by:

■ Inserting a "mechanical mitigation arm" into the tank to reach

below the crust. This is a long vertical tube with a 6-foot horizontal tube at the end, creating an "L" shape. The "arm" is rotated and slowly pulled up to break up the crust and release some of the trapped gas. This measure has stopped the crust from rising farther and actually brought it down a bit.

■ Planning to spray some water on the crust's surface to break it up some more.

■ Pumping 100,000 gallons to the neighboring Tank SY-102 this fall.

After that pumping is done, Hanford scientists will re-examine the wastes in Tank SY-101 to see how this affected the crust's thickening and the gas buildup.

DeLozier speculated more pumping or some dilution of the wastes with water will be needed after that follow-up study is done.

On another tank farms matter, Hanford began pumping Tank S-103 on Friday — increasing the number of single-shell tanks being pumped to seven.

Hanford has 149 older, single-shell tanks. DOE's plan and legal

obligation is to pump wastes from those tanks into 28 safer, double-shell tanks to await eventual disposal.

So far, 119 tanks have had the liquids and sludges removed.

Late last year, the state of Washington and DOE renegotiated Hanford's tank-pumping timetables to head off Gov. Gary Locke's threatened lawsuit over Hanford being way behind on the original legal pumping schedule.

That compromise — made when four tanks were being pumped — called for pumping to begin on three more tanks in 1999.

The deadline to begin pumping those additional three was July 30. Tank S-103 was the last of those three, meaning that deadline was beaten by almost two months.

DeLozier pointed to the U Tank Farm, where pumping is scheduled to begin in 2000 — and speculated Lockheed might begin pumping one of those tanks this year.

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

DOE gets final OK to discharge wastewater

By the Herald staff

The state has issued the final piece of Hanford's industrial wastewater discharge permit to the Department of Energy.

The action completes an eight-year process to set up and check equipment and processes to purify Hanford wastewater. It means the Washington Department of Ecology has approved DOE plans and operations to discharge treated water into the ground.

The process began in 1991 when the state acted to stop DOE from discharging untreated liquids into the ground and to make state wastewater regulations binding at the site.

The action covers a huge volume of water from Hanford purification, industrial, maintenance and other activities.

To tackle the problem, the state and DOE divided the permitting

process into three phases — tackling discharges with the most significant environmental effects first, and those with the least environmental impacts last, said Janice Williams, Fluor Daniel Hanford project director for waste management.

The first phase addressed major purification processes in the 200 Area, such as the evaporator that shrinks the volume of wastes by removing water as vapor and then condensing it.

That water had to be treated before it could be discharged into the ground.

The second phase tackled wastewater mostly from 300 Area projects.

And the final phase — the one receiving recent approval — addresses numerous smaller activities such as construction, cooling equipment and storm water.

Tri-Cities gets less for DOE job cuts

Energy Department disputes GAO report

By John Stang

Herald staff writer

The Tri-City area gets proportionally less federal money to deal with Department of Energy cutbacks than many less-needy communities with DOE sites, according to a federal report released this week. Hanford lost more jobs than any other DOE site from 1995 to 1998, the General Accounting Office report says.

But the Tri-Cities received just \$3,098 in DOE community assistance money for each lost Hanford job — the second lowest amount among 11 communities that received DOE assistance during that time.

However, DOE contends the GAO report contains numerous factual errors and inappropriate comparisons.

The Tri-City Industrial Development Council — which coordinates the program in the Tri-Cities — says it has asked for less federal money than some other communities but has gotten everything it has requested.

Sean Stockard, who manages the DOE community assistance money for TRIDEC, said, "We have gotten every dime that we've asked for."

The GAO is Congress' investigative arm. It looked into DOE's distribution of community assistance money at the request of the Senate and House armed services committees.

The GAO looked at how DOE spent \$1.083 billion at 14 sites to deal with the layoffs of 24,521 workers from 1995 through 1998. Hanford accounted for 5,964 of those layoffs.

Most of the money went to severance packages for the laid-off workers, which GAO concluded were comparable with similar public and private employers.

Meanwhile, roughly \$160 million went to community job creation programs during those four years.

The report did not address how many jobs this money actually created.

The GAO concluded DOE does send money to community job creation projects that show individual merit. But the GAO also concluded DOE does not formally look at a community's economic need, its overall unemployment or how hard layoffs have hit it as the agency allocates money.

The GAO recommended economic need becomes a factor in distributing funds.

"DOE's criteria does not result in the most assistance going to the communities most affected by DOE's downsizing or those with the highest rates of unemployment. Several communities with low unemployment rates

House bill boosts dollars for Hanford

By the Herald staff

A bill approved Thursday by the House would add \$25.5 million to the Clinton administration's request for Hanford cleanup next year. The defense authorization bill would add the funds to the \$1.065 billion spending plan requested by the Department of Energy for Hanford's cleanup programs.

Those funds are separate from the roughly \$109 million in Hanford cleanup money that DOE's Washington, D.C., headquarters will control.

Authorization bills set a limit on what the House can appropriate to Hanford's cleanup. The appropriations bill for DOE's cleanup programs hasn't started through the legislative process.

U.S. Rep. Doc Hastings, R-Wash., sought the additional \$25.5 million authorization to deal with projected shortfalls in several programs — Hanford's subterranean contamination, demolishing and sealing up two defunct defense reactors and neutralizing scrap plutonium at the Plutonium Finishing Plant.

"These are essential programs to the cleanup mission at Hanford," Hastings said.

Meanwhile, the Senate version of the DOE cleanup appropriations bill would add \$40 million for work on tank wastes and two old reactors at Hanford.

Eventually, the House and Senate versions will have to be reconciled in a joint conference committee. So far, the House and Senate both support DOE's request to set aside \$106 million in 2000 to help pay off a long-term project to turn Hanford's tank wastes into glass logs.

The first payments on the logs are expected to be due in 2007. This so-called set-aside money is counted separately from the conventional cleanup budget.

Hanford worker to challenge Doc

By the Herald staff

A Bechtel Hanford waste management supervisor announced Friday that he will run against U.S. Rep. Doc Hastings, R-Wash., in the 2000 election.

John Lawson, a Kennewick Democrat, says he realizes it's early to be making announcements but he needs to get started if he wants to win.

"Doc is pretty well entrenched," Lawson said. "It's going to be like pulling a badger from a hole. You've got to start now."

Lawson, 53, said he already has

talked with civic leaders and knocked on doors throughout the 4th Congressional District. Improving education will be one of his cornerstone issues.

This isn't the first time Lawson has run for office. In September, he lost to incumbent Floyd Johnson in the primary for the Benton County coroner post.

Lawson worked for 16 years as a Kennewick police officer before retiring in 1990 because of health reasons. He went back to school and got degrees in geology and business administration and began working for Bechtel in 1992.

Emissions project earns award

By the Herald staff

A project that Pacific Northwest National Laboratory collaborated on to dramatically reduce pollutants from gasoline-powered cars won a 1999 Discover Magazine Award.

The national science magazine annually chooses the most innovative technologies of the year. This year, it picked 10, naming the microplasmatron that Richland scientists helped with as the most innovative advance in transportation.

The fuel converter works as an onboard "oil refinery," converting a wide variety of fuels into high-quality, hydrogen-rich gas. Adding just a small amount of that gas to a traditional gasoline-powered car reduces emissions of pollutants like nitrogen oxides by up to 90 percent. The device is about the size of a soup can.

The microplasmatron was developed at the Massachusetts Institute of Technology with PNNL researchers collaborating. They are Jud Virden and Jeffrey Surma, a former lab scientist who's now with the spin-off company Integrated Environmental Technologies of Richland.

Information on all the award winners is posted at www.discover.com on the Internet.



Sunny. High of 94.
Low of 56. **Weather,**
A12



Too hot to l

Chico Heat burns Tri-City

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Keeping up with cleanup costs



Herald/André Ranieri

Bill Allenbaugh, a crafts supervisor employed by Bechtel Inc., oversees asbestos removal on the 108-F laboratory Thursday at Hanford.

The F Reactor building is in the background. Funding will need to grow to keep Hanford cleanup on track.

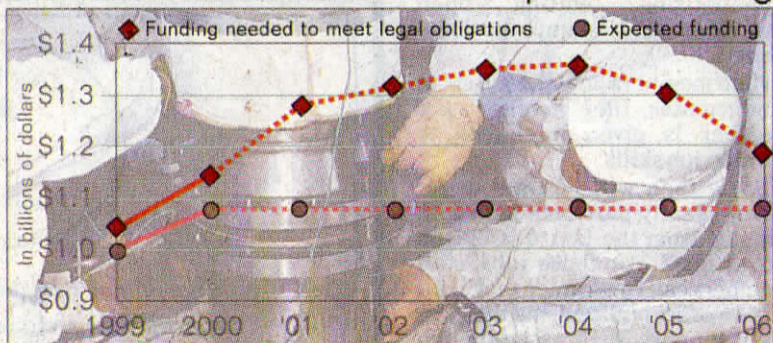
Hanford faces rising tide of funding needs

By John Stang
Herald staff writer

In Hanford slang, the next few years are known as "the bow wave." Think of them as a tidal wave. The term refers to the assumption that the amount of money needed to meet Department of Energy obligations at Hanford will soar by hundreds of millions of dollars for the next several years. Hanford budget crunchers have been warning for years that the bow wave was just over the horizon. Now it's in sight, a tsunami bearing down on efforts to clean up the nation's most contaminated site.

Budget predictions for fiscal year 2001 call for such a huge wave of cash that Congress and the Clinton Administration are likely to impose flood-control measures as it sorts through the flotsam of politics and legal threats and tries to pay for environmental cleanup and the

What is needed at Hanford vs. expected funding



SOURCE: Dept. of Energy

Herald/Sherry Emery

skilled workers that job will require as the 21st century begins. "The budget shuffle keeps getting worse year after year," said Doug Sherwood, Hanford site manager for the U.S. Environmental Protection Agency. Indeed. Federal budget plans set funding for Hanford's basic cleanup at a level \$1 billion to

\$1.1 billion through at least 2006. At that amount, annual funding would fall more than \$200 million short of what Hanford officials estimate they'll need to meet legal obligations. Complicating the picture is the so-called "set-aside" fund — money being stashed away each year eventually to pay for con-

verting radioactive tank wastes into glass. The first \$1 billion-plus payment is supposed to come due in 2007. For the past few years, the feds have set aside more than \$100 million a year. Beginning in 2001, DOE wants to increase that to about \$600 million a year. Congress is certain to include that number in its thinking about Hanford's overall spending plan. "I think 2001 is the year that the train wreck is actually happening," Mike Wilson, director of the Washington Department of Ecology's nuclear waste program, said earlier this year when the predictions for Hanford were unveiled. Lloyd Piper, DOE's deputy Hanford manager, said: "We can't get done what needs to get done with a level budget." Without a bigger budget, the site's two biggest and most

Job security caught in undertow of funding cycles

By John Stang

Herald staff writer

Hundreds of Hanford's workers live on the edge, their livelihoods dependent on an impersonal, merciless cutoff line on Hanford's budget planning sheets.

Everyone whose work is above the line stays. Everything and everyone below the line gets the ax.

Tom True, Bill Allenbaugh, Earl Prichard Jr. are among the hundreds of rank-and-file workers at Bechtel Hanford Inc. who nervously straddle that line.

"You always got it on your mind certain times of the year," said Allenbaugh, a Bechtel crafts supervisor on decontamination and demolition efforts at the defunct F Reactor complex.

It's a precarious place, made worse by constant change.

Each year, the federal budget process starts anew, nudged one way by the whims of Congress, then another by perceptions about progress at Hanford's tank farms or K Basins.

The changes dictate what gets done at Hanford and who is likely to keep a job long enough to do it.

Welcome to Hanford's environmental restoration program, where job security lasts only as long as the federal budget cycle.

"We've been on the bubble every year," said Linda Bauer, the Department of Energy's assistant manager for environmental restoration.

The program is charged with cleaning up and sealing off eight Cold War-era reactors, removing vast amounts of contaminated soil from the Columbia River shore and tackling subterranean contaminants oozing toward the river.

It's been one of the most popular programs in Hanford's political circles.

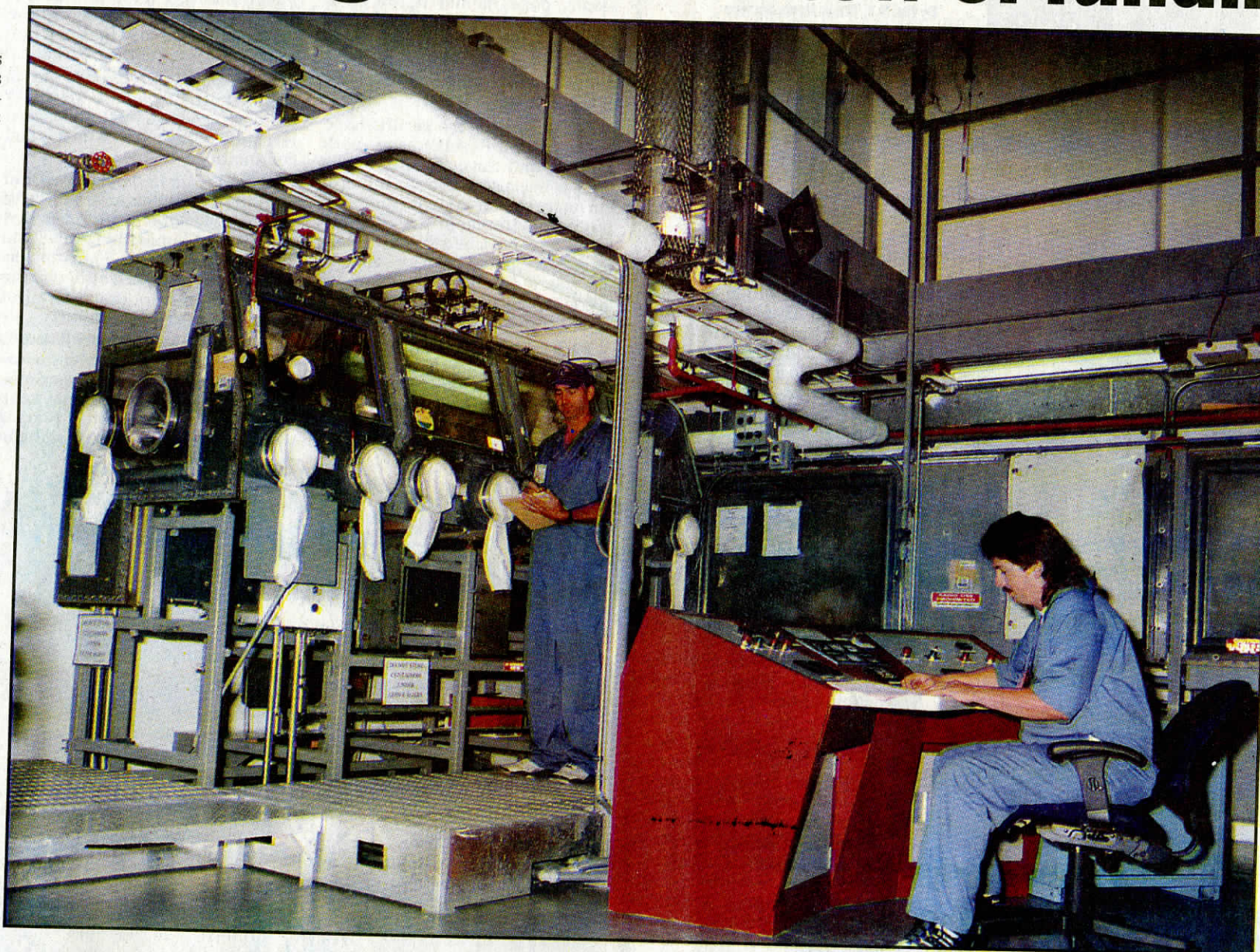
Progress is being made and is evident from the vast amounts of moved soil and the shrinking reactor complexes.

By removing contaminants near the river, Bechtel helps soothe local and regional fears about a polluted Columbia.

And glitches that plague other Hanford programs seem to bypass Bechtel's projects. It is a showcase that most Hanford supporters want to show to Congress to prove cleanup is being accomplished.

But when it comes to actual risks to people and the environment, Bechtel's projects drop in priority.

Leak-prone underground tanks filled with highly radioactive wastes. Huge amounts of spent nuclear fuel in the two deteriorating basins near the river. Bomb-



Hanford workers check out equipment used to neutralize scrap plutonium in the Plutonium Finishing Plant.

Courtesy of Fluor Daniel

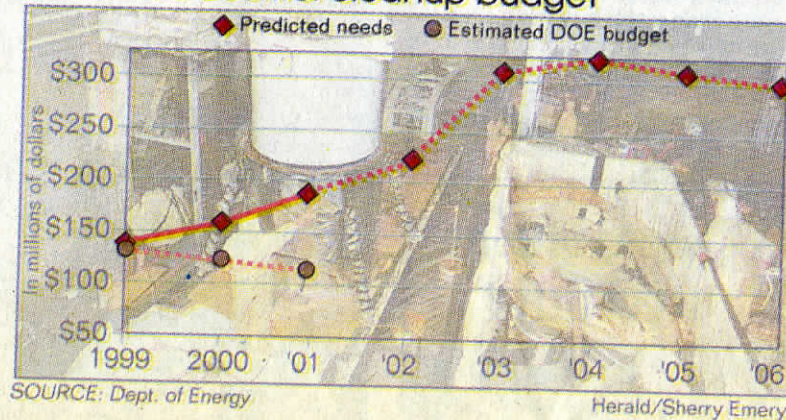
These universally are considered much greater dangers than the problems tackled by Bechtel. So they survive the budget ax fairly intact, and environmental restoration takes what it can get.

Of DOE's \$1.065 billion Hanford cleanup budget request for fiscal 2000, the environmental restoration portion is \$135 million — about \$22 million less than what Hanford officials say they need to meet requirements of their cleanup agreement with state and federal regulators.

Washington's members of Congress are trying to add extra money for Bechtel as the fiscal 2000 budget bills go through the House and Senate.

But even if they succeed, it appears likely that they'll have to fight the same battle again.

Predicted Bechtel cleanup budget



\$106 million for environmental restoration in 2001, when \$181 million is needed.

DOE's estimate. The remaining \$20 million would be used to buy out the contracts of subcontractors

And up to 250 Bechtel workers could be laid off, according to company officials.

However, Liedle and Bauer voiced "cautious optimism" that more money will be found for environmental restoration — mainly because DOE always has been able to dig up extra money in the past.

But the fuzzy and fluctuating budget figures handicap Bechtel's ability to manage its programs.

"Your vision is much shorter. It becomes only one or two years out. You're not looking out at the long-term picture," Liedle said.

Bauer said that unavoidably translates to poor management decisions.

For example, Bechtel wants to work on cleaning up and sealing off two reactors simultaneously, which saves money and time. But the budget crunch forces it to juggle people back and forth between F and DR reactors to work on one at a time.

It's a headache for True, Allenbaugh, Prichard and others working in the trenches at F and DR reactors and at an abandoned biology lab near F Reactor.

The uncertain budget causes their work to proceed in jerky starts and stops instead of flowing along smoothly, they said. And restarting a stalled job costs extra money, they pointed out.

Workers at the reactors not only keep a close eye on the environmental restoration budget but they also say they have to worry about losing their jobs to senior workers laid off from other projects.

Even skilled workers transferred from other jobs have to be retrained and re-oriented. That takes time and extra attention.

Demolishing a reactor complex takes different skills than preparing to move nuclear fuel. And those skills are different from what's acquired in working with radioactive wastes in underground tanks.

While the threat of job cuts keeps the attention of True, Allenbaugh and Prichard, it does not gnaw at them.

It sparks gossip at work and discussions at the kitchen table. It means saving money for slow times. It means staying focused on the work at hand.

But this is a fact of life for crafts workers, who stay on until a job is done, then wait for a new job to begin.

"I just accept it. I've seen it so much," Prichard said.

be the first time we would have significant compliance problems" with Hanford's legal cleanup obligations.

The level-spending plan isn't winning many advocates in the Northwest.

Hanford Advisory Board members are particularly irked at spending \$20 million to get subcontractors to stop work.

If only \$86 million goes to actual environmental restoration in 2001, the soil removal and reactor work would stop that year, said Steve Liedle, Bechtel's president.

All Bechtel could do for that money would be to decontaminate a defunct central Hanford plutonium-related lab, study and treat subterranean contamination problems and keep an eye on the

Delayed Rocky Flats cleanup may stall money for Hanford

By John Stang

Herald staff writer

Cleanup of the Department of Energy's Rocky Flats site near Denver appears unlikely to meet its 2006 deadline, a federal report said.

And that could hurt Hanford's environmental cleanup.

That's because Hanford is supposed to be in line for more money — funding needed to build huge plants to turn high-level radioactive wastes at Hanford into glass — when the Rocky Flats cleanup is done.

Originally, Rocky Flats' cleanup completion date was 2070, but that later was bumped up to 2010.

Then, in 1996, DOE came up with a plan to speed up cleanup at its smaller sites —

including Rocky Flats — so work would be done by 2006. That would make extra money available for cleanup at DOE's five largest sites, including Hanford.

The other plank of this plan is to hold DOE's nationwide cleanup funding level for the next several years.

But already, DOE's current nationwide level funding target of \$5.6 million to \$5.7 million has been almost universally considered not enough to keep pace with DOE's legal cleanup obligations and deadlines across the United States.

The Washington Department of Ecology has been fretting about Rocky Flats and other sites meeting the 2006 deadline in DOE's master plan, said Mike Wilson, the department's nuclear programs manager.

"Our fear is that the funding and

financing of the (Hanford glassification) plant is balanced against sites like Rocky Flats getting cleaned up on time, and freeing up about a billion dollars a year for the construction and operation of the (glassification) plant," Wilson said.

"We have a great deal of concern (over the General Accounting Office's findings)," he said.

Hanford's cleanup budget is about \$1.1 billion a year. DOE won't have to pay for Hanford's glassification plants until they start converting wastes into glass — probably in 2007. That annual price tag is expected to be at least \$1 billion.

Rocky Flats' annual budget is about \$700 million. About two-thirds of that goes to maintaining the site in a safe and secure condition and one-third goes to actual cleanup.

At the request of the U.S. Senate's Armed Services Committee, the GAO — Congress' investigative arm — looked at Rocky Flats to see if its cleanup efforts could be completed by 2006.

"While DOE and (lead contractor) Kaiser-Hill have had some success in accelerating cleanup activities, it is questionable whether they can meet (DOE's) target date of 2006 for cleaning up and closing Rocky Flats at the costs and savings originally projected," the GAO report said.

The report notes the estimated cost of the Rocky Flats cleanup has gone from \$7.3 billion in 1997 to \$8.4 billion in 1998 — and it hasn't been determined yet how to accelerate the cleanup completion date from 2010 to 2006.

DOE's reply to the GAO report said the facts generally are correct but some progress has been made in speeding up the completion date to 2006.

The GAO made no recommendations on dealing with the Rocky Flats situation.

The report comes as major engineering problems have shown up at a Savannah River, S.C., plant that converts radioactive wastes into glass. Fix-it work for those problems could cost \$1 billion spread over several years, another recent GAO report said.

That also could take extra money from DOE's proposed level nationwide cleanup allocations until that work is done.

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Most Duke employees likely transferring to Fluor Daniel Hanford

By John Stang

Herald staff writer

Fluor Daniel Hanford is preparing to absorb the bulk of DE&S Hanford's employees assigned to cleanup work at Hanford.

The change apparently is in anticipation of a new contract between Fluor and DE&S Hanford — commonly called Duke — that is being negotiated.

Duke is the main subcontractor for the spent nuclear fuel cleanup work at the K Basins, two massive indoor pools where spent nuclear fuel is stored.

The Herald obtained a copy of an internal K Basins project memo sent Tuesday to employees to tell them about the impending transfer.

Fluor spokesman Craig Kuhlman declined to discuss the memo in detail.

He said Fluor and Duke hope to finish their talks soon, and 187 employees likely would be transferred. About 20 Duke workers already have been shifted over to Lockheed Martin Hanford Corp.

Duke began fiscal 1998 with 266 employees.

About 30 people are expected to remain with Duke and still work at the K

Basins after everything is settled.

Negotiations to restructure Duke's contract with Fluor have been under way for several months.

The two companies are altering their contract relationship to reflect changes made since Fluor and Duke combined their K Basins operations a year ago.

That 1998 consolidation was done to help fix numerous coordination, planning and technical problems that have plagued the project — delaying and expanding the project, while almost doubling its costs.

The K Basins hold 2,300 tons of spent nuclear fuel about 400 yards from the

Columbia River. The plan is to remove that fuel, process it into a safer condition and move it to a huge underground vault in central Hanford, which is a safer site.

Today, the project's estimated price tag is \$1.59 billion. Removal of the fuel is to begin in November 2000 and to be complete by December 2003. The sludges are to be removed from the basins by July 2005. All these timetables and costs do not include cleaning out the K Reactor complex after 2005.

Several management and technical problems still remain. And the extra cushions built into the project's timetables

through November 2000 are almost gone.

Tuesday's internal memo told the spent fuel project employees that:

■ Fluor will absorb most of Duke's workers.

■ The transfers will not affect workers' positions, salaries, benefits or responsibilities. "This only changes the source of the paycheck," the memo said.

■ Several question-and-answer meetings will be set up with project employees. The dates and times will be announced soon.

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Audubon Society to honor Hanford's 'Important Bird Areas'

By John Stang

Herald staff writer

Parts of Hanford are prime bird habitat, the National Audubon Society believes.

And Friday, the Lower Columbia Basin Audubon Society plans to celebrate the national organization's recent declaration of two pieces of Hanford as "Important Bird Areas." The celebration will be a public reception that begins at 7 p.m. at the Columbia Basin College HUB complex.

The two areas are the Fitzner-Eberhardt Arid Lands Ecology reserve and the Hanford Reach corridor from Vernita Bridge to Ringold. They are the first two areas in Washington state to receive the designation. There are at least a couple of hundred others in the United States.

This designation packs no legal clout. Its main goals are informational and symbolic

— and to influence future land planning decisions.

For land to be so designated, a local Audubon chapter has to nominate it, saying it contains unique habitat needed by sensitive species of birds.

Then a local chapter — in this case, the Lower Columbia Basin club — has to compile information and documentation to convince a panel of wildlife and bird experts the land merits the declaration. That panel is put together by the national Audubon organization and Partners in Flight, which is a coalition of ornithological groups.

That documentation process can take years, said local Audubon officials.

That was not the case with the ALE and Hanford Reach because the habitats, wildlife and birds in those areas have been heavily studied and documented for decades.

Dana Ward, the local chapter vice president, credited several Mid-Columbia biologists — Bill Rickard, the late Richard Fitzner, the late Lester Eberhardt and others — with compiling the extensive information on these areas.

The 120-square-mile ALE is a Hanford buffer area dominated by Rattlesnake Ridge.

At least 120 species of birds have been documented as staying at or passing through the ALE's shrub-steppe habitat, where at least 18 species are considered sensitive. A sensitive species is one that federal or state governments have listed for protection or as a candidate for protection.

At least 30 species of birds have been sighted along the Audubon-documented 35-mile-long section of the Hanford Reach's shoreline corridor. At least 14 sensitive and non-sensitive species met the Audubon

Society's criteria to qualify for the designation.

What the designation does is put on record why the land is vital bird habitat that needs protection, said Barbara Clarke, the local chapter's chairwoman for the program.

"When people gather together to make plans for a site, this information will be valuable," said Kelly Doyle, president of the local chapter.

The designation is a written record that can be retrieved to show that a national expert panel believed the bird habitat should be protected, Clark and Doyle said.

The Lower Columbia chapter also has nominated the Yakima River delta region in Richland for the designation.

But the delta has not been as intensely studied as Hanford and it could take years to compile the necessary information,

Doyle, Clarke and Ward said.

The information is needed just to figure out how much of the delta should be considered and such issues as whether Bateman Island or the tip of Columbia Point should be included.

The Lower Columbia chapter also has nominated the McNary Wildlife Refuge near Burbank and the Blue Mountain chapter has nominated the Walla Walla River delta near Wallula for the same designation. Both areas will require much research before a decision.

The Lower Columbia chapter also is considering nominating the Big Flat refuge area in Franklin County along the Snake River.

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Hanford cleanup topic of Richland town hall

By the Herald staff

The past and future of Hanford cleanup will be the topic at a "town hall" meeting June 29 in Richland.

The public will be able to discuss cleanup issues with top leaders from Hanford and state and federal regulatory agencies from 7:30 to 9:30 p.m. at the Battelle Auditorium.

The town meeting is tied to the 10th anniversary of the Tri-Party Agreement.

The pact between the Washington Department of Ecology, the U.S. Environmental Protection Agency and the Department of Energy was signed on May 15, 1989.

The agreement set up what eventually

became a 40-year timetable and blueprint for neutralizing and removing radioactive wastes at Hanford.

The town meeting is to look at the first 10 years of the legal pact, and discuss what issues need tackling in future years, said DOE spokeswoman Colleen Clark.

Leaders scheduled for the meeting include James Owendoff, DOE's acting assistant secretary for environmental management; Keith Klein, DOE's Hanford manager; Dick French, DOE's Office of River Protection manager; Chuck Clarke, EPA's northwest regional administrator; Dan Silver, deputy director of the state ecology department; and former DOE Hanford managers John Wagoner and Mike Lawrence.

Meanwhile, DOE plans to hold three rallies Thursday across Hanford so workers can celebrate the Tri-Party Agreement's 10th anniversary.

The town meeting will be the first of two summertime public discussions involving top-level Hanford officials.

The Hanford Advisory Board plans a panel discussion July 15 to fire questions at Klein, French, Clarke, state ecology department director Tom Fitzsimmons, and John Conway, chairman of the Defense Nuclear Facilities Safety Board.

That public discussion will be held at the Doubletree Hotel in Richland.

The hip bone's connected to the knee bone ...



Herald/André Ranieri

Allison Campbell, a staff scientist at Pacific Northwest National Laboratory in Richland, displays artificial hip and knee parts recently at the lab. Campbell is developing a special coating that reduces the body's rejection rate for artificial joint replacements.

Richland chemist tricks the body

By Annette Cary
Herald staff writer

Wreck your knee and an orthopedic surgeon can fix you up with a new one. But the implant will never work as well as nature's.

"Your body recognizes it as foreign material," said Allison Campbell, a physical chemist at Pacific Northwest National Laboratory in Richland. Instead of bonding to the joint, the body tries to wall it off, much as it would a splinter.

Live long enough and the joint has to be replaced, sometimes a couple of times.

Campbell's goal is to come up with an implant the body likes.

"It's our hope that we can help create an implant that only needs to be inserted once," she said.

Campbell is working on a way to fool the body — the trick may lie in studying nature to find an implant the body will accept as its own.

Now the most common implant technique is to make an artificial joint with a smooth surface out of titanium alloy and "glue" it in place with bone cement.

That's not how nature works when it grows shells, bones and teeth. Biologists know shells, for example, first set up a honeycomb of rein-

forcement fibers as a framework, then fill it in with calcium carbonate.

The smooth surface of the titanium alloy gives the bone no framework on which to build.

"It's not tightly bound to the bone, so over time it loosens and fails," sometimes in as little as five years, Campbell said. That leads to more surgery that's "traumatic, not to mention expensive," she said.

"We want to make a coating so the implant is bound to the bone over a longer period of time," she said. "If we could double the lifetime of the implant, we would be doing a good thing. Our goal is to make it a one-shot deal."

She's developed a coating for the implant that even though it can't mimic the way bone develops around a three-dimensional framework, it does develop a two-dimensional framework.

"Bone is constantly growing and dissolving," she said. "It's a dynamic, living tissue."

To make the coating, Campbell attaches chains of molecules to an implant until they cover the surface like a forest of trees.

Then she soaks it in water with ions of calcium and phosphate to make the same mineral as natural bone. The calcium phosphate hooks

onto the "trees" to make a surface of bone-like material.

When the implant is in the body, she wants bone cells to eat away at the synthetic coating she's produced in the laboratory and deposit new bone in its place.

"We call it remodeling," she said. "It turns the synthetic into natural bone."

The idea of coating implants with bone-like material isn't new.

Since the 1980s, an implant coating of calcium phosphate has been available. But it has some problems, Campbell said.

It's created by vaporizing the material at temperatures of more than 1000 degrees Centigrade and then spraying it onto the implant.

The process of vaporizing and then cooling changes the material enough that it recrystallizes with impurities. And it's very smooth, giving bone cells little to grab onto, Campbell said.

Her method looks deceptively low-tech. She can make the coating in a Mason jar in the laboratory and control exactly what's in the coating — avoiding any impurities. It also makes it easier to apply to complex shapes, since the

See **Chemist**, Page A2

been exposures and there will be cancers, but it's much more difficult to pick them out from background diseases."

About five of every 1,000 people worldwide develop thyroid cancer.

Using the data from Chernobyl that calculated the risk of children developing thyroid cancer there from different exposure levels, the risk of the average Hanford downwinder of developing the cancer is still less than six in 1,000, calculated Darrell Fisher, a medical physicist at Pacific Northwest National Laboratory.

But others among the approximately 50 at the hearing questioned whether scientists could ever calculate doses of radiation from half a century ago accurately enough to draw conclusions by comparing the health of those with different estimated exposure.

Much of the exposure to radiation iodine came from drinking milk produced by cows grazing on grass contaminated by radioactive fallout.

Downwinders, including Trisha Pritikin, said neither they nor their mothers could remember how much milk they drank as a child, despite researchers attempts to transport downwinders back to the '40s and '50s in their minds by

been exposures and there will be cancers, but it's much more difficult to pick them out from background diseases."

"I believe the high end (exposure) was overestimated and the low end was under estimated," he said. That meant comparing the amount of disease based on low and high exposure would be inconclusive, he said.

Even if changes he recommended are made to the dose reconstruction data, results of the thyroid study may still be inconclusive, he said.

Hoffman has been a paid advisor for the HEDR project, done at the national laboratory in Richland, and also has served as consultant to downwinders who are suing the Department of Energy over radiation releases from Hanford.

The National Research Council is continuing to accept public comment on the study. Letters may be sent to Steven Simon, Board on Radiation Effects Research, National Research Council, 2101 Constitution Ave. NW, Room 342 Washington, D.C., 20418.

The committee plans to have its report completed this fall.

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6-23-99

DOE must improve filter work, report says

By John Stang
Herald staff writer

The Department of Energy needs to do a better job nationwide of testing and replacing air filters used to protect people from radioactive particles and other hazards, a federal report states.

The High-Efficiency Particulate Air filters — or HEPA filters — are used extensively at DOE sites. About 2,000 HEPA filters are at Hanford, said Wayne Glines, senior radiological controls adviser at DOE's facilities transition program at Hanford.

Glines said Hanford's HEPA filters are routinely tested to ensure they meet industrial standards.

Deficiencies have shown up during tests of Hanford filters, but no catastrophic failures have occurred, Glines said.

A HEPA filter is supposed to remove small hazardous and radioactive particles from air flowing from a facility's interior to the outdoors.

Although they can't stop gases, the filters are the standard way Hanford and other DOE sites keep airborne emissions within safety standards.

Last month, the Defense Nuclear Facilities Safety Board published a report on shortcomings in programs to maintain the filters. The report addressed DOE sites in general but didn't focus on individual sites.

Problems that board members identified increase the likelihood of HEPA filters failing in an accident to allow dangerous emissions to escape, the report said.

"These weaknesses support the conclusion that confinement ventilation systems at some DOE facilities may be vulnerable to failure when most needed," the report said.

The board — based in Washington, D.C. — advises DOE on technical and safety issues. It also has administrative and political clout to ensure the department follows the board's advice.

6/23 CONT INU ED

Although board members are concerned about maintenance shortcomings, they don't think drastic measures are required, said A.J. Eggenberger, the board's vice chairman.

The key piece of a HEPA device is a fiberglasslike filter that's usually the thickness of a typical desk blotter. Age makes these filters brittle and water weakens them, so they need to be replaced periodically.

DOE doesn't have set rules for how often the various types of HEPA filters should be checked or when they must be replaced, the defense board report said.

"Experience has shown that filters can be severely weakened and still successfully pass these tests," the report said.

The greatest threat involving a HEPA filter would be from a fire in a facility holding radioactive material, the report said.

Dense smoke can overload a filter with particles, eventually breaking it. And water from fire-fighting efforts would further weaken a filter, the report said.

Glines said Hanford currently tests all HEPA filters at least annually, and those filters must meet standards to stay in place.

Hanford does not have specific age limits on its many types of filters. But the site is looking into that matter, he said.

Some Hanford filters are changed frequently. But some still meet industrial standards after 20 years of use.

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6-24-99

Flying robots swooping to rescue

University teams to compete at HAMMER center

By Eric Ruthford
Herald staff writer

Someday, say a group of amateur roboticists gathered at the Hazardous Materials Management and Emergency Response training center at Hanford, flying robots will swoop into disaster scenes, identify victims and tell rescue crews how to reach them safely.

Friday, they hope to prove it can be done.

What: International Aerial Robotics Competition.

Where: The Hazardous Materials Management and Emergency Response (HAMMER) training center, Hanford, Horn Rapids Road.

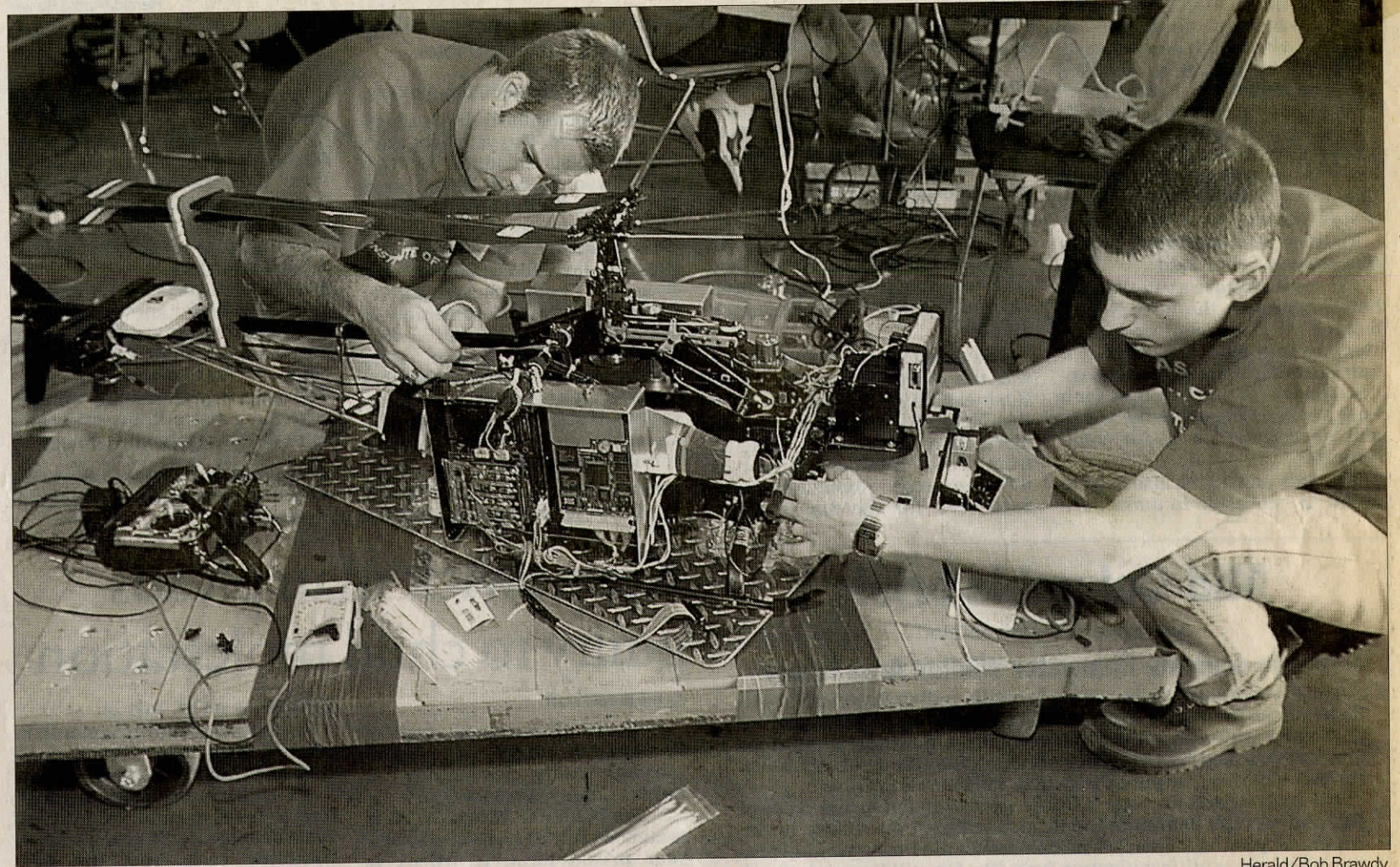
When: Gates open Friday at 7 a.m.

Twelve teams from universities in Canada and the United States have gathered for the International Aerial Robotics competition. The contest requires them to fly their robots through an obstacle course of flames, smoke and water to

find and report to judges the positions of less-sophisticated robots that simulate injured or dead humans.

Once the robots begin their missions, their human creators are not allowed to control them.

Bruce Cox, a 24-year-old alumna helping with the DeVry Institute team from Calgary, Alberta, said there is a bit of prayer involved with launching their autonomous heli-



Herald/Bob Brawdy

Aaron Rogers, left, and Paul Eremenko assemble their entry Wednesday for the annual International Aerial Robotics Competition at the Hazardous Materials Management and Emergency Response

copter. "We're starting to get confident enough to let it go, but there's a lot of pleas," he said. "Faith and away it goes."

The DeVry team estimated the parts to build their robot cost about \$45,000. "Most of it is on loan. We can't crash; we have to give it back," Cox said.

Rob Michelson, a professor at the Georgia Institute of Technology who organizes the event, said the students' shoestring operations are low-cost compared with the millions of dollars an aerospace company like Lockheed Martin would use to develop a flying robot.

For the students, it teaches practical experience they will need in the professional field, he said.

"When you go through engineering school, you get a lot of

theory, but you don't get to apply it," he said, giving an example of building a computer. "When you get together with the aerospace engineers, they say it's a great computer, but they can't lift it, and then they want it (to be) one-quarter of the weight."

This year's competition is in June instead of August to avoid the 110-degree heat the robots experienced last year. Engines of the helicopters simply could not run fast enough to get airborne in most cases with the thin, hot air, Michelson said, and only one team accomplished autonomous flight.

The series of competitions is sponsored by the Department of Energy, the HAMMER facility, NovaTel Corp. and the Association for Unmanned Vehicle Systems. Plans are to hold the final series of

competitions next summer, again at HAMMER. In that competition, the robots may be required to retrieve a human from an obstacle course.

The University of Waterloo in Ontario, Canada, brought a system this year that has two helicopters and a ground vehicle that operate together. Christopher McKillop, a 24-year-old undergraduate computer engineering student, likened their robot to "the Borg" from the *Star Trek* television series, a race of beings that operate as one mind.

If all goes according to plan Friday, the two helicopters will spot the humans and share the location with a small ground vehicle, Herbie, which will drive close and examine the simulated human victims to determine if they are alive.

Herbie can even deliver a package to the victim.

"He actually dispenses Tylenol bottles for the survivors," McKillop said. But he added that the team of 25 student roboticists — five of whom are at HAMMER — have not had the time to refine that aspect of Herbie, and probably will not use it Friday.

Their robot uses an operating system called QNX, which is not prone to the occasional locking up or momentary pauses many home computer users experience with operating systems like Windows, they said. If they did have a minor glitch like that, it could cause the robot to crash — in both senses of the word.

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Hanford must be national priority, BNFL official says

By John Stang

Herald staff writer

Hanford's tank waste problem needs to be a national priority, not just a Northwest one, the president of BNFL Inc.'s Hanford operation said Thursday.

And unless that happens, Congress will never approve the extra money needed to convert the site's radioactive wastes into glass, Mike Lawrence told about 150 members of the Tri-City Industrial Development Council meeting in Richland.

"We have to take the strength we have, and turn it into a national commitment," Lawrence said.

BNFL is expected to sign a contract next

year with the Department of Energy to build and operate plants to start converting Hanford's radioactive tank wastes into glass. The site has 177 underground tanks holding 54 million gallons of waste.

Under the proposed contract, DOE won't pay BNFL anything until the first glass is produced — tentatively in 2007.

The current estimated cost for the project is \$6.9 billion in today's dollars, without inflation calculated into it. That is expected to translate to probable annual payments of at least \$1 billion a year, starting in 2007.

By comparison, Hanford's conventional cleanup budget hovers around \$1.1 billion a year.

Presently, DOE has been asking Congress to set aside money in the late 1990s and during the next several years to build up a fund to start handling those predicted \$1 billion annual payments.

So far, Congress has been setting aside between \$100 million and \$200 million a year.

DOE's request for the program next year is \$106 million, but officials expect to seek roughly \$600 million a year after that.

Lawrence said that money cannot come from DOE's tight nationwide cleanup budget, which is expected to remain steady at \$5.6 billion to \$5.7 billion each year.

All that translates to the Northwest

having to convince the rest of the nation that tackling Hanford's tank wastes is a big enough task and an important enough obligation to warrant getting extra money beyond DOE's standard cleanup budget, Lawrence said.

BNFL is scheduled to turn in its cost figures for the proposed contract to DOE in April and sign the actual contract in August 2000.

Dick French, DOE's Office of River Protection manager, and Keith Klein, DOE's Hanford manager, have made recent remarks that they want the glassification plants operating before 2007.

Lawrence said BNFL still is pondering whether that's possible. "It's too early to

tell," Lawrence said. "I share their desires to do this faster and for less money. But most importantly, we need a (operating) date that we can meet."

If BNFL agrees to an earlier operating date and does not meet it, that would drastically hurt the political and financial credibility of the entire project, Lawrence said.

However, an earlier start date — if achievable — would benefit BNFL because it would start getting payments earlier and accumulate less financing costs, Lawrence said.

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PFP again starting work to neutralize plutonium

By John Stang

Herald staff writer

Hanford's efforts to neutralize its plutonium stockpile appear to be getting back on track.

But if Hanford's fiscal 2001 cleanup budget unfolds as predicted, the work soon may be derailed again.

Art Clark, B&W Hanford Co. president, is happy with how Hanford's Plutonium Finishing Plant workers have regrouped after a two-year halt and tackled converting the facility's 4.4 tons of scrap plutonium into safer forms.

"Performances out there are just getting better and better," he said.

However, A.J. Eggenberger, vice chairman of the Defense Nuclear Facilities Safety Board, is more cautious.

"We have a saying around here: 'We'll see,'" Eggenberger said. The board, based in Washington, D.C., advises the Department of Energy on technical and safety matters.

"They are trying to get on line," he added. "But it's been going very slowly. We've been trying to make sure they do this in a safe way, but also in a way that expedites things."

Hanford plans to use at least four methods to convert the various types of scrap plutonium into safer forms.

In January, the bulk of the plutonium began going through muffle furnaces — which are essentially ovens the size of a kitchen microwave oven — that bake the plutonium into a more benign powder.

"They've turned the corner by starting the (furnaces)," said Larry Olguin, Fluor Daniel Hanford's project director for facilities transition. Fluor oversees overall Hanford cleanup.

The other neutralization methods are being set up or are on the drawing board.

The major problem is catching up after safety troubles halted neutralization work.

B&W Hanford — a Fluor subcontractor — inherited the PFP from Westinghouse in late 1996. A series of plutonium handling mistakes in late 1996 and early 1997 led to concerns about a potentially fatal burst of radiation being released.

That led B&W Hanford to halt moving and neutralizing plutonium in January 1997 to begin overhauling procedures and training. The moratorium lasted for two years.

Meanwhile, DOE fined Fluor and B&W Hanford \$112,500 for the plutonium handling mistakes.

All this delayed completion of the

See PFP, Page A2

Metro/Northwest

Tri-City Herald

Friday, June 25, 1999

Fast food
in Wednesday's
PANDA

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582-1517 or via e-mail at jstang@tri-
cityherald.com

Briefly

Compiled by the Herald staff
and from news services

Sunnyside hospital to open new office

SUNNYSIDE — The Sunnyside Community Hospital Foundation will open a downtown office at 525 S. Sixth St. on Thursday.

The foundation is a nonprofit organization working to raise \$1.2 million for the hospital's \$11.2 million improvement program called Building for the Future.

More than \$400,000 has been collected to date.

A special open house and campaign kickoff is scheduled Aug. 2.

Mother Earth to teach children of recycling

Jane Bosteder, alias "Mother Earth," is to teach children

DOE cleanup technologies lacking, re

By John Stang

Herald staff writer

The Department of Energy's current technologies are inadequate to clean out contaminants seeping through the ground, stated a report released Thursday.

"Effective technologies do not exist for treating many of the common ground water and soil contaminants at DOE facilities," concluded the National Research Council's report.

In a written statement, James Owendoff, DOE's acting assistant secretary for environmental management said: "We are currently reviewing the report in depth. In fact, the department has already begun taking steps to address the (research council's) concerns."

In 1997, DOE requested that the research council look into whether the federal agency has the knowledge and methods to clean up 10,000 contaminated spots at 113 installations in 30 states.

The situation is made more cloudy because the research council and DOE do not have any way to evaluate the total extent of the contamination problems and the true effective-

ness of the remediation measures.

The sites include Hanford, which has hundreds of billions of gallons of contaminated water and wastes in the ground polluting about 200 square miles of aquifer. About 100 square miles are contaminated above federal drinking water standards.

The National Research Council's report noted most DOE cleanup efforts nationwide involve two methods — removing soil, or pumping out the ground water to treat it and return it to the soil.

Removing soil is risky because it hurts the native habitat and exposes workers to potential contamination, the council concluded.

The problem with pump-and-treat operations is different contaminants need different treatments — and a multiple contamination handicaps this approach, the report said.

Hanford uses both methods extensively. And Hanford has at least 100 different radioactive and nonradioactive chemicals in the ground.

Bechtel Hanford Inc. has been moving contaminated soil from the Columbia River shore area to a huge landfill in central Hanford.

Also, Hanford has five pump-and-treat operations tackling the site's worst subterranean plumes.

The appropriate Hanford officials were unavailable for comment Thursday.

Several months ago, Hanford experts characterized the pump-and-treat operations as stop-gap measures — enough to stop the plumes from spreading, but not enough to shrink them.

DOE's Office of Science and Technology is in charge of coming up with new measures to remove underground contaminants. The research council's report said DOE has been addressing problems identified in the early 1990s pertaining to evaluating remediation experiments and abandoning projects that don't work.

But the report also said the Office of Science and Technology's budget to develop those technologies fluctuates wildly.

This effort received \$82.1 million in 1994, \$9.7 million in 1998, and \$25 million in 1999.

The report calls for DOE to give this overall effort a higher priority.

And it suggested DOE concentrate more on

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The Hanford Advisory Board has scheduled a second one on July 15 at the Doubletree Hotel in Richland.

It will be the first of two summer-time public discussions involving top Hanford leaders.

Lawrence. The Hanford Advisory Board has scheduled a second one on July 15 at the Doubletree Hotel in Richland.

Leaders scheduled for Tuesday's meeting include James Owendoff, DOE acting assistant secretary for environmental management; Klein; Dick French, DOE Office of River Protection manager; Chuck Clarke, EPA's Northwest regional administrator; Dan Silver, deputy director of the state ecology department; and former DOE Hanford managers John Wagoner and Mike Lawrence.

He noted that Hanford is shifting from doing mostly studies to tackling actual cleanup, which is more expensive.

"The key question is how we're going to get through at least the next five years," Sherwood said.

Stanley and Sherwood said they are not sure what the public will ask.

Meanwhile, top leaders from Hanford and its state and federal regulatory agencies are scheduled to answer questions from the public on the agreement and its future at Tuesday's meeting.

"Looking back on it, we're fortunate to have forged an agreement that has lasted and was fluid enough that we could turn our attention to individual projects," said Roger Stanley, the state's Tri-Party Agreement negotiator.

The Tri-Party Agreement is a legal pact signed May 15, 1989, that sets the timetable and standards for Hanford's cleanup. DOE, EPA and the Washington Department of Ecology signed it — and have routinely renegotiated it as needed as Hanford's cleanup problems have become clearer.

The competition involved four timed competitions that involved shooting at targets in an obstacle course. The fifth test was a written exam.

Hernandez did not win any of the individual contests, but scored near the top in all five to receive the highest overall score.

He is a 13-year veteran of the Hanford Patrol who has gone to the national competition for the past five years. He's been on the patrol's pistol team for 10 years and is the patrol's Security Officer of the Year.

Meanwhile, Doug Sherwood, the Environmental Protection Agency's Hanford site manager, told the crowd: "The Tri-Party Agreement would never have been successful without people doing the actual work. The people doing the work is you."

Hanford officer tops in contest

By John Stang

Herald staff writer

Sam Hernandez of the Hanford Patrol outscored officers from nine Department of Energy sites to be named Security Police Officer of the Year this week.

"This is a very significant honor to win the whole ball of wax," said Bruce Cameron, the Hanford Patrol's commandant for its training academy.



Hernandez

This is the third time a Hanford Patrol member has won the top honor since the national competition began in 1984.

Meanwhile, Hanford Patrol members also placed second and third in the contest this week in Albuquerque, N.M.

Forty-six officers from nine DOE sites participated in individual and team contests. The teams and individuals were ranked from first to last.

In the individual events, Hernandez's placements were Hernandez, first; Scott White, second; Ken LaPierre, third; Ralph Bell, 17th; and Kevin Paxton, 23rd.

In the team competition, shooters from Pantex, Texas, took first place, and Hanford captured fourth.

Hanford sent five individual competitors from its Special Response Team — Hanford's version of a "SWAT" team.

The competition involved four timed competitions that involved shooting at targets in an obstacle course. The fifth test was a written exam.

Hernandez did not win any of the individual contests, but scored near the top in all five to receive the highest overall score.

He is a 13-year veteran of the Hanford Patrol who has gone to the national competition for the past five years. He's been on the patrol's pistol team for 10 years and is the patrol's Security Officer of the Year.

Hanford officials dispute scientist's strontium report

By The Associated Press and Herald staff

A scientist hired by a Hanford watchdog group says he has detected high levels of a radioactive byproduct of plutonium near salmon spawning beds along the Columbia River's Hanford Reach.

Norm Buske's finding, detailed in a draft report issued last week by the Government Accountability Project, troubles officials.

"This is a big deal," said John Erickson, director of radiation protection for the Washington Department of Health. "It's a hot issue whenever salmon are involved."

But Hanford officials, who are following up on Buske's discovery, say there's likely no problem.

"I don't see any danger to the salmon at this point," said Arlene Tortoso, groundwater project manager for the U.S. Department of Energy, which oversees Hanford.

This spring, Buske used a Geiger counter to detect radioactive strontium 90 in mul-

berry bushes whose roots reach into the Columbia. Hanford has been tracking a widening plume of strontium 90 in this area.

However, Buske's report uses the results from those readings to theorize that an underground channel or "stream" — 50 feet wide or less — is speeding concentrated amounts of nonradioactive chromium and radioactive strontium 90 to the Columbia River faster than those chemicals in the plume. Strontium's radioactivity decays to half its strength almost every 29 years.

Buske's report calculates that the average strontium reading along the river shore east and southeast of H Reactor is 70 picocuries per liter of ground water. At eight picocuries per liter, the risk of bone cancer increases for someone steadily drinking that water.

A 1997 Department of Energy annual environmental report — the latest available — noted a reading of 51 picocuries per liter in the area Buske studied.

The plume and Buske's "stream" head into the fall chinook salmon spawning area along the southwest side of Locke Island.

Buske detected the element below old retention basins near H Reactor, where radioactive cooling water and damaged fuel rods were dumped during the Cold War. The reactor was one of eight original Hanford reactors built from 1948 to 1955 to produce plutonium for nuclear weapons.

Hanford contractors already have detected a spike of hexavalent chromium, a potentially cancer-causing chemical, in the river at the same spot where Buske detected the strontium 90.

The chromium is coming from a plume under Hanford in concentrations 25 times higher than what is known to harm juvenile salmon, according to a 1996 study for the Energy Department.

Strontium and chromium have been detected underground at several of Hanford's reactor complexes. The best-known

strontium plume is near N Reactor. The most worrisome chromium plumes are at the H Reactor area just north of where Buske did his sampling, the D and K reactor area.

Chromium has been showing up in high concentrations in the riverbed in numerous small spots where the river's volume quickly dissipates the chemical. But chromium is considered dangerous to newly hatched salmon buried underneath the riverbed's gravel, where the concentrated chromium seeps up. Hanford is doing studies on this chromium's potential effects on the Hanford Reach's salmon eggs.

Buske's findings warrant a government investigation, said the Northwest regional director of the Pacific Coast Federation of Fishermen's Associations.

"People don't need to worry that fish in the Hanford Reach are radioactive, but this cannot be ignored," said Glen Spain, whose organization represents West Coast commercial anglers.

The Government Accountability Project, a nonprofit group with offices in Washington, D.C., and Seattle, paid Buske \$30,000 to conduct research for a year.

Buske once worked for Greenpeace.

Although the strontium 90 measurements are preliminary, the discovery "raises public concerns for the health of an important salmon stock," the GAP report states.

Washington state officials are working with Buske and the Energy Department to decide what to do next, Erickson said.

"It may include verification of (Buske's) results and a state sampling plan."

Last week, scientists from Hanford contractor Battelle's Pacific Northwest National Laboratory and the Department of Health accompanied Buske to the shorelines.

Buske used his Geiger counter to point out the most radioactive bushes. Then, scientists gathered samples of mulberries and leaves for laboratory analysis. Battelle's results will be available in 30 days.

ALSO OVER

Hanford scientists also suspect strontium seepage

By John Stang

Herald staff writer

An environmentalist scientist's theory that radioactive strontium could be showing up in the Hanford Reach's salmon spawning area mirrors what Hanford scientists already believe.

"It isn't a surprise that strontium is found in the (Columbia) river. We've been monitoring that for a number of years," said Roger Dirkes, program manager for safety and resources protection at Pacific Northwest National Laboratory.

Dirkes and other Hanford experts responded Monday to a recently released report by Norm Buske, a scientist employed by the Government Accountability Project, a Hanford watchdog organization.

A half dozen Hanford-related experts queried about Buske's ideas were doubtful about some of his conclusions but added they could not rule out his theories.

Buske has off-and-on sampled the stron-

tium content in leaves from Hanford's shoreline mulberry trees.

A few weeks ago, PNNL sampled some shoreline mulberry trees and other vegetation at Hanford. The survey looked at shoreline vegetation but also tried to see if contamination in mulberry leaves could be correlated to contaminants in the aquifer. Mulberry trees are studied because their roots extend to the aquifer.

Knowing of Buske's interest in this subject, PNNL scientists invited him along to the H Reactor area. The state Department of Health also collected samples on this trip as part of a routine annual survey.

Buske analyzed some shoreline samples, which he said boost one of his theories.

His theory is that Hanford's subterranean strontium and chromium is funneled through underground channels, or "streams," to reach the river faster and in greater concentrations than by the more commonly accepted concept that contaminants travel in wide underground plumes.

Buske's report zeroes in on a shoreline mulberry tree showing a high strontium count. That tree lines up with an underwater spot several feet out in the river that shows the highest chromium concentration in that shoreline stretch, Buske said.

So Buske believes chromium and strontium have followed the same subterranean path to the riverbed and that radioactive strontium is endangering one of the Reach's prime salmon spawning areas. He has not actually sampled strontium from the underwater riverbed.

"This is an issue that really needs to be aggressively addressed," Buske said.

Strontium and nonradioactive chromium have been monitored for many years in all of Hanford's old reactor areas. Spots of high strontium concentrations have been tracked on the shoreline. Some Hanford experts said that means strontium likely has entered the river, but dangerous concentrations have not been found in the water yet.

Excessive chromium — which has been

found in the river — is considered dangerous to newly hatched salmon and is universally viewed as the greatest contaminant threat to the fish.

Meanwhile, small amounts of strontium could be absorbed by juvenile salmon but would be excreted by the fish over several days to several hundred days, said Ted Poston, PNNL's project manager for environmental surveillance.

Gaps exist in Hanford's knowledge of how these two substances affect fish, site experts said.

H Reactor's chromium plume is considered a top risk. There, Hanford pumps chromium out of the aquifer and treats it. The state views N Reactor's strontium plume as the most dangerous — focusing efforts there to find a cleanup solution, said Jack Donnelly, the state Department of Ecology's cleanup program manager.

An old water retention basin is the source of much of the H Reactor Area's strontium and chromium. In March, Han-

ford began moving that basin's soil and contaminants to a central Hanford landfill, Donnelly said. This reduces the threat to the river in that area.

Also, Hanford's experts said Buske's underground stream theory is not widely held — and has not been proven at Hanford. "There's no geological information to back it up," Dirkes said.

Strontium and chromium also chemically behave differently — with those differences magnified by subterranean hydraulics, different soils and other underground factors, Hanford experts said. But, they said they could not rule out Buske's theory.

Hanford's sampling results will dribble in — PNNL's results in six weeks and the state health department's in two months. PNNL and the state ecology department routinely sample the riverbed for chromium and other substances each fall when the river is lowest.

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

6-29-99
10 Years of the

TRI-PARTY AGREEMENT

A Town Hall Meeting On Hanford Cleanup

The signing of Hanford's historic Tri-Party Agreement ten years ago launched a decade of environmental challenges, safety issues, technological innovations, and important cleanup progress.

Now, key decisionmakers from the U.S. Department of Energy, Washington State Department of Ecology, and U.S. Environmental Protection Agency are coming together again — to examine the successes and setbacks of the first ten years of Hanford cleanup and look ahead to the environmental challenges of the next decade.

Please join Chuck Clarke, Regional Administrator, EPA Region 10; Dan Silver, Deputy Director, Washington State Department of Ecology; Keith Klein, Manager, DOE Richland Operations Office; and Dick French, Manager, DOE Office of River Protection for a dynamic exchange of diverse viewpoints and ideas on the critical questions surrounding Hanford's massive cleanup effort:

- ▲ What have we accomplished in the first ten years of the TPA?
- ▲ Where are we headed?
- ▲ What are the key events and important issues the Northwest community needs to be aware of as we begin the next ten years of cleanup?

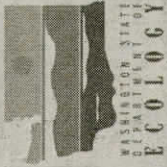
TONIGHT!

**Tuesday, June 29, 1999
7:30 p.m. — 9:30 p.m.**

Battelle Auditorium

900 Battelle Boulevard, Richland, Washington

Moderated by Ian Lamont, Publisher, Tri-City Herald



Wednesday, June 30, 1999

Firm may appeal ruling in Energy Northwest suit

By Chris Mulick
Herald staff writer

A Kennebec company that lost its bid for a \$1 million contract to Energy Northwest may appeal a judge's decision to dismiss its lawsuit against the public power consortium.

Belhaven Applied Technologies, which provides engineering services, bid earlier this year on a contract to handle calibration work for DynCorp, a Hanford subcontractor. Such work includes testing various sensors and monitors to make sure the instruments provide accurate readings.

However, Energy Northwest, the consortium of 13 Washington public utilities that operates the nuclear power plant at Han-

ford, was awarded the \$1 million contract.

The consortium, formerly known as the Washington Public Power Supply System, is developing new business ventures to bring in more money. The additional revenues can be used to offset costs of running Plant No. 2.

"We feel compelled to pursue any opportunities that will reduce our cost of power," said Al Mouncer, general counsel for Energy Northwest. "This is one of those opportunities."

But Belhaven argued a public organization shouldn't be allowed to compete with private enterprise and Energy Northwest doesn't have the authority to enter into the contract.

But Energy Northwest, and ultimately

Superior Court Judge Dennis Yule, said the consortium's bid was legal.

"We were a bit overwhelmed in the courtroom," Belhaven President Tom Bayha said Tuesday. "Belhaven was very disappointed in that ruling, and we were astonished at the rationale Judge Yule gave for that."

Bayha said the company is considering appealing the ruling.

Meanwhile, Energy Northwest has been finishing up paperwork and could begin calibrating instruments as soon as today, said Jack Baker, the consortium's vice president for resource development.

The two-year contract comes with three one-year extensions. The work is being done in Energy Northwest's calibration lab, which

it has used to work on its own instruments.

The consortium also has provided other kinds of services to other government agencies, including computer services to the Bonneville Power Administration and a strategic planning program to the state Office of the Insurance Commissioner.

It also has provided some sewage treatment services at Hanford.

"We've been contracting with the Department of Energy for years," Mouncer said. "We didn't feel this was any different situation. Competing with private industry, it's a way of life."

Reporter Chris Mulick can be reached at 582-1521 or via e-mail at cmulick@tri-cityherald.com

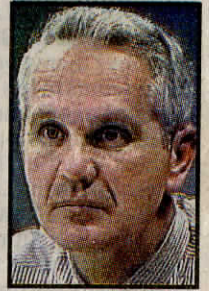
River office role still unclear

Answers due soon, cleanup czar says

By John Stang
Herald staff writer

Basic questions still have to be hammered out on how Hanford's new Office of River Protection will work with the rest of the Department of Energy's Hanford operation.

But James Owendoff, DOE's acting cleanup czar who supervises both Hanford offices, said Tuesday that he could not put a date on when those questions will be answered.



Owendoff

Hanford:

He said answers could come soon, or they may take until DOE's cleanup budget request for fiscal 2001 is submitted to Congress. That would be in January or February.

Owendoff also downplayed concerns voiced by the Hanford Advisory Board and other Hanford observers that the Office of River Protection and the rest of Hanford might end up competing with each other for federal cleanup money.

"I'm not in a big gut churn over (anticipating) some big conflict

See Hanford, Page A2

PNNL adapts crime software to help police catch Spokane serial killer

By Annette Cary
Herald staff writer

Efforts to use high-powered software to help identify the Green River killer have stalled for lack of money, but it may be used instead to help detectives finger the serial killer who's terrorized Spokane.

The software was developed by Pacific Northwest National Laboratory in Richland to help the U.S. intelligence community cope with information overload.

It can sort thousands of pieces of disparate data from text, maps and video. Then it uses colors and 3-D shapes to point analysts to connections and patterns that humans might otherwise not find or even think to look for in massive amounts of information.

"People who have used it come away amazed," said Steve Martin, a senior program manager at the Richland laboratory.

Using the software to sift through crime evidence seemed a logical next use. And probably no case in the state has amassed more information than the unsolved Green River killings.

Between 1982 and 1984, 49 women died at the hands of the Green River killer in the Seattle area. Two years after the last known murder, the investigation reached its peak with 56 officers and support personnel working on the case.

Today, the task force consists of a single officer, King County Detec-



Battelle senior research scientist, John Risch, demonstrates computer visualization software called Starlight at Pacific Northwest National Laboratory.

Herald file photo

tive Tom Jensen, who continues to accept tips and research information. There's plenty of it.

Some \$16 million has been spent on the case, and just the names of people on file with a possible connection to the case number more than 500,000.

PNNL was awarded a \$20,000 grant from the Department of Justice to see if the Starlight system

could be used to sort the information.

The information was already in a database, hurriedly entered into haphazard groups by inexperienced staff, said John Risch, a principal researcher on the Starlight project. Through the years as the information was transferred to more current database systems, much of it was corrupted.

"It was pretty much of a mess," Risch said, even though PNNL had helped clean up some of the data in 1997.

Risch's group did more cleaning and entered data into the Starlight system. It ranged from 40,000 missing person reports to 20,000 tips made to a police information line.

See **Software**, Page A2

Testing of new system links killings for attorney general

By the Herald staff

A computer crime-fighting system inspired by law enforcement's frustration with the Green River killings is getting an update.

The Washington attorney general's office is testing a new system developed at Pacific Northwest National Laboratory in Richland to sort crime databases.

In its initial testing, it's found a link between two murder cases entered in the statewide Homicide Investigation Tracking System. Both involved body parts found at different locations in the Northwest.

The new system pointed out the similarities between the cases — which turned out to be a single case. DNA tests already done matched and showed the body parts were from the same victims.

The state tracking system, called HITS, was started in the late 1980s when law enforcement officers saw how difficult it was to track the information collected in the 49 Green River stranglings.

"It was more than anyone could comprehend or work with," said Lars Kangas of the Richland laboratory.

The system also was developed as a way for law enforcement to

share information about crimes across city, county and state boundaries — since criminals aren't limited by police jurisdictions.

Now, records of 7,000 to 8,000 murders are in the database, including ones from neighboring states. It also includes about the same numbers of sexual assaults.

The Richland laboratory's most recent task on the system has been to update the browsing method "to make sense out of the data," said Kangas, the project manager.

The system, called Computer Aided Tracking and Characterization of Homicides or CATCH, matches 200 to 300 details in each case. They range from obvious details such as weapons to specific sexual behavior in murder cases.

"This tool helps find other murders committed in the same way," Kangas said.

Since serial criminals may repeat the same behavior each time, the system is grouping crimes likely to have been committed by the same person.

More traditional browsing methods could find the same matches but would take many hours of individual checks on one or two key words to come up with the same information.

Abby/A5 Classified/B6 Comics/B5 Crossword/A5 Deaths/A7 Horoscope/B11 Movies/A12 Opinion/A6 Sci-Tech/A13 Sports/B1 TV/A12

scrounge up extra dollars.

Consequently, a DOE master plan to clean up most of its smaller contaminated sites by 2006 appears to be in trouble.

The General Accounting Office, Congress' investigative arm, recently reported to U.S. Rep. John Kasich, R-Ohio and chairman of the House's Budget Committee, on DOE's ability to follow through on its plan to clean up 41 out of 53 sites by 2006.

The GAO looked at the so-called "2006 plan," which was later officially renamed the "Accelerating Cleanup: Paths to Closure" concept.

DOE locked into this plan in 1996, saying if Congress keeps DOE's nationwide cleanup budget steady each year through 2006, it can finish cleaning up most of its smaller sites by 2006. That would free extra money to clean up

is not enough and nationwide funding snafus will range from \$100 million to \$700 million each year through 2006. The total predicted shortage is about \$4.3 billion from 1999 to 2006. That averages to slightly more than \$500 million each year.

For a long time, Hanford's budget crunchers have said the predicted local cleanup budgets are significantly less than what is needed to meet the site's legal cleanup obligations.

Hanford's predicted cleanup budget falls \$97.8 million short for 2000, \$232 million short for 2001, and at least \$200 million short each year from 2002 through 2005. Meanwhile, DOE has had problems getting even \$5.75 billion a year for its national cleanup budget. In 1999, it obtained \$5.6 billion. Its original request of \$5.7 billion for 2000 was being cut by the

■ Some sites don't have good data to back up their cost estimates.

■ Some DOE sites have not nailed down in what conditions those locations should be after cleanup is completed.

■ Some sites have not yet figured out how they want to trim costs to help meet the 2006 plan's goals.

■ DOE does not have a good track record of keeping projects on schedule and within budget. And it also has trouble speeding up cleanup at some sites to meet the 2006 plan's goals.

For example, Rocky Flats in Colorado has to speed up its completion date from 2010 to 2006, and Fernald in Ohio has to move its finishing date from 2008 to 2005. Neither goal seems likely at this time, the GAO report said.

Also, DOE's site at West Valley, N.Y., origi-

framework to make budgeting and planning decisions, and that the individual sites' data and estimates are better than GAO believes.

DOE's reply said the individual sites have gotten detailed guidance from DOE's Washington, D.C., headquarters on preparing information and cost estimates, with enough flexibility to tailor plans to each site's needs and public feedback.

DOE has worked closely with regulatory agencies in preparing the plans, so there is at least informal agreement on what the cleanup standards tentatively should be, the DOE letter said.

Hanford's cleanup is governed by a legal agreement between DOE and its regulators.

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

Tackling the K Basin sludge problem

Officials develop plan that will get rid of radioactive goo and trim costs, timetable

By John Stang
Herald staff writer

Picture enough highly radioactive sludge to fill two small bedrooms.

That's 1,750 cubic feet of dirty, dangerous goo.

And that goo sits at the bottoms of Hanford's two K Basins holding 2,300 tons of spent nuclear fuel.

As the K Basins project's costs almost doubled to \$1.6 billion since 1997 and the finish date moved back four years to 2005, that sludge accounted for 1½ years of delays.

That sludge also originally added \$50 million in extra costs to the K Basins project.

Then that estimate grew to possibly \$150 million.

All this translates to about \$86,000 to tackle each block of sludge the size of a computer terminal.

Now, Hanford thinks it can trim much of the extra burden this sludge has put on the K Basins' price tag and timetable.

If all goes as proposed, that sludge could end in another Hanford program, eventually to be shipped to New Mexico.

All this proposal needs is the Department of Energy's OK.

And contractor officials believe getting that OK will be easy.

That's because DOE and the U.S. Environmental Protection Agency participated in brainstorming the idea to convert the sludge into transuranic wastes to be sent eventually to the Waste Isolation Pilot Project, which is a huge underground storage site in New Mexico.

This idea is the biggest to come out of a recent philosophical change in how some Hanford projects are planned.

The initial set up and problems

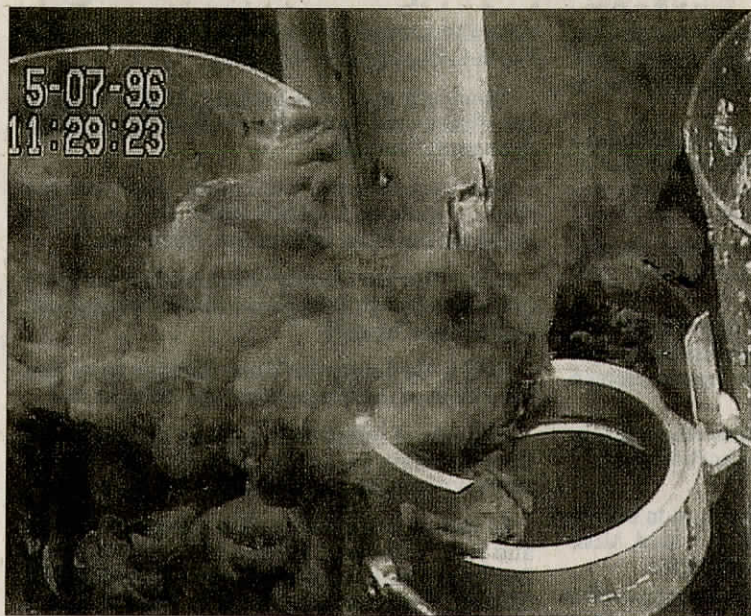


Photo courtesy of Fluor Daniel

Radioactive sludge and corroded spent nuclear fuel cloud the K Basins' water when the fuel is moved.

are this: The K Basins project's purpose is to safely move 2,300 tons of spent nuclear fuel from two pools near the Columbia River to a huge underground vault in central Hanford.

But this project has been plagued with numerous managerial, technical and budgetary problems, leading to majors delay and cost increases.

One reason for the delays and cost increases is that taking care of the sludge was not included in the original planning in the mid-1990s.

So when sludge removal was added to the project, the plan was to dump it in Hanford's underground tanks already filled with radioactive wastes.

The problem is that the sludge and tanks wastes are radically different, said Eric Gerber, Fluor Daniel's site integration manager for the spent nuclear fuel project.

The K Basins' sludges contains polychlorinated biphenyls, heavy metals, pieces of uranium and 66 pounds of plutonium.

This means if the sludge is added to the tanks, two major risks pop up: fire erupting or a burst of radiation being released.

Hanford's first solution was to wait until the fuel canisters were removed, then convert one of the

project's fuel processing building, the Cold Vacuum Drying Facility, into a new plant to treat the sludge so it can go into the tanks.

This plan added at least a year to the K Basins' timetable because the fuel and sludge could not be processed at the same time, Hanford officials said. And this step created the bulk of the \$150 million cost increase, said Gerber and Dick Wilde, vice president of Waste Management of Hanford.

Those figures spooked Fluor, and its subcontractors huddled to come up with another plan.

Traditionally, when Hanford plans a project, all the engineering problems are worked out before the regulatory pitfalls are analyzed.

That meant lots of false starts when environmental regulations would shoot down months of design work, Wilde and Gerber said.

That prompted Fluor to begin bringing DOE, EPA and the state into the beginning of a project to map out regulatory pitfalls and give early advice on how to deal with them, Gerber and Wilde said.

This K Basins sludge project is the biggest so far to be changed under this new format.

Fluor still has to do the nitty-gritty design work.

And DOE, EPA and the state still have to make sure those details legally fit all of Hanford's regulations.

With the K Basins' sludge, Fluor now decided to forget sending it to the tanks.

Instead, Fluor wants to declare it as "transuranic wastes" to eventually send to WIPP in New Mexico.

Transuranic waste is a term applied to various types of radioactive junk — tools, clothes, cut-up heavy equipment — that exceed certain radiation levels.

Hanford plans to put this junk in special barrels, remove all liquids, fill the drums with cement to encase the radioactive junk, and ship them out.

Fluor and Waste Management, which handles Hanford's transuranic wastes, are looking at converting an old plutonium extraction building, T Plant, into a place to do this work.

Right now, Hanford estimates it has about 80,000 55-gallon barrels of transuranic wastes that can be moved by hand. And it has another 2,000 cubic meters of this waste that must be handled by remote control.

K Basins' 1,750 cubic feet of sludge translates to 50 cubic meter of wastes that must be handled by remote control — a tiny addition to what the site already has to deal with.

Hanford is scheduled to start sending transuranic wastes to WIPP this fall.

But the remote-control-handled material must wait until 2003, when WIPP is supposed to be prepared to deal with it.

Gerber speculated this new approach means Fluor might start removing sludge from the K Basins before the fuel is all moved — speeding up the overall project.

Officials believe this proposal will be cheaper than \$50 million.

However, more designing and planning are needed before Fluor and Waste Management can say how much time and money would be saved, according to Gerber and Wilde.

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

Scientists scrutinize low-level radiation

By Annette Cary
Herald staff writer

No one really understand what small amounts of radiation — the sort of levels many Hanford workers and downwinders were exposed to — do to human cells.

But scientific advances hold the promise of giving medical professionals better information on how much damage is caused by small amounts of radiation.

Eventually, doctors even may be able to tell if a specific case of lung cancer, for example, was caused by second-hand smoke or the radioactive radon gas.

Senior research scientist Tony Brooks at Washington State University at Tri-Cities will spend most of the next three years serving as science adviser to the Department of Energy on a national project to learn more about the risks of low-level radiation.

"For the first time, we will develop radiation protection standards that are based on actual risk," said Sen. Pete Domenici, R-N.M., a champion of the project, in an earlier speech.

The Low-Dose Radiation Research Program will use new technology to see how radiation affects cells and genomes, or sets of chromosomes, so scientists can understand how radiation affects people, even in small amounts.

The program is ramping up now, but the goal is to spend \$20 million next year on 30 to 40 basic science projects worldwide. The project would continue through 2007.

Until now, scientists have had to calculate risk of low-level radiation by looking at what's known about the damage caused by high levels of radiation, where damage is readily evident. Then they calculate smaller percentages of risk for smaller doses of radiation.

Using that method, radiation is considered to cause no risk only when there is no dose, Brooks said. That means that a single radioactive molecule left from nuclear activity is considered a cancer risk — there is no "safe" level of exposure using existing estimates.

Hanford Progress

**One-by-One,
Contaminated Facilities
and Soil Sites are
Being Cleaned Up**

Protecting the Columbia River



The Environmental Restoration Contractor Team has just completed its first five years at Hanford.

We're proud of our accomplishments.

We would like to thank . . .

Our Employees

For their hard work and dedication

Our Customer, the Department of Energy

For removing barriers and streamlining how work is done at Hanford

The Regulatory Agencies

For partnering with us to solve issues

Our Stakeholders

For their involvement and willingness to work with us

State, federal agencies developing plan to relocate 700 elk from ALE reserve

By Kim Bradford
Herald staff writer

State and federal agencies could begin a plan to round up 700 elk on Hanford's Arid Lands Ecology reserve and truck them to state mountain ranges as early as next spring.

The move would follow growing complaints from neighboring ranchers about damage done by ALE's marauding elk herd, which has outgrown its home on the 120-square-mile parcel of western Hanford.

Wildlife agents put the herd's head count at 1,000 and say some animals have wandered as far as southern Benton County.

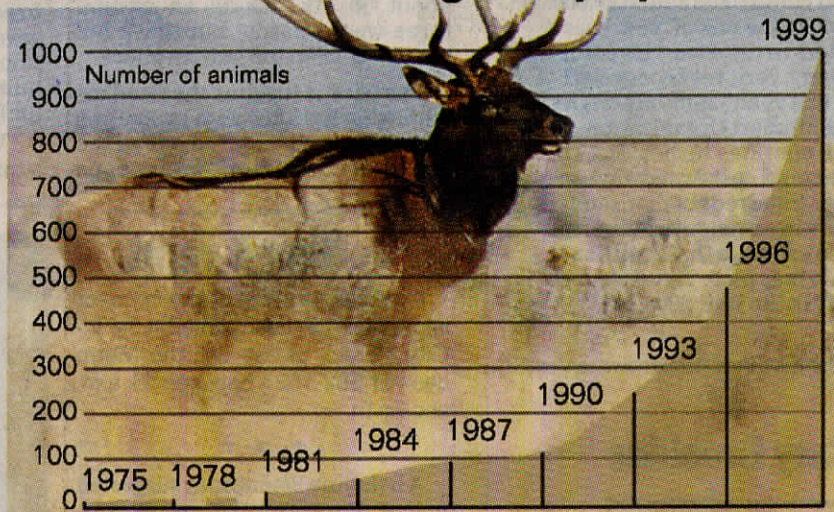
"They're east and they're west. They're north and they're south. And nobody is minding the store," said R.J. McWhorter, a ranch owner whose land abuts ALE and who has pressed government agencies for a solution to elk overpopulation on behalf of his neighbors.

Representatives of the state Department of Fish and Wildlife, U.S. Fish and Wildlife Service and the Department of Energy met with ranchers and two Yakima Valley state lawmakers Wednesday in a meeting called by Benton County commissioners, who have received complaints about the elk problem.

Dale Bambrick, director of the south-central region for the state Fish and Wildlife, said all the agencies agree the elk herd is too large for its range and have developed a tentative strategy to reduce the herd to 300 elk.

The plan calls for relocating about two-thirds of the herd by using helicopters to drive the elk into corrals where they would be loaded onto trucks headed to the Selkirk, Nooksack

Hanford's booming elk population



SOURCE: Pacific Northwest National Laboratory

Herald/Lisa Ronald

or Blue mountain ranges. The herd then would be kept small through expanded hunting, Bambrick said.

The snag is that the relocation plan comes with a \$500,000 price tag. Promoters are hoping the federal government will foot the bill, but prospects so far are dim.

"We have seen nothing out there that indicates there is funding," said Dave Goeke, the federal Fish and Wildlife Service's project leader for the Hanford area. He added that federal agencies are prohibited from lobbying lawmakers for the money and instead must rely on people like county representa-

tives and the affected ranchers to sell the plan.

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

Elk, which are believed to have migrated from their traditional wintering grounds near the Cascades to the reserve where they were first discovered in 1972, have thrived on the closed reserve. Their numbers have soared from 100 in the late 1980s to approximately 1,000 today and are

See **Elk**, Page A2

Search on for new Fluor official

By John Stang
Herald staff writer

Ron Peterson — the Fluor Corp. official to whom the company's Tri-City operations report — has been shifted to a new post as part of the corporation's reorganization.

The search for his replacement is under way with no set timetable for making that selection, said corporate spokesman Rick Maslin.

Fluor Daniel Hanford and Fluor Daniel Northwest are part of the Federal Services Strategic Business Unit, which is part of Fluor Global Services, which is one of the five main "enterprise" divisions of Fluor Corp. of Irvine, Calif.

Peterson was shifted from the Federal Services Strategic Business Unit to become president of the Operations and Maintenance Strategic Business Unit of Fluor Global Services.

"It was time for Ron to handle a greater portfolio," Maslin said.

The Operations and Maintenance Strategic Business Unit runs and takes care of plants and facili-

ties, including nuclear-related ones. Fluor Corp. wants this unit to expand into a new type of business field in which Fluor manages operations for other owners. That will be one of Peterson's focuses in his new job, Maslin said.

Meanwhile, Fluor Daniel Hanford and Fluor's operation at Fernald, Ohio, will report directly to Jim Stein, president of Fluor Global Services.

It has not been decided yet whether Fluor's Hanford and Fernald operations will report to Stein or to Peterson's replacement when that post is filled, Maslin said.

Other Federal Services Strategic Business Unit companies, including Fluor Daniel Northwest — which is an architectural, engineering and construction management firm — will report in the interim to Tom Roell, vice president of this unit.

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

Cleanup on Columbia a waste, says DOE official

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

WASHINGTON — The Energy Department is wasting \$12 million to clean up parts of the Hanford reservation along the Columbia River for eventual unrestricted use, including residential development, the department's inspector general stated in a new report.

It's Your Call:

If Hanford were clean enough, would you want to live there?

Page A3.

The report stated there is no justification for such a high standard. As far back as 1992, land-use plans for the reservation's 100 Area called for a cleanup that once completed would allow for limited recreation, hunting and fishing by American Indians, a museum at the site of the B Reactor and wildlife preservation, the report stated.

The department's Richland office, however, under pressure from the federal Environmental Protection Agency and the state Department of Ecology, has continued to pursue the unrestricted use standard.

"The regulators set the standards, and we cannot back off from those standards," said Linda Bauer, DOE's assistant manager for environmental restoration at Hanford.

Bauer said the inspector general's report is one recommendation among several factors that must be considered in setting cleanup standards. Federal and state environmental laws, the 100 Area's proximity to the river and the fact many sources of contamination are in the area must be also

See **Cleanup**, Page A2

Hanford board to quiz officials on tank wastes

By John Stang
Herald staff writer

A Hanford Advisory Board committee is worried about how 90 percent of the site's radioactive tank wastes will be converted into glass.

And the board's financial affairs committee proposes to ask Hanford's cleanup leaders about that issue next Thursday in Richland.

Hanford has 54 million gallons of radioactive wastes in its 177 underground tanks — totaling about 200 million curies of radioactivity.

The Department of Energy's master plan is for BNFL Inc. to build and operate plants to convert the wastes into glass. BNFL and DOE hope to sign a contract late next summer for the company to have the plants running by 2007 to turn 10 percent of the site's tanks wastes — containing about 50 million curies — into glass through 2018.

On Thursday, the committee members fretted that plans are not being tackled on how to convert the remaining 90 percent of the tank wastes into glass.

BNFL officials have said the plants are being designed to be able to expand as needed.

But the committee members are worried that no actual schedules, budgets, financing plans or work plans have surfaced yet for expanding the facilities.

"The problem we see is that there is no definitive plan on how they will increase (the glassification plants') capacity," said George Kyriazis of Kennewick, the Hanford board's vice chairman.

Kyriazis and Gerald Pollet, the HAB committee chairman and director of Heart of America Northwest, both said BNFL and DOE need a plan to speedily increase the

plants' capacities if the underground tanks rupture or leak more wastes into the ground.

Pollet said expanding the glassification plants should be added to the Tri-Party Agreement, the legal pact that governs Hanford's cleanup.

The committee members also want the upcoming BNFL-DOE contract to include an alternative plan to finance the project in case the current financing proposal falls through. The current plan is for BNFL to raised several billion dollars on its own, with DOE to start reimbursing it with a profit added when waste glass is produced.

The Hanford Advisory Board has pushed the alternative financing issue for many months. And the board's financial affairs committee members want a public review of the negotiated contract before Congress votes on it next year.

These are matters the financial affairs committee wants the entire board to discuss next Thursday with Keith Klein, DOE's Hanford manager; Dick French, DOE's manager of the Office of River Protection; Tom Fitzsimmons, director of the Washington Department of Ecology; and Chuck Clarke, Northwest regional administrator for the federal Environmental Protection Agency.

Those four are to meet with the entire Hanford Advisory Board from 9 a.m. to 3 p.m. in a public meeting — with the HAB discussing other matters afterward — to talk about a wide variety of issues. The forum is at the Doubletree Inn in Richland.

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

Board probes response to Fluor Daniel audit

By John Stang
Herald staff writer

A Hanford Advisory Board committee wants to know how the Department of Energy dealt with a 1997 federal audit critical of Fluor Daniel's accounting of labor costs.

That stance emerged after Tri-Citian committee members criticized committee chairman Gerald Pollet, saying he stepped over the line in implying he represented the Hanford board's financial affairs committee in a Heart of America Northwest dispute with DOE.

That implication came in a June 15 letter from Pollet to several government officials, including U.S. Sen. Ron Wyden, D-Ore., and U.S. Rep. Adam Smith, D-Wash.

Pollet, who also is director of Hanford watchdog group Heart of America, said the implication he was representing the HAB committee in the letter was unintentional, and that he would watch out on this matter in the future.

Committee members discussed the issue Thursday in Richland. The basic premise is how DOE calculates overhead and labor costs.

For years, Pollet has criticized how DOE calculates "indirect" costs: traditional overhead plus equipment and facilities shared by more than one contractor. Pollet contends actual costs are higher than DOE says — which DOE officials have denied strongly for years.

All this led to a federal Defense Contract Audit Agency review with a 1999 report that concluded DOE's accounting practices were generally OK.

Meanwhile, Pollet obtained a 1997 DCAA audit report that concluded Fluor's accounting

ended up inflating its labor costs.

The audit's conclusion more or less mirrors allegations in a lawsuit filed recently in federal court by former Fluor and Westinghouse budget analyst David Carbaugh. Carbaugh alleges Fluor and Westinghouse deliberately inflated labor costs to overcharge DOE. Fluor and Westinghouse deny that charge.

Thursday, Fluor spokesman Michael Turner said Fluor took care of problems noted by the DCAA's 1997 audit, and that Fluor's accounting practices meet all the appropriate standards.

Meanwhile, at the HAB committee's June 8 meeting, Pollet wanted to quiz DCAA officials on the different pictures painted in the 1997 and 1999 audits. The other committee members, including six Tri-Citian representatives, did not receive copies of the 1997 audit and felt Pollet dominated the discussion because they could not prepare for it.

Pollet apologized Thursday, saying it was an unintentional distribution glitch.

Also June 8, Pollet expressed anger when a DOE lawyer told the committee the DCAA could not answer his questions because of Carbaugh's lawsuit. Pollet's behavior embarrassed the Tri-Citians, who make up two-thirds of the nine-person committee.

Then Pollet sent a letter June 15 on Heart of America letterhead to Wyden, Smith, DOE, the U.S. Environmental Protection Agency and the Washington Department of Ecology blasting DOE on this issue and protesting not being able to get answers June 8.

That letter referred numerous times to DOE stonewalling a frustrated Hanford Advisory Board financial affairs committee — much more

than it referred to Heart of America. That upset the Tri-Citian committee members, who said Pollet crossed the line to imply the entire committee backed him on the matter — to which they never agreed.

"The uninformed reader gets the impression that (Pollet's letter) is a committee letter," said committee member Harold Heacock.

The six Tri-Citians — Heacock, George Kyriazis, Dave Watrous, Abe Greenberg, Bob Larson and Jeff Luke — sent a letter July 1 protesting the matter to HAB Chairwoman Merylin Reeves.

The Hanford Advisory Board represents 32 constituencies across Hanford's political spectrum. One board rule is that individual groups can pursue their own agendas, but any stance taken in the board's name must have the board's nearly unanimous consent — giving it significant political clout. That rule has helped convert traditional enemies such as environmentalists like Pollet and Tri-City groups into allies on many issues.

Pollet told the four Tri-Citians — Heacock, Greenberg, Watrous and Kyriazis — that he did not intend to imply he represented the committee in the letter. And he said he would be careful in the future.

While the Tri-Citians' letter hinted at a Pollet resignation, the four told Pollet Thursday he has been a fair and valuable chairman, and should stay in that post.

Later, the entire committee requested DOE brief it on actions taken after the 1997 DCAA audit.

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

Overview of PNNL still in air

By John Stang
Herald staff writer

The Department of Energy hasn't decided whether Pacific Northwest National Laboratory would come under control of a semiautonomous agency being created to run DOE's nuclear weapons labs.

Energy Secretary Bill Richardson agreed Thursday to create such an agency in response to heavy criticism surrounding revelations about Chinese spying and poor security at some national laboratories.

The details and responsibilities of such an agency still have to be hammered out between DOE and Sens. Pete Domenici, R-N.M., Jon Kyl, R-Ariz., and Frank Murkowski, R-Alaska. Talks are expected to occur in August.

The trio of senators have been pushing for the creation of such an agency, but Richardson initially resisted.

However, he agreed to the reorganization if certain conditions are met, said a DOE official in Washington, D.C., who spoke on the condition he was not identified.

Richardson's conditions included:

- The new agency stay under his authority, and he supervises the undersecretary in charge of the agency.
- Strengthening measures taken in the past few months will be retained.
- DOE's Office of Counterintelligence and other existing oversight departments will continue to cover all of DOE.

At a minimum, the proposed Agency for Nuclear Stewardship will supervise the Los Alamos, Sandia and Lawrence Livermore national labs, the Nevada Test Site, and other nuclear weapons production facilities.

Whether PNNL or any other national labs will be added is up in the air until the negotiations are done, the DOE official said.

Officials in Richland weren't any more certain about the future. "What the reorganization means to us is unclear ... or even if PNNL will be impacted at all," said PNNL spokeswoman Staci Maloof.

PNNL believes it already has a strong security system, but would be willing to strengthen it at DOE's request, she said.

She noted that PNNL does not handle nuclear weapons production work. But it does manage several programs on guarding nuclear materials and information, and on preventing the smuggling of nuclear materials.

Tri-City Herald

Thursday, July 15, 1999

DOE lax on nuclear safety fines, report says

By John Stang
Herald staff writer

The Department of Energy is not using all its potential power to fine contractors for nuclear safety violations, a recent federal report concluded.

The General Accounting Office said:

■ A DOE plan to set up formal rules for fines on safety matters is lagging. In 1988, DOE identified 11 safety areas where requirements should be upgraded to official rules — meaning civil fines can be levied for violations. So far, DOE has done this in only two areas.

■ Nonprofit contractors should lose their exemption from civil fines on nuclear safety problems. That proposal would affect Battelle, which operates Pacific Northwest National Laboratory at Hanford for DOE.

The GAO, Congress' investigative arm, studied DOE's ability to enforce nuclear safety matters for Rep. Thomas Bliley Jr., R-Va., chairman of the House Commerce Committee.

The report noted DOE decided in 1988 that it should upgrade nuclear safety requirements to officially enforceable rules on a nationwide basis in order to levy civil fines against contractors.

The bottom line is that DOE can trim a contractor's annual performance fees for viola-

General Accounting Office concludes department not exercising full power to penalize contractors

tions, but it is limited on what it can fine a contractor for nuclear safety matters.

The two groups of requirements DOE has revised cover radiation protection for workers and quality assurance matters for how work is planned and done.

The nine other areas DOE originally said it would upgrade include safety studies, unreviewed safety questions, identifying defects, conduct of operations, technical safety requirements, training, maintenance management, identifying incidents where safety thresholds were exceeded and radiation protection of the public and environment.

DOE began formal enforcement of nuclear safety rules in 1996. Since then, it has levied at least \$2.13 million in fines for 34 violations at 12 sites.

Five violations by four Hanford contractors occurred at Hanford, three of which were severe enough for fines totaling \$508,125 from 1996 to 1999. Battelle and Bechtel each received one minor violation notice with no fines.

Westinghouse was fined \$37,500 in 1996 for problems that exposed a worker to radiation at the tank farms. Fluor Daniel was fined

\$140,625 in 1998 for a 1997 chemical tank explosion at the Plutonium Finishing Plant, plus three other PFP procedural errors that could have resulted in bursts of radiation. This year, DOE fined Fluor \$330,000 for a string of quality control problems from 1996 to 1999.

In a letter to the GAO, DOE agreed it needs to complete upgrades to the remaining safety requirements.

The situation has not handicapped DOE enforcement abilities at Hanford, because fines can be levied on quality assurance matters, said Robert Nelson, DOE senior nuclear safety adviser for environment, safety and health. "Quality assurance can cover almost anything," he said.

Meanwhile, the GAO report also recommended Congress change the law that exempts nonprofit contractors from civil fines at DOE sites. That's eight contractors, including Battelle, at 10 sites. The exemption means that out of \$2.13 million in levied fines, \$605,000 was not collected because the violators were nonprofit contractors, the GAO reported.

Originally, Congress exempted the non-

profit contractors because they did not receive fees in addition to being reimbursed for their operating costs. When fees later were added for nonprofit contractors, those contractors were mostly universities or foundations unwilling to risk being fined. Also, a nonprofit contractor can lose its contract or part of its performance fee for nuclear safety violations.

The GAO believes the addition of performance fees means a nonprofit contractor can afford to pay fines and these contracts may not cover all pertinent safety issues. So, the GAO argued this exemption from civil fines should be removed.

PNNL spokesman Greg Koller said Battelle believes the reasons for the exemption remain valid. Nonprofit corporations cannot risk substantial fines taken from their endowments and other assets, he said.

Reduced performance fees, stop-work orders, terminated contracts and damage to reputation all hurt, he said. He noted DOE terminated the nonprofit contractor that ran the Brookhaven lab.

Battelle's 1999 total potential performance fee is \$7.1 million, while for-profit firms Fluor and Bechtel can earn \$54.8 million and \$10.14 million with perfect 1999 records.

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TRI-CITY HERALD

THURSDAY, JULY 15, 1999

METRO

Group offers theory on radioactive river pollution

By the Herald staff

A Hanford watchdog group has scheduled a presentation today on a theory that radioactive strontium is in higher concentrations in the Hanford Reach than Hanford's scientists believe.

The presentation is at 7 p.m. at the Doubletree Hotel in Richland by Norm Buske, a scientist employed by the Government Accountability Project.

Buske found a mulberry tree with a high concentration of strontium in its leaves on the Columbia

River shore near the H Reactor.

And nearby in the river, he said, he's found one highly concentrated spot of chromium.

As a result, he believes there's more strontium likely polluting the river than Hanford officials have reported.

Chromium is a nonradioactive contaminant that seeps under, then up through the riverbed and then is dispersed in the river's huge volume.

But in large concentrations, chromium is considered harmful

to baby salmon in the rocks of the riverbed.

Buske theorizes strontium and chromium are seeping through the ground in concentrated amounts in fast-moving underground "streams" to reach under the riverbed to then bubble up through it.

Hanford's scientists and engineers have been tracking underground plumes of strontium reaching the river in all the old reactor areas, including the H Reactor Area.

Hanford officials say they are tackling the worst strontium plume, which is near the N Reactor.

Several Hanford underground contamination experts have said they cannot rule out Buske's theory but say it is unlikely.

They said Hanford's underground geology does not support the concentrated underground "stream" theory.

Instead, they say contaminants are reaching the river in much more diluted amounts than Buske's theory.

Hold Fluor responsible for K Basin price tag, board says

By John Stang

Herald staff writer

Fluor Daniel Hanford should be held responsible for ultimately achieving a promised \$1.4 billion price tag for the K Basins project, the Hanford Advisory Board recommended Friday.

The board approved sending a letter to the Department of Energy on what the advisory body feels should be addressed in Fluor's performance goals for fiscal 2000.

Fluor works for DOE under a performance-based contract, meaning its fee or profit depends on meeting specific goals. Fluor's total fee for 2000 has not been set

yet. Its potential total fee — with a perfect grade — is \$45.8 million for fiscal 1999.

The K Basins project's purpose is to move 2,300 tons of spent nuclear fuel from two pools near the Columbia River to safer storage in a huge underground vault in central Hanford.

The project has been plagued by technical and coordination problems plus increases in the program's scope — which doubled its lifetime estimated costs to almost \$1.6 billion and pushed back the completion date from 2001 to 2005.

In spring 1998, Duke Engineering & Services President John Norris told a congressional committee that the K Basins project

can be done for \$1.4 billion. DE&S Hanford, a Duke subsidiary, has been the Fluor subcontractor in charge of the K Basins.

Fluor and Duke are negotiating a new arrangement under which Fluor will absorb most of Duke's workers and the project will become a Fluor program.

Efforts are under way to trim the current \$1.6 billion cost estimate.

Hanford board members noted Friday that because the K Basins project is supposed to last through 2005, confirming a \$1.4 billion lifetime budget in 2000 is not feasible.

However, "they've got to show progress toward meeting that \$1.4 billion" goal to

earn part of Fluor's performance fee in 2000, said board member Harold Heacock, representing the Tri-City Industrial Development Council.

The board makes recommendations. And DOE and Fluor will negotiate the actual contractual performance goals.

The Hanford board made several other recommendations for the fiscal 2000 performance goals that essentially called for rewarding Fluor for meeting schedules and budgets and penalizing it for missing goals.

Also Friday:

■ Board members had a question-and-answer session — mostly in general terms

with no new major revelations by both sides — with Keith Klein, DOE's new Hanford manager.

Klein has begun making changes to reduce the number of Hanford's managerial levels and to streamline operations. Many details still have to be hashed out.

Although generally receptive to streamlining the site's operations, board members cautioned Klein that major organizational changes can increase stress on employees if they are unsure of their futures, and that stress can affect their work.

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

State cancels telemarketing contract at Monroe prison

By The Associated Press

MONROE — State prison officials have canceled the contract for the last telemarketing operation employing inmates after discovering a prisoner here got on the Internet using the company's computer.

"No offenders are allowed on the Internet, period," said Howard Yarbrough, head of the Department of Corrections' prison industries program.

There had been no previous problems with the Washington Marketing Group in its seven years at the Monroe Correctional Complex, Yarbrough said.

But the breach was serious enough that he suspended its operations here May 13, when a routine inspection disclosed the problem. He canceled the contract a week later, after an investigation confirmed the breach and revealed a company supervisor knew the inmate was getting on the Internet.

Company owner Jim Patton declined to discuss details of the abrupt end to the contract, which was to have run through 2002.

"It was just politics dealing with the state," he said before the state outlined results of its followup. He was out of the country and couldn't be reached for comment this week.

State prison officials had had previous problems with their own telemarketing operations using inmates.

Kennewick woman hurt in van crash



Herald/Chris Thelen

Kennewick police officers Mike Gaines, left, and Ken Lattin investigate a wreck Friday where a Kennewick woman was injured after she reportedly lost control of her 1973 Chevy van and slammed into a tree about 4:15 p.m. near Edison Street. Police say Estela Sanchez, 46, had been driving westbound on Clearwater Avenue. According to witness Jeff Winsor, 29, from California, two passengers in the van fled the scene. Officer Ken Lattin said Sanchez, who remained behind and was taken by ambulance to Kennewick General Hospital with multiple injuries, will be cited for obstructing a police investigation. Winsor said he was driving a couple of cars behind Sanchez moving in heavy traffic when he noticed the van slowly leave the road and plow into the tree. Police said Sanchez apparently was looking down and taking a bite of food when she glanced up and noticed the traffic had slowed. She received injuries to her face, leg, abdomen and knees.

Man who car door c

By Stefano Esposito

Herald staff writer

A Kennewick man who allegedly told police he shot at a car door because he didn't like the way it looked was charged this week with second-degree malicious mischief and unlawful discharge of a firearm.

Berce E. Bogar, 64, was read his rights and appointed an attorney on Friday in Benton County District Court. He is next scheduled to appear in court Aug. 10.

Bogar is accused of firing three .38-caliber rounds into a red Oldsmobile Toronado at the Shaniko Suites Motel in Kennewick on Wednesday.

Bogar had just checked out of the motel at the time of the shooting, police said. He lists a Kennewick antiques business as his home address. Police said the Oldsmobile belongs to an Olympia man who also was staying at the motel. Police are unaware of any relationship between Bogar and the car's owner.

During Bogar's stay, he hung around the front desk and repeatedly told motel staff he thought people were watching him. Bogar remained jailed Friday in lieu of \$2,500 bail.

Mid-Colum

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DOE budget cuts could affect Hanford cleanup

House subcommittee proposes trimming \$257 million from \$5.7 billion request

By John Stang
Herald staff writer

A U.S. House subcommittee has recommended trimming \$257 million from the Department of Energy's nationwide cleanup budget for fiscal 2000 — a cut that would likely reduce Hanford's cleanup budget, as well.

The House's Energy and Water Appropriations Subcommittee decided Thursday to reduce DOE's national environmental restoration budget request by \$152 million and the environmental management budget request by \$105 million.

What this means is DOE's proposed nationwide environmental cleanup budget request of \$5.7 billion for fiscal 2000 would be reduced by \$257 million if the subcommittee's version survives.

That recommended cut was not

divided specifically among individual sites or programs, said Jennifer Scott, an aide to U.S. Rep. Doc Hastings, R-Wash.

Hanford traditionally accounts for slightly less than 20 percent of DOE's overall cleanup budget each year.

If that percentage follows through in this case, it could translate to a cut of about \$50 million for Hanford's fiscal 2000 cleanup budget. Hanford usually gets the biggest share of cleanup money of all of DOE's sites.

The subcommittee's recommendation is scheduled to go Tuesday to the full House Appropriations Committee.

"I am concerned ... that the overall funding levels for cleanup throughout the DOE complex were reduced by the committee. We'll

See **Cuts**, Page A2

Watchdog groups wary of FFTF restart

By Annette Cary
Herald staff writer

Hanford watchdog groups are warning the Fast Flux Test Facility at Hanford could be used in a nuclear weapons research program if it's restarted.

An earlier proposal to restart the research reactor to make tritium for nuclear weapons, along with peacetime missions, was bitterly opposed by many in the Northwest.

Although the tritium mission is no longer under consideration, Pacific Northwest National Laboratory has been preparing a detailed report of possible uses and customers for the reactor.

A preliminary version of the report has been sent to the Nuclear Energy Research Advisory Committee or NERAC. It is being made public when the committee discusses it July 29 in Washington, D.C., and recommends to Energy Secretary Bill Richardson whether FFTF should be restarted or shut down for good.

The concern by watchdog groups over a weapons role comes from an April NERAC report on the capabilities and economic feasibility of restarting FFTF for isotope production and research. After considering that and other reports, NERAC split on a vote on whether it should recommend an environmental study necessary for a restart. PNNL then was asked to provide more detailed information.

The April report primarily looked at how FFTF could be used to produce isotopes for medicine. Radiation from isotopes shows promise in new ways to selectively target and kill cancer cells and to

improve existing heart disease treatment. The report also considered the possibilities of using the reactor to advance nuclear science, to make a power source for probes used in deep space exploration and to test technology for commercial nuclear power reactors.

But two sentences in the report also said the FFTF could provide support for DOE's "science-based, stockpile stewardship activities, as well as work in support of nonproliferation research programs focused on the disposition of surplus plutonium."

Heart of America Northwest, Columbia River United and the Government Accountability Project interpreted that as a "nuclear weapons explosion simulation, test and design mission." The stockpile stewardship program used to be called Nuclear Weapons Research and Testing.

Although PNNL's report on uses and customers has not been released, Walt Apley, director of the FFTF Standby Project Office, said nuclear weapons research is a possibility, but there is no concrete proposal.

The Comprehensive Test Ban Treaty prohibits underground or aboveground testing of nuclear weapons, so a DOE reactor might be used to alternatively research capabilities.

The report also mentioned future activities of nuclear nonproliferation could require the creation of special isotopes that "FFTF could supply in significant quantities." One possibility being considered is spiking reactor fuel with certain isotopes while it's being made so the

spent fuel could not easily be converted for use in nuclear weapons.

That and other new technologies — designed to reduce plutonium buildup, produce less waste and make spent fuel more difficult to convert for use in weapons — would need to be tested before being used in commercial reactors.

That testing could be done in the FFTF. Because of its design, it quickly can show what would occur in a commercial reactor over many years of use.

Hanford watchdog groups also are objecting to a report by PNNL on the pros and cons of the Richland national laboratory having responsibility for overseeing FFTF if it's restarted.

Gerald Pollet, executive director of Heart of America Northwest, said asking the future contractor to write a justification for the award of a contract was "unlawful delegation of a government function."

"We have not done anything unlawful," Apley countered. PNNL already is responsible for focusing on using existing and future Hanford resources for new missions, he said. And existing contracts discuss the possibility that the national lab could operate FFTF if it's restarted, in an arrangement similar to that at other DOE sites.

DOE officials had asked PNNL, Fluor Daniel and the DOE Richland office to prepare a paper on the advantages and disadvantages of transferring management of FFTF to PNNL.

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

Hanford spinoff's melter ready to gobble garbage

By Mike Lee
Herald staff writer

Jeff Surma's clean machine isn't a picky eater. After all, its 10-ton-per-day digestive system cooks everything at more than 10,000 degrees with what Surma calls "a controlled bolt of lightning."

Household garbage, hazardous chemicals, medical trash, tires and nuclear waste mix in the great belly of his newly completed stainless steel Plasma-Enhanced Melter.

And it doesn't even get bad gas.

Out the other end of the 60,000-pound prototype comes glass that won't leach into the water and clean-burning fuel with few environmentally nasty byproducts. Waste-glass tiles, under an agreement currently being negotiated, someday could even line Richland streets.

"We think we can make this world a better place," said Dan Cohn, who runs Richland's Integrated Environmental Technologies with Surma.

Already, the plasma melter is being prepared for shipment to Oahu, Hawaii, where it will glassify — or vitrify — medical waste using noncombustion electrical heat to transform chemical energy from wastes into usable byproducts.

Rita Pool, environmental scientist with Technical Resources International in Richland, wants to see the technology employed closer to home.

"This would be a really, really neat thing to have Richland embrace a technology that has come out of Hanford and use it as a positive for the environment," said Pool, whose company is working with Richland to

divert hazardous household waste and tires to a new plasma melter.

"It's exactly what we need to get a grip on the waste," she said. "Any organism that doesn't learn to recycle its own waste soon chokes."

IET's smaller melters consume a ton a day, and the large ones could have the capacity for about 500 tons a day, Surma said.

Proponents call the project the perfect recycling program. It will, they say, reduce greenhouse gases, extend the life of landfills and create clean energy without smokestacks or giant pits of garbage. Even state Ecology Department Director Tom Fitzsimmons, in town for the governor's visit, stopped by IET on Tuesday to praise the invention.

"Vitrification is a viable treatment option for more than just high-level radioactive waste," he said. "It's terrific to have a technology on the market that can help us solve several environmental problems without creating others."

The plasma melter is a spinoff of Hanford technology, building on decades of work at Pacific Northwest National Laboratory operated by Battelle. And it's not the only try at melting waste. In 1992, for instance, American Environmental Management Corp. of California announced plans to build a "world showcase" medical waste vitrification plant in Richland. The attempt fizzled within a few years.

Already, Geosafe of Richland uses a process to turn contaminated ground into a black glass. And BNFL Inc. has proposed converting Hanford's

See **Melter**, Page A2

250 scientists visit Tri-City laboratory

By the Herald staff

The Environmental Molecular Sciences Laboratory is wrapping up today its first users' meeting, a four-day conference that brought about 250 scientists to the Tri-Cities.

"This is our first opportunity to hear collectively from those who use this facility and from those who may wish to use it in the future," said Douglas Ray, deputy director of EMSL.

The lab, in full operation for just over a year, is part of Pacific Northwest National Laboratory in Richland.

As a federal laboratory, EMSL makes its equipment and resources available to outside scientists. It has nearly 100 major instrument systems for use by the research community and offers world-class experimental, theoretical and computing capabilities.

In some cases, scientists use its high-powered computer system to

conduct long-distance research. While most DOE laboratories have a single focus, EMSL provides a range of capabilities, to allow scientists to follow many aspects of a research problem.

The four-day conference included speakers on physics, chemistry, environmental chemistry and computational science.

"The power of science is its diversity, and this laboratory brings together a number of scientific disciplines working together to address the fundamental science that will be the basis for finding solutions to national environmental issues," Ray said.

Examples include pollution from the production of toxic chemicals from industrial processes and cleanup of contaminated ground water and hazardous waste disposal sites.

EMSL's mission is to conduct fundamental research on the scientific processes behind critical environmental issues.

Research, development strong suits for PNNL

Magazine recognizes 6 company creations

By Annette Cary
Herald staff writer

In the future, you may enjoy the Water Follies wearing a T-shirt that has its own cooling system or hit the slopes at Bluewood in a sweater equipped with a tiny heater.

A microheater weighing about 5 oz. is one of the technologies developed at Pacific Northwest National Laboratory singled out by R&D Magazine as among the most significant innovations of 1998.

This year, six of the 100 technologies picked by the Oak Brook, Ill.-based magazine were developed at the national laboratory in Richland. PNNL researchers have received 51 R&D 100 Awards since 1969, 25 of those within the past five years.

The magazine runs a prestigious international contest, judging uniqueness, usefulness and technical significance. The magazine's Web site quotes the Chicago Tribune calling the awards "The Oscars of Invention" while others have referred to them as "Nobel Prizes of Applied Research."

Some award winning products in earlier years have become things American consumers now take for granted such as the fax machine, flascube and color graphics printer.

Energy Secretary Bill Richardson congratulated winners at PNNL and other national laboratories, saying, "These awards are both a tribute to the creative genius of the scientists and engineers at our national labs that made these technologies possible and a recognition of the practical contributions that the Department of Energy research makes to the country."

This year's winners from PNNL include the following:

■ The microheater could be used as a personal heater built into clothing or as a component in a heat-activated personal cooler similar to a heat pump. It also could provide heat for fuel cell systems or household systems such as baseboard heaters.

An array of units can heat a house efficiently and reduce energy loss by 45 percent, compared with conventional natural gas central heating, according to PNNL officials.

It's the first device of its kind, and not only is it small, but it's also affordable, they said. It relies on high rates of heat and energy mass transfer through specially fabricated microchannels carrying hot water.

■ The compact microchannel fuel vaporizer brings the fuel cell-powered automobile a

See PNNL, Page A2

Card key to Lockheed's computer expertise

By Melissa O'Neil
Herald staff writer

Two Tri-City companies are launching a product today designed to help small- and medium-sized businesses get more convenient and cost-effective computer help while creating family-wage jobs.

Knovation Inc. of Kennewick expects to help create 200 to 300 salaried jobs within five years as it wholesales prepaid computer technical support cards.

The 24-hour "OnCall" support is provided by Lockheed Martin Services in Richland, which likely will get two-thirds of the new jobs. The salaried jobs will pay \$25,000 to \$40,000 a year and will require higher education available at Columbia Basin College and Washington State University at Tri-Cities, Lockheed officials said.

The venture's start-up is financed partially by a \$250,000 equity investment from the federal 3161 economic transition program — intended to diversify the Tri-City economy from reliance on Hanford nuclear waste cleanup jobs.

"We're working very closely with Lockheed Martin to make this a success," said Knovation President Bob Silva. "This is an untapped market."

Knovation is a subsidiary of

Mundo Communications Network, the Kennewick-based seller of the El Toro prepaid long-distance calling card. The name Knovation came about by combining the words knowledge and innovation, company officials said.

"Mundo looks at this as a way to diversify," said Tim Haggett, Mundo vice president of marketing. "This industry is new."

Lockheed Martin Services is one of the Hanford enterprise companies. The 50 workers on its help desk already serve government and commercial clients, including Hanford site contractors, General Motors, U.S. Gypsum and Nike.

Frank Armijo, Lockheed Martin Services' director of business development, said the Richland help desk gets about 20,000 calls a month and resolves 94 percent of problems on the first call. The industry average is 75 percent of questions answered on the first call.

The prepaid OnCall card gives businesses an alternative to several scenarios. Those include time wasted when several employees try to figure out one person's problem, hiring a full-time computer service employee, calling individual software companies for help or signing a service contract that might not be fully used. OnCall

technicians are available 24 hours a day, seven days a week.

This is how OnCall works:

■ Prepaid cards are to be available at retailers like computer hardware dealers and software sellers. Knovation is at 737-8297 or the toll-free order number is 888-566-8284.

■ Cards are sold in denominations based on three, five or 15 calls. The retail outlets will set the prepaid price based on the market. Other computer technical support companies, such as Microsoft and QuickBooks, charge about \$35 per call.

■ When a problem arises, call the toll-free number and enter the personal identification number printed on the back.

■ Software support is available on Microsoft Office, Lotus SmartSuite and various word processing, spreadsheet, database, operating system, electronic mail, Internet browser, anti-virus, accounting and desktop publishing programs. Some calls can be sent directly to a support person with training in a particular software.

■ The identification number creates a file on the client's computer type, previous problems and other pertinent details.

■ The average call takes about 15 minutes. Complicated problems are broken into 15-minute seg-

ments and might use up more than one "call."

■ The card can be renewed, keeping the same identification number. More details, including lists of supported software products, can be found on the Internet at www.lmsi-nw.com/oncall/

The quarter-million-dollar equity investment came through the Southeastern Washington Development Association. It's the maximum amount allowed in the 3161 program, although it is a minority share of Knovation, said John Neill, SWDA president.

"This stood out as being (a proposal) of real high potential, one that we're very confident is going to work," he said.

Lockheed Martin Services is not an equity holder in Knovation. But it is an investor in Columbia Basin Ventures, which has put almost \$1.2 million into Mundo since summer 1997. Mundo has grown to 23 employees and is projecting \$15 million in gross sales this year.

"So, in a roundabout way, Lockheed Martin does have a stake in us," Silva said. "But the only two investors in Knovation are SWDA and Mundo."

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Hanford watchdog cited for trespass

By John Stang
Herald staff writer

Two mulberry bushes mark the line that cannot be crossed.

So says watchdog scientist Norm Buske of Spokane.

The Benton County Sheriff's Department and the Hanford Patrol say different.

The line that cannot be crossed is actually the edge of the Columbia River's water, they contend. Touch land, and you're trespassing on Hanford, they say.

A Benton County sheriff's deputy gave Buske a trespassing citation Tuesday for being 170 feet inland of the Columbia River in the K Reactors Area.

That put Buske squarely on restricted Hanford land, according to the Department of Energy.

But Buske said he was below the river's high-water mark, the traditional boundary for public access along the river.

This dispute likely will be played out Aug. 13 in Benton County District Court.

"I'm innocent," Buske said.

Buske is an environmental scientist who is doing contract work for the Government Accountability Project, a Hanford watchdog organization.

He is most famous for an early 1990s prank in which he went to Hanford's shoreline, got some contaminated mulberries, made them into a jam, then sent the radioactive spread to Washington's governor to illustrate the site's problems.

For the past several weeks, Buske has been collecting mulberry leaves to analyze them for contaminants — especially radioactive strontium — along Hanford's shoreline reactor areas.

He is working on a theory that strontium is reaching the river in greater concentrations than Hanford believes and is threatening baby salmon. Hanford scientists are skeptical of several parts of his theory.

Hanford council tackles disputes

By John Stang
Herald staff writer

Approaching its fifth year, a Hanford council has managed to solve all blossoming whistleblower disputes sent to it before those grievances ended up in lawsuits, the council's chairman said.

The only exceptions have been cases already significantly under way before sent to the Hanford Joint Council for Resolving Employee Concerns, said Jon Brock, council chairman and an associate professor of public affairs at the University of Washington.

The council recently completed an update report that said its costs handling individual cases have been dropping, and a program is under way to help prevent future disputes on whistleblower matters.

The council was created in 1994 as a way to resolve whistleblower disputes before they go to court. This is a joint venture by Fluor Daniel Hanford, Heart of America Northwest, some whistleblower groups and the Washington Department of Ecology.

The eight-member council consists of two watchdog group representatives, two Fluor representatives, two neutral members, a former whistleblower and Brock.

All the representatives have to reach consensus to resolve an issue in a way that satisfies the complainant. Plus, Fluor and its subcontractors have agreed to abide by those recommendations unless there is an overwhelming reason not to, Brock said. So far, no contractor has disputed any council recommendation.

The council has handled about 30 full-fledged cases, including about a dozen in 1998, Brock said. Today, the council has one active case and is looking at several complaints that could develop into cases.

The council has referred a few dozen other complaints to other offices, agencies and venues more appropriate. The council handles retaliation-related complaints pertaining to safety and environmental matters. It does not handle purely personnel issues or complaints on budget and financial matters.

It is contractually set up to deal with issues involving Fluor's team and some of its enterprise companies. But it does not tackle matters involving Hanford's other prime contractors.

The most recent high-profile whistleblower dispute has been a 2-year-old, still ongoing battle between seven pipe fitters and Fluor Daniel Northwest. The issues involve whether the pipe fitters were laid off in retaliation for raising some safety concerns. That case was well under way before the council was adequately set up, so it did not get involved in this matter, Brock said.

The council's report stated:

■ The average cost to resolve a case in 1998 was \$33,000, compared to about \$40,000 the previous year. If a whistleblower case goes to court and through subsequent appeals, costs could reach \$500,000 to \$1 million in legal fees, settlements and time lost by employees working on the case, Brock said.

■ The average time for the council to resolve a case is four to six

months, compared to three to 10 years for whistleblower dispute to go through the courts.

■ The council's whistleblower representative Billie Pirner Garde, now a whistleblowers attorney in Wisconsin, gave training sessions to 600 Fluor team supervisors on how to deal with employees' safety-related concerns. This was a part of the council's program to prevent whistleblower controversies.

Many whistleblower flare-ups come from managers and whistleblowers not understanding the others' concerns and how to react to them, Brock said.

In a spring 1999 Administrative Law Review article, Brock wrote that some common perceptions of past Hanford whistleblower cases do not hold up under close examination.

Examinations by Brock and some colleagues showed:

■ "Few, if any" of the whistleblower employees had poor performance reports in their files prior to their complaints about safety matters.

■ No evidence of high-level, corporate-sanctioned plans for harassment or retaliation against whistleblowers was found. Proven retaliation came from a few "rogue" supervisors or by a whistleblower being ostracized by co-workers.

■ The actual safety issues get lost in the legal battles and are rarely resolved in what then become primarily personnel matters with both sides digging in to disprove each other, Brock and the report said.

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By Eric Ruthford
Herald staff writer

Some people might consider eighth-graders too young to fully explore the moral, political and economic issues surrounding nuclear energy and weapons.

But 18 Hanford Middle School students are writing a book on the subject in partnership with a group of Ukrainian students their age who live in the shadow of the failed Chernobyl nuclear power plant.

Many of the students in the class claim they have learned "too much" on the subject.

"We know more than other people. When we mention things to other people, they say, 'Huh? What are you talking about?'" said Melissa McCoy, 15.

Kalin Slougher, 14, at first said the information they've picked up would be useful for the game show *Jeopardy*, but later she and her classmates admitted they could apply their knowledge and the research and interviewing skills they've developed to school and professional life.

Ben Ford, 14, said it has proved useful in other classes. "We talked about Enrico Fermi in science, and then we already knew about him from here."

The students, who recently fin-

ished eighth grade, were in Maureen McQuerry's "Passion Projects" class, an elective course in which they can research in-depth one topic. Now, they are spending two days a week during their summer to produce their book, which is a collection of articles they have written on nuclear energy, weapons and culture.

The project is being funded by Battelle and Bechtel Hanford, and the students hope to send the book to Battelle Press by September and have it in stores by Christmas, McQuerry said.

The students in Slavutych, Ukraine, also are writing articles for the book, which will be published in Ukrainian and English editions.

McCoy's job on the project has been to interview people who lived in the Tri-Cities before and during the Manhattan Project, which produced the bombs that were dropped on Hiroshima and Nagasaki, Japan. Hanford produced the plutonium in the "Fat Man" bomb that destroyed Nagasaki.

"I really didn't understand how people could blow up thousands of people and not regret it, but now I understand how it was necessary and how it was important that Hitler didn't get it first," McCoy said. She said if she were given the choice of whether to drop the

bombs, she could not bear the deaths on her conscience. But, she added, "It was necessary to stop something worse."

The book project is meant to present the perspective of children growing up near nuclear sites on the atomic age.

"A lot of adults have been told certain things and are close-minded, and young adults are more open," McCoy said.

They have also explored the diversity of businesses in the Tri-Cities. Most of the class members predicted collapse of the local economy if the Hanford Nuclear Reservation were to be shut down, but the students who had been assigned more in-depth research on the subject disagreed.

"It'd be difficult, but I think we could stand on our own. But a few years ago, that would not have been a possibility," said Michael Juracich, 14.

The Ukrainian and American students have been communicating through e-mail and video-conferences via satellite.

Michael McCain, 13, said at first the articles were highly technical and did not incorporate much voice and opinion on the subject, but later drafts have improved.

It has not been easy for the Ukrainian students, McCoy said,

because nuclear energy is a touchy subject in Slavutych. McQuerry, who visited Slavutych in 1997, said the town is just outside the perimeter where people cannot live because of nuclear contamination from the 1986 accident, which killed 31 people.

Many of those who were evacuated from houses near the plant were told they were leaving for only a short time and left behind their possessions.

The students said the knowledge they have learned has made them aware of many of the misconceptions people have about Hanford and the Tri-Cities. McCoy said it makes for interesting conversation with people on airplanes.

"A lot of people who don't live near here, they say, 'You live near where?'" she said. "They get all scared and ask what's going on there."

Slougher said it added a bit of satisfaction to times when people make fun of the Tri-Cities and the nuclear reservation.

"You can just look at them and realize that you're smarter than them," she said.

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Hanford workers to begin extra security training

DOE requiring stand-down at several sites

By The Associated Press
and the Herald staff

Hanford employees are scheduled to begin extra security training Tuesday as part of an overall Department of Energy effort in the wake of that agency's recent security problems.

About 3,000 Hanford workers will attend sessions Tuesday.

The remaining roughly 9,000 will attend classes over the next several weeks to avoid stopping cleanup work at the site, said Jim Spracklen, DOE's director of security and safeguards at Hanford.

These security training sessions have been ordered by Energy Secretary Bill Richardson, who is suspending operations Tuesday at DOE's research and weapons sites for training on espionage prevention and other national security issues.

In a decision that was to be announced today, Richardson accepted the recommendation of his newly installed security chief that a so-called stand-down occur

departmentwide at defense-related work sites that have not yet had their counterespionage and information security systems reviewed. The main point of the stand-down is to provide employees with an entire day of training on information security issues.

"Every one of our workers must realize — if they don't already — that every job carries with it a security obligation," Richardson said in a statement to be released today, a copy of which was obtained Wednesday by The Associated Press.

"I'm ordering this action to ensure that DOE is doing everything possible to protect America's secrets and sensitive technologies. Without exception, participation is required," Richardson said.

Hanford's security levels range from top secret to mildly sensitive. The areas with the strictest security needs are the Plutonium

See Security, Page A2

31 JUL 99
Decision looms on review of FFTF

DOE committee clears way to launch study

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

WASHINGTON — A Department of Energy advisory committee approved a carefully crafted, highly qualified resolution Friday that could clear the way for an environmental study of whether to restart the Fast Flux Test Facility at the Hanford Nuclear Reservation.

The compromise, approved 19-2, goes to Energy Secretary Bill Richardson for a decision on whether to conduct the study or to close the research reactor permanently.

Bill Madia, director of Pacific Northwest National Laboratories, which oversees the test reactor for DOE, said he was satisfied with the outcome.

"It is an endorsement to go forward. It truly is," Madia said after the meeting of the Nuclear Energy Research and Advisory Committee. "Our goal was to get a commitment for an EIS (environmental impact statement), and this is an important step in that direction."

The two dissenting votes were cast by committee members who did not attend Thursday's four-hour committee discussion of the study, Madia said in a Friday memo to PNNL staff members.

The committee recommendation, along with a new report from PNNL endorsing a full-blown environmental review, will be delivered Monday to Richardson. He has given no indication when he will decide whether to proceed with the environmental study that could lead to restarting the reactor in 2004.

But Madia said a budget shortfall could force Richardson to make a

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3 JUL 99
Vote due today on FFTF future

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

WASHINGTON — Facing a new report that recommends the Fast Flux Test Facility be restarted, a Department of Energy advisory committee was deeply divided Thursday and put off for a day a vote on the future of the Hanford research reactor.

The new report, prepared by the Pacific Northwest National Laboratory for Energy Secretary Bill Richardson, concluded that a facility such as the FFTF is needed, that enough "core" missions from the federal government exist to support its restart, and that eventually international research projects and medical isotope production could underwrite a significant portion of its operating costs.

The report recommended the department proceed with an environmental review of the project that, if positive, could lead to a restart by 2004.

"Our conclusion is unequivocally there is a compelling need and support for going forward with the process," PNNL Director

Bill Madia told the Nuclear Energy Research Advisory Committee.

Taking the next step toward possible restart and proceeding with an environmental impact statement also picked up support from William Magwood IV, head of the department's Office of Nuclear Energy, Science and Technology.

"I think it comes down to one question — if we shut down the reactor, what do we do in the future?" Magwood said. "If we could build a new reactor, I would shut FFTF down in a moment. But we can't. From our perspective, without FFTF we run the risk of not having enough reactor capability."

The committee, however, remained skeptical.

"This is truly an advocacy document written by people who might get the contract (to operate FFTF) if this goes forward," John Ahearne, a committee member, said of the PNNL report.

Another committee member, Maureen Crandall, a professor at

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3 AUG 99
Hanford's experiment to dilute contaminant seems to be working

By John Stang
Herald staff writer

Hanford's experiment to stop seeping chromium from threatening baby salmon doesn't look like much.

Five yellow waist-high pipes stick out of the dirt in a short zig-zag line near the Columbia River.

You can walk from one end to the other in about 30 seconds.

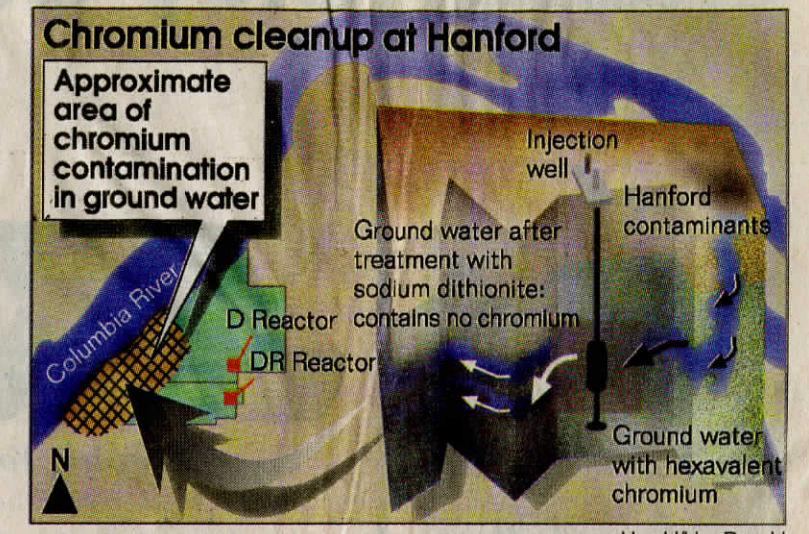
But this experiment has worked well so far — enough to begin plans to extend this line to intercept an entire plume of one of Hanford's most worrisome contaminants headed toward the Columbia River.

The experiment's goal was to see if pumping chemicals into the underground aquifer would neutralize chromium-laden water seeping toward the river.

Now the 150-foot-wide series of injection wells likely will be broadened to 1,000 feet or more by 2001 in an effort to block the entire chromium plume coming from the D Reactors area, said John Fruchter, a staff scientist in Pacific Northwest National Laboratory's environmental technology division.

Until now, Hanford's best method of dealing with its worst subterranean plumes has been to pump polluted water out of the ground, treat it and return the water to the ground.

The problem is this is just a stopgap measure. Pump-and-treat



Herald/Lisa Ronald

operations can stop plumes from spreading, but they don't shrink the actual subterranean contamination.

This new process — in situ redox manipulation — changes the threatening chromium to a benign form.

By 2001 at the earliest, Hanford scientists may recommend whether this new technique should be tried on other contaminant plumes.

Chromium is not radioactive. But it's the Hanford contaminant currently reaching the Columbia River that could do the most environmental damage today — it is potentially fatal to newly hatched salmon.

Different types of chromium were used to slow corrosion in Hanford's old plutonium reactors' systems when they were running. Chromium also was used to help decontaminate the reactor systems

after they were shut down. Over the years, chromium leaked into the ground, or was discarded in old, long-gone tanks.

Underground, chromium-laced water seeps under the Columbia's river bed to bubble up through the gravel on the river bottom. The Columbia's huge volume then dilutes the chromium to safe concentrations.

But the gravel river bed is where chromium still is concentrated and poses a threat.

That is where fall chinook eggs are laid. Newly hatched salmon stay within the gravel for a few weeks before venturing out, and that's where they are exposed to chromium.

Chromium can go through the membranes, gills and mouths of baby salmon to concentrate in their body tissues and internal

See **Experiment**, Page A2

Congress uses HAMMER in battle against drugs

By Annette Cary
Herald staff writer

The HAMMER training center in Richland has received the first dollars to apply military-style training to the war on drugs.

It should allow the "resources to jump-start a more unified, coordinated approach to drug intervention," said Sen. Patty Murray, D-Wash.

The center is beginning work on a program that will allow law enforcement agencies ranging from city police to the Drug Enforcement Agency to hone their skills together for intercepting illegal drugs.

So far, the facility received the initial \$2 million of federal money to start the program, with \$3 million more expected by the end of the year.

Now, the military uses sophisticated computerized war games that train soldiers by allowing teams to enter maneuvers in the computer, then see what the enemy might do in response.

The same concept will be used in the National Counternarcotics Center based at HAMMER — the 2-year-old facility built on 120 acres for training police, fire crews, hazardous materials response teams and others.

Just as the military is able to train different branches of the service to work together, the program will allow different branches of law enforcement to train together.

"Communication, coordination and cooperation" between agencies is one goal of the program, said Jim Mayeda, project manager at HAMMER. Officials believe the Bureau of Alcohol, Tobacco and Firearms, U.S. Customs, the Coast Guard, Immigration and Naturalization, the Border Patrol and other government agencies may be interested in the training.

Participants would use computers to work together to test their skills in intercepting drug

traffic, for example, then come up with plans to prevent more trafficking based on limited government resources. The various agencies could share their knowledge for planning and review lessons learned, Mayeda said.

While the program will be based at HAMMER, much of the training will be done on computers around the nation.

"The idea behind it is to save travel time by providing training at a central place in (their) communities," Mayeda said. That center could be a university or an existing law enforcement training center. Other training could take place on office computers within agencies.

One of the first training sites is expected to be in the Southwest, he said.

The initial \$5 million will be used to conduct surveys and research communication and coordination problems between agencies working on the same drug problems. Local, state and federal law enforcement officials will be contacted.

It also will pay for an initial demonstration of the training program.

"It will show how we'll use the joint force training concept and simulations," Mayeda said.

The first training modules should be released in fall 2000. That will be followed by more modules that can be used by themselves or with the first ones, Mayeda said.

Congress approved money for the center a year ago, although the first of it is just now being released to HAMMER. Now Congress is deciding funds for next year. The Defense Appropriations Bill, which has passed the Senate Appropriations Committee, includes \$8 million for next year. Murray serves on the committee.

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DOE defends use of supercomputer to GAO

By Annette Cary
Herald staff writer

The General Accounting Office is criticizing the Department of Energy for not making good use of its supercomputers, but its Richland supercomputer has more research requests than it can meet, officials there said.

In its two years of operation, the supercomputer at the Environmental Molecular Sciences Laboratory in Richland has been able to accommodate 10 of 16 scientific teams submitting proposals to use it, said David Dixon, associate director at EMSL. EMSL is part of Pacific Northwest National Laboratory.

"We don't have resources for everyone who wants (to use) it," Dixon said. A group outside PNNL reviews proposals and selects the projects.

The GAO testified before a House subcommittee in July that in 1997, DOE's national laboratories used only about 59 percent of their available supercomputing capacity and were missing opportunities to share these resources.

It said although DOE had 17 percent of the

world's supercomputing capacity as of then, use rates of the computers varied from 31 percent to 75 percent.

That 31 percent figure came from an earlier report that pegged PNNL as having the lowest use of supercomputers in the DOE complex. However, GAO acknowledged in the July 1998 report that the use was measured at an unusual time.

Dixon said the 31 percent figure was for use on a software development computer that was being shut down as EMSL's new supercomputer was coming on-line. It did not consider that initial use of the EMSL computer, which already was higher than 31 percent, he said.

At the time, the EMSL computer was the sixth-most-powerful computer in the world. Since then, it's fallen to 35th place as larger computers have been installed elsewhere.

The GAO report said supercomputers enable DOE to do leading-edge scientific research by using "massively parallel processing" instead of using mainly sequential processing.

The EMSL supercomputer has 512 proces-

sors. About 75 percent of jobs for the first five months of the year used 64 or more processors, and 14 percent of jobs used half the computer or more, Dixon said.

Also during that time, for about 80 percent of the time available the machine was being used for long-running projects, he said. It operated better than 99 percent of the time.

"That's a very, very high use," he said.

Although one of the GAO complaints was a lack of coordination of use of DOE supercomputers, just 40 percent of the EMSL supercomputer use has come from the Richland national laboratory, Dixon said. The remaining use has come from other DOE labs, universities and industry.

The four projects that have been approved for study on the computer this year include looking at biological molecules, regional climate change and two projects looking at the chemistry of waste management at Hanford and elsewhere.

"We're completely saturated in terms of what can be allocated," Dixon said. The time of some previously approved research projects will have to be cut a little, he said.

Some DOE supercomputers are used for defense work to ensure the safety and reliability of nuclear weapons. DOE said sharing use of those computers would be a security risk, although the GAO disagreed in its report prepared a year ago. The EMSL supercomputer is not used for nuclear weapons research.

Now, the EMSL computer can perform 227 billion operations per second. But, according to the 1998 GAO report, DOE and industry have plans to build computers that can do 100 trillion operations per second by 2004.

PNNL is looking at two possible ways to power up its supercomputer capabilities. It is discussing upgrading the current EMSL supercomputer by adding processors and changing the way they are arranged. It also may compete for a new supercomputer in the DOE Scientific Simulation Initiative. That computer could be used to research improving the efficiency of the combustion engine, global climate change and nuclear physics.

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Hanford workers get refresher course on security issues

By John Stang
Herald staff writer

About 3,000 Hanford employees went through refresher courses and lectures Tuesday to re-emphasize security concerns at the former nuclear weapons production site.

The sessions at Richland High School were part of a nationwide Department of Energy mandate.

"One of our biggest concerns is complacency. ... I consider the threat (to security) very real," said DOE Hanford Manager Keith Klein.

This nationwide action is in response to highly publicized problems in DOE weapons labs, especially suspicions of Chinese spying at Los Alamos.

Last week, Energy Secretary Bill Richardson ordered the "stand

down" at most DOE facilities.

Although the sessions will slow some work at Hanford, officials attempted to minimize the effect. The roughly 3,000 people in the most sensitive jobs attended one of the two half-day sessions Tuesday. And about another 9,000 Hanford workers will attend security sessions by Aug. 31.

The cleanup areas with the strictest security needs are the Plutonium Finishing Plant and the K Basins, which hold Hanford's 12.1 tons of plutonium in various forms. Hanford also has about 60,000 classified documents. And Pacific Northwest National Laboratory does some classified work.

Hanford averages about 18 minor security infractions annually, such as an open door in a secured area or a scientist inadvertently typing classified infor-

mation on an unsecure computer, Hanford officials said.

None of those incidents has resulted in anyone without proper clearances obtaining classified information, said Jim Spracklen, DOE director of security and safeguards at Hanford. Spracklen could not recall any major cases ever occurring in which Hanford's classified information leaked.

At Tuesday's sessions, Hanford employees reviewed general security matters, terrorist threats, security with computers and the handling of foreign visitors.

Hanford averages about 1,500 visitors annually from other nations, of which about 300 are on site at any one time, Spracklen said.

Every Hanford computer with classified information is not connected to any other computer or to

the Internet, Spracklen said. The only way to get classified information from a secure Hanford computer is to read it — and type the data on another computer or write it down.

Additional security-related changes are expected nationwide, especially with a new DOE security chief, Eugene Habiger.

Potential changes could be minor, or they could result in the proposed Agency for Nuclear Stewardship that might operate semi-autonomously within DOE. Details have not been nailed down.

"Those (proposals) will affect Hanford in one way or another," Klein said.

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

K Basins contract realigned

By John Stang
Herald staff writer

DE&S Hanford officially shrank from a major Hanford subcontractor to a "staff augmentation" subcontractor Sunday when its new contract with Fluor Daniel Hanford went into effect. That new contract reflects the status quo of a long-evolving arrangement between the two companies in running Hanford's K Basins project.

Over the past few months, Fluor has absorbed about 180 DE&S Hanford — commonly called Duke — employees, leaving about 30 Duke workers still in scattered slots at the project. The new contract does not affect any salaries or benefits of the remaining Duke or new Fluor employees.

"This doesn't change anything (for a K Basins worker), except the name on the badge," said Dave Van Leuven, Fluor Hanford's executive vice president.

Fluor took over managing Hanford in late 1996 under a concept that it would coordinate and supervise several major subcontractors. Those major subcontractors included Duke being in charge of moving 2,300 tons of spent nuclear fuel from the two K Basins, processing it into a safer condition and putting in an underground vault in central Hanford.

However, this project has been plagued with technical, coordination, planning, scheduling and cost calculating problems. Also, the scale of the project grew, especially with the addition of getting rid of the radioactive sludge in the basins' bottoms.

Consequently, the completion date was delayed from 2001 to 2005. And the predicted costs grew from \$814 million to \$1.59 billion.

All this prompted Fluor and Duke to consolidate their K Basins' staffs in 1998 into one department to solve many of the coordination matters.

Since spring, Duke and Fluor have been negotiating a new contract to formalize the new arrangement with Fluor directly running the project.

Trojan reactor core heads up Columbia to Hanford

By John Stang
Herald staff writer

The radioactive core from the Trojan nuclear reactor is scheduled to be barged this weekend up the Columbia River to Hanford for burial.

The barge is scheduled to leave Rainier, Ore., this evening and complete the 270-mile trip to the Port of Benton dock near Hanford sometime Sunday.

The load then will be hauled to US Ecology's central Hanford site to be buried, said Gregg Arntson, a spokesman for Portland General Electric, which owns and operated the dismantled Trojan reactor.

The core has had its fuel removed and its pipe sealed but still will be the most radioac-

tive item to be buried at US Ecology's commercial low-level radioactive waste disposal site.

It contains about 2 million curies of radiation. The rest of the radioactive clothes and junk — all in barrels — at that site contain about 3 million curies.

For comparison, the world's worst nuclear accident at Chernobyl in the former Soviet Union released about 185 million curies into the atmosphere.

The reactor vessel will be put inside a 45-foot-deep trench, which is the standard depth.

The only differences between that trench and the others is it will be shorter and the reactor vessel will be the only item buried in

it, said Tom Hayes, US Ecology's Hanford site manager.

Studies showed the reactor vessel's presence will not affect ground water in that area if it is buried alone, Hayes said. It will take about three months to cover the reactor vessel with the appropriate soils and liners.

PGE operated the 1,130-megawatt reactor near the Columbia River about 40 miles north of Portland from 1976 to 1992, when repairing it was determined not to be economical.

The reactor vessel is 43 feet long, 17 feet in diameter and weighs 1,020 tons. That makes it smaller than one of the more than 60 nuclear submarine reactor compartments barged from Puget Sound Naval Shipyard in

Bremerton to Hanford for burial.

However, a typical Navy submarine reactor compartment contains about 60,000 curies of radiation, with a maximum possible 86,000 curies. That's 23 to 33 times less radioactive than the Trojan reactor vessel.

The Trojan reactor vessel has the required state and federal permits to be barged up the river and buried at Hanford.

Originally, PGE wanted to chop the reactor vessel into 50 to 80 pieces and truck those pieces to Hanford at an estimated cost of \$41 million.

Keeping the reactor vessel intact and barging it will cost \$23 million, Arntson said.

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9 laid-off Hanford pipefitters sue Fluor Daniel

By John Stang
Herald staff writer

Nine former Hanford pipefitters filed a lawsuit Thursday against Fluor Daniel Northwest and Fluor Daniel Hanford, alleging a conspiracy existed to get them laid off in retaliation for raising safety concerns.

"We're taking steps to challenge the pattern and practice of retaliation against those who raise safety concerns," said attorney Tom Carpenter of the Government Accountability Project, which represents the nine.

The former Fluor Northwest pipefitters were singled out for layoffs after some raised safety concerns in 1997 and others supported them, according to their lawsuit filed in Benton County Superior Court. The pipefitters seek lost pay and an unspecified amount of general damages. They also seek a court injunction to prevent retaliation if they are rehired at Hanford.

This is the latest in a two-year seesaw legal battle. In 1997, seven pipefitters voiced safety complaints and later were laid off. They filed complaints with the U.S. Department of Labor, which ordered them reinstated. Another seven pipefitters were laid off because the first seven were rehired, and they complained to the labor department.

Administrative appeals are keeping both battles going. The first seven won their latest round, with Fluor appealing. Fluor won the latest round with the second seven, with those workers appealing. DOE has reimbursed Fluor \$352,995 for settlement-related costs on the first seven. And DOE has reimbursed Fluor \$77,130 for total legal costs so far.

The plaintiffs are Pete Nicacio, Don Hodgins, Scott Brundridge, Jessie James, Clyde Killen, Shane O'Leary, Ray Richardson, Jim Stull and

Randall Walli. Four are unemployed. Five work for a Boise Cascade subcontractor or for Raytheon in Umatilla.

Fluor Northwest issued a statement Thursday, saying the lawsuit filed by the nine — a combination of the two groups of pipefitters — is a surprise and the company has not been officially notified of it yet. "We will not discuss the specifics of the ongoing litigation, but will continue to seek resolution through the appropriate legal avenues," the statement said.

Fluor spokesman Jerry Holloway said the company also declines to discuss allegations made in a Thursday press conference by the workers, GAP lawyers Carpenter and Jack Sheridan, and a transcript from a recent legal deposition. Those allegations were that:

■ Jim Holladay, a Fluor Northwest manager, formed an internal audit team in September 1997 to take quick looks at safety incidents before another internal auditor did so. "We were to look at something before (the other auditor) did, come back and tell them that everything was OK. ... We were told that specifically, there would be no findings," said Ivan Sampson, a Fluor Northwest supervisor in a July deposition transcript. That team looked at three incidents and reported no problems, the Sampson transcript said.

■ Sampson reluctantly went along with the audit team because he was spooked by an incident in 1994 or 1995, when Westinghouse and ICF Kaiser managed Hanford. Sampson's deposition said he walked into a room where some supervisors — including David Foucault, a Fluor Northwest manager today — were listening to a DOE worker hot line recording, trying to identify the voice making a complaint.

■ DOE's lawyers have helped Fluor's attorneys plan strategy. Carpenter and Sheridan questioned how DOE could impartially investigate

workers' complaints while legally advising the accused contractor.

■ Foreman Jerry Nichols told Holladay in 1998 that he found jobs for two of seven pipefitters to be laid off. Holladay allegedly told Nichols to lay off seven, stated the lawsuit complaint.

■ Fluor supervisors would transfer some plaintiffs from active projects to almost completed projects. Or they were kept on almost-finished projects while co-workers were transferred to active projects — again making them ripe for layoffs, pipefitters said Thursday.

Hodgins said he worked 13 years at Hanford without being laid off, and then was laid off after he supported the others. Supervisors "placed us in positions where we were kept from meaningful work," said Nicacio.

Holladay, Foucault and Nichols are defendants along with the two Fluor companies. Sampson, Holladay and Nichols could not be reached for comment. Foucault declined to comment under Fluor's instructions.

DOE is watching the litigation but not participating, said Bob Carosino, DOE's acting chief counsel, and Paul Kruger, DOE's assistant manager for environment, safety and health. Carosino has no knowledge of DOE lawyers advising Fluor, although they are monitoring that legal battle.

Kruger said DOE probably won't investigate all of Thursday's allegations. But DOE recently ordered Fluor Hanford to do a safety culture survey of subcontractor Fluor Northwest, before repeating that survey elsewhere at Hanford. Kruger said the pipefitters battle prompted DOE to have Fluor Northwest surveyed first. That report is due in late September.

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

Richardson makes no decision yet on FFTF

By the Herald staff

Energy Secretary Bill Richardson discussed Hanford's Fast Flux Test Facility on Thursday morning in Washington, D.C., but no decision on whether to continue studies of the test reactor was announced.

Attending Thursday's private meeting were Bill Madia, director of Pacific Northwest National Laboratory in Richland, and William Magwood IV, director of the Department of Energy's Office of Nuclear Energy, Science and Technology.

A decision is not expected today on FFTF's future, said Guy Schein, spokesman for DOE's Richland office.

However, since Richardson will leave for Europe at the end of next week, a decision before then is likely. Without a decision by the end of August, a budget shortfall could cause layoffs at the reactor.

Richardson is expected to decide whether FFTF should be dismantled or work should proceed on an environmental impact study, a necessary step toward restarting the reactor. It could be used to make isotopes for use in treating cancer and heart disease in new ways and to produce plutonium 238 to power batteries for the space program.

When a decision is made, the Herald will post it at www.tri-city-herald.com on the Internet.

Hanford Environmental Restoration

Public Comment Period Extended

Remedial Investigation/Feasibility Study Work Plan for the 200-CW-1 Operable Unit and 216-B-3 RCRA TSD Unit Sampling Plan (DOE/RL-99-07)

A work plan has been developed to assess 28 waste sites located in the 200 East Area of the Hanford Site near Richland, Washington. The waste sites, which are mostly ponds and ditches, received cooling water used during the plutonium/uranium extraction processes that were conducted at Hanford beginning in the 1940s. To support cleanup, the Tri-Parties will need additional data about the contamination that is present at the waste sites. This work plan describes how the associated representative waste sites and Resource Conservation and Recovery Act (RCRA) treatment, storage and/or disposal (TSD) units will be characterized to determine the nature and extent of contamination in the soils. This is the first work plan to be prepared under a new assessment and remediation strategy for contaminated soil sites in the 200 Area. The work plan represents the Tri-Parties commitment to continuing progress on cleanup at Hanford by phasing in the assessment work for the remaining 200 Area soil waste sites, yet maintaining full attention to completing the 100 and 300 Areas cleanup effort.

The 30-day public comment period has been extended to August 21, 1999.

To request a copy of the information or to submit comments either written or electronically, please contact:

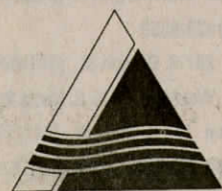
Bryan Foley
U.S. Department of Energy
P.O. Box 550 (HO-72)
Richland, WA 99352
(509) 376-7087
E-mail: bryan_l_foley@rl.gov

OR CALL TOLL FREE:
Hanford Cleanup Line
1-800-321-2008

The Information is Available for Review at:

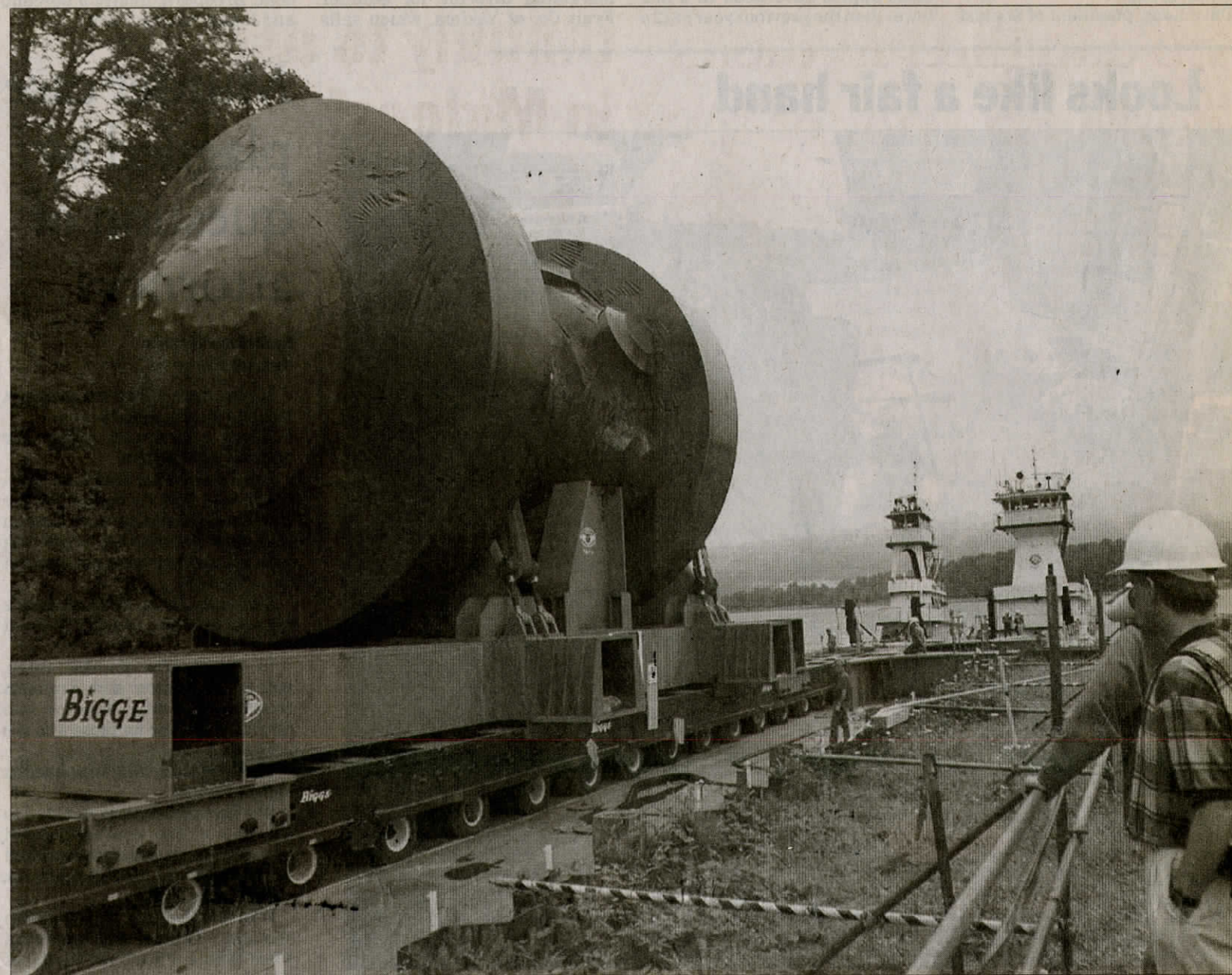
Richland
U.S. Department of Energy Reading Room
Washington State University, Tri-Cities
Consolidated Information Center, Room 101L
Richland, WA 99352
(509) 372-7443
Attn: Terri Traub

or on the Internet at
WWW.BHI-ERC.com/200Area/200Area.HTM



Tri-Party Agreement

Reactor ready for cruise up Columbia



Workers watch Friday as the Trojan Nuclear Power Plant reactor vessel, covered in blue shrink-wrap, slowly moves onto a barge on the Columbia River near Rainier, Ore. The reactor vessel will travel by river to Hanford over the weekend where it will be buried.

Associated Press

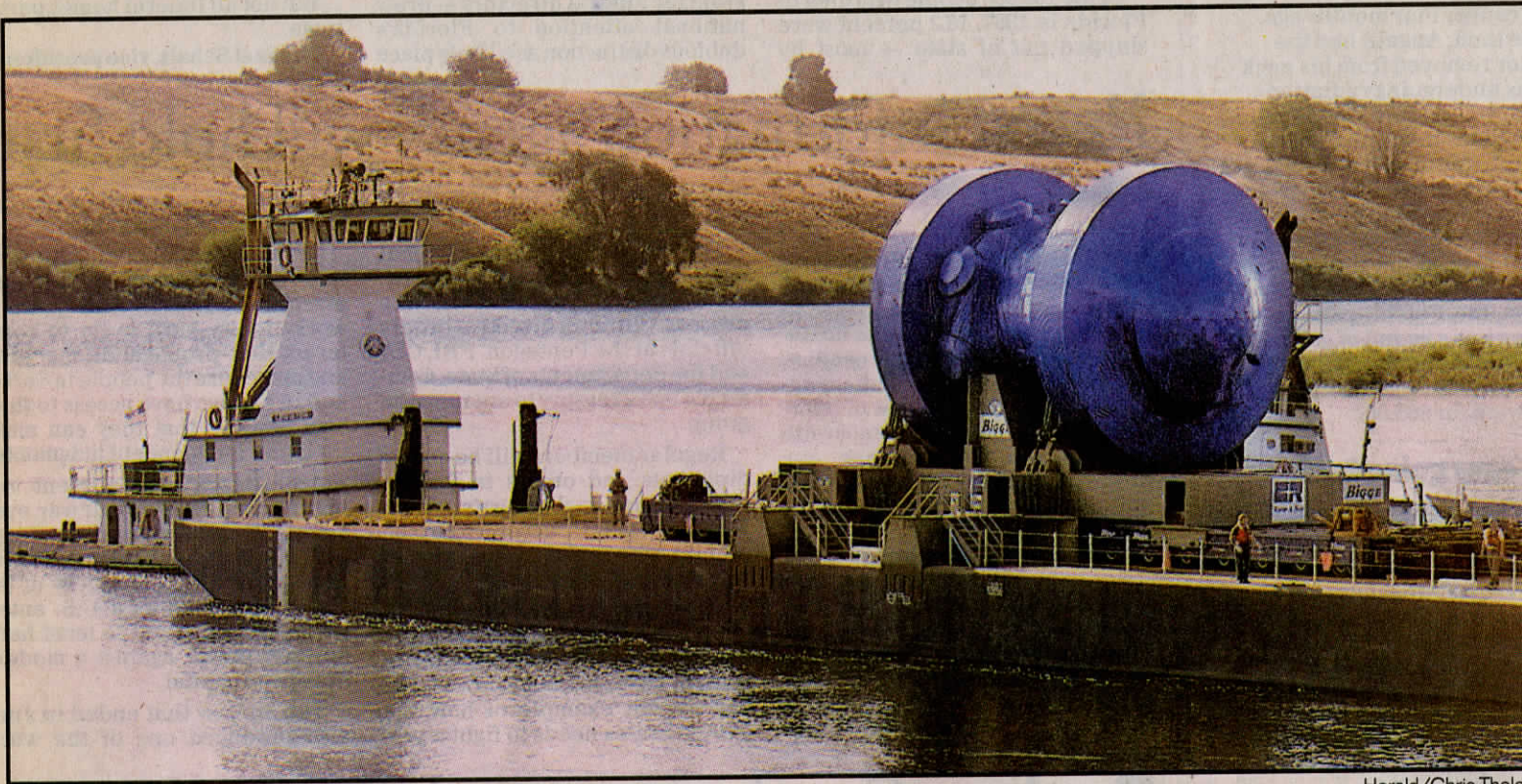
Reactor expected in Tri-Cities today

The nuclear reactor from the defunct Trojan site was on its way to the Tri-Cities Saturday night and was expected to arrive this morning.

The reactor from the 1,130-megawatt plant 40 miles northwest of Portland left Rainier, Ore., on a barge Friday encased in concrete and steel. Crews are expected to begin unloading the vessel at about 7 a.m. at the Port of Benton.

It then will be trucked to the U.S. Department of Ecology's central Hanford site to be buried.

Rolling down the river



Herald/Chris Thelen

A barge carrying the radioactive core from the mothballed Trojan nuclear reactor is pushed Sunday into the Port of Benton along the Columbia River. The load was hauled to US Ecology's central Hanford site where it will be buried.

Reactor arrives at burial site

By Chris Mulick
Herald staff writer

The highly radioactive core from the country's largest commercial nuclear power plant ever shut down safely finished a two-day trip to its Hanford graveyard Sunday.

The 1,020-ton reactor from the Trojan site 40 miles northwest of Portland floated early Sunday into the Tri-Cities on its customized barge. It wrapped up its 270-mile journey along the Columbia River by pulling into the Port of Benton at about 8:30. By 5:30 p.m., large prime mover trucks were towing the reactor 20 miles away to its US Ecology burial site in central Hanford.

"Everything has been running very well," said Steve Nichols, the project manager for Portland General Electric, which owns and operated the reactor.

A few hundred spectators stopped by the Port of Benton throughout the day to witness a part of the move that has made national news. About 130 people were watching when the reactor finally was towed off the barge shortly before 4 p.m.

"It's just fascinating, I think," said Richland's Phyllis Kemper, who stopped by the port twice to check on progress.

Kids sat on mounds of dirt and rocks, adults carried cameras and video recorders, and

The river transport was the big thing that hadn't been done before.

Steve Streutker, consultant

those who had some part in the move wore relieved smiles.

"The river transport was the big thing that hadn't been done before," said Steve Streutker, a Tacoma consultant who worked three years to help get the move properly licensed. "That's why I think there's a lot of people out here. It was such a long and drawn-out process."

The actual move wasn't exactly fast-paced, either. The barge carrying the reactor and its 20-axle, 320-wheel trailer left Rainier, Ore., Friday night. After docking in Pasco, the transport had to be unbolted from the barge and the barge had to be lowered so the reactor could be rolled off.

Tom Cave of Hermiston drove the lead truck towing the 40-yard-long transport off the barge and up a hill to Horn Rapids Road, leaving deep tracks in the dirt and gravel.

His wife, Linda, waited all day on a hill over-

looking the site holding a video camera.

"This ought to be once-in-a-lifetime deal," she said.

Once the reactor got on the road, the transport was held to sluggish pace of 5 mph. After a few stops, it was expected to reach its destination about midnight.

"It's extremely heavy, and you don't want to get any momentum of any sort," said Gregg Arntson, a PGE spokesman.

Though the reactor is highly radioactive, it is encased in concrete and steel. It is 42 feet long and 17 feet wide. Doughnutlike foam impact limiters encased in steel were placed at either end of the reactor, giving the object a dumbbell shape and adding 11 more feet to its diameter.

PGE operated the 1,130-megawatt reactor from 1976 to 1992, when it was determined making repairs to the troubled plant were not affordable. The fuel was removed, and the company began exploring ways to move the reactor.

At first, PGE planned on trucking the reactor in pieces at a cost of \$41 million. Barging it will cost \$23 million.

Workers will begin today preparing the reactor for burial in a 45-foot-deep trench, Arntson said.

Reporter Chris Mulick can be reached at 582-1521 or via e-mail at cmulick@tri-cityherald.com

Firms await decision in oil fight

Tax could increase price 170 percent

By The Associated Press

WASHINGTON — In an unusual — some say absurd — trade dispute, a group of small oil companies contends four leading foreign oil suppliers are driving them out of business by selling the valuable commodity at artificially low prices in the United States.

If the U.S. government agrees, it could impose a tax raising the barrel price of some imported oil by up to 170 percent. The four countries — Saudi Arabia, Mexico, Iraq and Venezuela — supply about 60 percent of U.S. oil imports.

The Commerce Department was to decide today whether to let the Oklahoma oilmen's petition go ahead.

Already, the case has fractured the oil industry, pitting Big Oil against the struggling independent producers, and economists say it could put America's trade policy to a new test.

The oilmen's request for an investigation shocked trade experts who say oil prices are highly volatile and dictated by world markets.

"What's absurd about this case is Americans have been opposed to higher oil prices for my entire adult lifetime and here we have a case

See **Oil**, Page A2

Russia launches attack on militants

By The Associated Press

MAKHACHKALA, Russia — Russian forces launched an air and

Hastings expecting positive news about FFTF

By Chris Mulick
Herald staff writer

U.S. Rep. Doc Hastings says he expects good news when the fate of Hanford's Fast Flux Test Facility is announced.

That could come as soon as today.

In a news conference to discuss his activities during the August congressional recess, Hastings, R-Wash., said Monday he was encouraged by a phone conversation he had with U.S. Energy Secretary Bill Richardson last week.

"He indicated to me, reading between the lines, he would like to make a positive decision," Hastings said. "Falling short of saying thus and so, he gave me the indication he wanted to proceed with this."

Richardson has promised a decision on whether to pursue an environmental impact statement for restarting the FFTF soon. He leaves at the end of the week for Europe.

If Richardson decides to pursue the environmental study, it would be the first step toward getting the reactor restarted.

The reactor could be used to develop medical isotopes to treat cancer and heart disease and to produce plutonium 238 to power batteries for the space program.

Also Monday, Hastings took advantage of the opportunity to stump for the Republican tax-cut plan, which would cut \$792 billion over 10 years. Both the House and Senate have approved the plan, and Republicans are trying to drum up public support to encourage President Bill Clinton to sign it into law.

"Every opportunity I have to talk to the public, I'm going to be talking about tax cuts," said Hastings, who has six town hall meetings scheduled in the next two weeks. He'll be in Zillah today, Ellensburg on Thursday, Chelan on Aug. 17, Coulee Dam on Aug. 19, Okanogan on Aug. 24 and Prosser on Aug. 26.

Clinton fears the plan would cut vital government programs, such as Medicare and farm programs, and return the country to a state of deficit spending. He is touting a smaller \$300 billion tax cut.

But Republicans, who aren't ruling out a compromise, are sticking to their guns for now.

"It's pure logic and common sense to me," Hastings said.

Reporter Chris Mulick can be reached at 582-1521 or via e-mail at cmulick@tri-cityherald.com

Hanford changes to be done by Oct. 1

By John Stang
Herald staff writer

Much of Hanford's management reorganization should be completed by Oct. 1, though many details are still up in the air, a Department of Energy official told Richland Chamber of Commerce members Thursday.

Bob Rosselli, DOE's assistant manager for science and technology, told 50 chamber members about streamlining efforts at DOE and with Fluor Daniel Hanford's corporate team.

Factors prompting these efforts include:

- The creation of DOE's Office of River Protection to supervise radioactive tank waste cleanup.

- The upcoming shift of Lockheed Martin Hanford Corp. from being a Fluor subcontractor to being a prime contractor for the Office of River Protection.

- This year's arrival of Dick French as DOE's Office of River Protection's manager and Keith Klein as DOE's Hanford manager.

The reorganizational efforts have Fluor Daniel Hanford trimming some of its management layers to shift more people to actual cleanup work, Rosselli said. That could trim roughly 600 administrative people by half, he said.

DOE is waiting for Fluor to present its plan on how to accomplish this, he said.

Meanwhile, DOE is planning its only organizational changes to improve efficiency.

But Rosselli said it is too early to tell what changes might be adopted.

In a similar issue, Rosselli said Lockheed's still-being-negotiated primary contract with DOE will run through Sept. 30, 2001 — the same time that Fluor's management contract expires.

Fluor's management contract included Lockheed as an original subcontractor.

Within the next two years, DOE will have to decide whether to rebid those contracts or grant extensions to Fluor or Lockheed or both.

Trucking elk from Hanford reserve seen as viable control option

By Kim Bradford
Herald staff writer

Trucking hundreds of elk from Hanford's Arid Lands Ecology reserve to state mountain ranges could be easier and cheaper than first thought, improving the odds the move will happen early next year.

Federal and state agency officials said Wednesday that they have yet to find roadblocks to the proposed roundup on ALE, which would reduce the nearly 900-head herd by two-thirds.

The plan is aimed at silencing growing complaints by neighboring ranchers who watch the elk eat their crops and trample their land.

Ranch owner R.J. McWhorter, who has been a vocal critic of the state and federal agencies' management of the elk population, was encouraged by what he heard Wednesday.

"It seems to me that I see some concrete movement," he said.

The outlook certainly is better than it was two months ago, when state and federal

wildlife agents put the relocation's price tag at \$500,000 and were doubtful about convincing budget writers to earmark such a sum.

Dale Bambrick, director of the south-central region for the state Department of Fish and Wildlife, said Wednesday that officials had overestimated the cost of relocation and the size of the herd.

He now figures state and federal agencies would pay between \$57,000 and \$106,000 to corral the elk and truck them elsewhere, probably to the Blue or Selkirk mountain ranges.

The federal government has money set aside to pay most of the costs, said Dave Goeke, the Fish and Wildlife Service's project leader for the Hanford area.

The wildlife service manages the 120-square-mile ALE for the Department of Energy, which created the reserve as a buffer zone for the radioactive wastes stored in central Hanford.

Under Bambrick's preferred plan, a helicopter would herd the elk into a corral, where workers would tranquilize bulls and remove

their antlers to prevent injuries during transport.

Other options include hiring professional wildlife trappers who use guns that cast nets to capture the animals — an expensive and dangerous method — or expanding hunting.

Hunting is not allowed on the reserve, considered one of the best remaining desert shrub steppe habitats in the Northwest and home to numerous ecologically sensitive plants and animals.

Hunters on surrounding private property kill about 50 elk during an annual three-week season, but that's not enough to keep the herd in check.

The herd's numbers have soared from 100 in the late 1980s to about 900 today. Nearly 300 additional head are expected by next year.

Bambrick estimated the federal government would have to open ALE for one-day hunts 119 times to accomplish the same thinning of the herd that the corral-and-truck method could do in 10 days.

Detailed plans for the relocation, as

well as a review of the potential effects on ALE's environment and cultural resources, need to be completed before it can proceed.

But Goeke and Bambrick said they are hopeful the move can happen between late January and early March.

The progress pleased Benton County commissioners, who have no authority over the herd but are taking credit for prodding the state and feds into action by organizing meetings between the ranchers and state and federal officials.

Chairman Claude Oliver said the elk could become the poster children for the county's argument it belongs at the table for decisions about managing another part of Hanford — the 51-mile Hanford Reach along the Columbia River.

"The Reach issue is such a parallel, it is almost uncanny," Oliver said. "I hope this underscores that no one agency can dictate what a good, sound management policy is."

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DOE puts off FFTF study decision for another week

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

WASHINGTON — The Department of Energy apparently has put off for at least a week any decision on whether to conduct a full-blown environmental study on restarting the Fast Flux Test Facility at Hanford.

Secretary of Energy Bill Richardson planned to leave Thursday night on a weeklong trip to Europe and Africa.

In addition, he has been distracted by new reports that workers at the department's Paducah, Ky., facility had been contaminated

with plutonium over the years.

Richardson met with Deputy Secretary T.J. Glauthier and Undersecretary Ernest Moniz to discuss FFTF on Tuesday but came to no final decision.

Richardson and Moniz reportedly favored conducting an environmental study, while Glauthier had reservations, congressional aides said.

Richardson wants any decision to be unanimous.

"Glauthier doesn't feel the numbers are right," one aide said.

Glauthier is a former top official at the White House budget office,

which is known for its tight-fisted approach, and he quickly has earned a reputation at DOE for keeping an eye on the bottom line.

Congressional aides said Glauthier was concerned funding for operating the reactor might fall short and predicted the Office of Management and the Budget would require a more solid financial plan.

Moniz also had been skeptical about the need for operating FFTF, but his concerns evidently were addressed by a new report from Pacific Northwest National Laboratory, which concluded the reactor was needed and funding from government and private sources would

be enough to finance its operation.

In addition, a DOE advisory board, the Nuclear Energy Research and Advisory Committee, recommended late last month that the department consider doing an environmental study.

Such a study would be the first step in a possible restart.

The research reactor, originally part of the nation's breeder reactor program, was placed on standby in the mid-1990s when there weren't enough missions to support continued operation.

Advocates of restarting the reactor want it to be used to make

medical isotopes for new treatments of cancer and heart disease. The DOE advisory committee issued a report in June projecting significant annual growth for isotopes produced by DOE for medical uses.

Other uses would also be needed for the reactor and might include making plutonium 238 for space programs.

Opponents of restarting the reactor say they want Hanford to stick to its present cleanup mission.

■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at lblumenthal@mcclatchydc.com

Hanford waste talks suspended

By John Stang
Herald staff writer

Talks to set timetables for turning the radioactive waste in Hanford's underground tanks into glass were suspended Thursday.

The stalled negotiations, which are part of the Tri-Party Agreement governing Hanford cleanup, are being kicked up to the top managers of the Department of Energy at Hanford, the Washington Department of Ecology in Olympia and the U.S. Environmental Protection Agency in Seattle. The talks are expected to resume at that higher level Sept. 17.

The impasse frustrated members of a Hanford Advisory Board tank wastes committee in Richland because the negotiations were supposed to be done by July 31.

This issue revolves around Hanford's biggest project — building plants by 2007 to start converting 10 percent of Hanford's 54 million gallons of radioactive tank wastes into glass by 2018. Further glassification efforts are to continue beyond 2018.

DOE and BNFL Inc. are also negotiating a contract for a BNFL-led team to tackle the first project, DOE is scheduled to make a "go" or a "no-go" decision on BNFL's venture a year from now.

Since late May, DOE and the two regulatory agencies have been negotiating how to modify the Tri-Party Agreement to cover the glassification efforts. But negotiators have stalled on fundamental issues such as whether the proposed TPA milestones for the work will be legally enforceable deadlines or nonenforceable targets.

"Why is it taking so long to agree on the fundamental stuff?" asked Hanford Advisory Board member Paige Knight of Hanford Watch. State negotiator Roger Stanley replied: "It's because the stakes are so high."

Stanley and DOE negotiator George Sanders said the basic dispute is that DOE wants as much flexibility as possible in setting up and supervising the project. Meanwhile, the state and EPA want as much legal clout as possible to keep the project moving.

Knight asked: "At what point will this impasse hold up the show and have a deleterious impact?" Stanley and Sanders declined to speculate. However, they later said they don't believe the summer 2000 decision date is threatened.

15 AUG 99

Old reactors blow their stacks on way to cocooning

By John Stang

Herald staff writer

Boom.

Boom.

Boom.

Rows of half-pound dynamite sticks popped off like fireworks.

Three times in a rapid staccato that lasted roughly one second.

Dynamite sticks were packed into dozens of holes drilled in the concrete bases of two 200-foot stacks at Hanford's side-by-side, dead and ghostly DR and D reactors.

Removal of the stacks was a routine part of demolishing outlying structures in Hanford's efforts to seal old weapons-grade reactors in concrete "cocooning."

But Hanford decided to have some fun and fanfare Saturday by inviting workers and families to watch the explosions.

The bottom dynamite sticks simultaneously blew on both stacks.

A split second later, another bunch blew about chest high on each stack.

Another split second, and the

highest sticks blew just above head level.

About a quarter of the circumferences of the bases had already been chiseled out before the blasts — like notches in tall trees that loggers are chopping down.

Those notches controlled where the stacks fell — D Reactor's to the south and DR's to the southwest, both onto big clear spots of gravel.

Saturday's rapid-fire explosions blew out the small bracing left holding up the stacks. The notches widened and the 580 tons of concrete pressing down on each finished the job.

Dust flew up several feet.

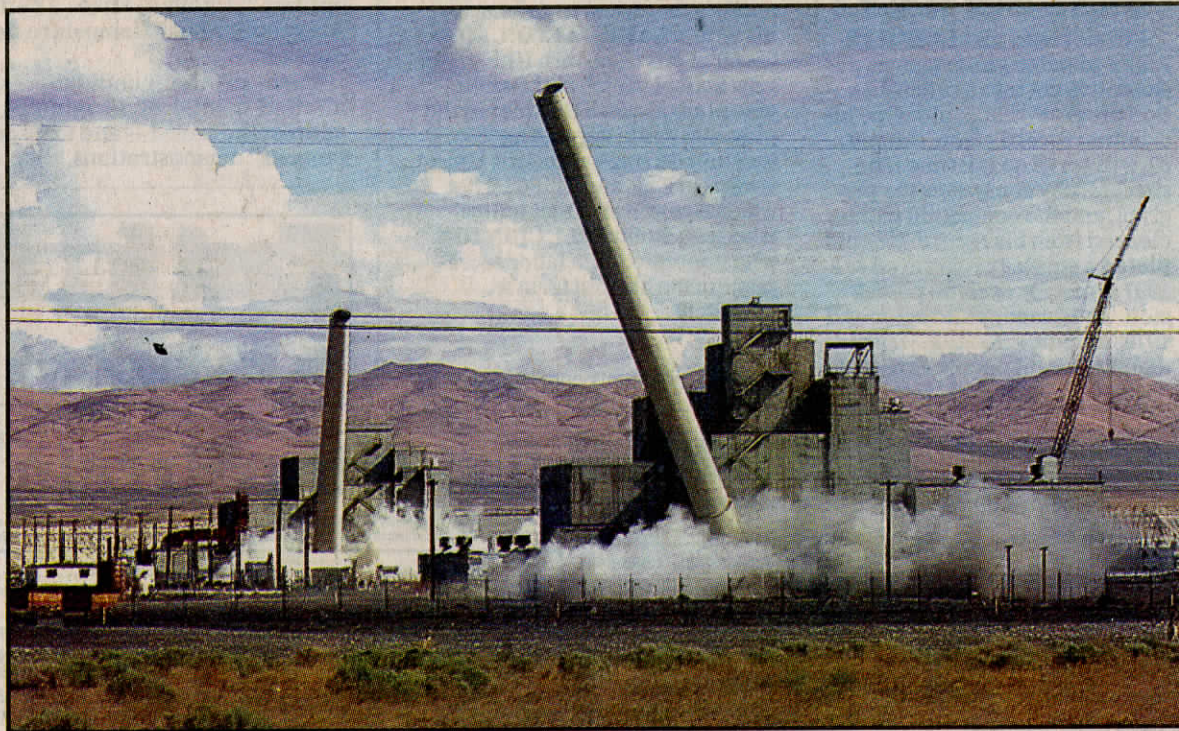
The gray stacks slowly — so slowly — tipped. And tipped.

Then, BOOOOM!

Two bigger, simultaneous explosions went off like thunderclaps a few feet below each stack to smash their concrete foundations to smithereens.

Dust swirled in huge white clouds several hundred feet almost straight up into the bright morning sky.

See **Reactors**, Page A2



Herald/Paul T. Erickson

The blast from 130 pounds of explosives topple two 200-foot stacks Saturday at Hanford's D, left, and DR reactors as part of the decontamination and decommissioning process of the old reactors.

Metro/Northwest

A3

Tri-City Herald

Wednesday, Aug. 18, 1999

Gorton expects decision this week on FFTF study

By John Stang

Herald staff writer

U.S. Sen. Slade Gorton expects Energy Secretary Bill Richardson to announce his decision this week on studying the revival of the Fast Flux Test Facility.

But Gorton, R-Wash., doesn't know what that decision may be.

As Gorton made a quick swing Tuesday afternoon through Richland and Hanford, his aides kept checking with the Department of Energy's Washington, D.C., headquarters.

No decision materialized.

"The decision is obviously imminent. But there's no hint of the nature of that decision," Gorton told about 180 FFTF workers at the reactor.

Gorton speculated the decision may be announced within a day, two days or sometime this week.

"My opinion is that since we're so close to the decision being announced, that decision has already been made. If your senator can't find out, I doubt if anyone would have better luck," he told the FFTF workers.

When that environmental impact study decision is announced, the Tri-City Herald will post it on the newspaper's Web site at www.tri-cityherald.com on the Internet.

Richardson was in Turkey on Tuesday.

The FFTF is a dormant experimental reactor that was shut down in 1992 because of the lack of missions to justify keeping it running. FFTF revival supporters have proposed a list of new missions led by producing medical isotopes and creating plutonium 238 to power batteries in space probes.

Meanwhile, FFTF opponents contend restarting it could allow DOE to later switch over to nuclear weapons-related missions. Also, they contend reviving the FFTF would

siphon money and attention from Hanford's environmental cleanup.

The next key decision — which Gorton expects this week — is whether DOE will begin an environmental impact study on reviving the reactor.

If such a study is called for, that means another one year to 18 months of studies before DOE again faces the decision to restart the FFTF. If Richardson decides against an environmental study, that likely will restart the stalled dismantling of the reactor.

Gorton saw cautious optimism for FFTF supporters in DOE's Nuclear Energy Research Advisory Committee's July 31 recommendation to the agency that it study how the FFTF fits into DOE's overall nuclear development program. The committee voted 19-2 in favor of that recommendation.

But Gorton also cautioned that "the 19-2

vote probably overstates the degree of support outside of the members of this group."

He noted that DOE's upper-level officials in Washington, D.C., always have been split on whether the reactor should be revived.

Gorton said if Richardson opts against an environmental impact study, it is possible that Congress could override him. But Gorton added that would be extremely unlikely.

"It would be like climbing Mount Everest without the support of the secretary," he said.

On Tuesday, Gorton also spoke on general political topics but made no announcements to about 80 members of the Richland Rotary Club. He also took a brief tour of the K Basins and received an informal briefing on Hanford's new Office of River Protection that supervises the site's tank farms.

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

FFTF's fate may rest in new study

Environmental impact study to help decide if dormant reactor will be revived

By John Stang
Herald staff writer

The serialized suspense story of Hanford's Fast Flux Test Facility will go on for a few more chapters.

An environmental impact study of whether to revive the dormant reactor will be conducted starting this September through the fall of 2000, the Department of Energy announced Wednesday.

A final decision on whether to restart the FFTF is scheduled for December 2000. If the reactor is revived, DOE expects it would be running by 2004.

But DOE's Hanford Manager Keith Klein and several others warned that an environmental study does not mean the FFTF will be resurrected.

Reactor:

FFTF history steeped in political wrangling. **Page A8.**

"This clearly has been and will continue to be a controversial issue. ... I say to both groups (supporting and opposing a revival) that an (environmental impact study) does not mean a restart is a done deal," Klein said.

FFTF supporters and opponents are bracing for more combat.

"The Department of Energy has moved one step closer to declaring nuclear war against the citizens of the Pacific Northwest," said opponent U.S. Sen. Ron Wyden, D-Ore.

Gerald Pollet, director of Heart of America Northwest, said several regional watchdog groups expect soon to announce efforts to put a statewide FFTF referendum on Washington's November 2000 ballot.

Meanwhile, FFTF supporter U.S. Sen. Slade Gorton, R-Wash., said: "I'm grateful that the Department of Energy is dealing with this matter in an objective and efficient fashion." U.S. Sen. Patty Murray, D-Wash., and U.S. Rep. Doc Hastings, R-Wash., voiced similar feelings.

Sam Volpentest, executive vice president of the Tri-City Industrial Development Council, said: "This is a good announcement. ... But I caution everyone that the battle is just starting and to be prepared for a long siege."

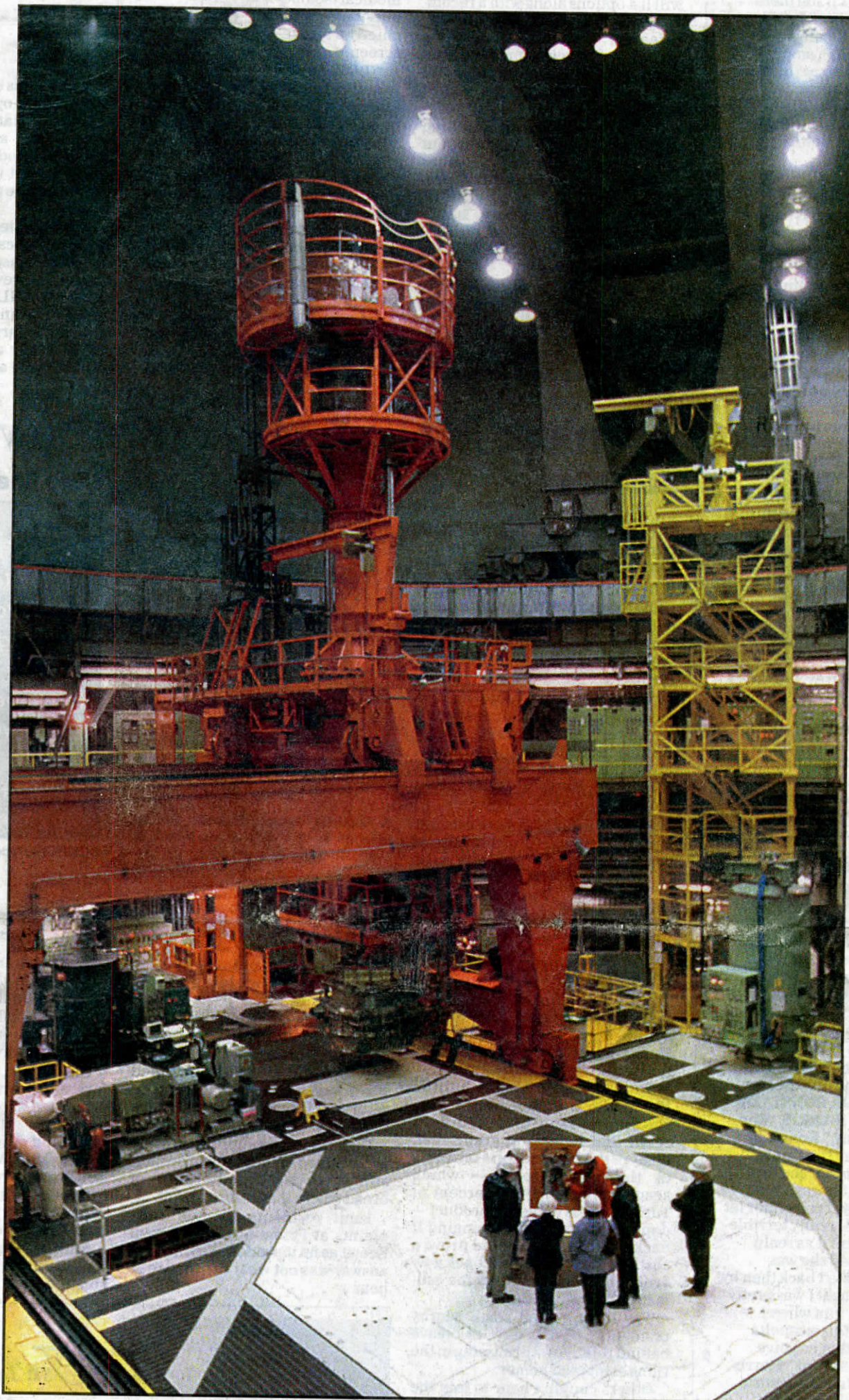
Tri-City interests see the FFTF as a way to get Hanford to produce materials — such as medical isotopes — that are beneficial and to expand the site beyond being a huge public works project.

"I think we have the opportunity to show the Northwest and the nation that we can manufacture medical isotopes here and help those with cancer," said Richland Mayor Larry Haler.

There will be yet-unscheduled public hearings on the environmental study in Washington, Oregon and Washington, D.C., in October and November.

The FFTF is an experimental reactor that closed in 1992 because it did not have enough missions to justify its operation. It has been in standby ever since as debates rage on whether it should be permanently shut down or revived with a combination of new missions.

More potential missions have surfaced while the available reactors to tackle them have shrunk —



Herald/Bob Brawdy
The Department of Energy announced Wednesday it plans to proceed with an environmental impact study of restarting the Fast Flux Test Facility. The mothballed Hanford research reactor's core is below the white square shown in the foreground of this photo. Work on the study is to begin in September, and a decision on whether to restart the reactor is tentatively set for December 2000.

FFTF history steeped in political wranglings

2044699
BNFL

wins tank

contract

at Hanford

By John Stang

Herald staff writer

The first subcontract in the potentially long-running effort to convert Hanford's radioactive tank wastes into glass has been awarded by BNFL Inc., the firm chosen to oversee the overall project.

Shannon & Willson Inc., a geotechnical consulting firm from Richland, beat out four other bidders to obtain a roughly \$500,000 contract to sample and analyze soil beneath a 65-acre site proposed for the glassification plants.

Shannon & Willson began drilling the first of at least three dozen boreholes this week, with the sampling to be finished by Oct. 31. A final report is due by Dec. 31, said Bill Biehl of Bechtel, the project's lead civil engineer.

Bechtel is part of BNFL's four-company team and the lead company on building the plants.

Hanford has 54 million gallons of radioactive wastes in 177 underground tanks. The Department of Energy's master plan is to consolidate the wastes in the 200 East Area and send it to glassification plants in that area's east edge.

BNFL's team is preparing a design and financial package to build the plants and to begin glassification by 2007. DOE will review those plans and decide by late summer 2000 whether to allow BNFL to proceed.

This year's soil tests will look at the ground's geological and seismic characteristics to make sure the site's buildings don't settle and can survive earthquakes.

Besides numerous small buildings, the proposed site would have three big facilities — a high-level waste glassification plant, a low-level waste glassification plant and a plant to treat the wastes prior to glassification.

Bechtel and BNFL need the soil information to help prepare the plants' designs for DOE's approval.

Reporter John Stang can be reached at 562-1517 or via e-mail at jstang@tricityherald.com

By John Stang

Herald staff writer

The Fast Flux Test Facility is one of Hanford's most visible landmarks.

You can spot its big white dome from almost anywhere in the publicly accessible southern Hanford. And you can drive up to its security fence for an up-close-and-personal look.

The FFTF has been around for 30 years and is deeply ingrained in the Tri-Cities' heritage.

It actually has functioned for only a third of those three decades.

Most of its history swirls in controversy over whether it has a legitimate and effective role — and if it should be shut down permanently.

It currently is on standby, not operating but not mothballed.

"The politics in this are so deep. ... I've been fighting for this reactor so long that it's getting to be old

hat," said Sam Volpentest, executive vice president of the Tri-City Industrial Development Council. The FFTF's roots go back to the United States' attempts to create a "breeder" reactor — one that produces its own fuel while operating. The FFTF was an experimental reactor created to test some of the physics and engineering for the breeder program, as well as test new nuclear fuels, materials and components for other reactors.

Construction began in 1969. Keith Klein, Department of Energy Hanford manager, was a DOE intern during the facility's construction in the 1970s. Construction ended in 1978, and the FFTF began operating in 1982. Meanwhile, the breeder reactor project was scrapped, and the FFTF was used for a variety of nuclear fuels and materials experiments for other reactors and the space program.

In 1986, it produced its first medical isotope — gadolinium 153, which is used to diagnose osteoporosis. Later, the FFTF created other isotopes for cancer treatment and for heart and brain research.

But the FFTF's big problem was that it did not have enough missions to use the reactor to its full capacity. And a two-year search by DOE, the state, Tri-Citians and the Northwest congressional delegation could not find enough missions to justify keeping the FFTF running.

So in 1992, Energy Secretary Hazel O'Leary ordered the reactor put in a standby mode. Eighteen

months later, she ordered it permanently shut down.

But the FFTF's supporters — chiefly Tri-City interests — pushed to revive the reactor. And flaws found in an old DOE tritium study prompted new rounds of studies, reviews and hearings.

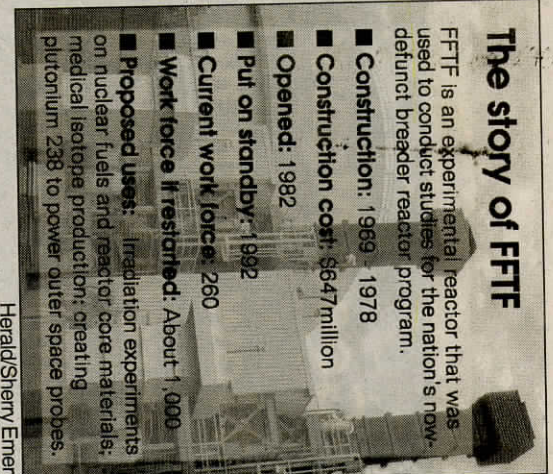
At that time, the FFTF's hopes hung on tritium, a radioactive gas that boosts the explosive power of atomic bombs. That made the reactor a political hot potato for a Hanford that was supposed to be fully immersed in environmental cleanup.

The FFTF's critics charged that a tritium mission would have revived Hanford's

The story of FFTF

FFTF is an experimental reactor that was used to conduct studies for the nation's new defunct breeder reactor program.

- **Construction:** 1969-1978
- **Construction cost:** \$647 million
- **Opened:** 1982
- **Put on standby:** 1992
- **Current work force:** 260
- **Work force if restarted:** About 1,000
- **Proposed uses:** Irradiation experiments on nuclear fuels and reactor core materials; medical isotope production; creating plutonium 238 to power outer space probes.



Herald/Sherry Emery

DOE's Savannah River site lined up against a Northwest delegation that was split on issue. And in Washington, D.C., different factions within DOE duked it out.

O'Leary passed the revival decision to her successor, Federico Peña in 1997. And he passed that decision on to current Energy Secretary Bill Richardson in mid-1998.

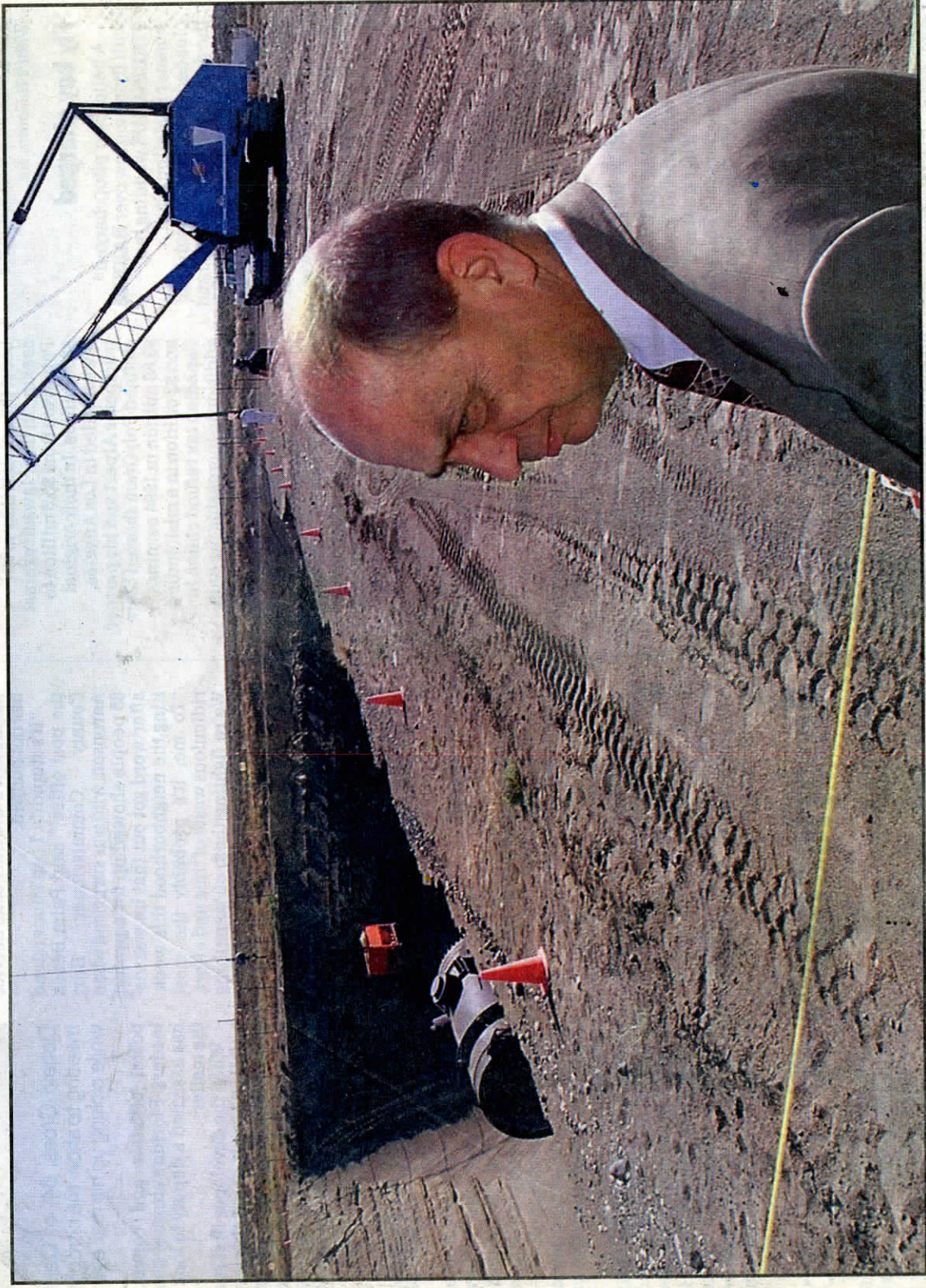
Richardson soon decided to send the tritium mission to some commercial reactor in Tennessee and Alabama. With the military mission out of the picture, reviving the FFTF became more palatable to Washington's political leaders, but not to Oregon's.

Richardson looked at more reviews and arguments on whether the FFTF could find enough legitimate missions to justify its existence. All this led to his Wednesday announcement of an environmental impact study on the remaining proposed mission — various research projects plus creating plutonium 238 for the space program and medical isotopes.

The study is supposed to be complete by the fall of 2000, with a final decision due in December 2000. If that December 2000 target gets delayed much, it will occur after a new American president takes office in January 2001.

Then another energy secretary — the fourth since the 1992 shutdown — will face that decision.

Reporter John Stang can be reached at 562-1517 or via e-mail at jstang@tricityherald.com



Herald/Bob Brawdy

Rep. Doc Hastings, R-Wash., watches Thursday as the first load of dirt is dropped on the Trojan reactor vessel for burial at the 100-acre

disposal site operated by US Ecology on the Hanford reservation. The 43-foot-long, 1,000-ton vessel arrived last week from Portland.

Dirt dumped on reactor vessel

By John Stang
Herald staff writer

Doc Hastings waved a small flag. That signaled a big blue crane to slowly jockey a big orange bucket over the top of the Trojan reactor vessel, looking like a colossal tube lying on its side.

Then, 3 cubic yards of dirt cascaded out of the bucket and rolled down the reactor vessel's side like a waterfall.

A few seconds later, most of the dirt was on the ground with a small pyramid of soil perched on the vessel's top.

This symbolic scene took place Thursday at US Ecology's disposal site in central Hanford.

The reason for the hoopla: US Ecology has begun burying the highly radioactive Trojan reactor vessel in a huge trench — a job that will take several weeks.

The 30 people who watched included U.S. Rep. Hastings, R-Wash., and Joe Nagel, president of Boise-based American Ecology, the corporate parent of US Ecology.

“

This shows we can accept wastes in the proper way.

U.S. Rep Doc Hastings, R-Wash.

”

The Trojan reactor vessel was shipped from Western Oregon to Hanford for burial.

A reactor vessel is a huge, containerlike exoskeleton for the core, but with the fuel removed and its pipes sealed up.

This reactor vessel is 43 feet long, 17 feet in diameter and weighs 1,020 tons. Lying on its side, it is dwarfed by the trench that US Ecology dug exclusively for it.

Containing 2 million curies of radiation, it is the most contaminated item that US Ecology's low-level radioactive waste disposal site has ever accepted. The rest of the site's wastes — in barrels and boxes — contain about 3 million curies.

Hastings gave a short speech prior to the dirt

dumping. “This shows we can accept wastes in the proper way,” he said.

He also took a poke at U.S. Sen. Ron Wyden, D-Ore., who had blasted the Department of Energy when the agency ordered a study on whether the dormant Fast Flux Test Facility should be revived.

On Wednesday, Wyden said, “I can think of few more hostile acts than for the federal government to dump more dangerous nuclear waste in our backyard before they've made any real progress in cleaning up the current nuclear mess at Hanford. ... It's absolutely shameful.”

On Thursday, Hastings noted the 2 million-curie reactor vessel comes from Oregon — without a peep of protest from Wyden.

“He was more than happy to see this community accept this (reactor vessel). ... Talk about shameful. Shameless is Sen. Wyden in this case.”

In his speech, Nagel made a pitch for US Ecology's site to be able to accept more low-level wastes than presently allowed.

US Ecology subleases 100 acres from the

Couple pioneers for future EMSL fellows

Editors note: Washington Gov. Gary Locke returned Friday from his weeklong trade mission to Mexico. A major focus of the visit was farm issues, but Battelle sent a delegation to continue developing environmental work it started six years ago. Herald reporter Mike Lee traveled with the governor's party.

By Mike Lee
Herald staff writer

Rubicelia Vargas-Fosada and Jorge Garza-Olguín came to Richland in December as pioneers in computer-aided chemistry.

As visiting scientists from Mexico at the Environmental and Molecular Sciences Laboratory, or EMSL, the husband-and-wife team felt the

pressure of their country as they adjusted to their fellowships at the Pacific Northwest National Laboratory operated by Battelle.

"We need to do the best so that when other Mexicans come here it will be easy for them," said Vargas-Fosada, 36.

It certainly wasn't easy at first for the scientists or their son Jorge, 5. "He told me at the beginning life was hard," Vargas-Fosada said. "He felt the pressure because of the language (barrier). ... We cried together."

But eight months into their fellowships, young Jorge is speaking better English than his parents, who are themselves children of farmers. And the couple's success is likely to mean more Mexican academics will be headed to EMSL in coming years.

"They have just done an outstanding job," said Dave Dixon, the couple's host scientific adviser at EMSL, noting some of their work may end up in academic journals. "Jorge's new theoretical methods promise to really revolutionize some things."

Battelle also is at the cutting edge of technology — in Mexico. As part of its private work, the company has been in Mexico since 1993 with several environmental projects. Because of relationships developed there, Battelle helped coordinate meetings between Gov. Gary Locke's delegation and Mexican officials.

"What we're trying to do in Mexico is help support its sustainable development," said Jon Olson, Battelle senior program manager in Seattle and one of the lab's liaisons to Mexico. "To the extent that Mexico can develop in a sustainable way, it becomes a better neighbor."

Chief among Battelle's environmental investigations is a study of damage done by decades of oil exploration in the states of Chiapas and Tabasco. Farmers in the region have long complained about oil-related damage, and it's up to Bat-

telle to help determine what that is.

Oil is one of Mexico's largest exports, and the industry has been a state-owned monopoly for decades.

A recent report by Battelle means that for the first time, oil industry leaders have a "good understanding of what their damages are and how to put together a reasonable remediation strategy," said Richard Chidester of Richland. He's the manager of the alliance between Battelle, Mexico's oil industry and the National Autonomous University of Mexico.

The school, known as UNAM, is one of the hemisphere's oldest and largest universities, with about 264,000 students and 28,000 teachers, according to its Internet home page.

Battelle also is investigating food-borne pathogens, the energy transmission system between the United States and Mexico and Mexico's long-neglected oil and gas pipeline network.

And it's checking on Mexico's water supply — one of the most important issues for the 20 million people who live in the capital city.

While Battelle has just started the water work, it's clear that ancient and overburdened pipes leak or spill between 30 and 40 percent of their payload on the way to the city. "They lose as much as a major city in the U.S. would use in a year," Olson said.

"There is not enough foreign assistance money in the world to rebuild or build the water system for Mexico City," he said. "However, if we can come up with a better way to maximize the assets they have, perhaps Mexico can continue to put more money into education and not have to spend all their money on infrastructure."

Battelle has up to 15 people working in Mexico at any one time and hopes to start bringing more nationals to the United States in scientist exchange programs. Starting this fall, Chidester hopes to include Universidad Autónoma Metropolitana (UAM) — the home school of Vargas-Fosada and Garza-Olguín — in the growing international alliance.

As for Vargas-Fosada and Garza-Olguín, they have done so well they are planning to stay another year to advance theories using the lab's IBM super computer.

Vargas-Fosada's main work is designing molecules that can take metals out of solutions, a project that could be used to remove radionuclides from Hanford waste tanks. She hopes success at EMSL will lead to a tenured job in Mexico, perhaps with her husband at UAM in Ixtapalapa, a section of Mexico City.

Garza-Olguín, 33, is developing new methods of predicting chemical behavior using computers. That's one of the reasons the couple wants to stay another year in Richland — their computer in Ixtapalapa isn't as fast as the one at EMSL.

The Richland couple, married

for nine years, met in college chemistry classes. Their work, while different, often brings them together at a shared desk. "People say 'Wow, how can you work all day together?'" said Vargas-Fosada.

They do — and they love it. "Always we talk about chemistry," Garza-Olguín said.

For the most part, Vargas-Fosada and Garza-Olguín enjoy their life in Richland. For one thing, their computer doesn't crash at every thunderstorm and it didn't take weeks to get a phone line installed, as it does in Mexico City.

They are most struck by how few people live in the Tri-Cities — fewer than the number of undergraduates at UNAM. It means they can get to work in 10 minutes rather than an hour.

And it means young Jorge can ride his bike without his parents fearing for his safety. "In Mexico City that is not a possibility," said Vargas-Fosada. "You are always afraid of what could happen."

But there are other parts of life that are hard to bear in the Mid-Columbia, like winter. It rarely gets below 40 degrees in Mexico City.

For a taste of home, Vargas-Fosada and Garza-Olguín shop in Pasco's Hispanic markets and try to cook like they did in Mexico.

Family ties eventually will lead the couple back — for their son's sake if nothing else. "He told us just another year," said Garza-Olguín. "One year. No more."

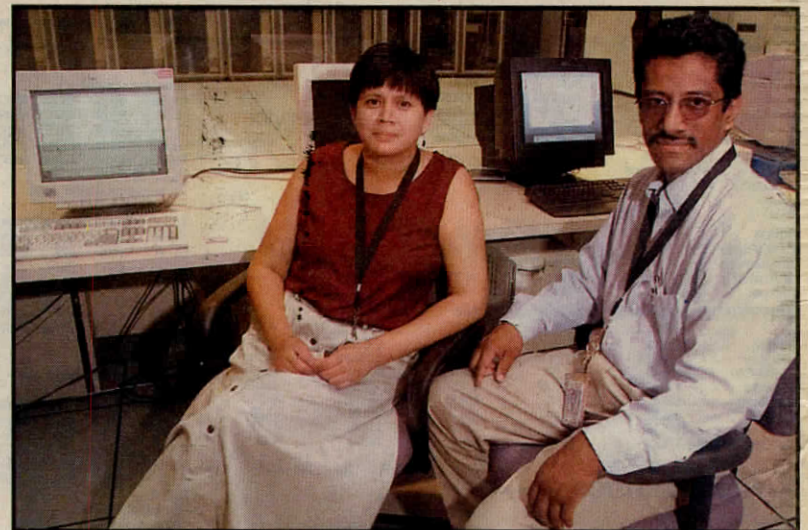
■ Reporter Mike Lee can be reached at 582-1542 or via e-mail at mlee@tricityherald.com



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Herald/Chris Thelen

Rubicelia Vargas-Fosada and Jorge Garza-Olguín came to the Environmental and Molecular Sciences Laboratory in Richland as visiting scientists from Mexico.

Hanford health officials to answer inquiries at fair

By the Herald staff

Representatives of the Hanford Health Information Network will be at the Benton-Franklin County Fair this week to answer questions about the health effects of past radiation releases from Hanford.

The group, sponsored by the Washington State Department of Health, held a public meeting Tuesday night in Pasco, but attendance was light, with just seven people showing up.

Janice Englehart of the network said two studies on Hanford health issues should be ready this fall.

The federal Agency for Toxic Substances and Disease Registry is investigating whether rates of infant mortality, fetal death and preterm birth differ in areas where mothers were exposed to more airborne radiation from Hanford.

The study focuses on iodine 131 exposure in the years 1940 to 1952 in Adams, Benton, Franklin, Grant, Kittitas, Klickitat, Walla Walla and Yakima counties, the network said. It's expected to be released initially in draft form, with final conclusions released later.

The second study is the final draft of the Hanford Thyroid Disease Study. A draft report was released in January, but it's now undergoing scientific review by the National Academy of Sciences. The draft report did not find a link between higher estimated doses of radiation and increased thyroid disease.

The scientific review will answer questions such as whether conclusions were reasonable and the analysis was carried out appropriately, the network said.

Richland schools tap PILT reserves

By Wendy Culverwell

Herald staff writer

The Richland School Board passed a balanced budget Tuesday night but had to dip into special federal funds to make the numbers add up.

The district expects to take in \$54.1 million and spend \$55.9 million in the coming school year. The difference will come from payments in lieu of taxes, money the district receives from the Department of Energy for the Hanford site.

Knowing the district can't count on receiving PILT money in coming years,

Sheila Berschauer, district finance director, said the money will be used to pay for one-time expenditures, such as resurfacing the track at Hanford High School.

At \$55.9 million, the general fund budget for 1999-2000 is \$3.7 million bigger than the one it replaces, or 7 percent.

At the same time, the district is adding the equivalent of 16 full-time certificated staff members, such as principals and teachers, and expects enrollment to grow by 22 students to 8,692.

Salary increases account for a large portion of the budget growth, along with a number of new commitments by the district.

For example, it will cost an estimated \$667,379 in the coming year to operate William R. Wiley Elementary, the new school in West Richland.

New commitments account for \$3.5 million. New revenues total only \$2.48 million. "Our new expenditures and our new revenues are out of whack," Berschauer acknowledged.

She said the situation warrants concern.

Berschauer said she considered the 1998-1999 budget a "green light" document, because it had a healthy fund balance, or a so-called rainy day fund, and contingency fund.

Hanford watchdog releases 2nd study on strontium leaks

By John Stang

Herald staff writer

Environmental scientist Norm Buske theorizes that a previously undetected underground stream of strontium-laced water is seeping into the Columbia River north of Hanford's K East Reactor.

On Tuesday, Buske released his report on this theory — which mirrors one he unveiled in June about strontium seeping into the river near H Reactor.

All of Hanford's defunct reactors have subterranean plumes of strontium — a nuclear fuel product that got into cooling water and later into the ground — seeping into the river.

Where Buske differs from Hanford's scientists is that he contends he has found previously undetected underground streams at the H and KE reactors that are carrying strontium into the river faster, in greater amounts, and in different places than what the site's scientists believe.

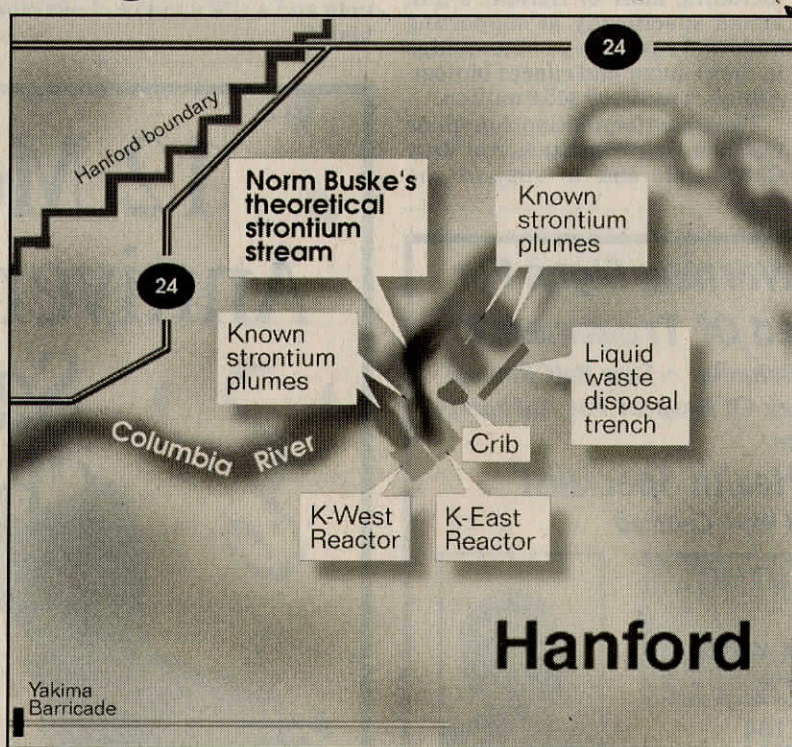
"We still have the problem of (the Department of Energy) not being ready to come to terms with reality out there," said Buske, who works with the Government Accountability Project, a Hanford watchdog organization.

But Mike Thompson, DOE's official in charge of ground water monitoring, said there are some basic flaws in Buske's scientific reasoning.

"It's not the best science," Thompson said.

Buske bases his theory on measuring radioactivity in mulberry tree leaves near the Columbia River. He uses those readings to calculate strontium concentrations in the immediate ground water and extrapolates those measurements to figure that excessive strontium is oozing into the river.

The K Reactors area has four identified strontium plumes that exceed federal drinking water



Herald/Sherry Emery

“ We still have the problem of (the Department of Energy) not being ready to come to terms with reality out there. ”

Norm Buske,
Government Accountability Project

standards. From upstream to downstream, this area contains K West Reactor, K East Reactor, a septic-fieldlike dumping ground called a "crib," and a mile-long liquid waste disposal trench. Two plumes are at the two reactors. And two plumes with ill-defined boundaries seep from the trench.

Buske took his key readings

from two mulberry trees near the crib, which is between the two pairs of plumes. The trees are about 200 feet from the river.

Buske's report concludes there are 600 picocuries of strontium per liter of ground water near the trees — 75 times the drinking water standard of 8 picocuries per liter. He concluded that a lesser strontium concentration is reaching the river.

Meanwhile, Thompson said Hanford has agreed for years with a couple of Buske's contentions — strontium reaching the Columbia, and contaminated ground water moves faster through some parts of the aquifer than others.

There are several other points on which Thompson said Buske's reasoning doesn't measure up, including:

■ It's all based on a series of math

calculations extrapolated from radiation counter readings on some mulberry leaves. Those readings are the only actual sampling that was done.

■ Too many variables exist when taking radiation readings from mulberry trees, whose roots suck up strontium-laced ground water. The strontium concentrations in the aquifer keep changing. Older trees have more time than younger trees to absorb strontium, which stays in the trees from year to year. A tree's size is a factor. And hot summers make thirsty trees absorb more water than cool summers.

■ The 8-picocurie-per-liter standard is irrelevant in an area where no humans drink ground or river water. The most threatened population is baby salmon in the riverbed's gravel, and 600 picocuries is far below the danger level for hatchlings. Also, the average shoreline strontium concentration is about 30 picocuries per liter.

Although Buske highlighted the salmon nests near H Reactor in his June report, he acknowledged the lack of salmon offshore of the K Reactors. Instead, he said the purpose of his sampling and calculations is to examine his theory that underground contaminants move differently than Hanford's theories.

Thompson said the public can view Hanford's ground water information, including K Reactors' data, at <http://hanford.pnl.gov/groundwater> on the Internet.

The K Reactors' crib area is where Buske was arrested in June for trespassing. He and DOE disagree what is publicly accessible along Hanford's shoreline. His next Benton County District Court appearance is Sept. 2.

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

Waste Management NW gets new chief, new name

By John Stang

Herald staff writer

A growing Hanford enterprise company is revamping to grow some more.

Waste Management Northwest has a new name, a new president, and some new markets.

Now called Waste Management Technical Services, the company has a new president, Steve Hamilton, and a new vice president for business development, Walt Newcomb.

Waste Management Northwest's general manager, P.K. Brockman, has been promoted to vice president of operations of the new company.

A vice president is higher than a general manager in the international Waste Management corporate structure.

Under Brockman, Waste Management Northwest has performed extremely well, prompting its parent company, Waste Management Nuclear Services Inc., to add to the Richland office's scope, said Tom Dabrowski, Waste Management Nuclear's president.

From the fall of 1996 to today, Waste Management Northwest's revenue grew from slightly more than \$8 million to about \$16 million.

Meanwhile, its work force grew from 97 in September 1997 to about 150 today.

Waste Management Northwest is one of six Hanford enterprise companies created in the fall of 1996, when Fluor Daniel Hanford took over managing the site.

The idea was Hanford-related work would make up most of each enterprise company's initial business, giving each a chance to build up non-Hanford clientele.

In the fall of 1997, 2 percent of Waste Management Northwest's revenue came from outside of Hanford.

Today, that figure is 28 percent, Dabrowski said.

Currently, the company handles packing and moving radioactive and hazardous materials — plus

environmental monitoring and pest control.

The new Waste Management Technical Services is intended to expand into engineering, testing products and manufacturing some hardware for handling radioactive wastes.

The engineering work is to be focused on commercial nuclear power plants, waste treatment plants and other nuclear waste activities.

Besides hunting for American customers, the revamped company will look at obtaining contracts in Canada and in Asia, especially in Taiwan and South Korea. Dabrowski noted nuclear power plants are being built in Asia.

Hamilton's last post was as president of PN Services in Spartanburg, S.C.

He was picked because Waste Management Nuclear wanted someone with experience as a corporate president and with experience in obtaining international contracts, especially in Asia.

He has spent 18 years in the nuclear services industry.

Newcomb had been in charge of business development for Chem-Nuclear Systems Inc. in Harrisburg, Pa.

Waste Management Technical Services is a sister company of Fluor Daniel Hanford's subcontractor, Waste Management Hanford.

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

Fluor Daniel expands pool of architectural, engineering bidders

By the Herald staff

Fluor Daniel Hanford's team has set up a pool of five firms to be potential bidders on architectural and engineering services for Fluor's group.

Fluor's team recently increased that pool of potential bidders from two companies to five with the addition of Parsons Infrastructure and Technology Group Inc., MACTEC-Meier Associates and HND — which is a joint venture of two firms, Holmes & Narver plus DMJM.

Fluor and its team of major subcontractors have been working under a system in which a list of potential architectural and engineering bidders are screened in advance. Then, all requests for

bids in those fields are sent solely to those firms.

Previously, the pool included two "enterprise" companies — Hanford spinoff firms that were guaranteed a certain amount of Hanford work while they try to increase their business away from the site. These two are Fluor Daniel Northwest and Cogema Engineering Co.

Fluor Northwest, Cogema, Parsons and MACTEC-Meier already have Tri-City offices. HND will be moving to the Tri-Cities.

If engineering or architectural work is needed but is outside the pool's expertise — outside bids will be sought, said Fluor spokeswoman Korenza Burris.

Hanford to test emergency sirens this morning

The emergency sirens at Hanford's K Reactors area along the Columbia River will be tested between 9:30 a.m. and 10:30 a.m. today. This area contains two of Hanford's defunct plutonium-production reactors. Extensive cleanup of radioactive materials is under way there.

Hanford firefighters hope motorists fill the boot

Hanford's firefighters have planned a "Fill The Boot" donation campaign for Friday to raise money for the Muscular Dystrophy Association. The Hanford Fire Department hopes to double last year's collection of roughly \$2,000. Firefighters will be at the various Hanford reservation gates, in the 300 Area, at the 400 Area gates and in the Stevens Center area from 6:15 a.m. to 8 a.m.

Groups say DOE misled on possible FFTF restart

By the Herald staff

Heart of America Northwest and other public interest groups who keep an eye on Hanford are planning to release a report Monday they say proves the secretary of Energy was misled about restarting the Fast Flux Test Facility.

The Department of Energy announced last week that an environmental impact study on whether to revive the dormant reactor will be conducted starting in September through the fall of 2000.

Gerald Pollet, Heart of America Northwest's director, contended Pacific Northwest National Laboratory officials deliberately calculated the costs of restarting the reactor too low because it is interested in managing a revived reactor.

Heart of America also contends, and says it is prepared to document Monday, that the lab also falsely inflated the cost of shutting down the reactor and failed to warn that reactor operations would add more nuclear wastes to Hanford's radioactive waste contamination problem.

PNNL disputes the allegations, saying it stands behind its research on the reactor.

Heart of America also plans Monday to "alert the public and government officials to an urgent danger of public exposure to radioactive and toxic wastes along Hanford's Columbia River shorelines," according to the group's press release.

No further details were available Friday afternoon. Pollet was out of the office and his staff had no additional information.

Findings fuzzy in study on infants

By Annette Cary
Herald staff writer

A federal study has found mothers who could have been exposed to more airborne radiation from Hanford just after World War II were more likely to give birth to premature babies.

However, a fact sheet being prepared to interpret the study states the findings "should be interpreted cautiously," partly because the increases are not large.

"The problem with the study in general is we were dealing with data that was 50 years old," said Frank Bove, of Atlanta and an epidemiologist who worked on the study for the Agency for Toxic Substances and Disease Registry. The study, done by a branch of the Centers for Disease Control, also looked at fetal deaths and deaths of infants up to a year after birth. It focused on the years when the most radioactive iodine was released from Hanford to be carried downwind, 1945 and 1946.

It found no differences in fetal death rates based on the amount of radiation mothers could have been exposed to from Hanford. The study looked at deaths that took place 20 weeks or more after conception.

"It's good news, but with the caveat the data is old and unclear," Bove said.

In the category of fetal deaths, the study did find a slight increase in deaths if mothers could have been exposed to the highest levels of radiation but concluded the increase was statistically insignificant.

Mothers were divided into four groups based on possible levels of exposure. Although there was a 30 percent increase in infant deaths in the high exposure group, there was much variation among the number of deaths for different levels of exposure.

Hanford faulted for security fence gap

By John Stang
Herald staff writer

An environmental organization said Monday that Hanford is improperly allowing public access to a contaminated area and called for the U.S. Environmental Protection Agency to issue a fine.

There is a 30-foot-wide hole in a chain-link fence separating a strip along the Columbia River shore from contaminated lands just north of the 300 Area, said Gerald Pollet, director of Heart of America Northwest, in a press conference.

No radiological warning signs are posted at the opening, Pollet said — a contention that Hanford officials disputed.

"Here's nothing to stop teen-agers and children — who are naturally interested in an excavation site — from going into the site," Pollet said.

Pollet said the contaminated area is where the Department of Energy and Bechtel Hanford Inc. are cleaning up roughly 1,500 buried barrels of uranium shavings that were discovered in early 1998.

However, Hanford and EPA officials said the fence hole is about 400 yards south of the uranium barrels site — putting it between the burial site and the 300 Area. This spot contains a pond where the 300 Area's labs and nuclear fuel fabrication facilities dumped liquid wastes until 1977.

The chain-link fence is a leftover security measure that no longer is used officially to keep people out, said Bechtel spokeswoman Sue Kuntz. Instead, ropes with radiological or hazardous wastes warning signs are used to tell people to stay out.

For several months, there was a 10-foot opening in the fence to allow trucks to get to an uncontained spot next to the contaminated pond excavation area. A few weeks ago, that opening was widened to 30 feet to improve access for trucks.

A rope with a radiological warning sign is strung across the opening when it is not in use, said Bill Edwards, DOE's site services and real estate property manager.

But Pollet said "Keep out of construction area" signs are near that spot, but no radiological hazard signs.

Pollet asked that the EPA investigate whether adequate warning signs are posted along Hanford's entire river shore.

Doug Sherwood, the EPA's Hanford site manager, said the agency believes the fence hole area is posted with the correct warnings. However, the EPA will look at the warning signs along the river shore to see if problems exist or if improvements are needed, he said.

Edwards said no trespassing signs are posted every 500 feet along the river shore and are visible from every spot along the shore. Hanford has not had problems with people — including youths — wandering into the area north of the 300 Area, he said.

Briefly

Compiled by the Herald staff and from news services

Teen-age motorcyclist still in critical condition

A 16-year-old Kennewick boy remained in critical condition Monday at Kadlec Medical Center after a weekend motorcycle crash in Pasco.

Hospital officials said Rolando Reyes had not improved and still was breathing on a respirator.

His passenger, Gabby Barraza, 23, of Pasco was in satisfactory condition at Lourdes Medical Center in Pasco with a broken

Seattle museum plans Kennewick Man exhibit

By Mike Lee

Herald staff writer

The Burke Museum in Seattle is preparing a lecture series and traveling exhibit on Kennewick Man, even as the federal government again moved back the date when it plans to release more information about the ancient remains.

"A lot of teachers are calling up and want to bring the class by to see the bones, which of course we can't do," said Cathy McDonald, museum spokeswoman.

The Burke, which houses the controversy-plagued 9,200-year-old remains, calls its upcoming exhibit

anthropology experts from around the nation will talk about what Kennewick Man means to modern attempts to reconstruct the peopling of the Americas. Other topics are the politics of first peoples, revisiting the discovery, the lawsuit and public reaction.

Speakers include Timothy McKeown with the National Park Service, Adeline Fredin with the Colville Confederated Tribes, Joseph Powell and Anne Stone from the University of New Mexico and Rebecca Tsosie with Arizona State University. General admission series prices are \$30.

plans radiocarbon tests. McDonald said it's possible the exhibit will stop in the Tri-Cities if a museum here offers space.

"We are trying to present something for the public," McDonald said. "It's basically to supply the demand for education."

While the Burke tries to piece together its exhibit, scheduled to run from October to January in Seattle, the Interior Department continues trying to find at least two laboratories that will do radiocarbon testing of Kennewick Man's bones.

Federal officials are planning to

use, how to extract samples and who will do the work.

Although Northwest tribes object to the coming tests, none has submitted specific comments about which pieces to use for dating or where to take the bones, said Stephanie Hanna, Interior Department spokeswoman.

Initially, the Interior Department said it planned to have the testing done by mid-September. Now, it's looking like tests won't start until then. It will take up to six weeks to get results.

Delays like that prompted on Monday the second angry court

plaintiffs suggested more than two years ago.

In a 15-page document for U.S. Magistrate Judge John Jelderks, scientists' lawyers angled for position in an upcoming court hearing.

Jelderks, in a move expected by some to break loose the log-jammed case, has called the parties to court Sept. 14.

"Above all," said the plaintiffs' filing, "we do not believe that the Army Corps of Engineers or Department of the Interior should write the history, or the prehistory, of this country."

K Basins planning improves, report says

By John Stang

Herald staff writer

The plus side: Hanford's K Basins team appears to have fixed the money and management problems that have slowed cleanup of leaky nuclear fuel rods.

The minus side: So little fudge time remains in the project's schedule that any additional problems could cause Hanford to miss the legal deadline set by regulators.

Those were the conclusions from an inspection team that reviewed progress on plans to move tons of spent reactor fuel out of the basins.

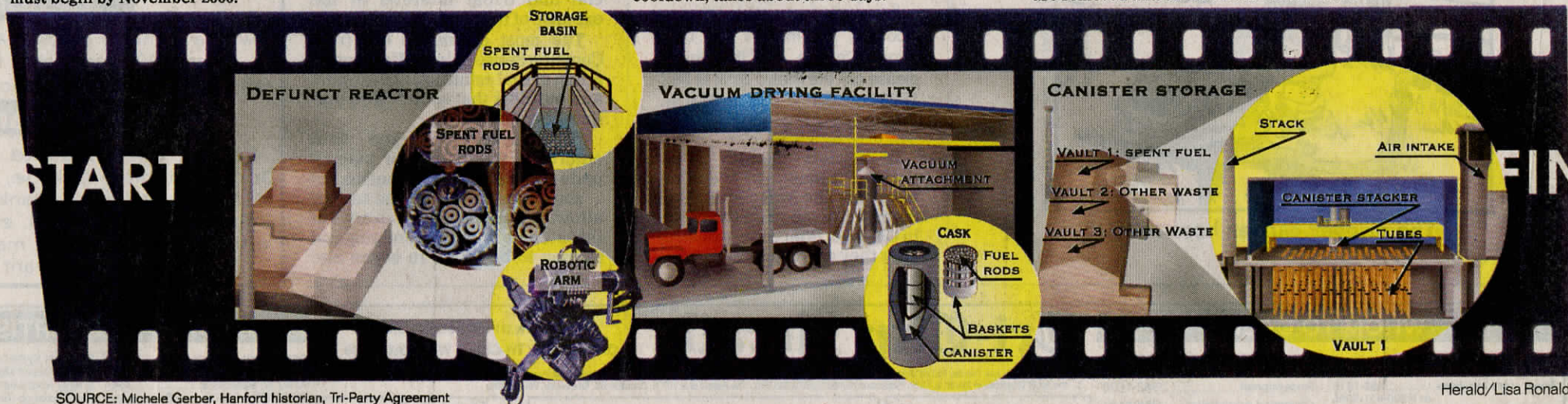
The inspection team, sent in May from Department of Energy headquarters in Washington, D.C., recently released its report on efforts to get the project back on track. "A strong and effective management team is (now) in place," the report said.

K BASINS CLEANUP AT HANFORD

1 K West and K East basins currently hold 2,300 tons of spent nuclear fuel rods. These fuel rods are the waste products of plutonium production in N Reactor and include radioactive isotopes such as plutonium (various isotopes), cesium (137) and strontium (90). Cleanup begins when the rods are cleaned and transferred to stainless steel canisters by Konan, a giant robotic arm. The entire process is done under 20 feet of water, and it takes about eight hours to fill one canister. According to the Tri-Party Agreement, fuel rod removal must begin by November 2000.

2 Each canister weighs 10 tons and can hold up to 300 rods. As the canister is filled and removed from the basin, it is placed in a transportation cask and moved to the vacuum drying facility. As water heated to about 120 degrees is circulated between the cask and the canister, water inside the canister is slowly removed by a vacuum. The drying process, including hookup, connection and pressure testing, heating and cooldown, takes about three days.

3 After drying, the cask is taken to the Canister Storage Building in the 200 East Area. The canister is removed from the cask and stacked in an underground tube. Each of the building's three vaults will contain 220 tubes that are 40 feet high and just over 2 feet in diameter. Each tube holds two canisters. When the tubes are filled, they are sealed with monitoring devices that measure gases, pressure and heat to ensure none of the canisters leak. The TPA's deadline for removing all spent fuel is December 2003. By July 2007, workers must remove and treat sludge, debris and water left after the spent fuel rods are removed and sandblast the basin walls.



SOURCE: Michele Gerber, Hanford historian, Tri-Party Agreement

Herald/Lisa Ronald

That's good news for DOE, Fluor Daniel Hanford and subcontractor DE&S Hanford — which spent 18 months trying to fix problems.

The report raised some concerns: ■ Fluor and DOE hadn't adequately rehearsed the mechanics of moving fuel from the basins, an exercise that

could identify unforeseen problems.

■ Quality control was lacking, especially with the transportation canisters. DOE fined Fluor \$330,000 earlier this year for quality control problems throughout Hanford — especially at the K Basins.

■ And safety analyses for projects

weren't timely, although Hanford officials said the reviews since have been fixed.

On some major issues, the headquarters team was mostly positive.

According to the report, Fluor and DOE's Richland office have done well in converting flawed cost

estimates, unrealistic timetables and poor teamwork into a solid master plan with firm budgets and deadlines.

But the report also said the project's past problems have left it with almost no time to spare before the deadline set by the so-called Tri-

Party Agreement. That cleanup pact between DOE and state and federal environmental agencies calls for Hanford workers to begin moving fuel by November 2000.

If significant delays occur, the

Fluor corporate shuffle to bring subcontractor transfers

By John Stang
Herald staff writer

A reorganization of Fluor Daniel Hanford's corporate team is expected to transfer most of its major subcontractors' employees to Fluor by Oct. 1 or shortly afterward.

"Our intent is to bring as much of the work force under Fluor ... as is practical to do," Ron Hanson, Fluor Daniel Hanford's president, said Wednesday.

The revamped team could have possibly 90 percent of its people working directly for Fluor, he said.

No layoffs, changes in salaries or benefits are expected from the reorganization, stated a Fluor memo to its team's employees.

But this move is supposed to help transfer \$20 million to \$30 million annually in overhead money and about half of Fluor's central coordination people to actual cleanup work.

The transfer of employees is just one facet in a massive overhaul of how Fluor's team is put together. Meanwhile, the Department of Energy soon is expected to unveil a significant internal reorganization of its Richland office.

Fluor took over managing Hanford in 1996, with the company coordinating six major subcontractors in its team plus several extra semi-independent subcontractors.

This arrangement has led to extra layers of management, extra overhead costs, a shaky polygamous marriage of several corporate cultures and Fluor not being effectively responsible for the subcontractors of its subcontractors.

Those are flaws the reorganization is supposed to help fix, Hanson said.

The revamping is somewhat patterned after how Fluor and DE&S Hanford — otherwise known as "Duke" — fixed managerial problems at the troubled K Basins project Duke had supervised for Fluor.

What happened was Fluor and Duke first meshed their separate K Basins departments into one organization.

Then, Fluor absorbed most of Duke's employees, leaving about 30 Duke people scattered in key positions on the K Basins project.

The remaining major Fluor subcontractors expected to consolidate operations and transfer people to Fluor are Waste Management Hanford, Numatec Hanford, B&W Hanford and DynCorp Tri-Cities Services.

Those subcontractors will keep corporate presences at Hanford, Hanson said.

Today, there are up to seven layers of managers between Fluor's upper levels and the workers in the trenches, Hanson said. The reor-

ganization is supposed to reduce those layers to three or four.

And the revamping should better spread one corporate culture — Fluor's — among all the projects, he said.

However, the reorganization means Fluor must renegotiate its contracts with those subcontractors, Hanson said. Those talks will affect the fees Fluor pays those subcontractors.

Two significant Fluor subcontractors won't be affected.

Lockheed Martin Hanford Corp. is scheduled to leave Fluor's team Oct. 1 to become a new prime contractor in charge of the tank farms. Also, the security force under Protection Technology Hanford has been working well and won't be tinkered with, Hanson said.

In the spring, Fluor brought the semi-independent security subcontractor into its core team.

Fluor and its subcontractors have about 5,400 employees. About 600 of those people work for Lockheed.

Instead of Fluor supervising subcontractors who manage projects, the reorganization will split the Fluor corporate team's responsibilities into six projectlike areas.

Each will have a Fluor senior project director who reports to Hanson's No. 2 man, Dave Van Leuven.

These six areas are:

■ The K Basins project. Fluor man-

ages this project with help from Duke.

■ Waste storage projects, which Waste Management now handles. These include supervising the storage of transuranic, hazardous and mixed wastes, moving transuranic wastes to New Mexico, the storage of Hanford's cesium and strontium capsules, and some other responsibilities.

■ Nuclear material stabilization. This primarily is managing the Plutonium Finishing Plant and neutralizing the site's plutonium. B&W Hanford has been handling these responsibilities.

■ River corridor projects. This essentially lumps the Fast Flux Test Facility and 300 Area cleanup and storage work in one group. B&W Hanford has been in charge of most of this work.

■ Analytical and training services. This lumps the HAMMER training facility, other training functions and Hanford's analytical labs in one group. Several companies have been supervising these functions.

■ Site services. This covers security, emergency functions, fire-fighters, utilities, roads and other infrastructure activities. DynCorp, Fluor and Protection Technology have handled most of these functions.

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Judge puts more limits on claims for downwinders

By Annette Cary
Herald staff writer

Fewer than 100 Hanford downwinders of about 5,000 who filed legal claims may see their cases go forward, said an attorney for former Hanford contractors Wednesday.

In a ruling filed in Yakima, U.S. District Judge Alan McDonald said he would consider only claims for thyroid cancer and associated conditions, leukemia, stomach cancer and colon cancer. Plaintiffs must show exposure to radioactive Hanford emissions while they were living downwind of the reservation has more than doubled their risk of contracting one of the cancers.

Both those who have developed the illnesses and those who meet the risk test for the illnesses may remain in the suit.

The ruling affects the 1,300 people who have filed suit in what's been called the "Berg group" for plaintiff Wanda Berg of Republic. About a year ago, McDonald dismissed the bulk of plaintiffs' cases in a larger, parallel lawsuit. That decision has been appealed.

Attorney Brian Depew of Los Angeles, representing plaintiffs in the Berg suit, said he and other plaintiff attorneys are "strongly considering an appeal."

"The judge clearly did not understand the scientific evidence," Depew said.

He disagreed with estimates that fewer than 100 Hanford downwinders would remain for both groups of plaintiffs but said he was concerned about losing claims that have merit.

The Berg plaintiffs have 60 days to file an appeal or file affidavits showing their residence and dietary history during the 1940s and 1950s doubled their risk of contracting the specific cancers being considered.

The plaintiffs had tried to convince the judge that doses should be considered based on a range of estimates rather than a specific estimate. The estimated doses are based on reconstructing events of about 50 years ago, Depew said.

"The court's decision is scientifically indefensible," Depew said.

Kevin Van Wart, the Chicago attorney for the Hanford contractors, disagreed.

"(McDonald) gave them every opportunity to come forward with evidence showing they had viable claims, and they couldn't do it," he said. "I think it is a very small number who can meet the test."

In both cases, "a lot of plaintiffs filed lawsuits without any realistic claims of exposure," he said.

PNNL safety manager requests job change

The manager of the International Nuclear Safety Program for Pacific Northwest National Laboratory has asked for a change in jobs.

Laurin Dodd's frequent travel to the former Soviet Union was taking a toll on his family and personal life, said Dawn White, a spokeswoman for PNNL. For now, Dodd is continuing some of the management duties, and Dan Couch is serving as acting manager for the Department of Energy portion of the program, which requires frequent travel.

Dodd's long-term role for the national lab is being discussed, and a permanent manager of the International Nuclear Safety Program will be considered after the fiscal year 2000 budget is set.

Tritium found in 3 Richland testing wells

By John Stang
Herald staff writer

Increased concentrations of radioactive tritium have been found in three monitoring wells in northern Richland.

However, those higher concentrations are slightly less than 2 percent of the danger levels and federal drinking water standards. But the origin and meaning of these higher levels have Hanford officials scratching their heads and starting studies.

The increased levels were found near Richland's northern well field and close to Hanford High School. But the city government is not worried for various reasons.

Like Hanford, northern Richland is dotted with wells designed to take samples to track the amounts and flows of Hanford's subterranean contaminants in the ground water.

There are about 20 of these wells in northern Richland. Three showed

increased tritium concentrations.

Tritium is a mildly radioactive form of water which moves through the aquifer at the same speed as normal water — making it Hanford's fastest-moving underground contaminant. Tritium essentially is the advance guard of any other contaminants that may follow.

It does not become a health threat until the radioactivity reaches a concentration of 20,000 picocuries per liter of water. At that

point, the risk of cancer increases for someone steadily drinking that water.

A massive underground tritium plume has spread east and southeast from Hanford's 200 East Area — where tritium was a byproduct of chemically separating plutonium from reactor fuel — to the Columbia River for the past few decades.

Tritium at the 20,000-picocurie-per-liter concentration has reached a point midway between Energy Northwest's Reactor No. 2

and Hanford's 300 Area, according to Hanford's 1997 Annual Environmental Report. Tritium in concentrations of 2,000 picocuries per liter have reached the 300 Area.

The most dangerous radioactive plume following the southeast-flowing tritium is radioactive iodine 129, which can increase a steady drinker's risk of cancer at a concentration of one picocurie per liter. The

See Tritium, Page A2

Hanford film rediscovered

Elusive, formerly classified footage sheds light on early life at the site

By John Stang
Herald staff writer

The scarce, cryptic clues of its existence teased and tantalized.

Somewhere, there was supposed to be a 1944 classified film showing scenes of Hanford's construction.

The wartime manager for the project, Col. Franklin Mathias, had mentioned it on occasion, but that only confounded historians.

Manhattan Project researchers lusted after the film as their version of the Holy Grail, El Dorado, the Golden Fleece.

But was it a myth? Was it forever lost?

"I believed the film had been made. But I believed that it was swallowed by that black hole we historians call 'archives,'" said Barb Kubik of Vancouver, Wash., a freelance historian with expertise on Hanford.

Mathias was in charge of secretly building the world's first full-sized nuclear reactors among the sagebrush and orchards lining a remote stretch of the Columbia River.

Hanford was where plutonium was produced for World War II's atomic bombs that exploded in New Mexico in July 1945 and destroyed Nagasaki three weeks later.

Mathias kept a detailed diary of Hanford's construction. A few passages briefly mention the filming of a construction documentary, but never elaborated.

That was enough to send Kubik searching eight years ago for the

film at Hanford and Washington, D.C., but to no avail.

A few months before Mathias died in 1993, retired Hanford engineer Harry Thayer of Kensington, Calif., interviewed the colonel for a history of Hanford during World War II.

Mathias mentioned a movie was made as a historical record of the construction. That sent Thayer hunting throughout Hanford and Washington, D.C. That effort also turned up nothing.

"I wanted to see it. I wanted to get it so Mathias could look at it," Thayer said.

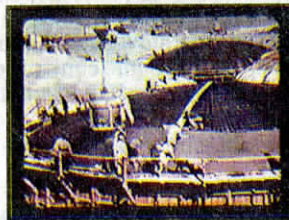
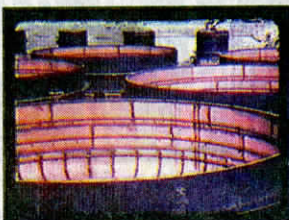
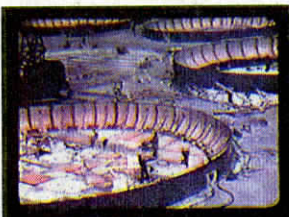
For decades, the film lurked somewhere between legend and rumors, occasionally reaching the ears of some of today's Hanford historical experts — such as Darby Stapp of the Pacific Northwest National Laboratory in Richland, Michele Gerber of Fluor Daniel, and Dee Lloyd of the Department of Energy.

The only 1940s Hanford footage they ever saw was a couple of minutes of construction film kept at the Federal Building. It is usually inserted in various DOE films as historical footage, but no one knew its original source.

Then this summer, Stapp got a phone call from a Pittsburgh history professor who col-

laborates with Stapp on research efforts.

The professor had learned that one of his friends had obtained a Manhattan Project construction film from a former Hanford recruiter, now in his 90s and living in Philadelphia.



Above: The 1944 film shows different aspects of life at Hanford. These include, clockwise from top left, an Army security drill; workers playing baseball; women carrying much of the nonconstruction workload, such as radio dispatching; and the segregation of Hanford's black workers into separate barracks and after-hours canteens. **Left:** The film follows the construction stages and burial of the site's first huge underground radioactive waste storage tanks.

It was the long-lost 1944 movie. Word quickly spread through Hanford's historical circles.

"I was totally stunned, shocked. ... To me, this is one of those treasures," Kubik said.

Since then, local historians learned a full copy of the film also exists at the Hagely Museum in Wilmington, Del., home of the DuPont Corp., Hanford's wartime contractor.

Although the film — declassified in 1989 — was archived at the museum 25 years ago, no museum records exist on who made the film, or why. The former Hanford recruiter in Philadelphia has an

unlisted phone number and could not be reached.

No soundtrack or script has been found — other than some information typed on placards that were filmed between the movie's sequences.

I was totally stunned, shocked. ... To me, this is one of those treasures.

Barb Kubik, historian

Not once do the placards mention anything nuclear. The B Reactor — the world's first full-scale nuclear reactor — is referred to as

"the process."

The raw, uncut color footage is like a nuclear version of a home movie, panning shakily from side to side.

The images are sometimes incongruous — an old, beat-up,

abandoned house, piles of rocks, even some bright red blood from a hard-to-identify internal body organ — parts of a story that force the viewer to mentally fill in the blanks.

No one knows if anyone besides the film's creators ever saw the footage before its rediscovery this summer.

Stapp noted that some of the movie's scenes closely resemble Hanford's still photographs from that time. He speculated the photos were taken at the same time as the film was shot.

"When you watch the movie, you can see the photos (in your mind). But the (film's) pictures and people move. It's a whole different genre. ... Movies give a more humanistic feeling for what (1944 Hanford) was like," Stapp said.

See Film, Page A2

Hanford critic arrested on drug charges

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Bob Alvarez, a longtime critic of operations at Hanford, and his wife have been arrested and charged with growing and possessing marijuana after being turned in to police by their 16-year-old daughter.

Alvarez, 54, and his wife, Kathleen Marie "Kitty" Tucker, 55, were charged after police, armed with a search warrant, found marijuana plants growing in the basement of the couple's house in suburban Takoma Park, Md. Police also found drug paraphernalia and books on how to grow marijuana.

After his arrest, Alvarez was fired from the Department of Energy, where as a political appointee he served as a senior policy analyst for environmental safety and health. Before joining the department, Alvarez worked for former Sen. John Glenn, D-Ohio, on the Senate Government Affairs Committee, where he authored a

number of reports critical of Hanford operations.

Tucker, a longtime anti-nuclear activist who was involved in the 1974 Karen Silkwood case, suffers from severe migraine headaches and fibromyalgia, a chronic muscle disorder, her attorney, Steven Kupferberg, said Tuesday.

Kupferberg said Tucker has been "totally disabled" by the two problems and used the marijuana to ease the pain. She receives Social Security disability payments as a result of the conditions.

The two were each charged with two felonies, manufacturing marijuana and conspiracy to manufacture marijuana, and two misdemeanors, possession of marijuana and conspiracy to possess marijuana.

Each felony carries a penalty of up to five years in jail and a \$15,000 fine. Each misdemeanor carries a penalty of up to a year in jail and a \$1,000 fine.

Alvarez and Tucker turned themselves in at the Takoma Park Police Department after the police raid on their home Aug. 30. They were

released on their own recognition.

Their daughter is staying with family friends, said Fred Bennett, an attorney representing Alvarez.

A preliminary hearing for the two is scheduled for Sept. 24.

Bennett said Alvarez will plead innocent to the charges.

Kupferberg said he hopes to get the charges against Tucker reduced.

"We're trying to convince people this is a minor event," he said.

Tucker headed the Health and Energy Institute, a public interest group focused on nuclear issues, after she helped bring national attention to the Silkwood case. Silkwood, a lab analyst at a Kerr-McGee plutonium plant, died in a car accident while on her way to meet a reporter to discuss alleged safety problems at the facility.

■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at lblumenthal@mcclatchydc.com

Hanford months ahead on preparing to ship transuranic waste

By John Stang

Herald staff writer

Hanford is 14 months ahead of schedule on preparing to ship barrels of radioactive wastes to New Mexico.

That means Hanford could have a large stockpile of transuranic wastes ready for any opportunity to speed up shipping the barrels to a permanent underground repository near Carlsbad, N.M., said Terry Moore, Waste Management Hanford's director for project support.

The Tri-Party Agreement, the legal pact that governs Hanford's cleanup, set a Sept. 30, 2000, deadline to begin inspecting and sorting 55-gallon barrels of transuranic and low-level radioactive wastes.

Instead, that process began in July, with roughly 200 barrels inspected so far.

Transuranic and low-level wastes are essentially radioactive junk — tools, sliced-up equipment, clothes and small items — stored in what are supposed to be liquid-free barrels. The barrels have been mostly buried in trenches along the west side of Hanford's 200 West Area.

Hanford's master plan is to remove the barrels from the trenches and analyze them

to see how solid and how radioactive they are. The low-level waste barrels will be reburied in the 200 Area's soil, which Hanford officials say is enough to contain the slight radioactivity emitted from the dry solid materials.

Meanwhile, the transuranic waste barrels will be kept in above-ground buildings eventually to be inspected again for flaws and fluids. Those barrels then would be fixed or drained if needed, then shipped to the New Mexico repository.

The difference between low-level wastes and transuranic waste is the amount of radiation they emit. The dividing line is 100 nanocuries per gram.

Hanford currently has an estimated 38,000 barrels of transuranic wastes. More of the wastes are being produced by the site's cleanup activities and stored in barrels. Ultimately, Hanford is expected to send 80,000 waste barrels to New Mexico in the next few decades.

The Tri-Party Agreement calls for the first 10,000 barrels to be shipped from September 2000 to September 2004. The first test shipment is due to leave Hanford this November.

"This waste stream is the first and only stream with a clear path out of Hanford," said

Jay Augustenborg, the Department of Energy's acting assistant manager for waste management at Hanford.

What Hanford completed ahead of the Tri-Party Agreement's timetable is the initial planning, setting up of the radiation measuring equipment and starting to retrieve and sort 1,400 barrels to fine-tune planning for later work and budgeting.

These barrels can be moved by hand. They are put one by one inside a radiation counter about the height of an average-sized woman and scanned for 15 minutes.

Eventually, Hanford will have to tackle barrels that are radioactive enough to require handling by remote control. But that won't happen for a few years.

The main danger from these barrels is the metal walls are corroding and becoming thinner — increasing the likelihood they might fall apart when handled.

That increases the risk of contaminating the workers moving the barrels, said Dick Wilde, Waste Management's vice president. Also, if a barrel falls apart and spills its contents, that means Hanford must analyze the materials again to fulfill the accounting requirements of the New Mexico repository.

Hanford advisory board to meet in Richland

An expert panel examining ground water contamination problems at Hanford is scheduled to meet next week in Richland.

The independent board advises the Department of Energy and Bechtel Hanford on how to treat underground contamination heading toward the Columbia River.

The eight technical experts will be reviewing work under way and plans for future cleanup efforts.

The sessions are Wednesday from 9 a.m. to noon and 12:45 to 4:45 p.m.; Thursday, noon to 4:15 p.m.; and Friday from 8:30 a.m. to noon.

All of the sessions will be held at the Bechtel building, 3350 George Washington Way. Photo identification is required for admission.

The agenda is on the Internet at www.bhi-erc.com/vadose. Click on "peer review."

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

Fluor donates to Mid-Columbia schools

By the Herald staff

Mid-Columbia students will benefit from the generosity of the Fluor Foundation in connection with Fluor Daniel Hanford and Fluor Daniel Northwest.

Robert Fluor, president of the Fluor Foundation, presented \$25,000 to Columbia Basin College for 35 state-of-the-art computers, the college announced Thursday. The foundation also gave \$10,000 to Washington State University at Tri-Cities for the Mathematics, Engineering, Science Achievement, or MESA, Center housed there, the university announced Wednesday.

CBC will replace its public computer terminals in the library with the donation. The new Pentium 400s will be able to run the library's new software system with on-line information, access to the catalog, circulation information and an array of powerful search tools.

Students soon will be able to plug into the system from home if they have a student identification code.

"These computers represent all of our public access stations for students, faculty and the public," said Katie Foley, CBC's dean of library services. Each computer will have 6.4 gigabytes of memory and a 15-inch color monitor.

Fluor's donation for the MESA program will be used for middle school and high school students across the Mid-Columbia. It encourages students, particularly girls and minorities, to consider careers in math, science and technology.



Herald/André Ranieri

John Bealer, computer support technician at the Columbia Basin College library, installs one of 35 new computers Thursday that will be available for library catalog searches. The college received \$25,000 from the Fluor Foundation to help with the purchase. The computers will be compatible with the library's new catalog software and will enable on-line searches of library materials. The computer in the foreground is an older model.

Scientists get robot's-eye view of Hanford plant

By Annette Cary
Herald staff writer

No human has seen some of the radioactive inner works of Hanford's U plant since it was built 50 years ago, but this week, a robot went where humans no longer can.

It curled up to fit through the chimney of the plant's ventilation system, then crawled the length of two and a half football fields through a ventilation tunnel.

Video it shot and radiation samples it collected will be used to decide the fate of Hanford's "canyons," five massive chemical processing buildings nicknamed for the interior view of their long, narrow corridors.

The robot, which looks a little like a miniature silver World War I tank, found more dust and less radioactive contamination than was expected.

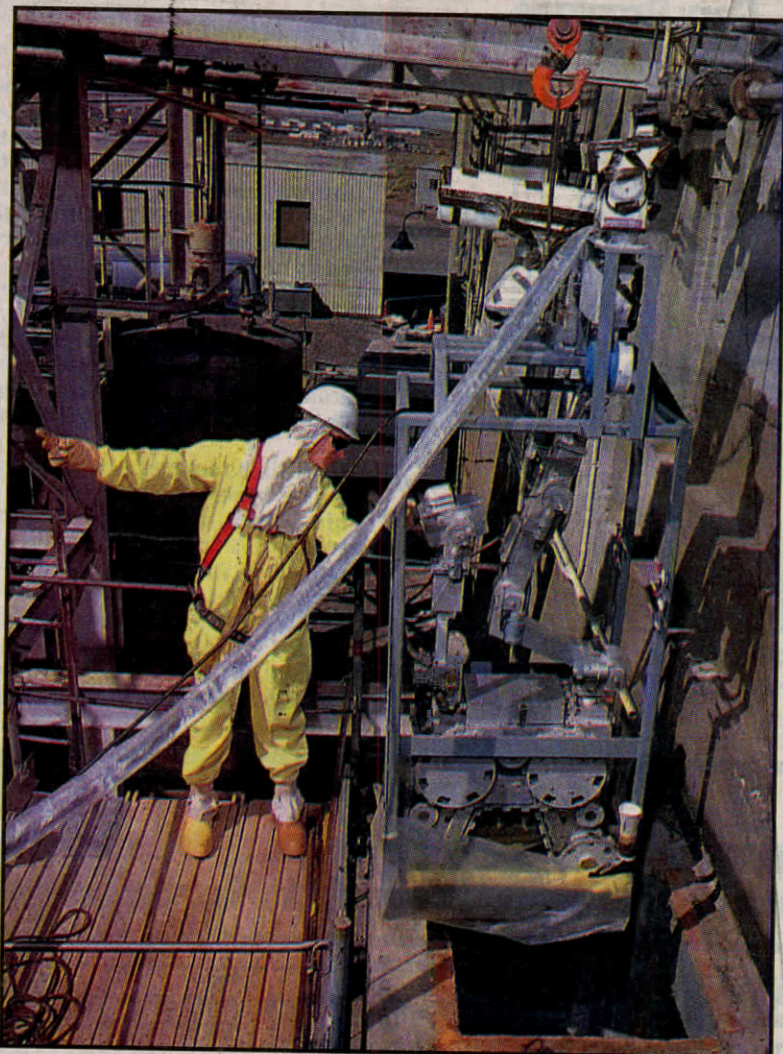
In places, the video it shot looked as if it could have been taken on a crawl across the moon.

"It was dark, shadowy, bumpy," said Sharon Bailey, robotics program manager at Pacific Northwest National Laboratory. "It was churning up a lot of dirt. There was a 6-foot to 8-foot plume behind it at one point."

The dust was an inch or two deep throughout the 10-by-10-foot tunnel. Some of the debris causing the rough surface was paint peeling off the floor and falling from the walls.

A fixed video camera on the robot shot pictures straight ahead, but an operator outside U plant was able to move a video camera mounted on its arm to linger on views of inlets to the tunnel and spots of peeling paint.

The robot was loaded with a gross gamma detector and two gamma spectrometers to help determine what sort of contamination the tunnel contained. The robot also used two smear pads to



Courtesy Pacific Northwest National Laboratory

An Andros Mark VI robot is lowered into the chimney on the ventilation tunnel at Hanford's U plant with the guidance of rigger Ray Wilson of Bechtel Hanford. The robot unfolded inside and traveled the 750-foot length of the tunnel to gather information about the building's soundness and radioactive contamination.

collect dust samples.

The top radiation level detected was 260 millirems, which Bailey

characterized as mild.

Wednesday, the robot spent five hours on its slow, wobbly walk

through the tunnel and back. Thursday engineers were working to get the robot out of the tunnel.

"This was a significant technological accomplishment," said Shannon Saget, technical program manager of the Department of Energy Office of Science and Technology. Bechtel Hanford Inc., PNNL and DOE cooperated on the project.

Manufacturers of the \$120,000 robot, an Andros Mark VI, had never used it to travel farther than 500 feet.

A year ago, the robot was used to inspect a railroad tunnel into U plant. It involved a tricky entry through a narrow doorway from inside the plant and then a 220-foot crawl through the tunnel.

But this week "we maxed out the technology," Bailey said.

Operators already had made dry runs in the gallery of U plant, so they knew they would not suffer a significant voltage drop or communication loss before the robot reached the end of the tunnel.

But engineers still held their breath Wednesday.

First the robot's outriggers had to be curled up with just 1½ inches to spare to fit down the 3-by-3 foot chimney. With the track around its wheels extended, the metaline machine measures 46 inches long and its arm has a reach of about 5 feet.

Once in the tunnel, engineers knew the robot could have gotten its umbilical cord to the control truck tangled in the track.

Although they suspected the tunnel would be empty, the robot had the potential to tip over if it hit debris.

"There is always the chance we can send it in, but we can't get it out," Bailey said. "Our biggest

PNNL getting funds to study underground contamination

By John Stang

Herald staff writer

Pacific Northwest National Laboratory is to tackle 16 new science projects to map out how contaminants seep underground.

Department of Energy Undersecretary Ernest Moniz announced Wednesday that new research money is going to PNNL, while Hanford and non-Hanford experts wrestle with the site's massive subterranean contamination problem.

"The challenge is matching the science with the long-term cleanup goals," Moniz said.

Moniz and DOE's new cleanup czar, Carolyn Huntoon, sat in on part of an independent advisory panel's meeting Wednesday in Richland that looked at Hanford's underground pollution situation.

A little later, Moniz announced DOE will provide \$25 million to 31 projects involving 23 national and university labs that will study how radioactive and nonradioactive contaminants move underground. The money will start to materialize in fiscal 2000,

with most to be spread across three years.

PNNL scientists are the lead researchers on \$6.51 million of that work. And PNNL is assisting on another \$7.47 million of new research.

Over the past four years, \$116 million of this DOE underground cleanup research money has gone to the national labs alone, with PNNL accounting for \$39 million of that total.

Oozing subterranean contamination is one of Hanford's top problems.

During the Cold War, Hanford dumped 440 billion gallons of slightly contaminated fluids into the ground. And it filled 177 huge underground tanks with highly radioactive wastes. Today, there are 54 million gallons of radioactive wastes in those tanks, and more than 1 million additional gallons have leaked. Some tank wastes have reached the aquifer.

The bottom line is that about 200 square miles of Hanford's ground water are contaminated, of which about 100 square miles are polluted above federal drinking standards.

These wastes are moving toward the Columbia River in various concentrations and speeds. Some wastes already have reached the river. Meanwhile, Hanford has an incomplete and fuzzy picture of how the contaminants gather and move underground.

For many years, Hanford remedial efforts on ground water had been an uncoordinated hodgepodge of programs. In 1998, the site began to coordinate its research, planning, sampling, analyzing and fix-it work. The advisory panel, which critiques the site's progress, consists of several outside experts who review and critique Hanford's efforts.

On Wednesday, Keith Klein, DOE's Hanford manager, told the panel visible, short-term goals are needed — especially when the site has been criticized for slow progress.

"I'm going to set some ambitious timetables and goals and how we're going to measure them. ... We need to have some markers to demonstrate near-term substantial progress," he said.

Klein plans to set those goals sometime in fiscal 2000, which begins Oct. 1.

However, Moniz and Klein voiced optimism on how the coordination efforts have evolved.

Hanford's subterranean research and fix-it programs are proceeding simultaneously because of the universal pressure to keep cleanup momentum going. Consequently, the cleanup work may have to adjust as new information surfaces on the subterranean contaminants, said Rich Holten, the DOE official in charge of the coordination efforts.

Holten expects it will take at least three or four years before Hanford has enough good information to start making major long-range decisions on tackling the underground plumes. Meanwhile, the site now is fixing some simpler problems such as removing contaminated soil from the river-shore area.

Holten speculated the toughest problem might be a nonradioactive carbon tetrachloride plume more than 200 feet beneath central Hanford. Carbon tetrachloride is

prone to concentrate in clumps along the aquifer's bottom, making the worst spots hard to find and deal with, he said.

Even with the increased emphasis on planning and funding research, Hanford still will need money for the actual remedial measures.

"Obviously, funding is a critical question," Moniz said.

Hanford faces predicted cleanup budget shortfalls of at least \$200 million annually for a few years beginning in 2001.

In fiscal 1999, Hanford has \$40.1 million allocated to subterranean contamination efforts spread across several programs. Congress still is debating Hanford's fiscal 2000 cleanup appropriations. Hanford officials hope to get slightly more than \$40.1 million for the next fiscal year.

Moniz said DOE has to try to get a bigger and more stable cleanup budget than in the past. But he does not expect huge increases to materialize soon.

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Miss America hopeful makes way through

A break made in the shade at Columbia Park



DOE study to include look at FFTF restart

By John Stang

Herald staff writer

city council passed a resolution Wednesday opposing the FFTF

British firm accused of falsifying papers at nuke plant

By John Stang

Herald staff writer

A British company involved in efforts to clean up some of Hanford's most dangerous radioactive wastes is under investigation for falsifying quality control records at a nuclear plant in northwestern England.

The troubles occurred at British Nuclear Fuels Ltd.'s operation at the Sellafield nuclear complex in northwestern England earlier this month.

The company's American subsidiary, BNFL Inc., is leading the team hired

to design and operate plants that will make glass logs out of highly radioactive liquids stored in underground tanks at Hanford.

Geoff Harvey, BNFL's Hanford spokesman, said a few Sellafield employees were suspended, pending a formal internal review of the matter.

The apparently false reports involved inspections of uranium and plutonium mixed-oxide nuclear fuels but weren't related to BNFL's nearby radioactive waste glassification plant.

Some additional British Nuclear Fuels' quality control checks discovered

“

While we want to be aggressive, that will be no excuse for improper quality control measures.

Geoff Harvey, BNFL spokesman

”

some inspection records were duplicated in an effort to save time, Harvey said.

“That is totally unacceptable. ... We

caught it internally,” Harvey said.

The fuel pellet work at Sellafield plant was not going at an exceptionally fast pace, he said.

The company's U.S. subsidiary is leading a four-company team working on designs and financing for plants that are supposed to start converting part of Hanford's 54 million gallons of highly radioactive tank wastes into glass in 2007.

The Department of Energy is scheduled to decide in the summer of 2000 whether to give BNFL a green light to begin construction.

The contract is expected to be worth sev-

eral billion dollars once final details are negotiated. But BNFL would be held to tight schedules and heavy public scrutiny that will have a direct effect on its potential profits.

“While we want to be aggressive, that will be no excuse for improper quality control measures,” Harvey said.

Great Britain's Nuclear Installations Inspectorate is investigating the Sellafield matter, reported the London Independent newspaper.

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Friday, Sept. 17, 1999

Defense bill worries nuclear cleanup backers

By John Stang

Herald staff writer

Washington Attorney General Christine Gregoire doesn't like what she reads in the fine print.

And she's not alone.

A bill on the brink of passing Congress could eventually nullify the state's ability to enforce the Tri-Party Agreement, Gregoire said. That likelihood also worries cleanup supporters in other states, including 45 other state attorneys general.

Gregoire talked Thursday in Richland to about 80 members of the Energy Communities Alliance, a coalition of towns and counties that have Department of Energy cleanup sites.

What worries Gregoire and alliance members is a fuzzy-worded paragraph stuffed deep inside a massive defense authorization bill that has passed the U.S. House of Representatives and soon faces a full U.S. Senate vote.

Presidential passage would mean a new semiautonomous DOE security agency could have sovereign immunity from lawsuits. The bill does not have specific wording that concretely waives this immunity.

Currently, an earlier federal law caused DOE to waive sovereign immunity on cleanup agreements with states.

Tri-Party Agreement would have no teeth, Gregoire says

The defense bill's language allows this new potentially legally immune security agency to expand into environmental cleanup work — like that at Hanford, Gregoire said.

If all this comes to pass, Washington could not threaten to sue DOE to enforce the Tri-Party Agreement, the legal contract that governs Hanford's cleanup, Gregoire said.

“This sets a bad precedent,” said Seth Kirshenberg, executive director of the alliance.

Carolyn Huntoon, DOE's new assistant secretary for environmental management, said DOE has not yet figured out how this language could affect future cleanup efforts.

“We don't have a clear understanding of it yet,” Huntoon said.

This situation's roots stretch back to the string of classified security problems that plagued DOE's national laboratories in New Mexico and California.

Those problems led to congressional legislation to create a sepa-

rate semi-autonomous agency to supervise guarding DOE's national security labs and weapons-production facilities. At this time, the sites selected to fall under this new agency's jurisdiction do not include Hanford or Pacific Northwest National Laboratory.

But Gregoire noted the legislation's language allows the energy secretary to expand the new DOE National Nuclear Security Administration's jurisdiction to cover environmental cleanup operations.

This legislation was inserted in a massive defense spending authorization bill.

The Tri-Party Agreement is a legal pact among DOE and two regulators — the Washington Department of Ecology and the U.S. Environmental Protection Agency. But the EPA is legally forbidden from suing another federal agency. So that leaves only the state with the ability to file a lawsuit to enforce the Tri-Party contract.

The state used this ability as a threat last year to pin down DOE to deadlines to finish pumping radioactive wastes out of Hanford's old underground single-shell tanks.

When the Senate's and House's armed services committees held a joint-conference session to

hammer out differences in their two defense authorization bills, the proposed DOE security agency appeared still liable for lawsuits, Gregoire and Kirshenberg said.

But when legislation came out of the conference committee session in late August, the wording on this issue was unclear, they said. The compromised bill did not have a specific waiver of immunity for the agency for reasons that were unavailable Thursday.

“No one knew about this language until the end of August,” Kirshenberg said.

Huntoon said DOE intends to live up to all of its cleanup requirements — regardless of the bill's language. “We are making sure we don't slow down on our cleanup obligations,” she said.

But Gregoire said there is no guarantee a future secretary of energy won't change his or her mind on cleanup obligations.

Gregoire said that prior legal cases in this field shows that only a specific waiver of immunity can be guaranteed to hold up in court.

Recently, 46 states' attorneys general sent a letter to Congress to protest the lack of a specific waiver of sovereignty.

Gregoire and others recently

held a conference phone call with the two armed services committees. But the committees' chairmen refused to amend the language in the bill.

The chairmen said the defense authorization bill is full of delicate compromises that they did not want to mess with. And if they allow one amendment to the bill, they would be obligated to allow other changes, they told Gregoire and the others.

Gregoire speculated that the congressional committees' members did not realize the consequences of a lack of a specific waiver of sovereign immunity until it was too late.

Since then the House passed the defense bill, which now faces a full Senate vote before going to President Clinton for approval. Gregoire has talked to Washington's two senators — Slade Gorton and Patty Murray — about this matter.

Sovereign immunity opponents could lobby Clinton to veto the defense authorization bill. But Gregoire acknowledged that would be unlikely if the only objection is the sovereign immunity waiver issue.

If this bill becomes law, Congressional members could introduce legislation to address the matter in 2000, she said.

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



Huntoon

Fluor seeks new bids on Hanford subcontract

By John Stang

Herald staff writer

Fluor Daniel Hanford will seek new bidders for the contract that covers maintenance at the Fast Flux Test Facility and key cleanup work at a Cold War plutonium plant, officials said Friday.

The existing contractor, B&W Hanford, can compete for the work but won't get to simply negotiate an extension to its existing agreement, said Fluor President Ron Hanson.

“The reason we're putting (B&W Hanford's contract) out for competition is that we're trying to find new technical solutions,” he said. Fluor is the site's lead contractor with B&W Hanford working for Fluor.

“I've encouraged B&W to submit a proposal along those lines. I told the leader of B&W that this is not a performance decision (on B&W Hanford's overall work) but an initiative to increase competition to boost our level of results up a significant step,” he added.

Fluor won't release the value of its subcontracts for government work at Hanford, calling such information proprietary.

Fluor earned \$32.2 million out of a possible \$44.6 million last year. Payments to B&W and other subcontractors come from that fee.

Art Clark, B&W Hanford's president, was unavailable for comment Friday.

B&W Hanford's one-year extension on its original two-year contract expires Dec. 31.

Hanson said a timetable likely will be nailed down within two weeks on putting out a request for proposals, the bid deadline and selecting a contractor.

B&W Hanford, with about 700 employees, is Fluor's subcontractor for the site's “facilities stabilization” program.

Fluor shifting economic development focus Company to rely less on enterprise firms

By John Stang
Herald staff writer

Fluor Daniel is shifting its sluggish economic development efforts to what the corporation believes are more promising directions.

Fluor's six-company Hanford team has posted a mixed record on its contractual obligations to wean the Mid-Columbia economy from being overly dependent on Hanford.

When Fluor's team took over managing Hanford on Oct. 1, 1996, part of

its contract called for creating 3,000 new non-Hanford jobs in five years by various means. As the third year ends, Fluor Daniel Hanford President Ron Hanson estimated the team has created about 1,400 new non-Hanford jobs.

"I think, collectively, we just didn't deliver as a team," Hanson said.

Hanson told the Tri-City Herald editorial board Wednesday how Fluor is remapping those economic development efforts.

The changes include:

■ Shifting Fluor Corp.'s national coordination office for its government services work from California to Richland. About 25 jobs come with that transfer.

■ Taking \$4.3 million from an underused \$10 million venture capital fund to construct a 100,000-square-foot multi-purpose building to help attract new industries to the Tri-Cities. This would be a bare building that could be quickly modified to fit a prospective tenant's needs.

■ A Fluor Corp. subsidiary providing \$500,000 worth of consulting help to the Tri-City Industrial Development Council to recruit new businesses.

■ Providing \$35,000 to help pay for a \$90,000 feasibility study to determine if an inland shipping port can be developed in Pasco.

See Fluor, Page A2

NW lawmakers warn of Hanford lawsuits

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The Northwest's congressional delegation warned fellow lawmakers Wednesday of looming lawsuits unless another \$78 million can be found for Hanford cleanup.

In a strongly worded letter released Wednesday, all House members from Washington and Oregon said that without the additional money, the Energy Department almost certainly will be sued as Hanford misses at least 12 cleanup deadlines.

"These milestones are legally binding commitments made by the federal government to the state of Washington," the lawmakers said.

"The magnitude of this cut would greatly reduce environmental restoration activities along the Columbia River, threatening the water that is the very lifeblood of our region." The House-passed version of the energy

and water appropriations bill provides about \$350 million less for cleanup at Hanford and other department sites than the administration had requested.

Hanford could lose \$78 million to \$100 million under the House spending plan, the lawmakers said.

"The House cut would reduce work at Hanford required to retrieve highly radioactive tank waste, further delaying start-up of the vitrification facility, the linchpin of Hanford's cleanup future," the lawmakers wrote.

"Essentially every Hanford cleanup program — including the HAMMER training center — would be adversely affected by the proposed House cut."

The vitrification plant will turn the waste from the underground tanks at Hanford into glasslike logs suitable for permanent disposal.

The House bill would provide \$1.08 billion for Hanford, while the Senate version would provide \$1.21 billion, or \$134 million more.

House and Senate negotiators are set to meet in a conference committee to reach a compromise as early as today.

Although cleanup programs at Hanford may have to be trimmed some even under the Senate number, the cuts would not be as dramatic.

The Energy Department had warned the House funding level could result in up to 1,200 layoffs at Hanford and delay critical cleanup projects.

"Failure to restore the House (environmental management) program cuts would almost assuredly trigger legal action to enforce the revised Tri-Party Agreement compliance requirements," the lawmakers wrote.

The Tri-Party Agreement, between the federal government, the state and the Environmental Protection Agency, outlines in detail what has to be cleaned up at Hanford and sets a rigid deadline to accomplish it.

The House cuts also jeopardize the "spirit"

of the new cleanup agreement recently signed by Energy Secretary Bill Richardson, Washington Gov. Gary Locke and three other governors whose states contain major DOE facilities, the letter said.

"A cut of this magnitude in the Hanford cleanup program compromises the public health and safety of those surrounding the site, many of whom contributed mightily in winning the Cold War," the letter said.

"We have a moral obligation to those community veterans of the Cold War and an environmental responsibility to the region to clean up Hanford and safeguard the Columbia River."

The letter, initiated by Rep. Doc Hastings, R-Wash., was sent to all the House members on the conference committee.

■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at lblumenthal@mcclatchydc.com

Representatives pushing for an extra \$12 million to complete FFTF study

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — House and Senate negotiators need to provide up to \$12 million in additional money to ensure the Department of Energy can complete its environmental study of the Fast Flux Test Facility on schedule, two Washington state lawmakers said Tuesday.

Republican Rep. Doc Hastings, whose district includes the Hanford Nuclear Reservation, and Democrat Rep. Norm Dicks, a member of the House Appropriations Committee, said in a letter that the additional money would allow the department to complete its work by the end of next year.

The department plans to use the environmental impact statement as it tries to decide whether to shut down the research reactor for good or to restart it to conduct research and development activities, to produce medical isotopes and to make heat-producing batteries for NASA spacecraft.

The two lawmakers urged top House negotiators Rep. Ron Packard, R-Calif., and Rep. Peter Visclosky, D-Ind., to back the increase in funding.

The House version of the energy and water appropriations bill provided \$30 million for FFTF activities in the fiscal year that starts Oct. 1; the Senate version has \$28 million.

Dicks and Hastings said the department has indicated it needs \$40 million to meet the deadline.

"We believe it is important to keep the (study) on schedule and to assure that the process is conducted with full and open participation by the public — federal, tribal, state and local governments and others," Hastings and Dicks wrote.

"Therefore, we urge your consideration of increasing the FFTF amount in conference."

A conference committee, which could meet as early as this

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DOE has said they need the money, and we will do what we can to ensure they get it.”

Jennifer Scott,
Hastings spokeswoman

week, will iron out differences between the House and Senate bills.

Packard is chairman of the House energy and water appropriations subcommittee; Visclosky is the top Democrat.

The House and Senate already had taken action on their bills before Energy Secretary Bill Richardson decided in mid-August that he wanted to proceed with the environmental study.

If the department decides to reactivate the reactor, it could be in operation by 2004.

Congressional appropriators are working under tight budget caps to keep within the balanced budget agreement, and the additional money for FFTF could be hard to find.

"DOE has said they need the money, and we will do what we can to ensure they get it," said Jennifer Scott, Hastings' spokeswoman.

Originally part of the nation's now-canceled breeder reactor program, FFTF was put on standby in 1992 when the department could no longer justify its operation.

About 260 workers remain employed at the reactor.

That number could jump to 1,000 if it were restarted.

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Kennewick



HAMMER tours offered today and Thursday

Hands-on public tours of the HAMMER training facility are scheduled today and Thursday afternoon.

The free two-hour tours will begin at the site's administration building at 8 a.m., 10 a.m. and noon today, and at 1 p.m. and 3 p.m. Thursday.

Tour participants will see a training sessions in action — plus look at a SCUD missile, a U.S. Customs search van with X-ray equipment and SWAT team exercises at a search-and-rescue building. Spectators also will see other classes and structures in action relating to fire department training and crane rigging.

HAMMER is a regional training center for dealing with fire and hazardous materials emergencies and other rescue work. It is at 2890 Horn Rapids Road — west of Pacific Northwest National Laboratory's main complex in Richland.

245-1199

Hanford to accelerate tests on fuel transfers

By John Stang
Herald staff writer

Hanford plans to speed up tests on moving spent nuclear fuel from the K Basins to try to meet or beat a November 2000 deadline to start removal.

Many tests are to begin in December, beating the deadline by eight months, said Keith Klein, the Department of Energy's Hanford manager.

This move is supposed to speed the overall work on a project with an extremely tight schedule and a troubled past.

"I'm not content to be on a schedule that barely makes it. ... If all goes well, we may beat that November 2000 date," Klein said.

Doug Sherwood, the Environmental Protection Agency's Hanford site manager, said: "We believe a lot of uncertainty will be removed by this phased-in start-up."

The K Basins are one of Hanford's top priorities.

The two water-filled basins are leak-prone indoor pools that hold 2,300 tons of spent nuclear fuel 400 yards from the Columbia River. Hanford's master plan is remove the fuel from the basins, put it in special canisters, process it into a safer condition and store it in an underground vault in central Hanford.

In the past few years, this project has been plagued with technical and coordination problems, quality control troubles and increasing budget estimates and timetables. The K Basins' quality-control problems were a big factor in DOE fining Fluor \$330,000 earlier this year.

Overall blame has been spread among many past and current companies, agencies and circumstances.

Cost estimates soared from \$814 million in 1996 to almost \$1.6 billion today. And the date to finish removing all fuel and sludges slipped from 2001 to 2005.

In the past two years, DOE, lead



Herald/Chris Thelen

Hanford workers describe how spent nuclear fuel in special transportation canisters will be inserted into underground vaults at central Hanford. When the fuel is handled at the Canister

Storage Building, the canisters will be transported to individual vaults by the yellow crane. Each circle on the floor opens into a 40-foot-deep vault.

contractor Fluor Daniel and subcontractor DE&S Hanford have struggled to fix these problems. Recently, DOE's Washington, D.C., headquarters released an inspection report that concluded those problems are under control.

But that report also notes only one week of contingency time remains through November 2000, when the Tri-Party Agreement mandates fuel removal begin. That means any new lengthy problem

could conceivably blow the deadline under the legal pact governing Hanford's cleanup.

Consequently, Klein and Fluor President Ron Hanson want to speed up work.

That led to accelerating tests on two almost completed construction projects. One is moving, cleaning and packaging fuel inside the K West pool. The other tests address the system that cleans the pool's water.

The new plan is to start testing with dummy fuel in December and with real fuel next spring. The plan was to test with real fuel shortly before the November 2000 deadline.

The idea is to get a head start on training and on working out inevitable flaws in equipment and procedures that will show up when the systems actually function, Hanson and Klein said.

"There's lot to do to debug the

system. ... We'll be learning a lot," Klein said.

This accelerated testing is one of several efforts to add confidence and extra contingency times to the project, Hanson and Klein said.

"I won't be comfortable until we have six to eight weeks of contingency by next spring," Hanson said.

Fluor has not calculated how much the accelerated testing and

See **Hanford**, Page A2

Energy NW tour targets media

By Chris Mulick
Herald staff writer

Energy Northwest took several of the region's reporters into the heart of its Plant No. 2 north of Richland on Thursday, hoping they would leave with a tale of success to tell.

Reporters from Seattle, Portland and Spokane watched workers at the Northwest's only operating nuclear power plant in action during a historic refueling outage and heard plant administrators describe the plant's financial turnaround.

Although the plant's power still is some of the priciest in the Northwest at a little more than 5 cents a kilowatt hour, production costs are down to 2.3 cents a kilowatt hour. The difference makes debt payments to cover the cost of building the plant — costs that must be paid regardless whether the plant produces power.

For comparison, residential customers in the Tri-Cities pay a little more than 2 cents a kilowatt hour for electricity.

Energy Northwest, a consortium of 13 Washington public utilities formerly known as the Washington Public Power Supply System, has made the savings by reducing its work force from 1,630 in 1994, when production costs were 3.5 cents a kilowatt hour, to 1,018 this year. And with power demand catching up with supply, the more than 1,100 megawatts of power the plant generates have become much more valuable to the Northwest.

See **Tour**, Page A2

Hanford budget cuts could affect WIPP shipment schedule

By John Stang
Herald staff writer

The Department of Energy's plans for a radioactive waste repository in Carlsbad, N.M., calls for more of the Cold War's garbage than contaminated sites can afford to send, according to the DOE's Inspector General.

The discrepancy could affect environmental work at Hanford and other nuclear sites, such as Rocky Flats, where DOE wants to finish cleanup by 2006.

DOE's Waste Isolation Pilot Project at Carlsbad — a huge subterranean storage site for certain types of radioactive materials from DOE sites — had put together a plan for receiving wastes through 2006.

The problem is that the DOE sites shipping these wastes are expected to get 75 percent of the money needed to meet WIPP's master plan, an August DOE Inspector General report said.

This predicted shortage includes money for Hanford's plans to ship transuranic wastes to New Mexico.

DOE agrees with its inspector general's conclusions, and has ordered WIPP to draft a new long-range master plan.

In DOE's nationwide cleanup efforts, the agency's various sites are supposed to ship transuranic wastes — mostly radioactive junk such as clothes, equipment and tools — to WIPP for permanent storage.

Five sites account for 97 percent of DOE's transuranic wastes: Hanford, Los Alamos, Idaho Falls, Rocky Flats and Savannah River.

The DOE inspector general report said that WIPP's plan

expected those five sites to ship 38,290 cubic yards of transuranic wastes by 2006. The actual number is projected at 30,535 cubic yards.

The inspector general's report said the WIPP's calculations went awry because:

■ Shipping schedules assumed the five sites would receive full funding for the work.

■ WIPP managers wanted to demonstrate to the nation that the site was ready to operate at full capacity, leading to the overly ambitious schedule.

■ WIPP planned to begin accepting wastes in May 1998. Instead, it actually began receiving wastes in March 1999.

DOE's new cleanup czar Carolyn Huntoon sent a July 29 memo to the inspector general's office that agreed with its recommendation to fix the WIPP's management plan.

Hanford has a legal obligation to ship 10,000 barrels of transuranic waste to WIPP by 2004. The first test shipment is due in November.

DOE estimates it needs \$19 million from now through 2004 to keep to Hanford's timetable. But the transuranic wastes program is one of several Hanford projects facing budget shortfalls.

When money's tight, high priority projects are funded first. Tank wastes and spent nuclear fuel programs are sacred cows, and other projects get the ax.

The transuranic wastes program — along with environmental restoration projects — are high enough priorities to get some funds, but not high enough to be guaranteed all they need.

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

Hanford funding comes up short

FFTF study allotted only \$30 million

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

WASHINGTON — House and Senate negotiators Friday agreed to provide only \$30 million for an environmental study of Hanford's Fast Flux Test Facility, about \$12 million less than the Department of Energy says it needs.

However, Sen. Slade Gorton, R-Wash., predicted the money still would be found.

Negotiators, working into the night, were putting final touches on the energy and water appropriations bill.

Although it might be several days before the final numbers are sorted out, Gorton said it appears Hanford's cleanup budget should be adequate in the fiscal year that starts Oct. 1.

"People at Hanford should feel relieved," Gorton said.

Overall, the conference committee decided to provide about \$5.8 billion for environmental cleanup and management projects at the department's nuclear sites. That's about \$100 million less than the administration had requested but far more than the House had provided in its version of the bill.

Funding levels for only a few Hanford projects were clear Friday, including \$106 million, what the administration had requested, to proceed with plans to have a private consortium clean up Hanford's highly radioactive tank wastes.

The office of Sen. Patty Murray, D-Wash., said the conference committee also provided \$24.5 million for worker and community transition programs aimed at weaning the Mid-Columbia economy from its dependence on Hanford. That's about \$5.5 million less than requested.

Murray also said \$5.9 million was set aside for the Hazardous Materials Management and Emergency Response training center, which is what the administration had

Lockheed Martin Corp. wants to sell its subsidiary that runs Hanford's tank farms — a plan that has the Department of Energy and the Washington Department of Ecology sweating about possible delays in the site's biggest project.

The national corporation plans to study for six to nine months whether to sell Lockheed Martin Hanford Corp. and several other subsidiaries, a corporate press release said Monday.

The potential move will not include Richard-based Lockheed Martin Services Inc., a computer support services firm with 500 employees, said that company's president, Bill Russell.

Lockheed Martin Hanford is in charge of the cleanup of the site's 177 underground radioactive waste tanks. It employs about 700 people, and is expected to add 450 Fluor Daniel union workers when it soon becomes a prime contractor — creating a 1,150-person company.

The Monday announcement comes as Lockheed Martin Hanford prepares to sign a two-year contract with DOE's Office of River Protection on Thursday to convert the company from a Fluor Daniel subcontractor to a primary Hanford contractor.

The action creates a major element of uncertainty over who will take over handling half of Hanford's biggest project — dealing with the site's 54 million gallons of highly radioactive tank wastes.

Lockheed's job is to get those wastes in the right conditions at the right places at the right times for another prime contractor, BNFL Inc., to begin converting those wastes into glass a few years from now.

"This is a curve ball that doesn't help anything, and we're under the gun to get this resolved quickly," said Dick French, DOE's Office of River Protection manager.

Mike Wilson, the state's nuclear waste program manager, said the state worries about how a sale may slow Lockheed's preparation work to allow BNFL to build glassification plants by a 2007 legal deadline. The state has taken a hard line to keep DOE on that schedule.

"(A sale) had better not (create delays). We have been through ... planned contractor changes in the last three to five years that caused delays — with (new) management always coming up with the excuse to re-examine (costs and schedules). We don't have time for that anymore," Wilson said.

Maryland-based Lockheed Martin Corp. wants to streamline and concentrate its

operations on its core aerospace, defense and technology services programs, said a memo from Vance Coffman, board chairman and chief executive officer, and President Peter Teets.

The memo praised the corporation's employees, but added: "Our reputation for quality has slipped. We simply aren't delivering uniformly across the corporation, and some of our key customers are not satisfied. They know we can do better, and, frankly, we know we can do better."

Fran Delozier, president of Lockheed Martin Hanford, was out of town Monday and could not be reached for comment.

But Delozier sent a memo to all Lockheed Martin Hanford employees that stated: "I fully recognize that the news of our potential sale may be distressing to some of you because it creates an element of uncertainty."

Delozier wrote that employees' concerns and questions will be addressed as soon as possible.

"There is also a positive side to today's news," she wrote. "Diversity represents an opportunity for us to become aligned with new ownership for which our company would be a core business. This tighter strategic fit would enable us to become even more successful."

The news of a potential sale somewhat

surprised French and Wilson. They had heard rumors for several weeks that Lockheed might sell the tank farms company or some other subsidiaries, but those rumors could not be pinned down, they said.

A major complication is that DOE and Lockheed Martin Hanford are to sign their first head-to-head contract Thursday. This is to upgrade Lockheed Martin Hanford to a prime contractor as part of a massive reorganization of Hanford that is supposed to go into effect Friday, which is the beginning of fiscal year 2000.

The two-year contract is worth roughly \$700 million, with DOE having the option to extend it up to five years. It will be a performance-based contract with Lockheed's profits tied to achieving specific goals.

Performance standards will be raised, even though Lockheed has posted a good record at the tank farms. "They're a good company, and they've got good folks, and they're capable of doing a good deal more," French said.

Thursday's signing still is expected to occur, said French and Ace Etheridge, Lockheed Martin Hanford spokesman.

But French is unhappy about the new set of loose ends introduced into DOE's relationship with Lockheed Martin Han-

See Lockheed, Page A2

Lockheed Martin looks to sell tank farm subsidiary

By John Stang
Herald staff writer

Lockheed Martin Corp. wants to sell its subsidiary that runs Hanford's tank farms — a plan that has the Department of Energy and the Washington Department of Ecology sweating about possible delays in the site's biggest project.

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Pumping set for burping SY-101 tank

Rising crust presents new combustion risk

By the Herald staff

Hanford plans to begin pumping wastes out of Tank SY-101 in the last week of October or the first week of November to lower its rising crust, according to the Department of Energy's Office of River Protection.

The plan is to pump 100,000 gallons into a neighboring tank, then

study how that affects the crust problem.

Tank SY-101 contains 1.12 million gallons of radioactive wastes.

It is the so-called "burping" tank in which highly volatile hydrogen gas formerly would build up near the tank bottom and belch up through the wastes, which increased the risk of a spark touching off an explosion or a fire.

Hanford fixed that problem by inserting a giant mixer pump in

1993 to stir the waste. That technique also began converting the waste surface into a thickening crust, which today is about 10 feet thick.

The rising crust increased the threat of a leak in the double-shell tank because the tank's top is a single shell.

And the rising crust is compressing the air in the top of the tank, which concentrates the gases and increases the potential for combustion.

Risk low of similar accident here

By John Stang
Herald staff writer

The basic ingredients are found at Hanford and Siemens Power Corp.

But the formulas and recipes are far, far different. Could the uncontrolled nuclear reaction that leaked radioactive gas Thursday in Japan happen at Hanford or Richland?

That accident took place at a uranium processing plant making nuclear fuel in Tokaimura, Japan. Whether it could be duplicated over here depends on how the word "similar" is defined amidst a nuclear backdrop.

The answer is "no," if similar means exactly the same. The processes and accident in Japan don't resemble anything at Siemens or Hanford.

But the answer is "yes"—if similar means generally mixing chemicals and radioactive materials that produce unexpected bursts or leaks of radiation.

Information on the Japanese accident still is sketchy, which makes local officials very cautious about comparing Tokaimura with Siemens or Han-

ford. The Los Angeles Times reported an investigation usually takes three days before officials begin to understand what happened in a nuclear accident.

The Associated Press reported the Japanese workers may have mixed too much uranium with nitric acid to set off an uncontrolled nuclear reaction or "criticality accident." There are conflicting wire service reports on whether the uranium was being processed for the first time or being reprocessed after prior use—a distinction that is important in studying the accident's cause.

A logical place in Richland to look for similarities is Siemens' plant that fabricates commercial reactor fuel assemblies—one of seven such facilities in the United States.

Not so, says Bernie Femreite, Siemens' Richland plant manager.

The chemical processes are different, although both use nitric acid, which is a common industrial chemical, he said.

The Japanese plant was processing fuel containing highly enriched uranium—meaning

See **Risk**, Page A2

Official says DOE Hanford changes mean progress

By Chris Malick

Herald staff writer

A new administration, a new way of operating and a new fiscal year will give new impetus to Hanford cleanup, top Department of Energy officials and contractors pledged Thursday.

And for the skeptics who have heard brave pronouncements before, they added, don't just take our word for it.

"I just want people to know that we have a plan, that things are different," said Keith Klein, new manager of DOE's Richland Operations Office, after spreading the message to six groups totaling about 1,500 Hanford employees. "I'm not asking people to trust us. What you're seeing here is the start of a score card to measure progress."



Rosselli

Wary that predecessors have all but burned themselves tanning in the glow of similar optimism before, Klein presented a new DOE structure Thursday that he says will eliminate filters between government and its contractors. The change comes as lead contractor Fluor Daniel prepares to announce its own reorganization and Lockheed Martin becomes a prime contractor.

All this just in time for today, the beginning of a new budget year.

At DOE, Klein is implementing a system of two deputy managers. Bob Rosselli, who previously was assistant manager for science and technology, will oversee support functions, ranging from finances to security.

The other deputy manager, who hasn't been hired, will oversee cleanup projects. Klein said he hopes to hire an outsider to fill the job by year's end.



Herald/Paul T. Erickson
Keith Klein, Department of Energy Hanford manager, speaks to a crowd of Hanford workers Thursday at the old 1100 Area at Hanford. Klein was explaining the reorganization of the agency's Richland leadership.

"I'm going out on the streets for that," he said. "In bureaucratic time, that's awfully quick."

The changed organization will focus on three broad areas, Klein said: restoring the Columbia River corridor through Hanford, converting the 200 Areas on the central Hanford plateau into waste storage and handling sites and finding ways to put Hanford's technical assets and people to work for a so-far undefined future.

He predicted progress will be evident within a few months. And he made it clear he expects established cleanup schedules will give way to expedited and cheaper goals as the new system is put to work.

He also announced June Ollero, current manager of the HAMMER training center, will be promoted to lead the newly created Office of Training Services and Asset Transition.

Current Deputy Manager Lloyd Piper will be moved to direct the Office of Performance Assessment.

Fluor Daniel expects to announce details of its own reorganization early next week. It plans to absorb the employees from some of its team of subcontractors to create one corporate culture. "We're going to have one basic organization,"

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2 OCT. 99

Hanford's September dry, dry, dry

By the Herald staff

Into every life, some rain must fall.

Not!

Nary a drop of rain fell on central Hanford in September.

Zlich, Nada, Bupkis, Nil, Runnin' on empty, Drier than the combined wit of *The Thin Man's* Nick and Nora Charles.

In fact, there have been only four months at Hanford when the rain gods have "coughed it," according to the Hanford weather station operated by Pacific Northwest National Laboratory.

September 1999 now joins September 1991, August 1988 and August 1955 for that distinction.

A normal September collected 0.31 inch of rain. The wettest September took place in 1947, soaking up 1.34 inches of rain. As of Thursday, Hanford had tallied 2.94 inches of rain for the year—1 inch short of the normal 3.94 inches that falls by a typical Sept. 30.

September's temperatures were pretty nondescript. The daily average of 65 degrees was 0.7 degree below the average daily September temperature of 65.7 degrees. The year 1990 posted Hanford's warmest September, averaging 72.4 degrees, while 1965's September was the coolest at 58.8 degrees.

One temperature record was set this year: Sept. 1's low of 43 beat the record low of 44 set in 1980.

Last month's winds averaged 7.7 mph, compared to a normal September's 7.4 mph. The windiest September blew by in 1961, averaging 9.2 mph. The lightest September winds came through in 1957, averaging 5.4 mph.

Last month's peak gust was 42 mph on Sept. 25. The highest peak gust in any September was 65 mph in 1953. So far in 1999, there have been 47 days with temperatures reaching or exceeding 90 degrees, compared to a normal 52 days. And this year has tallied seven days of temperatures matching or exceeding 100 degrees, compared to a normal 13 days.

y to the Beautification Committee or
ng Commission, Kunkler said.
ger and several other council mem-
pologized for Bennett's remarks.
he said was inappropriate and
and should have been backed up by
s," Vlieger said.
council voted to pass a resolution
ting the Beautification Committee's

ter Kristina Lord can be reached at 509-
3 or via e-mail at kmlord@bentonrea.com

Congress near approval of DOE cleanup budget

By John Stang and Annette Cary
Herald staff writers

Congress is close to approving the Department of Energy's fiscal 2000 national cleanup budget at roughly \$5.8 billion.

DOE has not allocated that money yet to say how much Hanford's cleanup will receive. However, it appears DOE will get close to its original Hanford cleanup budget request submitted in February.

The unanswered question is whether that will be enough for DOE to meet its legal cleanup deadlines.

And in a related matter, Congress is near allocating \$28 million to maintain the Fast Flux Test Facility in fiscal 2000 — an amount that falls short of what is needed for any resurrection scenario.

On Monday, a joint U.S. House-Senate committee agreed to allocate \$5.8 billion for DOE's national cleanup efforts in Congress' energy and water appropriations bill, according to the staffs of U.S. Sens. Slade Gorton, R-Wash., and Patty Murray, D-Wash., and U.S. Rep. Doc Hastings, R-Wash.

The full House approved that compromise later Monday. The full Senate is expected to vote on the fiscal 2000 nationwide cleanup budget later this week. Fiscal 2000 begins Friday.

DOE still has to divide that \$5.8 billion among all its cleanup sites. Gorton and Hastings voiced confidence the appropriation will allow Hanford to meet its cleanup schedule.

"My goal throughout the entire appropriations process this year has been to secure full funding for Hanford cleanup activities under the Tri-Party Agreement," Gorton said in a news release.

In another news release, Hastings said, "I'm confident that the funding levels approved (Monday) will ensure that critical projects at Hanford stay on track and that we continue to move forward with cleanup."

Hanford traditionally gets slightly less than 20 percent of DOE's nationwide cleanup budget — the biggest amount going to any DOE site.

Congressional members went into the conference committee with the House allocating \$1.08 billion to Hanford's cleanup, and the Senate allocating \$1.21 billion.

DOE originally requested \$1.174 billion for Hanford's cleanup in fiscal 2000. Congressional sources speculated privately that the \$5.8 billion could translate to \$1.15 billion to \$1.17 billion for Hanford, adding that these are guesses

that could be superseded by DOE's later calculations.

DOE calculated last spring that its \$1.174 billion cleanup request would fall almost \$98 million short of doing all the work needed in fiscal 2000 to meet cleanup obligations.

Traditionally, as each budget goes through Congress, DOE recalculates figures and squeezes programs to tackle shortfalls. Up-to-date shortfall calculations were not available Monday.

Meanwhile, DOE's nuclear energy budget — which is separate from the cleanup budget — went into the conference committee with the House proposing to allocate \$30 million to the FFTF in fiscal 2000, and the Senate proposing \$28 million.

DOE is beginning studies on whether the dormant research reactor should be revived for various research and isotope production missions. The decision is due in late 2000.

The problem is DOE's calculations say \$32 million — \$4 million more than the allocated \$28 million — is needed to maintain the FFTF in a "minimum safe" mode. That mode keeps the reactor dormant but postpones certain preventive and corrective maintenance work.

DOE also calculates \$40 million is needed to keep the FFTF in a "standby" mode — doing all maintenance work needed to revive the reactor in 3½ years if a resurrection decision is made. A "minimum safe" FFTF would take longer to revive.

The cost of an environmental impact study on reviving the FFTF reactor bumps that amount up to \$42.5 million.

This past weekend, Gorton got assurances from U.S. Sen. Pete Domenici, R-N.M. and chairman of the Senate's Energy and Water Appropriations Committee, that the FFTF will get favorable consideration if DOE makes a request later to shift more money to that project, according to Gorton's staff.

The compromise bill also:
■ Sets aside \$106 million in 2000 eventually to help pay BNFL to build and operate tank waste glassification plants at Hanford. BNFL is expected to get its first payment in 2007. The total cost is expected to reach several billion dollars.

■ Allocates \$24.5 million for DOE's national program to help dislocate workers and DOE communities to wean themselves from depending on federal dollars.

■ Guarantees Benton, Franklin and Grant counties will get their fiscal 2000 payments in lieu of taxes of \$3.25 million from DOE.

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

Wednesday, Sept. 29, 1999

DOE report lists options for cleaned-up Hanford

By John Stang
Herald staff writer

The Department of Energy's recommendation on what to do with Hanford lands after cleanup has become a little bit greener.

DOE is mailing out the final environmental impact study report on Hanford's post-cleanup land uses for at least the next 50 years.

The report looks at six proposed scenarios on what should be done with parts of Hanford's 560 square miles after environmental restoration work is completed.

The study will give Hanford officials an idea of what projects will fit with future land uses.

However, the document does not address specific cleanup standards, nor will the final land-use plan that will be based on the study.

DOE is scheduled to decide which plan to adopt later this year. The public will be able to look at the documents at the DOE Reading Room at the Washington State University's Tri-Cities campus.

The DOE staff's recommendation is to limit

industrial development to southeastern Hanford, the 200 Area in central Hanford and a spot east of the 200 Area dubbed "May Junction."

In response to public feedback at several hearings this summer, DOE recommends tighter preservation controls than previous scenarios for the Wahluke Slope, Fitzner-Eberhardt Arid Lands Ecology reserve and Hanford's northwestern corner — making all those lands a national wildlife refuge.

The "dunes" area near southeastern Hanford also would be a wildlife preserve.

The option of grazing is removed from Hanford between Highway 240 and the Columbia River, although DOE reserves the right to mine soil and basalt from much of that area. Some mining rights still would be active in a small part of the southern ALE reserve. Recreational use would be allowed on the shoreline area from the Vernita Bridge to B Reactor.

And measures would be taken to allow a river shore trail from Richland to the Vernita Bridge, including a recreational area at

the old White Bluffs townsite.

Other scenarios studied are:

■ Doing nothing — an option that federal law requires all environmental impact statements to consider.

■ The Hanford Natural Resources Trustees Council's recommendation for even greater protection. The council is a mix of federal, state and tribal representatives.

DOE's recommendation borrowed parts of this option to make its own scenario greener, but this scenario would increase the wildlife preservation areas to include much of Hanford near the 200 Area and much of southeastern Hanford.

■ The Benton, Franklin and Grant county governments' recommendation to open much of the Wahluke Slope to agriculture and allow grazing on the ALE reserve and in much of the core Hanford area.

It calls for recreational use to be allowed on much more of the shoreline, from F Reactor south of White Bluffs to west of the Vernita Bridge.

Industrial uses would be limited to the 200

Area, May Junction and southeastern Hanford.

■ The Nez Perce Tribe's recommendation to make almost the entire site a wildlife preserve. Industrial use would be limited to the 200 Area, the Energy Northwest reactor and the Fast Flux Test Facility. Recreational use would be allowed at B Reactor.

■ The Confederated Tribes of the Umatilla Indian Reservation's recommendation to make about 75 percent of the site a wildlife preserve.

Mining for basalt and soils would be allowed mostly south of the 200 Area and east of Highway 240. Research projects would be allowed between Energy Northwest's reactor and the gravitational-wave observatory to the west.

Industrial use would be limited the 200 Area and most of the area between the Fast Flux Test Facility and Richland. Recreational use would be allowed at Vernita Bridge and the old White Bluffs townsite.

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

Money woes plague DOE security head

By John Stang
Herald staff writer

The Department of Energy's new security czar says he has his marching orders but not the cash to carry them through.

In June, Energy Secretary Bill Richardson appointed retired Air Force Gen. Eugene Habiger to lead efforts to improve DOE's much-criticized security functions.

Habiger looked over Hanford on Tuesday as he neared the end of preliminary inspections of about 15 DOE sites. He headed to his last stop at Bonneville on Wednesday.

At a Wednesday morning press conference in Richland, Habiger talked about troubles finding the money to overhaul DOE's nationwide security system and culture.

Because DOE's fiscal 2000 budget request was submitted to Congress late last winter, DOE made a supplemental request for extra security money for the fiscal year that starts Friday.

DOE requested \$72 million. Congress gave it \$13 million.

"On one hand, Congress says go fix it. And then it does not give us the resources to fix it. ... We can't do the job unless we get more money," Habiger said.

For example, DOE's request included \$35 million to improve computer security measures, he said. The agency got nothing. DOE also got nothing extra to improve screening and tracking foreign visitors or to improve security for the agency's plutonium and uranium, he said.

Starting with suspicions of Chinese espionage at the Los Alamos National Laboratory, DOE has been taking hits for lax security measures, especially at its nuclear weapons-oriented labs. That led to Habiger's mission as the new director of DOE's Office of Security and Emergency Operations.

The areas earmarked for improvement range from computer security to screening people in sensitive positions and guarding uranium and plutonium to supervising foreigners at DOE sites.

Hanford has about 100 computer terminals that handle classified information. Pacific Northwest National Laboratory has a steady stream of foreign visitors. The site holds 4.4 tons of scrap plutonium at the Plutonium Finishing Plant and has bits of plutonium inside the spent nuclear fuel now at the K Basins. This fuel eventually will be moved to a huge underground vault.

Battelle narrows search for Richland director

Battelle, which operates Pacific Northwest National Laboratory, has narrowed its search for a new director for the national lab in Richland to one candidate.

The candidate's name has been submitted to the Department of Energy. The agency's approval is not required, but about 70 percent of the laboratory's work is done for DOE.

The candidate's name has not been released.

Pits in Hanford double-shelled tanks have officials worried, planning study

By John Stang
Herald staff writer

A half dozen tiny pits.

Each the diameter of a pen, about 0.1 inch deep. That's enough to get Hanford scientists scratching their heads and plotting out new studies.

The pits are in a less than a one-yard-square steel patch of the inner wall of Hanford's huge 1.16-million-gallon underground double-shell Tank AN-105, filled with radioactive wastes.

This is the first time signs of corrosion eating at an inner wall of one of the site's 28 double-shell tanks have been detected. The tanks are the storage workhorses of Hanford's biggest project — neutralizing and getting rid of 54 million gallons of radioactive wastes.

The corroded pits have prompted scientists to step up their studies on how long these double-shell tanks can be expected to last.

"It's something we're not really concerned about, but it's serious enough to make us follow up," said Dana Bryson, the Department of Energy's director of its operations projects division at the tank farms.

Hanford is transferring its wastes from 149 older leak-prone single-shell tanks to 28 newer and safer double-shell tanks. The wastes will be stored in the double-shell tanks until they are converted into glass. The double-shell tanks — built between 1968 and 1986 — have design lives of 50 years. The unanswered question is their real-world lifespans.

For years, Hanford's experts have examined the walls by inserting television devices in the spaces between the tanks' inner and outer walls. Experts can now insert ultrasonic devices through two 2-foot-wide holes in each double-shell tank to examine limited parts of the inner walls.

These tests began in 1996. Tank

AN-105 — built in 1981 — was the sixth to be examined this way. Its results came back in July to show the 0.1 inch pits in the 0.5-inch-thick wall. That surprised Hanford's scientists, said Mike Payne, Lockheed Martin Hanford Corp.'s director of technical operations. So far, these are the only pits detected.

Hanford's scientists have questions and preliminary thoughts about those pits — but no answers. A worst-case scenario has the wastes corroding Tank AN-105's inner wall in 17 years. If that happens, wastes would dribble into the space between the tank's inner and outer walls.

Scientists don't know if the wastes caused the corrosion, or if the corrosion occurred before the wastes were added.

Answers to those questions will influence future decisions, including which tanks should be

pumped when to send wastes to the future glassification plants, Bryson said.

DOE's Office of River Protection and Lockheed plan to expand examinations and tests of Tank AN-105 next year to gather more information. And they plan to conduct the ultrasonic tests on more double-shell tanks. Next year, tests are to be completed on two additional tanks and partly done on two more.

Hanford intends to re-examine Tank AN-105 about two years later — measuring any changes in the pits and the tank's interior walls.

"We don't have enough data to make that conclusion," said Mark Ramsay, a Lockheed double-shell tank project engineer.

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

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Hanford had 2 major accidents since it started

By John Stang

Herald staff writer

Two criticality accidents have occurred in Hanford's history — neither one close to the scale of this week's disaster at a Japanese uranium processing plant.

One of local accidents took place in 1951 in an underground test chamber, and the second was in 1962 at the Plutonium Finishing Plant, according to Department of Energy report released in 1991.

On Friday at Siemens Power Corp.'s nuclear fuel plant in Richland, officials were planning to redouble efforts to ensure the region never experiences a third criticality.

A criticality accident is a uncontrolled nuclear reaction, which includes releasing bursts of radiation. These events are sparked by the right radioactive materials being in the right masses and shapes in close proximity to each other.

The phenomenon also requires a "mod-

erator," water for instance, to slow fast neutrons so they can be captured by other atoms' nuclei to produce a chain reaction.

The first Hanford accident took place on Nov. 16, 1951, in an underground concrete lab room — dubbed the "P-11 laboratory" — somewhere in the sagebrush south of the old White Bluffs townsite, said the report.

Bowen Leonard of Kennewick, who investigated the accident in 1952, recounted the details Friday.

The accident came near the end of a series of experiments to find out the safety limitations of plutonium solutions. The idea was to prevent criticalities at Hanford's plutonium processing plants.

The underground experiment was controlled by scientists in a farm house about 200 feet away.

That accident could have been easily anticipated if the experimenters had done adequate research in the then-existing scientific literature, Leonard said.

Had they completed that research, they

would have learned the plutonium solution that partly filled a spherical chamber was likely to spark a criticality accident, he said.

"It was a more dangerous experiment than they thought," Leonard said.

A safety rod was pulled out too fast, triggering the accident that spurted a small amount of plutonium liquid around the room. Workers later wiped up the radioactive liquid with rags soaked with solvents.

The solvent-soaked rags were stored in the underground lab, where they spontaneously caught fire. That spread contamination all over the underground room, making it impractical to clean it again. Hanford officials ended up sealing it off.

Leonard remembers driving to work across Hanford to one of the reactors several years later.

He was surprised to see the farm house coming straight at him — being hauled toward Richland. Leonard never found out what happened to the building.

The second accident took place on April

7, 1962 at a liquid transfer tank in the PFP complex.

A plutonium solution had apparently overflowed from a container to the floor, where the liquid was sucked into a temporary line leading into the transfer tank, the report said.

That triggered a blue flash with an electrical cracklinglike noise. The area was quickly evacuated, but not before four workers were exposed — three above Hanford's annual limit of 5 rems. The doses were not fatal, but additional information on the workers was unavailable Friday.

The equipment was redesigned to prevent anyone from duplicating the accident.

In the wake of this week's accident in Japan, the Siemens plant in Richland was drawing more attention than historic Hanford incidents.

Siemens and the Tokaimura plant share some superficial similarities. But plant

manager Bernie Femreite said the differences are probably more significant.

For instance, the Richland plant fabricates a different type of nuclear fuel, uses different chemical processes, and has stricter safety controls.

Still, Siemens expects to review its safety procedures.

The federal government is preparing to tell the nation's seven nuclear fuel fabrication plants — including Siemens — to review safety practices.

Femreite said Siemens will do that study even without a federal order. "It's a good precaution," he said.

The main hurdle is to obtain reliable enough information from Japan to intelligently plan a review at Siemens, Femreite said.

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

04 99
'High heat'
tank saga
should be
over today

By John Stang

Herald staff writer

One of Hanford's most volatile radioactive waste tanks is now a shell of its former self.

Final pumping of Tank C-106's radioactive goo is scheduled for today.

This will finish the saga of Hanford's so-called "high heat" tank — whose wastes spontaneously heated up to force Hanford to pour 6,000 gallons a month of cooling water into a huge, old, underground container.

This marks the first time since Hanford's cleanup began in 1989 that both sludges and liquids have been mostly removed from a single-shell tank.

"I think this has been a really good success story. It shows all wastes can be retrieved (from a tank) instead of just liquid wastes," said Suzanne Dahl, the Washington Department of Ecology's tank wastes disposal program manager.

Tank C-106 has long been a major Hanford headache. It is one of Hanford's 149 leak-prone single-shell underground tanks whose wastes are being pumped into 28 newer and safer double-shell tanks. So far, no leaks have been detected in Tank C-106.

But the tank's wastes constantly heated up to as high as 235 degrees Fahrenheit to force the constant addition of water, which continually boiled off. The heat also increased the risk of a leak sending radioactive fluids into the ground. The tank originally held 32,000 gallons of liquid and 197,000 gallons of sludge.

Hanford pumped out enough wastes by June to eliminate the spontaneous heating problem.

Normally, Hanford has pumped only liquid wastes out of its single-shell tanks. The liquids pose a far greater threat of leaking and contaminating the surrounding soil than the sludges, said Dana Bryson, director of the Department of Energy's operations projects division at the tank farms.

Plus, the site's 28 double-shell tanks just have the capacity to hold all the liquid wastes — and very little sludge, Dahl said.

The wastes are ultimately supposed to be converted into glass in plants that are not scheduled to operate until 2007. Until those glassification plants start running, there is no place to send sludges pumped from the single-shell tanks.

However, Hanford wants to develop the technology to pump sludges, so Tank C-106 has been a guinea pig.

Normally, pumps capable of handling only four gallons a minute have drained the single-shell tanks. Instead, scientists and workers sluiced Tank C-106's sludge to change it into something that resembles muddy water, and it was sucked out by a big pump capable of handling 350 gallons a minute, said Dale Allen, Lockheed Martin Hanford Corp.'s director of tank waste operations.

That material is now in double-shell Tank AY-102, which has a ventilation system that cools the wastes without adding water. That tank's temperatures average 135 degrees.

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

50 Oct 99
Hanford
hot line
probe turns
up nothing

By John Stang

Herald staff writer

No evidence could be found that Hanford supervisors improperly listened to an employee hot line tape in 1994 to find out who was complaining, an internal Department of Energy investigation concluded.

Nine pipefitters for Fluor Daniel Northwest claim they were retaliated against after raising safety concerns about conditions in a Hanford trench where nuclear submarine reactor compartments are kept.

Ivan Sampson, a Fluor Northwest supervisor, testified in an unrelated lawsuit in July that he walked into a room in 1994 where some Kaiser Engineers Hanford Co. supervisors were listening to the hot line recording.

Kaiser was Hanford's main engineering and architectural management company until late 1996, when Fluor Northwest took over that function and absorbed Kaiser's employees.

During the DOE investigation, the three supervisors and a fourth person were interviewed, and all denied listening to a hot line tape, the report said. The DOE report gave no names, but a separate court document identified the supervisors as Jerry Nichols, Jim Holladay and Dave Foucalt.

One of those supervisors told DOE investigators it was common for managers to discuss concerns received through proper channels, but it was not acceptable to listen to tapes to identify a caller.

However, the DOE report states an unnamed employee claimed that's what the managers were doing.

The "concerned individual" told investigators he wanted to speak to someone in the meeting and was told the supervisors were listening to the tape. One of the people in the meeting told him they were trying to identify the caller, though the "concerned individual" admitted he did not hear the tape playing.

Investigators refused to identify the individual Monday. Sampson declined to comment on the matter.

In 1994, DOE's employee concerns office had an answering machine that taped calls when no one was in the office. A locked door guarded the answering machine, and the recent investigation found no evidence that anyone improperly accessed the answering machine tape.

"The ... investigation could not find any evidence that the security of any DOE tape recording had been breached, nor could it substantiate that any hot line recording had been listened to by (Kaiser) supervisors," the report concluded. DOE's lead investigator Gerry Bell said, "We were chasing something that was five years old ... We chased down all the leads that were available."

Tom Carpenter, an attorney with the Government Accountability Project that legally represents most Hanford whistleblowers, said he was not satisfied DOE conducted an impartial investigation. He noted one plank of a recent pipefitters lawsuit is allegations of Hanford coverups on safety matters. And he said similar concerns about breaches of employee confidentiality were raised in a separate report during the same time period. Carpenter said he wants an independent investigation of the hot line allegation. Bell said he did not object, but it wasn't clear Monday what agency would do the inquiry.

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

PNNL's affirmative action garners award

By Annette Cary
Herald staff writer

In 1997, an internal check at Pacific Northwest National Laboratory in Richland found too few women and minorities were applying for jobs, and, once hired, they were more likely to quit than other employees.

PNNL tackled the problem so aggressively that federal Labor Secretary Alexis M. Herman has singled out the lab as an example to the nation.

"The (federal lab) has deliberately set out to attract qualified women and minorities to jobs that historically went to nonminority men and, having hired them, made sure they were paid equitably," she said. "The lab has made equal opportunity and fair pay its blueprint for doing business."

The lab is one of four federal contractors she plans to give Exemplary Voluntary Effort awards to today in Washington, D.C., for what she called exceptional affirmative-action practices.

A third of the laboratory's staff, mostly engineers and scientists, is female. Minorities

make up 10 percent. Among the lab's managers, a fifth is minorities and women.

However, none of its top-ranked scientists, in the prestigious, top-ranking level 5, is a woman.

"That's exactly one of the reasons to highlight the lab," Herman said in a telephone interview. "I'm sure (officials there) are among the first to say it's not enough. But we are encouraged by the steps they are taking."

This year's awards emphasized contractors "that have taken extraordinary steps in the workplace to focus on equal pay," she said. "Working women who put in a fair day's work should return home with a fair day's pay."

Among PNNL's steps for remedying its initial poor review were reviewing all staff salaries in 1998 and raising the pay of women and minorities whose salaries fell below the average.

Herman also was impressed with the Richland lab's new program to pay its employees a bonus of up to \$3,000 for referring minority or women candidates who are hired in areas where the lab lacks diversity.

So far, the program has been responsible

for hiring 13 new employees and paying out \$21,000 in bonuses. Monetary awards ranged from \$1,000 for an entry-level scientist to \$3,000 for a senior scientist.

PNNL faces a particular challenge because many science and engineering fields have lagged behind other occupations in attracting women and minorities, Herman said.

"The gap in what they have to do has always historically been wider," she said. "We've recognized their efforts to expand and enlarge the pool from which to draw."

In 1998, 70 percent of Energy Research Undergraduate Laboratory Fellowships handed out by PNNL went to women and minorities underrepresented in technical fields, Herman said.

Among the lab's other steps to recruit and retain minorities are the following:

- Hired an equal-opportunity specialist to track affirmative action progress.
- Launched a new community college initiative to help first-generation college students work toward careers in science and technology.

- Made affirmative action a higher priority among managers by holding quarterly reviews. Diversity in hiring had not been the highest priority because managers concerned about having adequate funding would wait until the last minute to hire, then lacked the time to find a diverse pool of applicants, according to a lab report.

- Started a Supportive Work Environment Advisory Board. Among its projects has been improving access to computers for workers with disabilities.

- Started a Women's Forum. That helped lead to a mentoring program in which the majority of participants are women and minorities.

Other companies receiving awards today are Blue Cross/Blue Shield of Delaware, Hawaiian Electric Industries of Honolulu and Payne & Dolan in Waukesha, Wis. The top honor, the Secretary's Opportunity 2000 Award, will go to Eli Lilly & Co. of Indianapolis.

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

Fate of workers at FFTF uncertain

Lack of funding may lead to layoffs at reactor

By Annette Cary
Herald staff writer

The fate of workers at Hanford's Fast Flux Test Facility remains undecided, representatives of Washington's congressional delegation said after a meeting Wednesday with Department of Energy officials in the nation's capital.

Because Congress did not allocate enough money for anticipated costs of studies and maintenance at the mothballed research reactor, its supporters fear serious layoffs are imminent.

And layoffs could make restarting the reactor too costly to consider because of the delays that likely would be caused by additional time needed to restaff the reactor before it could be restarted.

Federal officials said the next step toward a possible restart, a series of scoping meetings linked to an environmental study, will be

held as scheduled next week.

Layoffs became a possibility after President Clinton signed a fiscal year 2000 budget with just \$28 million for FFTF. DOE had asked for \$30 million, which also would have been inadequate.

Keeping the reactor in what DOE calls a "minimum safe" condition would cost \$32 million and require 190 employees. Currently, 254 people are employed there to perform all the maintenance duties needed to keep FFTF in standby in top shape for a possible restart. Figures vary on the amount proposed to keep them working in fiscal 2000, but that would require about \$38.5 million.

Dropping from standby mode to minimum safe condition would mean 64 layoffs. Supporters have argued that not only have DOE

See FFTF, Page A2

Energy boss wants to avoid FFTF layoffs

By Annette Cary
Herald staff writer

Energy Secretary Bill Richardson wants to avoid layoffs at the Fast Flux Test Facility at Hanford, a spokeswoman for Sen. Slade Gorton, R-Wash., reported Thursday after the two met to discuss FFTF's budget.

Richardson said he wanted an environmental study on the possibility of restarting the research reactor to proceed, said Gorton aide Cynthia Bergman.

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costly to consider because of the delays caused by additional time needed to restaff the reactor before its restart.

Layoffs became a possibility after President Clinton signed a fiscal year 2000 budget with just \$28 million for FFTF. DOE had asked for \$30 million, which also would have been inadequate.

Keeping the reactor in what DOE calls a "minimum safe" condition would cost \$32 million and require 190 employees. Currently, 254 people are employed to perform maintenance needed to keep FFTF in top shape for a possible restart.

An estimated \$38.5 million is needed to avoid the layoffs.

Gorton wants DOE to submit a request for additional money. No request was sent Thursday, Bergman said.

On Wednesday, DOE staffers met with representatives for Gorton; Sen. Patty Murray, D-Wash.; Rep. Doc Hastings, R-Wash., and Rep. Norm Dicks, D-Wash. All are working to get the additional money.

Supporters of restarting the FFTF have argued that rehiring and retraining staff after a layoff would set the project back about two years. It also could delay deactivation of the plant, which would be done if a decision against restart is made.

A restart is being proposed for civilian missions, including making medical and indus-

trial isotopes, producing plutonium 238 for space missions and supporting nuclear research and development.

The next step in the environmental study needed for a restart decision is a series of scoping hearings starting next week.

One is scheduled at 7 p.m. Oct. 21 at the Tower Inn in Richland. Registration starts at 6 p.m. Other scoping meetings are planned in Oak Ridge, Tenn.; Idaho Falls, Idaho; Seattle; Portland; Hood River, Ore.; and the Washington, D.C., area.

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9 OCT 99

Hanford manager hopes to speed up cleanup

By John Stang
Herald staff writer

Much of Hanford's cleanup is scheduled to go on for years, decades or even generations.

"Is this a forever cleanup that's going to go on and on and on?" asked Keith Klein, the Department of Energy's Hanford manager.

Klein wants to shorten Hanford's long-term cleanup future to a period of time people can comprehend.

He told about 140 people about that hope Friday at a Richland luncheon sponsored by the Tri-City Industrial Development Council and the Tri-Cities Visitors & Convention Bureau.

At the luncheon, Klein listed several long-term Hanford cleanup completion deadlines:

■ 2011 to clean out waste sites along

the Columbia River.

■ 2016 to finish sealing off the old plutonium reactors.

■ 2016 to complete the cleaning out and demolition of the Plutonium Finishing Plant.

■ 2043 to finish doing whatever DOE decides to do with the old chemical processing plants in central Hanford.

Klein also mentioned several other long-range deadlines.

"Why not move things up?" he said.

Klein wants to try to speed Hanford's cleanup, contending it would trim long-range costs and build more credibility with a skeptical Congress that controls DOE's purse strings.

He talked about setting up a "scoreboard" to record accelerated goals and keep annual tallies on

how Hanford accomplishes those tasks — hoping to convince Congress that cleanup efforts are on track and improving.

Klein hopes to have the initial goals figured out within six months.

A tight nationwide DOE budget and bureaucratic red tape are two potential obstacles facing any acceleration attempts, he said. DOE has been working under a long-term plan of keeping cleanup budgets level from year to year — often painting that as the best-case scenario.

One way to stretch limited funding is to use fixed-price contracts with companies tackling various Hanford sub-projects, Klein said.

A fixed-price contract is similar to DOE's proposed arrangement with BNFL Inc. to build and

operate plants to convert Hanford's radioactive tank wastes into glass. If given the go-ahead, this concept calls for BNFL to pay all the upfront costs with DOE paying the company a locked-in fee as the glass is actually produced.

Details on potential future fixed-price contracts and other potential acceleration measures still have to be brainstormed and researched, Klein said. He is hoping to nail down some plans in a few months.

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METRO/NORTHWEST

ALSO SEE PAGE

Thorium may be in salmon spawning area, report says

By John Stang

Herald staff writer

A watchdog group scientist has theorized thorium — a radioactive substance that is not usually addressed in Hanford studies — could be seeping into a Columbia River salmon spawning area downstream of F Reactor.

Norm Buske, a Spokane scientist working for the Government Accountability Project, unveiled a preliminary report on this theory late Tuesday.

Department of Energy officials said late Tuesday that they did not have a chance yet to read the report to comment on it.

This is the third report Buske has released to support his contention that underground streams are carrying radioactive contaminants into the Columbia River at a greater pace than Hanford's scientists believe.

Hanford's experts are skeptical of Buske's theories.

Buske's reports, which look at strontium in the KE and H Reactors' areas and thorium along a two-mile stretch between F Reactor and the old Hanford townsite, based findings on radiation readings of mulberry tree leaves. Buske took those readings and extrapolated a series of calculations to reach his theories.

His latest preliminary theory involves thorium, a radioactive element below Hanford's radar screen. The substance can be found in nature or in wastes from nuclear fuel fabrication processes.

Hanford's publicly distributed annual environmental reports do not appear to mention thorium. Information on just how thorium affects people or fish was unavailable late Tuesday. One of the Hanford Reach's salmon spawning areas is just downstream of F Reactor.

Buske took radiation readings from mulberry leaves at six points along the two-mile shoreline area and found the presence of the isotope lead 212 at four of those spots. Lead 212 is a thorium "daughter." When radioactive thorium decays, it becomes, in succession, several different isotopes of various elements — including another isotope of thorium. A "daughter" is each of those succeeding and decaying isotopes. Lead 212 is several generations of decay away from either isotope of thorium in this chain. Buske said lead 212's presence indicates both isotopes of thorium also are there.

This F Reactor region is the only spot where Buske's extrapolations point to the presence of thorium.

Buske said the origin of the thorium-related readings is a mystery. But he speculated it could come from nature, from fuel used in the past at F Reactor or from some undetermined Hanford chemical process.

And Buske said he is puzzled why his calculations show thorium near F Reactor and not near KE and H reactors, where he studied radiation readings from mulberry leaves.

Hanford's nine defunct plutonium-production reactors created more or less the same wastes, of which radioactive strontium 90 and nonradioactive chromium have sparked the most immediate worries. Hanford has focused its greatest efforts on an N Reactor strontium plume, plus chromium plumes at H, D, DR, KE and KW reactors. Drinking enough strontium can increase the risk of bone cancer. Chromium can harm newly hatched salmon.

Hanford reports show plumes or other signs of radioactive uranium, strontium and tritium, plus nonradioactive nitrates and trichloroethylene to the east and southeast of F Reactor — the same area that Buske took his mulberry readings.

Buske said his calculations are a prelim-

inary look. He said water samples need to be taken and analyzed to see if thorium really is a problem.

Hanford's experts have been doubtful about Buske's theories. In the past, they have voiced skepticism about Buske's theories. Also, they said too many variables exist on how trees suck up and absorb contaminant-laced ground water to draw good long-term picture. And they noted that contaminants affect humans — who don't drink Hanford's ground water — and fish at different concentrations.

Also, Hanford's experts believe the site's subterranean geology does not support the idea of underground "streams" of contaminants. However, Hanford's theory of underground plumes alleges contaminants flow at different rates along the same plume.

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Walkaway had only two weeks left in jail

By Terry Hudson

Enjoying the weather in Richland



Kennewick n to explain eff

By Jason Hagey
Herald staff writer

Kennewick wants people to know what could happen to the city if voters approve Initiative 695, the \$30 car tab initiative.

Council members agreed Tuesday to conduct a mass mailing to city residents explaining how

13 Oct 99

Tabletop tank waste solution



Herald/Paul T. Erickson

Dave Hedengren, left, a Hanford engineer, and Victor Medina of the environmental engineering department at Washington State University at Tri-Cities in Richland display an experiment that measures the solubility of ammonia in high-salt solutions.

13 Oct. 99

Project could profoundly affect Hanford

By John Stang
Herald staff writer

The tabletop experiment began as a class project for a 54-year-old grad student.

Its results may affect how Hanford contractors manage 54 million gallons of highly radioactive wastes contained in 177 underground tanks.

Hanford researchers are preparing to duplicate the classroom experiment with more advanced equipment and stricter controls to see if Dave Hedengren really discovered something.

Hedengren, a Lockheed Martin Hanford Corp. engineer, is taking graduate courses in environmental engineering at Washington State University at Tri-Cities.

One of his courses is taught by Victor Medina, an assistant professor of civil and environmental engineering. Medina set up the course so the seven students — engineers doing advanced work beyond their daily jobs — would examine all angles of a self-selected problem, do a lab experiment and follow up with presentations.

Hedengren, a Hanford tank farms engineer, picked the tank waste problem: What will happen to ammonia inside the tanks when preparations begin to move the wastes? More specifically, he wanted to discover how much of it dissolved in highly con-

“

This is an incremental thing rather than a eureka moment.

Dave Hedengren,
Lockheed Martin Hanford engineer

”

centrated salt solutions like those in Hanford's waste tanks during handling processes.

As the wastes from 149 older leak-prone single-shell tanks are pumped into 28 newer and safer double-shell tanks, the pumping process sends them from a single-shell tank into a relatively small “receiver” tank before it goes into a double-shell tank.

During the process, ammonia is trapped in the wastes as gas bubbles or is dissolved in the fluids. It becomes potentially explosive when mixed with nitrates, another component of tank wastes.

The key question is how much of the potentially flammable ammonia gas ends up concentrated in the cramped air space inside a small receiver tank during the pumping. The answer is needed to ensure that no mishaps occur and that costly safety measures don't waste money, said Jim Honeyman, Lockheed manager for strategic planning.

The debate has been “almost a quasi-religious thing” among tank farm engineers, said Hedengren, who considers himself an agnostic on the issue.

The matter is complicated by the shortage of scientific literature. Hedengren found it interesting enough to set up the tabletop experiment, which eventually filled many of Hedengren's evenings.

His results showed significantly more ammonia dissolves in the salts than previous Hanford calculations indicated.

But this is a preliminary result, more like a clue, Hedengren said. Now, the classroom experiment has to be duplicated at higher temperatures in more advanced, more controlled lab situations at Hanford, he said.

Hedengren characterized his findings as a small step toward a better understanding of tank wastes.

“This is an incremental thing rather than a eureka moment,” he said.

Honeyman said the follow-up tests — if they duplicate Hedengren's findings — should influence how fast wastes are transferred between tanks, how sampling is done, how tanks are monitored and how the tanks' exhaust systems will be set up and modified.

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13 Oct. 99

Meetings on FFTF future start today in Tennessee

By Annette Cary
Herald staff writer

The first of seven meetings influencing the future of Hanford's Fast Flux Test Facility begin today in Tennessee, with meetings planned next week in Richland and other Northwest communities.

The Department of Energy is taking comments on the environmental study it is undertaking on future civilian nuclear research and development, isotope production and what role the Hanford reactor should play.

The Richland meeting is planned for 7 p.m. Oct. 21 at the Tower Inn, 1515 George Washington Way.

The Eastern Washington Section of the American Nuclear Society has hired a bus to take Mid-Columbia residents to meetings Monday in Seattle and Tuesday in Portland.

"We want to ensure there is some balance to the impression that the DOE decision makers get," said Jerry Woodcock of the nuclear society. "If we do not counter the anti-nuclear agenda, then we allow them to define who we are, and we cannot permit that."

Although the buses are scheduled to arrive when the registration

period starts at those meetings, order of registration will not determine who speaks first.

Instead, people in the audience will be randomly selected to make comments if they have their hands raised. DOE has received complaints that at past meetings the comment periods were dominated by those who signed up first, with others going home before getting a chance to speak at meetings that ended after midnight.

DOE is doing its best to make sure the meetings are fair and to give everyone a chance to be heard, said Colette Brown of DOE's Office of Nuclear Energy, Science and Technology.

DOE also will accept comments by fax, letter, e-mail and telephone message.

"Every comment is given equal weight," she said.

According to the notice of intent for the environmental study, DOE's civilian nuclear research and isotope production infrastructure has diminished significantly since the early 1990s.

As a result, DOE is no longer able to accommodate new and expanding missions for nuclear research and development and pro-

duction of isotopes for medicine, industry and space travel, according to the notice.

The environmental study is proposed to look at ways to meet the nation's needs for the next 35 years. Options include restarting the FFTF, building another DOE research reactor, building more neutron accelerators or getting by with existing reactors and accelerators. If the FFTF were restarted, about 410 people would be needed to run it.

As part of the new study, DOE is canceling a study on the production of plutonium 238 for power systems for space missions. Instead, information from that study will be incorporated in the new one.

DOE now has a contract to purchase plutonium 238 from Russia, but officials are concerned about the reliability of that source and have limited information about the safety of Russian production methods.

The meetings on the environmental study start with one today in Oak Ridge, Tenn., and one Friday in Idaho Falls, Idaho.

The Seattle meeting is set for 7 p.m. Monday at the Seattle Center, 305 Harrison St. The Portland

meeting is 7 p.m. Tuesday at the Marriott Hotel, 1401 S.W. Front Ave.

Nuclear society buses will be at the Federal Building parking lot in Richland for boarding at 12:30 p.m. both days and will leave at 1 p.m. A \$10 donation is requested.

Besides scientists, the nuclear society wants to offer rides to medical workers, cancer survivors and others who might be helped by the production of isotopes for use in new ways of treating cancer and heart disease.

Other hearings are planned at 7 p.m. Oct. 20 at the Hood River Inn, 1108 E. Marina Way, Hood River, OR and Oct. 26 in the Washington, D.C., area.

Those who would like to make a comment by telephone can call 877-562-4593. Faxes may be sent to 877-562-4592. The electronic mail address is Nuclear.Infrastructure-PEIS@hq.doe.gov and letters may be sent to Colette Brown, Office of Nuclear Energy, Science and Technology (NE-50), U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874. The comment period ends Oct. 31.

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

15 Oct 99

PNNL's Laurin Dodd taking new job in Idaho

Laurin Dodd, who has served as manager of the International Nuclear Safety Program for Pacific Northwest National Laboratory, has accepted a job in Idaho.

He will transfer to the Idaho National Engineering and Environmental Laboratory in Idaho Falls to serve as associate laboratory director for national security programs. He has worked at PNNL for almost 20 years.

Earlier, Bill Shipp, who was associate laboratory director for the environmental technology division at PNNL, was named to the No. 2 position at INEEL, deputy general manager and director of the Department of Energy's national laboratory there. In June, a team led by Bechtel was picked to take over management and operation of the Idaho site.

Collaboration between the Idaho and Washington laboratories is expected to increase, said Dawn White, a spokeswoman for PNNL.

14 Oct 99

DOE, EPA officials rebuff findings of radioactive thorium in Columbia

By John Stang
Herald staff writer

Thorium is found in most rocks. And if a maverick scientist's calculations showing radioactive thorium at Hanford are correct, that thorium comes from nature, not from nuclear processes, officials from the Department of Energy and the Environmental Protection Agency said Wednesday.

"Thorium is something that occurs naturally at Hanford," said Mike Thompson, the DOE official in charge of ground water monitoring at Hanford.

Doug Sherwood, EPA's Hanford site manager, said, "The source of the thorium in (scientist Norm Buske's report) is natural thorium and has nothing to do with Hanford."

On Tuesday, Buske, who works with the Government Accountability Project, unveiled a preliminary report contending radioactive thorium could be seeping into a Columbia River salmon spawning area.

Buske based his theory on radiation readings taken from mulberry tree leaves at six points along a two-mile shoreline area downstream of F Reactor.

Readings of lead 212 — an isotope produced as thorium gives off radiation — were found at four points. Buske used the readings as the base of subsequent calculations

“
The source of the thorium in (scientist Norm Buske's report) is natural thorium and has nothing to do with Hanford.
”

Doug Sherwood, Hanford site manager for Environmental Protection Agency

tions he said show radioactive thorium is present. He contended thorium might be seeping into the river.

Although Hanford tracks numerous radioactive and nonradioactive contaminants in the ground, thorium is not among them.

One reason is that thorium binds tightly to the soil and doesn't move with ground water, Thompson said.

Another is that the radiation emitted by thorium is blocked by paper, skin and water. It can pose a danger of increased cancer risk only if ingested, Thompson said.

Thorium also is a waste from fabricating uranium reactor fuel, but there is no indication Hanford's thorium came from fuel, Thompson and Sherwood said. They also said Hanford conducted a shoreline survey in 1996 to chart naturally occurring background radiation

and found an average background thorium concentration of 1 picocurie per gram.

Buske's report said thorium concentrations totaled 0.9 picocurie per gram, 0.6 picocurie, 0.2 picocurie and 0.3 picocurie at the four spots.

All readings were below the 1 picocurie-per-gram average found in the 1996 survey, Sherwood and Thompson said, which means Buske's thorium appears to be natural.

Also, Thompson voiced concerns about Buske using lead 212 readings from mulberry leaves to calculate his estimates — all without actual water samples and peer reviews to check the findings.

On Wednesday, Buske defended his methodology. He said his calculations were preliminary findings to show where water samples should be taken to study more thoroughly where excess thorium might be found.

Buske said he has taken mulberry-leaf readings at about 60 spots in the K, H, N and F Reactor areas. He said his background thorium measurements averaged 0.1 picocurie per gram. The F Reactor shoreline is the only spot where he found indications of higher concentrations, he said.

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

14 Oct, 99

Oregon mails fliers for FFTF opponent

By Annette Cary
Herald staff writer

About 500 fliers from a Hanford watchdog group were mailed out by the state of Oregon after the group couldn't afford to mail the information itself.

Information from Hanford Watch opposing a restart of the Fast Flux Test Facility was included in a Monday mailing announcing public meetings in Oregon next week on a proposed environmental study of the reactor.

No information supporting restart of the reactor was included, but the state offered Wednesday to mail a second batch of letters to be fair to both sides in the issue. The Eastern Washington section of the American Nuclear Society will have its information distributed by the state this time.

"There was certainly no malice intended," said Mary Lou Blazek, director of the Oregon Office of Energy's nuclear safety division. The office was "trying to get information out to the public ahead of time so they're informed enough to have a discussion about FFTF issues."

The Oregon Attorney General's Office

had no comment on the mailing. Attorneys representing the energy office were out Wednesday afternoon and spokesman Peter Cogswell said he was not aware of research done on including information from nonprofit groups in state mailings.

Hanford Watch, which has applied for nonprofit status, had asked the state to send meeting announcements to its mailing list of about 385 people. The state also sent the letters to about 115 people who had signed up to be on mailing lists of the Oregon Hanford Waste Board.

Hanford Watch approached the state to include its information also in the letters because it couldn't afford to send them, Blazek said.

"It made sense to send them together," she said. "We asked to look at the material to see if it was not out of line."

The office has not included material from public interest groups in mailings in the past and made it clear to the group before the Monday mailing it didn't plan to include material in future mailings, Blazek said.

Part of the problem was the short notice to prepare for the meetings, at which the Department of Energy will take comments

on its proposed study of FFTF, Blazek said. The energy office learned of the meetings only a couple of weeks ago and was rushed to pull material together, Blazek said.

It also was concentrating on getting the site of the Portland meeting changed. That meeting, set for Tuesday, will be in the downtown Marriott Hotel and parking for those who want to attend will be expensive, she said. However, DOE declined to switch the location to a site with free parking, she said. The second Oregon meeting will be Wednesday in Hood River.

Although the energy office offered to send a mailing with information from the American Nuclear Society on Wednesday, the group will have to have material ready by Friday, Blazek said. Otherwise it might not arrive in time to provide information before the meetings, she said.

The energy office also will offer to bring a pro-FFTF speaker to a Portland cable television show in which it's participating. The office was told it could bring only one speaker to the show, in addition to an energy office official, Blazek said.

See **Fliers**, Page A2

Experts call for more discussion of Hanford, ground water

By John Stang

Herald staff writer

Hanford's ground water experts don't believe thorium is an environmental or health threat at the site.

But they also believe it is a good idea to have more public discussion about Hanford's contaminated ground water seeping into the Columbia River.

"Maybe it's time to talk about seeps and springs in the 100 Area," said Dennis Faulk, a U.S. Environmental Protection Agency official, referring to the rivershore area that is home to Hanford's string of old reactors.

Thorium and contaminants seeping into the river were discussed Thursday at a Hanford Advisory Board environmental restoration committee meeting in Richland.

The discussion was sparked by a preliminary paper by scientist Norm Buske who contends increased levels of radioactive

thorium have appeared along the shore downstream of F Reactor.

Buske, who works with the watchdog group Government Accountability Project, took some radiation readings of the isotope lead 212 in mulberry tree leaves in that area. Decaying thorium eventually becomes lead 212.

Buske used those readings as a base to theorize that thorium in concentrations of 0.2 to 0.9 picocurie-per-gram can be found in that area.

He voiced concerns about thorium being potentially harmful to newly hatched salmon just offshore. He pushed for water samplings and more studies on subterranean contaminants near the river.

But experts from the EPA, the Department of Energy, the state health and ecology departments, and Pacific Northwest National Laboratory said thorium already had been detected and measured in that area — as natural background radiation from rocks.

Thorium is found in nature, and it is found in wastes from fabricating nuclear fuel.

Hanford experts surveyed the rivershore in 1995 and 1996 to chart naturally occurring radioactive substances and took numerous thorium readings — finding no apparent source for the substance other than nature.

The 1995-96 Hanford survey calculated that the average concentration of natural background thorium along the Hanford Reach is 1 picocurie per gram — slightly greater than what Buske found.

Several Hanford experts said it is good for their data and conclusions to be questioned — to force them to double-check facts and theories, and maybe view them in a new light.

"We need to be challenged," said Mike Thompson, the DOE official in charge of ground water monitoring.

Buske's preliminary report on the F Reactor area is the third Buske has

released in the past few months on mulberry leaves radiation readings along Hanford's reactor areas.

His first two reports were on readings of mulberry leaves at the K and H reactor areas, with conclusions contending that radioactive strontium 90 may be seeping into the river faster than Hanford's scientists believe.

He took some of those readings while accompanying PNNL and state health department experts in the early summer when they collected their samples from the same trees.

The state health department results are back — with strontium 90, tritium, cesium 137 and cobalt 60 concentrations calculated for the fruit of two mulberry trees measured by Buske near H Reactor and the old Hanford townsite.

The health department's samples and tests showed no detectable cesium 137 nor cobalt 60 at either tree, and a minuscule amount of tritium at both trees, said Scott

Van Verst, a health physicist with the state health department.

No detectable strontium 90 was found in the mulberry fruit at the old Hanford townsite, and a tiny bit was found at the H Reactor tree.

Van Verst said someone would have to eat 25 tons of fruit from that H Reactor mulberry tree to absorb a radioactive dose of 100 millirem — the regulatory annual limit that a member of the public standing on Hanford's border can receive.

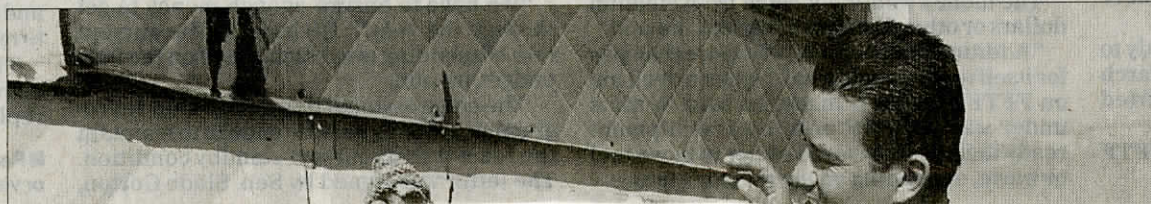
Van Verst cautioned that Buske took his readings from leaves and the health department sampled the fruit — which means a strict apples-to-apples comparison cannot be made.

However, he said PNNL took the most extensive samples and readings, and its results were similar to the health department's figures.

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

Monopoly champ heads to

Cleaning up shop in Pasco



Mid-Colum

Compiled by

Teleconference on aging s

A national satellite teleconference on aging issues is scheduled for Saturday in

The Society For All Ages teleconference will be held at noon in the Columbia Basin Collegiate Center. Attendees will interact with people from across

Old Hanford fuel plan called too contaminated to use

By John Stang

Herald staff writer

An old southern Hanford fuel plant earmarked for a pilot economic development project has been determined too contaminated to use.

So local officials will have to hunt for a replacement building — probably beginning in January.

Meanwhile, officials believe they also are on the brink of completing another first-time project — transferring five pieces of possibly contaminated heavy Hanford equipment to a private company.

The venture involved in both plans is Tri-Cities Assets Reinvestment Co., a limited liability company created by the Tri-City Industrial Development Council. The council is meant to serve as legal middleman to take slightly contaminated unneeded Hanford equipment and buildings and turn them over cheaply to private corporations.

In return, those companies clean up or pay for the cleanup of those buildings or items. The idea involves getting private outside companies to shoulder some Hanford cleanup costs while attracting them to the Tri-Cities.

The concept is called "reindustrialization." Hanford borrowed the idea from a similar 3-year-old program at the Department of Energy's Oak Ridge site in Tennessee.

TRIDEC, designated by DOE for the job, created the limited liability company to do the work, said Sean Stockard, a TRIDEC official and chief of Tri-Cities Assets Reinvestment.

Last spring, DOE allocated \$500,000 to the venture. Tri-Cities Assets Reinvestment received \$150,000 for set up and administrative functions. DOE's Richland office got the rest of the money to handle its end of this program, including radiological analyses.

The centerpiece of the fledgling Hanford program had been Building 314, a former World War II and Cold War plant that molded uranium fuel rods for the site's reactors.

The 25,000-square-foot building — filled with leftover furnaces, presses and labs — later became a chemical and radiological analytical lab until it closed in 1996.

But the building also has leftover uranium embedded in its floors and walls.

Tri-Cities Assets Reinvestment's original plan for Building 314 was to find a company to occupy and decontaminate it in exchange for inexpensive lease rates. That was supposed to be done by December.

But a Pacific Northwest National Laboratory survey showed Building 314 more contaminated than originally thought, Stockard said.

Consequently, Tri-Cities Assets Reinvestment decided not use Building 314 as its pilot project, but may try to work out a deal

involving it at a later date, Stockard said.

The hunt for a new building will probably start in January because DOE and lead contractor Fluor Daniel Hanford currently are going through massive reorganizations, Stockard said.

However, a smaller deal might be signed in the near future, he said.

In the equipment deal, Bechtel Hanford Inc. has five pieces of heavy equipment — backhoe, front loader and others — that were used in contaminated areas. This equipment is to be buried in a huge central Hanford landfill.

However, Tri-Cities Assets Reinvestment is discussing a potential deal that would transfer the equipment to another company, which would clean it up and seek buyers for the individual pieces.

Stockard declined to name the prospective company.

The two companies would split any profits, with Tri-Cities Assets Reinvestment

using its share for economic development purposes.

This potential deal requires two middleman companies because Tri-Cities Assets Reinvestment does not have the capability to clean contaminated equipment.

In a conventional situation, several federal agencies and programs would get first dibs on any surplus equipment. Only after all these agencies reject it will a building or piece of equipment become available to an outside private company, which must competitively bid for an item.

However, as a child of TRIDEC, Tri-Cities Assets Reinvestment has the legal right to a building or piece of equipment before many government agencies. And that ability is what Tri-Cities Assets Reinvestment provides to any outside company eyeing surplus Hanford property.

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

17 OCT 99

DOE agency may affect PNNL

Lab officials wondering if new nuclear security office will change work

By Annette Cary
Herald staff writer

Officials at Pacific Northwest National Laboratory are waiting to hear what a new agency created to tighten security on nuclear weapons programs will mean to the \$150 million of work related to nuclear security the lab does annually.

The work, along with \$90 million of additional national security work, is the fastest growing part of the Richland national lab's annual \$550 million budget.

The National Nuclear Security Administration was created as a semi-autonomous part of the Department of Energy after allegations of Chinese espionage.

The law that created the new agency makes clear that DOE's three weapons laboratories — Lawrence Livermore in California and Los Alamos and Sandia in New Mexico — may continue to do nondefense research.

But the law's not clear about whether nonweapons laboratories such as PNNL may continue to do defense-related work, such as the Richland laboratory's nonproliferation efforts in the former Soviet Union.

"We're hoping the spirit of this is not to move programs or exclude the science labs from making contributions to solving national security problems," said Greg Koller, a spokesman for PNNL.

"What's in question is the ... \$150 million," Koller said. "Does it stay at the lab or does it move to another agency eventually?"

But after talking to congressional staffers, PNNL officials believe the intent is not to move DOE's national security work to weapons labs, he said.

"We're trying to get clarification," he said. "We're still waiting to get direction from DOE and Congress and what it means here and at other nonweapons labs."

Confusion on how the new agency would work is widespread, not just among DOE's nonweapons labs, but also in Washington, D.C.

President Clinton signed legislation creating the agency, but had strong reservations about several elements.

On Oct. 5 he issued a statement saying until further notice, the Energy secretary would perform

See PNNL, Page A2

17 OCT 99

Burned Hanford worker in satisfactory condition

A worker who was severely burned when she was hit by sulfuric acid spraying out of a pipe on the Hanford nuclear reservation on Friday improved to satisfactory condition Saturday at Seattle's Harborview Medical Center.

Frances Wolfe, 54, of Richland had been in serious condition on Friday with burns on her face and one arm.

She was doing some routine work on pipes at the Liquid Effluent Facility in central Hanford when a joint in a nearby pipeline failed or came loose and sprayed 55 gallons of sulfuric acid early Friday, said Fluor-Daniel Hanford spokeswoman Michele Gerber.

Wolfe was hurt by the flying spray. She stepped into a safety shower, and was taken by Hanford Fire Department ambulance to Kadlec Medical Center. She was later flown to Harborview.

Other workers closed the pipeline to shut off the acid.

18 OCT 99

Radiation risk seminar Nov. 1 in Richland

Registration is being accepted until Oct. 25 on a seminar called "Radiation Risk Communication — Implications of New Thyroid Disease and Fallout Data" to be held Nov. 1 at the Richland Red Lion Hotel, formerly the Doubletree Hotel.

Health care professionals will learn basics of radiation biology, methods for communicating radiation risk, implications of new data and concerns of those who could have been exposed to earlier radiation releases from Hanford.

The daylong seminar is sponsored in part by the University of Washington. Cost is \$125. For registration information, call 206-543-1069.

19 OCT 99

Seattle meeting on FFTF spirited

By Annette Cary
Herald staff writer

SEATTLE — One of the last reminders opponents of restarting the Fast Flux Test Facility heard before they entered a federal hearing Monday was that television cameras would be rolling.

They marched in singing "Our state is a dump site, we'll take whatever you send. Our state is a dump site, where the hot times never end."

From there, the Department of Energy meeting to take comment on an environmental study on restarting the Hanford reactor turned livelier.

Just 10 minutes into the proceedings, an Indiana University professor brought in as a neutral party to lead the meeting called a halt.

He didn't get much past a reading of meeting rules that called for participants to behave in a respectful and orderly manner.

With Gerald Pollet, executive director of Heart of American Northwest, in control of the microphone, the mediator, Jim Parham, called for a recess saying, "We've got a few people who don't want everyone to be heard."

Throughout the meeting, opponents of restarting the reactor held up signs saying "FFTF is environmental racism" and "Leak the truth, not radiation."

One man, wearing one of the free T-shirts given out before the meeting with anti-FFTF slogans, held up a sign saying "We hate liars" when supporters of restarting the reactor spoke.

See FFTF, Page A2

18 OCT 99

Nuclear worker says feds, Hanford doctor tried to buy his corpse

By The Associated Press

COLUMBUS, Ohio — A man who used to work at the Piketon uranium enrichment plant says the federal government offered \$500 for his corpse in 1982.

Robert Elkins of New Boston said the offer was made at a meeting with plant officials and doctors and a physician from a medical laboratory at the government's nuclear site in Hanford.

The Hanford doctor handed him an authorization form.

"He said they wanted my body for science," Elkins, 70, told The Columbus Dispatch in a story published Sunday.

He and his wife, Leola, refused to sign the form. They declined again when asked the same question about a year later.

“
He said they wanted my
body for science.”

Robert Elkins,
of Hanford physician's offer

”

New York Times article on FFTF shocks DOE officials

By John Stang
Herald staff writer

The New York Times says it's so. The Department of Energy says it ain't so.

Reviving Hanford's Fast Flux Test Facility "could" resurrect Hanford's Plutonium Finishing Plant, according to the nation's authoritative newspaper of record.

That was news to DOE on Monday.

That's probably because no relationship has ever existed between the two complexes, plus DOE is deeply immersed in cleaning out the PFP to ready it for demolition.

The same New York Times article said PFP supervisors — before a two-year moratorium on moving scrap plutonium — sometimes told workers to ignore rules designed to prevent criticalities, which are uncontrolled nuclear reactions that

shoot off bursts of radiation.

And the same Times article then drastically understated the number of criticality accidents that have occurred in the United States.

The gist of the Times article was:

■ Reviving FFTF "could" lead to resurrecting PFP to process plutonium in FFTF's used fuel.

■ FFTF needs a nuclear fuel the Times report says would be similar to the fuel that was being made at the Japanese uranium fuel fabrication plant where a radiation-spewing accident occurred.

■ And the PFP had numerous nuclear safety procedural problems in 1996 and 1997.

The story apparently is a byproduct of the fierce political battle over reviving FFTF to produce plutonium 238 to power batteries for outer space probes, to create medical isotopes and to do other nuclear research.

The Times said reviving FFTF "could" resurrect PFP but did not cite any source for the statement.

DOE spokesman Mike Talbot said: "There are no plans or intentions to revive the PFP for any project."

During the Cold War, PFP was Hanford's final step in preparing plutonium to be sent elsewhere to be put inside atomic bomb cores. The first step was irradiating uranium fuel in a reactor. Then, the fuel rods went to chemical plants — which now are totally unusable except for storage — where numerous processing steps created plutonium nitrates. That solution went to PFP to be converted into pure plutonium 239. Today, the PFP is converting leftover plutonium into less dangerous forms in preparation for demolishing the plant several years from now.

Although one proposed FFTF mission is to create another form of plutonium — plutonium 238 — those plans never mentioned PFP. Instead, DOE is looking at sites elsewhere, plus Hanford's never-used Fuel Materials Examination Facility as potential plants to extract plutonium 238 from the reactor's fuel. The FMEF is next door to the FFTF, and the PFP is 15 miles away.

On the other matters:

■ The PFP was one of Hanford's most troubled sites in 1996 and 1997 — because of numerous procedural problems that could have led to criticality accidents. In fact, DOE fined Fluor Daniel and subcontractor B&W Hanford \$112,500 for those errors. The Times cited a November 1997 government investigation that found "in several instances, supervisors

directed the workers to ignore procedures or postings and perform the work."

Talbot said DOE could not find that report Monday in Richland but would check with DOE's Washington, D.C., headquarters to see if a copy is there. From January 1997 to January 1999, the PFP halted all movement of plutonium until massive procedural and training overhauls were conducted. Problems found by DOE have been corrected, and the PFP passed a DOE final test before plutonium movement resumed, Talbot said.

■ The Times, citing a list from a former DOE official, said the nation has had nine criticality accidents since 1945, including eight at federal sites. The Times said one accident occurred at Hanford — in 1962, but not at the PFP.

But the Tri-City Herald has a 1975 federal report that lists 26 criti-

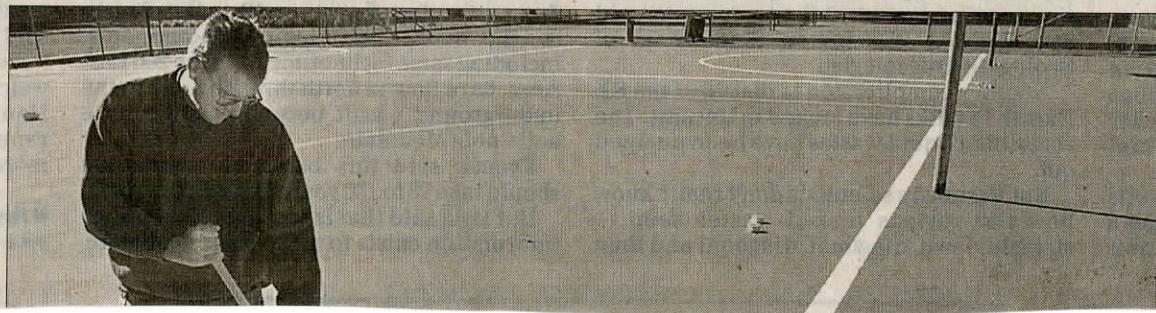
cality accidents from 1945 to 1967 at sites run by the Atomic Energy Commission, the forerunner of DOE. Also, Hanford records list two criticality accidents at the site. One was in 1951 in a long-abandoned underground test chamber. The second was in 1962 — at PFP.

■ The Times quoted Heart of America Northwest and the Government Accountability Project, both critics of any attempt to revive FFTF, as saying FFTF's fuel will resemble fuel mixed at Tokaimura. The Times also quoted Energy Undersecretary Ernest Moniz as saying the FFTF would use existing fuel supplies already at Hanford for six years, then could switch to existing German fuel that is available.

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

Sunnyside postpones decision on home sizes

Laying it on the line in Pasco



Only contested race for Kennewick takes unexpected turn

By Wendy Culverwell
Herald staff writer

The one contested race for Kennewick School Board took an unexpected turn...

Tri-Citians support FFTF's potential use

By Annette Cary
Herald staff writer

Mayor Charles Kilbury of Pasco said Thursday night that he could guess how early humans reacted to fire: about the same way many people react to radioactivity now.

They didn't realize the good the fire could be used for, he said.

He was among about 300 people who showed up at a Department of Energy meeting in Richland to consider a study of restarting the Fast Flux Test Facility at Hanford.

Supporters said the plan to run the reactor is safe. They said it wouldn't hamper Hanford's clean-up mission. And, most importantly, it could save the

lives of many people by producing isotopes to be used in new ways to treat cancer, heart disease and other illnesses.

Laurel Piippo of Richland showed up in a bright red, pro-FFTF T-shirt that read, "Stop slash, burn, poison."

That's how her cancer was treated with surgery, conventional radiation and chemotherapy, she said.

"Chemotherapy is as close to being in hell as I ever want to be," she said.

She walked over to another woman in the audience, a cancer patient whom she had just met, and plucked handfuls of long silver hair from her head.

That's what chemotherapy does, she said.

However, isotopes produced at FFTF could be attached to antibodies to selectively seek out and bombard cancer cells with radiation. Because it can aim its lethal power so selectively, the treatment's been called a "smart bullet."

It doesn't have the same debilitating side effects of conventional treatments and may be done as an outpatient treatment.

"(Conventional) radiation is not a smart bullet, it's buckshot," Piippo said.

"Why have a facility we've spent millions on and tear it down?" asked Marjorie Maris Peterson, of Kennewick, the non-Hodgkin's lymphoma patient who was losing her hair. "It doesn't make sense to build a beautiful castle and tear

it down because you are not living in it." DOE currently has FFTF on standby because it has had no mission for the reactor in recent years.

Studies of smart bullets on non-Hodgkin's lymphoma patients have shown they kill cancer in all patients and in 71 percent of cases make the cancer disappear in a single treatment, said Marlene Oliver of West Richland of the National Association for Cancer Patients.

Isotopes already are approved for treating prostate cancer and new designs should work even better than surgery, she said. However, already patients can't get the treatment because



About 300 people gather Thursday at the Tower Inn in Richland to hear mostly supporters speak in favor of restarting Hanford's Fast Flux Test Facility.

See FFTF, Page A2

Portland residents oppose FFTF

By Annette Cary
Herald staff writer

PORTLAND — The Fast Flux Test Facility is the Monica Lewinsky of Hanford, diverting attention from the site's serious problems, including leaking tanks, said Lynn Porter of Portland, a member of Hanford Watch, Tuesday night.

He was part of a crowd of Oregon residents incredulous the Department of Energy would consider restarting the reactor when it has not cleaned up waste already there, waste many believe endangers Oregonians.

About 250 people showed up for a DOE meeting to consider an environmental study on restarting the Hanford reactor, at least 50 more than attended a meeting Monday in Seattle. DOE is considering the reactor for civilian missions, including making isotopes used in medicines, making plutonium 238 for space missions and for research.

But many at the meeting made plain with vigorous applause that they opposed any attempt to shift the focus of Hanford from cleanup to production.

"It's unconscionable for DOE to appeal on the basis of pain and suffering," said Dr. Marshall Goldberg, a Portland internist. A DOE-commissioned report concluded the United States faced a probable shortage of isotopes as new ways are developed to treat cancer more effectively using isotopes that could be produced at FFTF.

"The roots of Hanford are in mass destruction" in World War II, Goldberg said. "These places are environmental Auschwitzes..."

He and Porter questioned whether the medical community felt there really was a need for more medical isotopes.

"As for safety issues, how does the vaporization of Portland strike you?" Porter asked.

K Basins improvements good start, report says

By John Stang

Herald staff writer

Hanford has improved how it manages its K Basins project, but it is too early to tell how well the fix-it measures will work out, said a federal General Accounting Office report released this week.

That GAO report also mentioned concerns about Hanford having little extra time to handle major glitches that may surface between now and a November 2000 deadline to begin moving spent nuclear fuel out of the K West Basin.

And Hanford has done little planning so far on running the K Basins project after November 2000, the report said.

The report said Fluor Daniel Hanford has done much to address longtime problems of an original unrealistic schedule, poorly calculated costs and unsolved technical issues. But more must be done before the GAO will be satisfied cost estimates and schedules can be met, it said.

Phil Loscoe, the Department of Energy's acting director for the K Basins project, said positive comments in GAO reports are rare.

"As far as GAO reports go, this is the most positive I've ever seen," he said.

Loscoe said the GAO acknowledged progress that has been made, and DOE shares many of the GAO's concerns.

"This is an aggressive schedule, and we've never advertised it as other than an aggressive schedule," he said.

The K Basins are two huge leak-prone indoor pools that hold 2,300 tons of spent nuclear fuel 400 yards from the Columbia River. Hanford's master plan is to remove that fuel from the basins, package and dry it into a safer form and store it in a huge underground vault in central Hanford.

This project has been plagued with numerous troubles pinning down reliable cost estimates and schedules, as well as stumbling through many coordination, safety, quality control and technical problems.

Cost estimates have soared from \$814 million in 1996 to almost \$1.6 billion. And the date to finish removing and storing all fuel and sludges has slipped from 2001 to 2005.

DOE and Fluor have struggled to fix these problems and believe they now have a good handle on them. In fact, DOE's new Hanford

manager, Keith Klein, has been pushing to begin fuel removal before the November 2000 deadline.

But the K Basins' problems also caught Congress' attention. The U.S. House Commerce Committee — which controls DOE's budget authorizations — held a hearing in May 1998 on the fluctuating costs and timetables. This week's GAO report is a follow-up requested by U.S. Rep. Tom Bliley, R-Va., the commerce committee's chairman.

This committee is keeping tabs on the project. But any potential moves by the committee are not expected until next year.

Here are some concerns raised by the GAO report:

■ The project has been slow with safety studies and documentation. Delays in safety documents can slow down other work waiting for a safety-related green lights to proceed.

■ The project's contingency time, or fudge time in a schedule to tackle unexpected problems, is drastically small. It used to be several months before various troubles shrank it to one week. Recently, the project resolved some

See Report, Page A2

PNNL widens candidate s

By Annette Cary

Herald staff writer

Energy Secretary Bill Richardson suggested the pool of candidates for the new director of Pacific Northwest National Laboratory should be expanded to include more women and minorities.

Current Director Bill Madia was named this week to head another of the Department of Energy's labs, the Oak Ridge National Laboratory in Oak Ridge, Tenn. DOE announced Wednesday that a team headed by the University of Tennessee and Battelle, which operates PNNL, had been picked to operate the Oak Ridge lab.

Battelle has been looking for a new director for PNNL since January, when Madia was named executive vice president at Battelle.

A lead candidate for the Richland job was selected and continues to be a viable candidate, Madia said. The person's name has not been made public.

However, Richardson wants to make sure women and minority candidates are thoroughly considered, Madia said.

But with Madia's new responsibilities in Tennessee, the search for a new director at PNNL has become more urgent. The transition to the new Oak Ridge operations team starts Feb. 1.

Saturday, Oct. 23, 1999

Then, Madia will be wearing several hats: lab director at the Oak Ridge lab, president and chief executive officer of the University of Tennessee and Battelle team, and Battelle vice president, coordinating all of Battelle's DOE business.

There's also a possibility the transition period could begin sooner to allow the Battelle team to start operating the Tennessee lab before the start of the April 1 contract date.

The selection of a new director for Richland turned out to be a little more difficult than expected, Madia said.

"There are not many senior people in science and technology who are underemployed in today's economy," he said. PNNL is competing with companies in a booming high-tech economy to attract a new director, he said.

Some candidates also have questioned whether they want to move so far from Washington, D.C., and from family ties in the East and whether they can find good job opportunities in the Tri-Cities for spouses.

However, other candidates have considered the opportunity to move away from urban congestion a plus, Madia said.

Under some circumstances, an interim director might be considered for PNNL, but plans are uncertain, he said.

The Richland laboratory also is filling sev-

Hanford opponent reiterates FFTF concerns in Richland

By John Stang

Herald staff writer

eral key positions elsewhere at PNNL. Five key PNNL staffers will be moving to Oak Ridge as part of the leadership team.

Those changes come in addition to staffers who recently have taken jobs at Idaho National Engineering and Environmental Laboratory as Bechtel B&W Idaho took over operations of that DOE lab this month.

"The key reason we've been able to be successful in three other laboratories is we have a wealth of talent," Madia said.

Battelle now has a management role in three of the nine national, multiprogram laboratories: PNNL, Oak Ridge and Brookhaven National Laboratory in New York. It also is part of a team operating the National Renewable Energy Laboratory in Golden, Colo., one of DOE's single-program labs.

Battelle's growing role in management of DOE's labs will give PNNL more chances to collaborate with other national laboratories, Madia said. It also is a plus in a tight job market for current and prospective employees to see Richland employees being promoted, he said.

"We can offer geographic and career flexibility," he said. "It helps with recruiting to see additional opportunities. It helps with morale inside (PNNL), and it gives us more flexibility."

For instance, one valued employee needed to move to the East Coast because of family

visors told workers to ignore some rules. Hanford has had two actual criticality accidents — at an underground test chamber in 1951 and at the PFP in 1962.

But Al Farabee, DOE's project manager for FFTF, said 3-year-old PFP troubles are irrelevant to safety issues at the FFTF. FFTF engineers and crafts workers are specially trained and have worked exclusively at the reactor — not on cleanup projects, he said.

Farabee noted that FFTF reached a milestone several months ago of 1 million hours worked without an accident costing any worker a day off the job. That streak remains intact.

"We have a very strict safety culture. There's no doubt in my mind that DOE's management and the contractors' management — or the workers at FFTF who are very forthcoming with their feelings — would allow any shortcuts in safety," Farabee said.

Pollet's charges are part of a long-running battle between supporters and opponents of reviving the dormant FFTF for nuclear research and for producing medical isotopes and plutonium 238 to help power space probes.

DOE is to decide in December 2000

Hanford's safety glitches at other projects prove it shouldn't be trusted with running a research nuclear reactor, a leading opponent of reviving the Fast Flux Test Facility charged again Thursday.

Afterward, a Department of Energy official discounted those contentions and called some irrelevant and others simply wrong.

Gerald Pollet, director of Heart of America Northwest, had charged at a Richland press conference Thursday, "Unfortunately at Hanford, we have a strong record of breaking rules. Hanford does not have a safety-conscious work culture. Not just do the workers violate safety rules, but the supervisors tell workers to violate safety rules."

In particular, 17 criticality safety infractions in 1996 and 1997 at the Plutonium Finishing Plant show a poor safety culture that will carry over into a revived FFTF, Pollet said.

A criticality infraction increases the risk of a potentially lethal uncontrolled nuclear reaction. A 1997 Hanford report on the PFP infractions backs up accusations that super-

whether to revive the FFTF. And if so, DOE must decide whether to put support functions at Hanford or elsewhere.

Pollet contends DOE would likely use four buildings in the 300 Area — 308, 324, 325 and 327 — to fabricate fuel and to remove plutonium 238 and medical isotopes from irradiated reactor "targets." He charged that Hanford plans to add radioactive processes in highly contaminated buildings near Richland that should be cleaned out.

And Pollet contended a revived FFTF would duplicate conditions that led to a uranium processing plant accident in Takaimura, Japan, that released radiation.

Pollet also painted a picture of a criticality accident occurring at any FFTF support function in the 300 Area contaminating north Richland with radioactive particles.

Farabee said the 325 building is the only 300 Area structure being considered for potential FFTF-related work — removing medical isotopes from reactor targets. Workers in Building 325 are already extracting medical isotopes from radioactive wastes.

There are no proposals to use buildings 308, 324 or 327 in any FFTF support or extrac-

tion work, Farabee said. Building 308 has been decontaminated, and buildings 324 and 327 are being decontaminated.

If the FFTF is revived, DOE is looking at other DOE sites, plus one Hanford site, to extract plutonium 238 from irradiated targets. The only Hanford spot being considered is the never-used Fuels and Materials Examination Facility next door to the FFTF.

Farabee said no parallels can be drawn between Takaimura and the FFTF.

That accident involved improperly mixing liquid solutions. A criticality occurs when radioactive materials in the right masses and right shapes come within a certain distance of each other — with some other catalytic influences.

No FFTF fuel fabrication is planned at Hanford, Farabee said. That means no radioactive liquids would be mixed for on-site fuel production. The FFTF's fuel would already be in its assemblies — meaning the solid fuel pellets are imbedded in safe configurations inside rods and cannot go critical until they are inside the reactor's core.

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responsibilities, Madia said. If Battelle hadn't been able to offer her a job at Brookhaven, she would have left the Battelle national lab group, he said.

In addition, several PNNL employees have moved to the Tri-Cities from Battelle's headquarters in Columbus, Ohio, Madia said. That includes Madia, who was formerly general manager of Battelle's worldwide environmental business.

Most of the Oak Ridge leadership team moving from PNNL will be replaced in Richland with people promoted from within the laboratory, Madia said.

Those leaving include Jeff Smith, who will be deputy director for operations at UT-Battelle; Herb Debban, who will be director for facilities and operations; Kelly Beierschmitt, who will be director for environment, safety and health; Greg Turner, who will be chief financial officer; and Steve Porter, who will be general counsel.

Earlier, Bill Shipp was named deputy general manager at INEL. Penny Phelps, deputy director for communications at PNNL, and Dick Watkins, director of environmental safety and health at PNNL, also took jobs at INEL. Laurin Dodd of Richland will be associate lab director for national security programs in Idaho.

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Richland conferences to focus on Hanford health issues

UW sponsors next week's annual Health of the Hanford Site conference

By the Herald staff

Three days of Hanford-related health talks are planned in Richland, covering health concerns of those who live near the nuclear reservations and workers there, both past and present.

The annual Health of the Hanford Site

conference, sponsored by the University of Washington, will start at 11 a.m. Nov. 2 and continue through the evening of Nov. 3.

It will cover ecological, community and environmental health risks.

Among the topics to be discussed are the following:

- Two new studies on the number of health problems that have affected a sample of former Hanford production and construction workers.

- A session on beryllium exposure and medical monitoring of former workers.

- The status of storage tanks that hold Han-

ford's high-level nuclear waste.

- Efforts to reconstruct the amount of radioactive exposure in the area.

- Transportation of nuclear waste.

- The condition of Hanford-area insects and elk.

- How to assess Hanford's effects on the Columbia River.

- The new Office of River Protection and how it may differ from previous efforts to control the spread of high-level radioactive waste.

Scientists and the public are invited to the conference.

"In Hanford, we've got the largest environmental cleanup effort in history happening right here in the Northwest," said Dr. Tim Takaro, an acting assistant professor of medicine and environmental health in the UW School of Public Health and Community Medicine. "The conference is a great chance for people to learn about it, get involved and express their opinions."

The conference will be held at the Red Lion Hotel, formerly the Doubletree Inn, on George Washington Way. Cost is \$25 for those who register by Wednesday or \$40

later. For more information, call 206-616-7377 or see depts.washington.edu/crep2/hos on the Internet.

The day before the conference starts, the University of Washington's Northwest Center for Occupational Health and Safety plans a daylong conference on Nov. 1 aimed at doctors and other health-care practitioners. It will cover radiation exposure, the risk of thyroid disease and discussing those issues with patients.

That conference also will be held at the Richland Red Lion. Cost is \$125. For more information, call 206-543-1069.

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Tri-City Herald

Wednesday, Oct. 27, 1999

Seattle City Council calls for FFTF shutdown

By Annette Cary

Herald staff writer

A pitch by Richland and West Richland city officials failed to keep the Seattle City Council from unanimously passing a resolution calling for the shutdown of Hanford's Fast Flux Test Facility.

The Seattle resolution passed Monday coincided with a cover story in Science News magazine, detailing what it called in the title "a critical scarcity of radioactive materials."

The Department of Energy is conducting an environmental study on restarting the Hanford research reactor for civilian missions, including making isotopes for medicine and industry.

According to Science News, several tests of promising new cancer treatments have been called off because doctors and scientists lacked reliable sources of the isotopes they needed.

"Indeed, research on therapeutic isotopes has burgeoned at a time when federal labs have been retiring the facilities needed to make them," wrote Janet Raloff in the article. "Demand for these costly materials now greatly surpasses DOE's ability to supply them. For some short-lived isotopes, no source remains."

Researchers are interested in radioactive isotopes as a new way to selectively deliver deadly radiation to cancer cells, with little damage to healthy cells. The radioactive isotopes can be attached to antibodies or other substances that attach to cancer cells within the body, even those that have metastasized or spread to other areas of the body. Once the antibodies attach, radiation from the isotopes kills the cancer cells.

DOE is addressing the shortages, in part by proposing a beam spur be added to a Los Alamos accelerator, according to the article. Some pri-

ivate initiatives also may make isotopes more widely available for research, including the private use of a linear accelerator that was part of the failed superconducting super collider project in Texas.

Supporters of restarting the FFTF believe that if enough research isotopes become available to develop new isotope treatments for cancer and other diseases, the reactor would be needed to produce the much larger quantity needed to treat patients.

However, the Seattle City Council did not mention beneficial uses of the reactor in the resolution but said it should be shut down to protect "our region's public health and environment through cleanup of Hanford's nuclear legacy."

The council was expected to pass the resolution last week, but Ken Dobbin, a West Richland city councilman, told his Seattle counterparts their resolution was based on false information.

The Seattle council agreed to postpone the resolution for one week, and Richland City Councilwoman Wanda Munn agreed to send the Seattle council more information.

In a letter to the Seattle council, she pointed out that of all the reactors, processing buildings and storage tanks at Hanford, only FFTF "has been designed, built and operated solely as a nondefense, beneficial use, research and development facility."

"FFTF is a mature technology with overwhelming humanitarian potential in medical, material and energy sciences and education," Munn wrote. "With that reality in mind, we respectfully request your position on restart be made on the same basis as if this unique, internationally recognized research facility were located not where it is, but rather in King County or in some similarly familiar academic locality."

The DOE study will address a plan for the waste that would be generated if FFTF resumes operating.

Dobbin said the Seattle council's stand against any more waste at Hanford seemed hypocritical when radioactive waste from the reactor compartments of nuclear submarines dismantled near Seattle are buried at Hanford and the submarines are stationed in Puget Sound.

Last week, a round of hearings on the environmental study were held in Washington and Oregon. The hearings conclude today with a meeting in Washington, D.C.

The complete text of the Science News article on research isotopes can be read at [www.science news.org](http://www.science.news.org) on the Internet.

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Tri-City Herald

Thursday, Oct. 28, 1999

FFTF hearings end quietly in nation's capital

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — In contrast to the controversy generated in the Northwest, the Department of Energy's seventh and final hearing on restarting of the Fast Flux Test Facility at Hanford was a low-key affair here Wednesday.

While hundreds of people attended earlier hearings in Seattle, Portland and Richland, fewer than 35 attended Wednesday's hearing, and they were about evenly divided on FFTF's fate.

"We believe, overall, it would be a misguided effort to restart this dangerous reactor," said Wenonah Hauter, director of Public Citizen's "Critical Mass Energy Project," a Ralph Nader organization.

Replied Robert Gallagher, president of Pennsylvania-based Applied Health Physics Inc.: "I decry the use of a public forum to dispense such garbage."

Though the hearings have ended, the department will take comments until Sunday.

The Energy Department will release a draft of its environmental study in May and, after another round of public hearings, finalize it in October 2000. A decision on whether to restart FFTF or permanently deactivate it is expected in December 2000.

"This is the beginning of the process, not the end," said Colette Brown, who conducted the hearings for the department's Office of Nuclear Energy, Science and Technology.

The reactor, the newest in DOE's inventory, was placed on standby in 1995 after its missions dried up and its operation no longer could be justified. The department now is trying to determine whether it should be restarted to produce medical isotopes and fuel to power NASA's deep-space missions, as well as for continued nuclear research and development.

Along with the environmental impact study, the department will conduct a cost analysis of restarting FFTF and an analysis of whether restart would violate the nation's nuclear nonproliferation policies, Brown said.

The department also will decide whether building a new research reactor or an accelerator to produce isotopes would make more sense than restarting FFTF.

Supporters of restarting the reactor say it ideally is suited for producing much-needed medical isotopes. Opponents say other sources for the isotopes could be found and restarting would siphon off money for Hanford's cleanup.

"We are concerned that running FFTF dramatically violates the Hanford cleanup mission, and you can't do production at the same time you do cleanup without greatly complicating cleanup," said Kathryn Crandell of the Alliance for Nuclear Accountability.

Robert Tiller, of Physicians for Social Responsibility said operating FFTF would create even more waste at Hanford.

"It would exacerbate an already bad situation," Tiller said, adding that restarting the reactor eventually could lead to a violation of the Tri-Party agreement among DOE, Washington state and the federal Environmental

Protection Agency. The pact governs Hanford cleanup.

Supporters, however, said FFTF is the "crown jewel" of the nation's research reactors and shutting it down for good, given the demand for medical isotopes, would be a mistake.

"It is recognized worldwide as a premier facility," said Alan Waltar, who heads the department of nuclear engineering at Texas A&M University. "It would be a tremendous loss if it was shut down."

U.S. Rep. Doc Hastings, R-Wash., whose district includes Hanford, said in a statement read by an aide that FFTF has the "unique ability" to produce a steady stream of different nuclear isotopes at the same time.

"Restarting the FFTF would increase the reliability and diversity of medical isotopes while stabilizing the supply of these promising disease-fighting tools," he said.

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Friday, Oct. 29, 1999

Funds force transfer of 24 FFTF jobs

By Annette Cary

Herald staff writer

Two dozen employees of the Fast Flux Test Facility at Hanford will be transferred to other jobs today because additional money has not been found for the reactor.

The 2000 budget, which started Oct. 1, did not include enough money to pay wages of the 254 people working at the reactor. Sen. Slade Gorton, R-Wash., and other members of Washington's congressional delegation have asked the Department of Energy to submit a revised budget — or reprogramming request — to shift money to cover work at the reactor.

That was not done as of late Thursday, but DOE has been working on the request.

"We expect the reprogramming to go to the

Hill soon," said Hope Williams, a DOE spokeswoman in Washington, D.C.

The budget request will have to go to the Office of Management and Budget first, then to Congress.

Four key members of the House and Senate appropriations subcommittees on energy and water development then will have to sign off on it. They include Sen. Pete Domenici, R-N.M., Rep. Ron Packard, R-Calif., and the ranking Democrats on the subcommittees.

DOE officials have not said how much money the reprogramming request would include for FFTF.

The 2000 federal budget included \$28 million for FFTF. DOE asked for \$30 million, which also would have been insufficient.

Keeping the reactor in what DOE calls a "minimum safe" condition would cost \$32 million and require 190 employees. Currently, 254 people are employed to perform maintenance needed to keep FFTF in top shape for a possible restart.

An estimated \$38.5 million is needed to continue that work and avoid layoffs.

The 24 people being reassigned today could be sent back to FFTF if money is appropriated.

Supporters of restarting FFTF are concerned that if the staff is reduced to a minimum safe number, a startup could be delayed up to two years as a smaller staff falls behind on maintenance and preparation work and new employees have to be hired and trained.

If DOE decides to dismantle the reactor instead of restarting it, the deactivation also would be delayed.

"Additional money now will more than pay for itself in a year and a half" when a decision on FFTF's future is made, Keith Klein, DOE's Hanford manager, said two weeks ago.

Then members of the congressional delegation sent a letter to Energy Secretary Bill Richardson emphasizing the importance of making a reprogramming request for more money for FFTF. The letter was signed by Gorton, Sen. Patty Murray, D-Wash., Rep. Doc Hastings, R-Wash., and Rep. Norm Dicks, D-Wash.

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Battelle consultant to take up PNNL reins

By Annette Cary
Herald staff writer

A Battelle consultant and former deputy director at Pacific Northwest National Laboratory will take over Monday as interim director of the Richland lab.

Friday afternoon, Adrian Roberts was named to lead the lab until a permanent director is named. He retired from full-time work for Battelle in May and moved to Portland but continued to do consulting work.

"This will help stabilize the laboratory and reduce any anxiety over that in the community," said lab Director Bill Madia.

Last week, Madia was named director of the Oak Ridge National Laboratory in Tennessee when the Department of Energy announced a partnership between Battelle and the University of Tennessee would manage the lab.

Battelle already had been searching for a director for PNNL since January, when Madia was promoted to executive vice president at Battelle in charge of the company's DOE business — a job he will hold in conjunction with his Oak Ridge position. Battelle now operates or helps manage four labs for DOE.

Madia said he couldn't predict how long it would be until a permanent director is named but guessed Roberts might fill in for

one to four months. Energy Secretary Bill Richardson recently suggested the pool of candidates for the permanent position be expanded to include more women and minorities.

The decision that the Battelle team would manage Oak Ridge came sooner than expected. Battelle was expecting the announcement in December, with transition to start in February.

However, DOE indicated this week it would like the Battelle team in place more quickly. Now, transition will start after the first of the year, Madia said.

Until January, he'll divide his time between Oak Ridge and PNNL, he said.

"The (Richland) lab needs some more stable leadership, not someone who's in an airplane all the time," Madia said.

Roberts' appointment "will not strain existing resources but add back additional experienced resources," Madia said. "His very seasoned and experienced leadership is what the lab needs during the transition."

Roberts also is a good choice because he's well known in the community, and although he's retired from full-time work, his consulting work has kept him current with PNNL activities, Madia said.

Roberts has been working with Battelle to help integrate the national labs the company

manages or helps operate.

Roberts earned his doctorate in metallurgy from the University of Manchester, England. He came to PNNL in 1985. From 1986 to 1989, he served as deputy director of research.

In that position, he led the Molecular Sciences Research Center, which became the William R. Wiley Environmental Molecular Sciences Laboratory. In 1995, he was appointed PNNL's director of economic development, working on technology transfer and job creation in the Tri-Cities.

He was active in the arts community, serving as chairman of the Tri-Cities Corporate Council for the Arts.

In early 1998, he was named associate laboratory director for applied science and technology at Brookhaven National Laboratory after a partnership between Battelle and State University of New York at Stony Brook was picked to manage the lab. In Upton, N.Y., Roberts managed 300 people and oversaw an annual budget of \$100 million.

In May, he retired from Battelle.

Besides consulting work, he is teaching science and technology management weekends at Oregon Graduate Institute. He'll continue to teach and commute to the Tri-Cities for the work week.

Madia said Roberts wants to return to

part-time retirement after his stint as interim director is over and is not interested in assuming management of the lab permanently.

Five PNNL senior managers also will be moving to Oak Ridge as part of the new management team there.

On Friday, Madia announced four people are being promoted from within PNNL to their former positions:

■ Don Boyd will replace Jeff Smith as deputy director for operations.

■ John Lafemina will replace Kelly Beierschmitt as director of quality.

■ Suzanne Davidson will replace Greg Turner as manager of business analysis.

■ Juan Alvarez will replace Herb Debban as manager of facility operation.

Steve Porter, manager of PNNL's legal office, is the fifth senior manager moving to Oak Ridge. Battelle is searching for a replacement for him.

The promotions were part of the lab's succession planning, Madia said. Those promoted will have a couple of months to work with those who are leaving to make a relaxed transition, he said.

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Tri-City schools get PILT break

By Wendy Culverwell
Herald staff writer

Property owners in Benton County may not notice it on their tax bills, but the federal government is helping to pay off bonds for local school districts thanks to a bill approved in the state Legislature this year.

The bill, which closed a loophole in the way Benton County distributes money it receives from the Department of Energy, provides \$4.3 million for school debt relief right away and about \$600,000 per year in the future.

The federal money makes up for property taxes that local governments would have collected if Hanford had stayed in private hands. The practice is called payment in lieu of taxes, or PILT. The figures sound impressive but pale compared with the tens of millions in debt school districts take on — with voter approval — to build and remodel schools. As a result, the money will offset property taxes but the change won't be noticeable to property owners.

Franklin and Grant counties receive similar PILT checks from the Department of Energy. Their PILT agreements lack the loophole that forced Benton County to forfeit some of its PILT money to the state, so they are unaffected by the new law.

The \$4.3 million will be divided among seven school districts in Benton County based on the assessed value of each.

The largest shares will go to relieve debt in the largest districts, Kennewick and Richland, followed in declining order by Prosser, Finley, Kiona-Benton City, Paterson and Grandview, which straddles Yakima and Benton counties.

For Kennewick, \$1.863 million is available for debt relief.

"We're just thrilled," said Superintendent Paul Rosier. "That's wonderful for the county to do this for us. It helps every taxpayer in the district."

Kennewick taxpayers have nearly \$47 million in outstanding bond debt.

Richland Superintendent Rich Semler said the \$1.6 million earmarked for his district won't noticeably affect tax bills but still is good news for the district.

He said, "\$1.6 million is \$1.6 million." His district has nearly \$31.6 million in bond debt.

Finley Superintendent Rob Van Slyke said the \$175,000 for his district is welcome assistance.

"If it makes a difference of even one cent on a thousand, that's significant," he said. He estimated Finley's outstanding debt at about \$9.3 million.

The complicated saga of Benton County and its PILT money began shortly after Darwin Parker was appointed treasurer in January 1997.

The Energy Department had just made the first of three PILT payments for 1988 to 1995, and his office apportioned it out to the various agencies that receive a share of property taxes, including the state.

Parker found it strange the state treasurer wasn't expecting \$2.5 million in PILT funds but questioned whether Congress

Hastings opponent also backs FFTF restart

Jim Davis, who is seeking the Democratic nomination to run against U.S. Rep. Doc Hastings in 2000, said Monday he supports restart of the Fast Flux Test Facility at Hanford.

He submitted testimony to the Department of Energy last week calling for the environmental study of the Hanford reactor to consider all the potential benefits of operating FFTF. The reactor is being considered for civilian uses, including making isotopes for new ways of treating cancer.

Davis is a Coulee City wheat farmer and commissioner for the Douglas County Public Utility District. Hastings also supports a restart of the reactor and entered testimony for DOE's environmental study on the importance of a reliable supply of medical isotopes.